

Different Approaches to the Study of Meaning *Matias Bustamante*

In an attempt to give an accurate account of meaning in language Gottlob Frege suggests a formal approach that will ultimately result in the idea that semantics should be its own field of formal study. The Logical Positivists believe that this approach to meaning ignores issues of acquisition and cognitive significance and suggest that to determine meaning, language must be reduced to those terms understood by the natural sciences. This paper will explain the key points of both Frege's and the Logical Positivists' approach to the study of meaning. Additionally, I will make the case that due to serious deficiencies in the Positivists' approach, it is clear that Frege's approach is the superior outlook.

Frege's formal approach to semantics arises as an alternative to referential semantics, in which to be meaningful is to stand for something. There are two significant problems inherent in this approach to meaning. First, there is the problem of identity statements, where according to referential semantics "...the cognitive significance of "a=a" would be essentially the same as that of "a=b," if "a=b" is true" (Frege 1892, p. 217). In other words, the statements "[Bill Gates] is [Bill Gates]" and "[Bill Gates] is [the richest person in the world]," have the same meaning. If this is indeed the case we are left to wonder why the first statement is trivially true while the truth of the second statement cannot be determined without information external to the statement. Referential semantics also makes it so that if a statement contains a term that refers to something non-existent then the statement is meaningless. For instance, the statement "Quetzalcoatl is a feathered serpent," seems to have meaning, but as "Quetzalcoatl" doesn't refer to something in the world it makes the whole statement meaningless.

By taking a more formal approach Frege looks to the structure of meaning as a way to address the problems of referential semantics. In the article "On Sense and Nominatum" Frege states, "...it is plausible to connect with a sign...the sense (connotation, meaning) of the sign..," so where before the approach was to just connect a term with a referent, Frege introduces the concept that there is also a

sense that determines the referent (Frege 1892, p. 218). If we return to our previous example, by attributing a sense to the term "Bill Gates" we find that it is different from the term "the richest person in the world," even though both determine the same referent or what Frege calls "the nominatum." It is this difference in sense which accounts for the difference between the two statements. Additionally, Frege is able to address the second problem by making the point that it can certainly be the case that a given term or phrase has a sense, but at the same time doubtful that it has a nominatum (Frege 1892, p. 218). Thus, presented with the term "Quetzalcoatl," I have a sense of the information implied by that term even though it does not determine something in the world. In summary, in Frege's approach the key to the study of meaning is a focus on understanding the roles that the sign, the sense, and the nominatum play in meaning. Additionally, as the focus of the approach is on the structure of meaning, Frege suggests that it is within this area (specifically the sense) with which philosophy can work on alongside the natural sciences' study of the actual world.

The Logical Positivists' approach is very different in that it comes out of the empiricist view in which all our knowledge has to begin with experience. If this is indeed the case, then anything meaningful in a language must be directly observed or logically proved. Thus, the potential for confirmation becomes very important for determining the meaning of a sentence. Ultimately, the Logical Positivists will argue that language must come under a reduction, in that we must know the conditions under which almost every term can be applied (through observation terms) in order to determine meaning of a statement.

At the start, the Logical Positivists suggest that there are two types of meaningful or cognitively significant sentences. Analytic statements are one type distinguished in that they have "...purely logical meaning or significance," this means that analytic statements are true in and of themselves and there is no experiential evidence that will prove them true or false (Hempel 1951, p. 50). The other meaningful statements are empirically significant, in which case they are capable of "...test by experiential evidence..." (Hempel 1951, p. 50) It is with these types of statements that the verification requirement concerns itself because it will be able to tell us which statements are empirically significant/meaningful. The verification requirement states that a sentence is empirically significant, "...if observational evidence can be described which, if actually obtained, would conclusively establish the truth of the sentence," so if we can't even imagine the observational evidence required to verify the truth of a sentence, it is meaningless (1951, p. 51).

The verification requirement is in a way only an initial step, in that the focus of the approach will be on the terms that constitute an empirically significant sentence. For if observational evidence has to be able to verify a statement, the meaning of terms which are not logical terms must be able to be either defined or explained by observation terms (Hempel 1951, p. 54). An observation term is one that, "...signifies some observable characteristic...or names some physical objects of macroscopic size..." (1951, p. 54). It is made clear in this approach the importance of connecting meaning with what can be experienced and observed about the world. The way that these meaningful terms are somewhat defined is by use of reduction sentences which show the conditions under which a term can be used. So, "Every term with empirical significance must be capable of introduction, on the basis of observation terms, through chains of reduction sentences," meaning that all meaningful language must have the ability to come under such a reduction that it only consists of observation terms (Hempel 1951, p. 55). The Logical Positivists' approach is a great departure from what Frege suggests about the role that the natural sciences play in meaning. In this approach the natural sciences play an important role in the study of meaning in that the focus is not on structure, but on how meaning is connected with the actual world. Having this view, the Logical Positivists want it to be the case that meaningful language must fit into the understanding of the world given to us by the natural sciences.

In determining which outlook is superior it is important to keep in mind the wider implications that each outlook has if the study of meaning should take that particular approach.

It seems that it comes down to whether we are better off having an approach in which the natural sciences work alongside philosophy's study of meaning or have it be the case that the natural sciences form the foundation for which our understanding of meaning should be based. Ultimately, I find that if we take the approach of the Logical Positivists, we are doomed into having an overly restrictive account of meaning.

The Logical Positivists' approach creates two significant problems that are not found in Frege's approach. These problems relate to the central aspect of the approach that language must come under a reduction. First, if our understanding of the world is in no way constant or solid, then a major problem is created if language is supposed to fit into our understanding of the world. Second, the reduction that language must come under leads to the denial of meaning to statements that we would not want to call meaningless. The study of meaning that the Logical Positivists want to have can be described as trying to fit a square peg into a round hole. Trying to

fit language into our understanding of the world simply does not work if we want an effective account of meaning.

First, natural science can be described as an ongoing process in which new discoveries are made and thus the understanding we have about the world is constantly changing. I do not think that the Logical Positivists want to assume that our understanding of the world is constant, but they do ignore the fact that its inconsistency will create problems for their approach. What occurs could be described as the Logical Positivists building a house on a concrete foundation that is not set, resulting in a house that can never really stand. The Logical Positivists' approach creates a situation in which the meaning of some statements could not just change, but the determination as to whether they have meaning at all could change. If our understanding of the natural world is going to change, then the ability for some statements to be reduced down to just observation terms will change because our understanding through science determines those observation terms. The approach is thus deficient in that the meaning of a statement could be so readily changed in this way. It allows the possibility that what we would determine as not having meaning one day, could be determined as being empirically significant and meaningful the next day if our understanding of the world was changed in way significant to that statement. On the other hand, Frege's approach addresses the reality of an incomplete understanding of the actual world by not having meaning dependent on scientific understanding as in the Logical Positivists' approach.

In discussion of a second flaw in the Logical Positivists' approach we can return to the square peg analogy. In order to make that square peg fit, the Logical Positivists are unnecessarily removing parts of language; more specifically they are needlessly denying meaning to statements that we should be hesitant to deny meaning. For example, the statement "It is your duty to obey the law," is the type of statement that the Logical Positivists don't want to say has meaning. For these types of sentences there is no hope for reduction, because a duty is something we ought to do. It is impossible to observe and then describe something we ought to do. This seems to be in line with the Positivists' overall account because the natural sciences are not going to tell us anything about duties and the like. However, it appears that the Logical Positivists' are being overly restrictive in denying that these types of statements have meaning. If we can make an appeal to common sense, it does not seem correct that we can discuss a statement like "It is your duty to obey the law," in the way we do. When somebody says to me, "It is your duty to obey the law," I can respond affirmatively or negatively and give

reasons to support my stance. Yet if the statement were actually meaningless, it seems impossible that I could correctly respond in any way aside from a variation of the phrase "That doesn't mean anything." Ultimately, perhaps a use theory of meaning could best account for this situation, but it is clear that the Positivists' approach wrongly makes the types of statements discussed meaningless.

As it has been established that the Logical Positivists' approach doesn't handle statements concerning duties correctly, it could be argued that Frege's formal approach can't handle these statements any better. On the surface it doesn't appear that we can discuss "duty" as having both sense and a referent or nominatum. Even if we could somehow show that the sign "duty" has a referent, it would create an even bigger problem as the natural sciences are supposed to be in the position to tell us about the nominatum. However, it is clear that the natural sciences are not in a position to tell us anything about duties. In response, it could be said that this really isn't an issue as we wouldn't want to say that "duty" has a referent (something physical in the world), but we would want to say that it has a sense. In the previous discussion of Frege's outlook it was mentioned that a sign doesn't have to have a nominatum and in this way we could discuss non-existent terms. In this way we don't run into the problem of the Logical Positivists as we just approach sentence concerning duties in the same way as sentences containing non-existent terms. In conclusion, both outlooks discussed are improvements over the ways in which meaning was previously discussed. However, due to the Logical Positivists' dependence on the scientific understanding of the world, their approach to the study of meaning ends up being inadequate and inferior to Frege's account which avoids the flaws caused by this dependence.

REFERENCES

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