

Reevaluating the Ontological Status of Fregean Gedanken: A Social-Constructivist Perspective

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Abstract. Frege takes thoughts to be Platonic entities existing independently of individual minds inhabiting a non-spatiotemporal third realm, whose mode of presentation truthfully describes how things are. This paper argues that the ontological status of Fregean thoughts cannot be veridically objective in the sense that. This paper will first give an account of Frege's thoughts and how he took thoughts to be objective. Then it will propose a liar's paradox, given Frege's commitments on thoughts that have truth values and the law of excluded middle, to challenge his conception of thoughts. Next, it will suggest a social-constructivist interpretation of the thought being intersubjective, which conceptually supports his system of logic while avoiding the paradox inherent in Frege's Platonist framework. From the perspective of intersubjectivity, Fregean thought can be interpreted as a way to circumvent the self-referential paradox, a feat accomplished by eschewing the bivalence. The liar's paradox cannot be established if thoughts are conceived of as socially constructed, intersubjective entities.

Keywords: Frege, thoughts, Platonism, liar's paradox

1. Introduction

Aside from all the salient features of Frege's enterprise to formalize ordinary language, the ontological commitment involved in his logical work is less striking but no less important. For Frege, there are three distinct categories of existence: additional to the realm of the external world and the internal, there exists a third realm where abstract entities like logical objects, concepts, and thoughts reside. The conception of Fregean thoughts (*Gedanken*) is reflective of his commitment to Platonism, which grounds his logic system and on which his notion of truth is contingent. Logic is the science that discerns the laws of truth. The aim of this paper is to investigate this concept of thoughts, disclose the kind of paradox its key presumptions of ontological objectivity and bivalence lead to, and propose an alternative semantics, the intersubjective semantics, as a revision of the Fregean idea of thoughts. The Liar's paradox resultant from the Fregean thoughts suggests a necessary reevaluation of the Platonic ontology Frege is committed to, and the intersubjective semantics, appealing not to the classical bivalence but the many-valued principle, turns out to hinge on a many-valued ontology.

2. Frege's theory of thought

According to him, truth is indefinable in the sense that it presents itself as a primitive concept in logic [1]. For something this basic and fundamental, the notion of truth does not add substantive content to a proposition. When the term “true” is treated as a predicate, it is not a property in the sense of “genuine” or “veracious”, which are by nature descriptive. It is self-evident [2]. Attempts to define truth, whether it's the correspondence theory or the coherent theory of truth, invite a definitional regress. It is not a quality that answers to a particular kind of sense impressions either, because people cannot perceive truth in the world as they see the color “red”, feel “pain”. In many cases, people do come to the recognition of truth through sense impression, but the state of being true is not sensible, perceptible, or a property of a thing in itself. Frege believes that people can recognize a property of something by grasping the thought that the thing pertains to. The way things are in the world latch onto what the relevant thoughts are pointing to, namely, the true. Given that “true” cannot be applied directly to the physical world and the private mental content of one's mind, thoughts are the necessary bearers of unrelativized truth values, for which the question of “truthfulness” can arise at all. Though thought is imperceptible by itself, people come to grasp it through its semantic clothing and our capacity for reasoning [2].

Thoughts are the senses of sentences. Since not all kinds of sentences express thoughts, it is important for the purpose of this paper to isolate and focus only on the kind of sentences that do. Of many types of sentences, assertoric type sentences that communicate facts express thoughts. The act of producing an assertion is judging the truth values of thoughts. Other types of sentences, like commands, wishes, and exclamations, are neither true nor false because they lack the propositional contents that possess truth values. Within the assertoric type, there are “mock thoughts” (*Scheingedanken*), which are a special category of sentences that, while structured as genuine thoughts, do not actually express true or false propositions. Mock thoughts often arise from statements that refer to fictional entities or hypothetical scenarios. For instance, a sentence about a fictional character like “Harry Potter is a wizard” cannot be said to be true or false because the entity “Harry Potter” does not exist in reality. It lacks a proper referent.

Frege justifies that thoughts belong to the third realm [1]. Since they are obviously not physical entities, he can contrast thoughts along with ideas to demonstrate that thoughts belong to a third realm where they remain independent of minds and unvarying throughout time. Ideas, according to Frege, are private abstract mental images that belong to the world of sensations and feelings contained in the consciousness of some individual. This inner world presupposes an owner whose existence necessitates a holder. Analogous to the fact that a sensation is impossible without a sentient being, an idea in this way cannot exist independently. Every idea has exactly one owner. In other words, it is not possible for two people to have the same idea, since one only has direct access to their own mind.

Because of the private nature of ideas, though they can be translated into a public medium like language or art, ideas cannot be put alongside each other and compared; otherwise, they would not exist exclusively in a particular individual's mind. Thoughts are not like ideas in these regards. Frege gives an example of the Pythagorean theorem to illustrate their timeless nature and independent existence [1]. He argues that if, like ideas, every thought requires an owner and is contingent on the contents of their consciousness exclusively, it would not be possible for the same Pythagorean theorem to be discovered and understood by spatiotemporally different individuals. If “true” is applicable when speaking about someone's idea, then it is possible for mathematical truths like the Pythagorean theorem to be relative and vary from person to person.

Thoughts are not in need of a holder. It appears that thoughts are outside of the internal world and shareable. But do thoughts exist in the realm of the physical world in the same way as a book sitting on the top of a desk? It turns out that thoughts are not part of that external world either, for one, thoughts cannot be perceived through sense impressions. Unlike things that are in the external world, which are physical and exist in space and time, thoughts have a universal and timeless quality, meaning they do not vary with the changing state of the external world. Consequently, for Frege, thoughts are Platonic entities residing in a third realm, along with other entities like numbers. People come to interact with thoughts through a special mental capacity, the power of reasoning [3]. The actuality of a thought is realized by being grasped and taken to be true, which affects the inner world first. Then changes in the physical world are brought about by the actions of the thinker [4]. Frege comes to the conclusion that the ontological status of thoughts is objective in the sense that it is unvarying and can be grasped by many.

Thus far, this paper has delineated some key characteristics of a thought: (1) It is abstract. (2) It is the bearer of truth. (3) It is expressed by assertoric sentences. (4) Its content is communicable and shareable. They lead Frege to establish the thoughts to be objective entities. In the following section, this paper will construct a Liar's paradox to challenge its ontological status.

3. Construction of a Liar's paradox and its implications

The construction of a Liar's paradox aims to show that within the framework of Frege's logic, his commitment to the bivalence of thoughts is problematic.

As mentioned above, the concept of truth is primitive in that it cannot be defined. But the truth value of a Fregean thought (or proposition) can be judged if one adopts a positive stance on the correspondence theory of truth: to determine the truth value of a thought, it must be examined against some fact or a state of affairs in the world. Or, the truth value of the thought is self-evident. Because Frege's thoughts are objective and can refer to the physical world when they appear in proper sentences, they latch on to an external reality, not to some subjective interpretations of it [5,6]. A true thought accurately reflects the way the world is. A thought that is false misrepresents how things are. For example, the thought expressed by the sentence "A water molecule consists of one oxygen atom covalently bonded to two hydrogen atoms" is true because it corresponds with the definition and properties of water in chemistry. The argument "consists of one oxygen atom covalently bonded to two hydrogen atoms." is instantiated by the existence of water molecules. The thought expressed by "An oxygen gas molecule consists of one oxygen atom covalently bonded to two hydrogen atoms" is false because the existence of an oxygen gas molecule does not instantiate the concept.

Frege's commitment to the law of the excluded middle is evident. In his paper "Negation", he states that "A propositional question contains a demand that we should either acknowledge the truth of a thought or reject it as false [1]." If these two conditions are met: first, the sentence that expresses a thought must be presented in a way that no doubts regarding its semantics can be raised; second, it is not a mock thought. So Frege would agree with the following principle: for any object x and any property F , x either has the property F or it does not, that is, $\forall x(Fx \vee \neg Fx)$.

The construction of a Liar's paradox within the Fregean framework that leads to a paradoxical conclusion is straightforward. One can formulate a sentence expressing a thought that asserts its own falsehood. Consider the sentence S : "The thought expressed by S is false." Let us designate the thought expressed by S as L . The semantic content of L is the claim that L itself is false. Given that: (1) This grammatically well-formed assertoric sentence expresses a determinate thought that can be

grasped. (2) The principle of bivalence, which dictates that every such thought must be either true or false, is at odds with the semantics of L. (3) L is not a mock thought that has a fictitious referent.

The dilemma unfolds when attempting to assign a truth value to L. If L is assumed to be true, then what it asserts must obtain, meaning L must be false, leading to a contradiction. Conversely, if L is assumed to be false, then its assertion is incorrect; it is therefore not the case that L is false, which, by the law of excluded middle, implies that L is true—again, a contradiction. Consequently, L represents a thought that cannot be coherently assigned a truth value without violating the fifth law, thus challenging Frege's conception of the thought.

There are some counter-arguments against the liar's paradox. Briefly, there are: (1) Liar's paradox is not unique to the Fregean thought. All "semantically closed" languages are susceptible to it. (2) The scope of truth varies between the sense of a thought and the proposition. The proposition can be true in the sense that it is a well-formed sentence that expresses a thought. The thought it expresses has an independent truth value than what the proposition has. (3) A Fregean might attempt to classify L as a mock thought, akin to statements about fictional entities. However, this move is ad hoc. Unlike statements about "Harry Potter," L does not suffer from a failure of reference in its components. Its failure is purely structural and self-referential, challenging the rules of the system itself, not just its application to the world.

4. Intersubjective interpretation of fregean thought

As shown above, if it is assumed that the ontological status of Fregean thought to be veridically objective and the bearer of truth values, a liar's paradox can be established, indicating that, in addition to mock thoughts, there exist thoughts that are neither true nor false.

This paper proposes that Fregean thoughts ought to be interpreted as intersubjective agreements, whose meanings are context- and community-dependent. This constructivist perspective preserves the aspect where the content of thoughts remains public, though it is conceptually at odds with Frege's Platonic grounding.

If Fregean thought exists intersubjectively, namely as socially constructed ideas, its existence depends on a collective recognition, our cognitive capacity, and connection to the physical world [7,8]. The logical inconsistency problem arising out of a wholly objectively conceived thought shifts to a discrepancy in the interpretations of thoughts that are contingent on natural languages. The scope of the thought focuses on the shared understanding of language and meaning rather than on the bivalent truth values of thoughts.

This interpretation suggests that the truth value of thoughts is relative in the sense that it is determined by the conventions and agreements among a group of people, which hinges on cognitive compatibility to establish conceptual links between the abstract and external world. That is, the content and truth value of a thought often undergo a process of consensus forming within the context of a language and community.

Otherwise, it is rather trivial for thoughts to be taken absolutely true or false. Take the thought: "A unicorn is a horse-like creature with a single horn." According to Frege, the thought expressed by this sentence is a mock thought. Though the sense of the thought can be properly understood, it lacks proper reference. However, people could be very skeptical toward thoughts like this, and say that though it is a low probability that a unicorn is found anywhere in the universe, it cannot be ruled out with absolute certainty that there exists such a creature. It is fundamentally questionable that people are capable of distinguishing mock thoughts from thoughts without any doubt at all. The same can be said against any assessments trying to assign proper sentences that express thoughts with a truth value.

Through an intersubjectivity framework, thoughts do not inherently possess truth values. Its reference and sense can be changeable. Some proper sentences could express different thoughts throughout time and communities, which is manifested in natural languages and scientific discoveries. Thoughts are not subjective in the sense of how ideas are taken to be, complete private abstract entities that exist only in one person's mind. Thoughts are intersubjectively objective. They can be communicated via various tools like natural languages and mathematics. When sentences latch onto aspects of objective realities, a social process of forming consensus justifies whether a thought is true or false. Even for purely abstract entities like natural numbers. Concepts like “oneness” and “twoness” may not be instantiated if the action of counting had not occurred between members of groups.

5. Conclusion

Consequently, the ontological status of thoughts can no longer be wholly veridically objective in itself. It is important to note the nuance between the sense of thoughts as the fundamental bearer of truth and committing to the truth value of a declarative sentence. Frege’s commitment to the fifth law is trivial given that the reference of a thought ought not to be established absolutely. Under the intersubjectivity perspective, Fregean thought can be interpreted to avoid the self-referential type of paradox because it rejects the bivalency of thoughts. For thoughts that are undergoing a process of forming consensus or fall into the gap of neither true nor false, they can be assigned the value of “indeterminate”, which avoids the contradiction. The liar’s paradox cannot be established if there is a truth value gap for thoughts, which is possible if thoughts are taken to be socially constructed, intersubjective entities. Although its truth value becomes relative, it still requires some formal system to serve as the foundation for the community to generate agreements on their truth values. Although is difficult to come up with effective ways to discern laws of truth as effective as Frege’s symbolic logic, the pragmatic efficiency or inefficiency this semantics implies does not affect the necessary many-valued ontology it is committed to.

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