

Mebadi

International Journal of Philosophy

Volume: 2 Issue: 1 Year: 2025, pp. 17-38

Cilt: 2 Sayı: 1 Yıl: 2025, ss. 17-38

Truth, Meaning, and Language in Frege and Nietzsche: A Comparative Study

Frege ve Nietzsche'de Hakikat, Anlam ve Dil: Karşılaştırmalı Bir İnceleme

Aybüke Aşkar

Arş. Gör. Dr., Ankara Yıldırım Beyazıt Üniversitesi/İnsan ve Toplum Bilimler Fakültesi/Felsefe Bölümü,
aaskar@aybu.edu.tr, ORCID: 0000-0002-9428-0634

Article Information

Article Type

Research Article

Date Recieved

30 May 2025

Date Accepted

26 June 2025

Date Published

30 June 2025

Plagiarism Checks: Yes, Turnitin

Ethical Statement

It is declared that scientific and ethical principles have been followed while carrying out and writing this study and that all the sources used have been properly cited (Aybüke Aşkar).

Conflicts of Interest: The author(s) has no conflict of interest to declare.

Makale Bilgisi

Makale Türü

Araştırma makalesi

Geliş Tarihi

30 Mayıs 2025

Kabul Tarihi

26 Haziran 2025

Yayın Tarihi

30 Haziran 2025

Benzerlik Taraması: Evet, Turnitin

Etik Beyan

Bu çalışmanın hazırlanma sürecinde bilimsel ve etik ilkelere uyulduğu ve yararlanılan tüm çalışmaların kaynakçada belirtildiği beyan olunur (Aybüke Aşkar).

Çıkar Çatışması: Çıkar çatışması beyan edilmemiştir.

Licensed under CC BY-NC 4.0 license.

CC BY-NC 4.0 lisansı ile lisanslanmıştır.



Cite As | Atıf

Aşkar, Aybüke (2025). Truth, Meaning, and Language in Frege and Nietzsche: A Comparative Study. *Mebadi International Journal of Philosophy*, (2) 1, 17-38.
<https://doi.org/10.5281/zenodo.15750776>

Abstract

This article explores the similarities and differences regarding language, meaning, and truth, between two distinct representatives of philosophical traditions: Gottlob Frege and Friedrich Nietzsche. While Frege is known for formalizing the logical structure of language and distinguishing between sense (Sinn) and reference (Bedeutung), Nietzsche develops a genealogical critique of truth, arguing that concepts are rooted in metaphor and conditioned by historical and psychological forces. Despite their opposing aims—Frege seeking semantic stability through logic, Nietzsche pointing to the instability behind all linguistic claims—both thinkers challenge the assumption that language transparently reflects reality. They share an awareness of language’s mediating role in shaping thought and even reality, although they interpret its implications differently: Frege emphasizes logical objectivity and compositionality, while Nietzsche stresses perspectivism, interpretation, and the constructive force of metaphor. Through a comparative analysis, this paper highlights not only their diverging ontologies of language but also their shared recognition of the tension between language and reality. Ultimately, the comparison between Frege’s analytic clarity and Nietzsche’s critical suspicion reveals two influential frameworks for understanding the limits of meaning and the nature of truth. By tracing both convergence and divergence in their accounts, this article contributes to a deeper understanding of contemporary debates on the epistemology of language and the foundations of philosophical semantics.

Keywords: Frege, Sense and Reference, Nietzsche, Truth, Philosophy of Language, Perspective.

Öz

Bu makale, iki farklı geleneğin temsilcisi olan Gottlob Frege ile Friedrich Nietzsche’nin dil, anlam ve hakikat üzerine geliştirdikleri görüşleri karşılaştırmalı olarak ele almakta, bu doğrultuda benzerliklerine ve farklılıklarına dikkat çekmektedir. Frege, dilin mantıksal yapısını biçimlendiren ve anlam (Sinn) ile gönderim (Bedeutung) ayrımını sistematik hale getiren bir yaklaşım geliştirirken; Nietzsche, hakikatin soybilimsel bir eleştirisini sunar ve kavramların metaforlara dayanan, tarihsel ve psikolojik koşullarla şekillenmiş olduğunu savunur. Karşıt yönelimlerine rağmen her iki düşünür de dilin gerçekliği doğrudan yansıttığı varsayımına karşı çıkarlar. Aksine, ikisi de dilin düşünceyi ve hatta gerçekliği şekillendirme gücüne sahip olduğunu kabul eder. Yine de bu durumu farklı şekillerde yorumlamaktadırlar: Frege mantıksal nesnelliğe ve dilin yapısal bütünlüğüne vurgu yaparken, Nietzsche bakış açısına, yoruma ve metaforun yaratıcı/kurucu gücüne odaklanır. Bu makale, iki filozofun sadece dil ontolojilerindeki ayrılıklarını değil, aynı zamanda gerçeklik ve dil arasındaki gerilimi nasıl gördüklerini de ortaya koymaya çalışmaktadır. Frege’nin analitik netliği ile Nietzsche’nin eleştirel kuşkuculuğu arasında kurulan bu karşılaştırma, anlamın sınırlarını ve hakikatin doğasını anlamaya yönelik iki etkili çerçeveyi ortaya koyar. Bu bağlamda, her iki düşünürün ortaklaştıkları ve ayrıldıkları noktaları takip eden bu çalışma, çağdaş dil epistemolojisi ve felsefi anlabilim tartışmalarına katkı sunmayı amaçlamaktadır.

Anahtar Kelimeler: Frege, Anlam ve Gönderim, Nietzsche, Hakikat, Dil Felsefesi, Bakış Açısı.

Introduction

The question of how language relates to thought, reality, and truth stands at the heart of modern philosophy. Within this domain, Gottlob Frege and Friedrich Nietzsche offer unique approaches. At first glance, Frege and Nietzsche seem to represent two radically opposed traditions in philosophy of language. Frege is considered the architect of modern logic and formal semantics, and Nietzsche as the critic of all stable meaning, conceives language as rooted in metaphor and power. Yet despite their divergent aims and methods, both thinkers share several underlying assumptions about the limitations of language and the mediated nature of human understanding. These shared concerns form a subtle but significant common ground between them. However, the common point between them is not only their nationality or the generation they belong, but also their interest on the philosophy of language in terms of its relation to reality. Both thinkers approach language, meaning, and truth from radically different orientations. While Frege, as a logician and mathematician, seeks to formalize language through objective reference and precise logical function. Nietzsche, on the other hand, is trained as a philologist and known for his genealogical method, regards language as an inherently metaphorical and perspectival construct, rooted in human psychology and social convention. Although they might not write their works related to language on the same basis, it can be said that they both pointed to the problems within the language in terms of concepts and truth. This paper aims to explore their views on meaning, reference, truth, and objectivity, ultimately bringing their perspectives together within their opposition. Although it does not seem reasonable to compare such radically different philosophical traditions, namely analytical and continental philosophies, such a debate would especially contribute to ongoing discussions about epistemology and the philosophy of language.

For this purpose, mainly three works of Frege's which are *Function and Concept* (1891), *On Sense and Reference* (1892), and Nietzsche's *On Truth and Lies in a Non-Moral Sense* (1873)¹ will be used. In this context, The analysis is organized into three main parts. Firstly Frege's distinction between sense and reference will be explained as it is significant in terms of understanding the notion of concept. In the second part, Nietzsche's thoughts on language, truth

¹ For the convenience, throughout the essay, the following abbreviations will be used referring to Nietzsche's works: *OTL*_On Truth and Lies in a Non-Moral Sense, *GM*_ On the Genealogy of Morals, *GS*_ The Gay Science, *HAH*_ Human all too Human, *WP*_ The Will to Power, *TI*_ Twilight of Idols. Moreover the character '§' points to the section numbers while Roman numeral indicates book chapters. All other references will be given in accordance with the APA Referencing System.

and perception will be scrutinised. Finally, the last section will offer a comparative discussion that reveals both similarities and dissimilarities.

1. Frege on Language, Meaning, and Truth

Frege criticizes everyday language for its ambiguity, noting that words like “man” or “number” can refer to multiple things depending on context such as Plato, Socrates, or Charlemagne, or the numbers 1 and 2. He argues that such language relies too much on guesswork. Uttered sentences do not always contain the necessary information. Rather, they require gestures, tone, or situation to convey meaning. For Frege, this makes it unsuitable for scientific purposes, which require a precise and unambiguous system of expression (Frege, 1914/1979, p. 213)². This view shows Frege’s skepticism toward natural language. He acknowledges its practical utility in daily life, but he considers it inadequate for serious logical or scientific inquiry. His response is to develop a formal logical language that would replace the ambiguities of ordinary speech with strict rules. This critical stance toward natural language is not incidental but foundational to his broader philosophical project. Indeed, he is considered as “the founding father of the philosophy of language” since for developing his mathematical-logical project, he begins with analysing language, challenging traditional concepts and finally introducing new logical distinctions (Polimenov, 2018, p. 119).

Sense (*Sinn*) and reference (*Bedeutung*) have significant place in Frege’s semantic theory, which is developed across *Function and Concept*, and *On Concept and Object*, but most notably articulated in *On Sense and Reference*. These works introduce a crucial distinction between the sense of an expression (*Sinn*-its mode of presentation) and its reference (*Bedeutung*-the object it stands for). According to Frege, each expression has a sense if they are grammatically formed well and the main ingredient of sense is characterised as mode of presentation of a thing which is the *Bedeutung* of that expression (Textor, 2011). It is significant to understand that this distinction is not merely semantic but allows Frege to explain how sentences with the same referent can differ in cognitive value.

Frege believes that there is a confusion between form and concept, sign and the thing signified. Frege’s examples demonstrate how two expressions may

² Frege explains that his initial motivation came from a desire to give mathematics a firmer foundation. He realized that numbers are not collections of objects or properties of such collections, but rather refer to concepts we use in counting. However, the inadequacies of natural language made such analysis difficult, so he developed a formal system to overcome these problems. This path ultimately led him from mathematics into the domain of logic (Frege, 1919/1079, p. 253). Despite that, this paper mainly will focus on Frege’s thoughts related to language.

have the same reference but differ in sense: while “2+5” and “3+4” both denote the number 7, they do so via different cognitive routes (Frege, 1891, p. 131). In other words, there is a difference if they are not conceived by their equality. For this reason, it seems that Frege attributes two kinds of meanings to expressions which are sense and *Bedeutung*. The latter refers to an object of an expression while the former does not necessarily require a denotation. Crucially, Frege argues that expressions may possess sense even in the absence of reference—as with fictional or mythological names like “Odysseus” or “Pegasus.” Pegasus has a meaning, or a sense, even if it does not point to an object in real world. Similar to that, sentences like “Odysseus was set ashore at Ithaca while sound asleep” also have sense although part of it, Odysseus in this case, does not refer to anything (Frege, 1892, p. 62). There must be a referent for “Odysseus” for someone to take the sentence seriously (Textor, 2011). If there is a missing part in the sentence in terms of referencing, the thought loses its value for us at once since we normally expect that sentence has a reference, and once it has, we recognise it (Frege, 1892, p. 64).

Polimenov emphasizes this point further by analysing Frege’s approach in fictional discourse. He believes that fictions “shed valuable light” on Frege’s approach to philosophy of language (Polimenov, 2018, p. 120). In his view, Frege treats names in fiction like “Odysseus” as “pseudo-proper names” which have sense but do not fall under the regular conditions of reference. Although a proper thought is always either true or false, pseudo-thoughts of fictions are neither of them. Thus, “a pseudo-proper name is a name which has a sense but no reference” (ibid, p. 126). In this case, names such as Pegasus or Odysseus are fictional with sense but without reference, and neither true nor false. Creating “pseudo-assertions” by using such fictional characters in stories does not cause the question of truth (ibid, p.128). This supports Frege’s claim that sense and reference are distinct, and the absence of one does not invalidate the presence of the other.

It is important for Frege to recognize the same *Bedeutung* in expressions such as “2”, “1+1”, “3-1” or “6:3” (Frege, 1891, p. 132). According to all of these examples, we can replace 2+5 with 7 or 3+4 in this case, as they all have the same *Bedeutung*, in other words, proper names of the same number. The replacement does not affect to them as an identity is signified by them all, yet they have different senses. The sense is the mode of presentation—how an object is given in thought—while the reference is the object itself, assuming one exists. This distinction is essential to Frege’s attempt to explain how informative identity statements, e.g., “the Morning Star is the Evening Star”, can be both cognitively significant and logically valid, despite referring to the same astronomical body, Venus. In common language, the “Evening Star” is understood as a planet

which can be seen in evenings while the “Morning Star” is supposed to be observed in mornings. However, they both refer to the same planet, i.e. Venus (Frege, 1892, p. 29). Although they have the same *Bedeutung*, for a person who does not know this information, it means there are two planets because their senses are different. It is considered as two distinct objects; one is seen in the morning and the other in the evening. Therefore, in this case, “the morning star is morning star”, which is *a priori*, and “the morning star is evening star”, which is *a posteriori*, are different sentences. Although they sign the same object, as their sense is different, they present two different modes of presentations and one of them might be considered as false by that person who does not have the knowledge of their identity.

Frege insists that a sentence’s sense (its mode of presentation) determines its reference (its truth-value), and that this reference is objective, regardless of the subject’s beliefs. In other words “senses of primitive expressions that are relevant to compositionality and the senses of those concept words that are the result of analysis that contain modes of presentation of functions from objects to truth-values” (Macbeth, 2007, p. 76). From this point of view, senses are modes of presentation. They point to various aspects of the references. As in the evening star/morning star example, both names refer to a single object, which is Venus. Yet, the senses are different due to their usage in different contexts. This is related to the notion of “mode of determination”.

To elaborate this more, it is significant to emphasize the way it occurs. For instance, one can distinguish the brightest object in the evening and the other one in the morning. In this case, the modes of determination of the first and second object are “intuitively different” if it is not known to the one that they both refer to the same object (Textor, 2011, p. 105). In this case, two different names should be introduced as Frege asserts that “[O]ne must give the object determined by the two modes of determination different names each name corresponding to one of the modes” (cited in Textor, 2011, p. 105). In his logicist project, he insists that every declarative sentence expresses a thought which is either true or false—independently of our beliefs or attitudes toward it³.

For Frege, thoughts—the senses of complete sentences—are objective and can be shared between individuals, unlike subjective ideas. For instance, a point in a triangle can be designated by two modes of presentation such as the intersection point of a and b, and intersection point of b and c (Frege, 1892,

³ However, as mentioned before, this is not relative to pseudo-thoughts or pseudo-assertions in fictions. For him only assertoric speech can be conceived in relation to truth value which he defines with the term “assertoric force” to indicate whether a thought is being presented as an assertion or merely expressed without claiming its truth (Polimenov, 2018, p. 130).

p.57). This means having the same *Bedeutung* is not having the same sense, in other words, “they do not contain the same thought” (Frege, 1891, p. 138). A thought is a sense of a statement which is “the linguistic form of equations” (ibid, p. 139). Truth-values (the True and the False) are not subjective experiences but objects in his logical ontology. If someone wants to give different names to one object due to the lack of knowledge, that is because the object’s modes of presentations are different. To recognise that they are the same object requires further investigation and information. If one does not have sufficient evidence for the truth of her thought, she should not use just one name to cover both modes of presentation because, according to Frege, it violates the rule of non-ambiguity, “the most important rule logic imposes on language” (cited in Heck & May, 2006, p. 28).

Frege sees logic as the deep structure that underlies both mathematical reasoning and linguistic meaning. He establishes a formal language capable of expressing pure thought free from the ambiguities of natural language. According to Frege, a concept is a function for an expression to reveal truth value for that expression. In other words, “concepts are functions from objects to truth-values” (Textor, 2011, p. 209). He considers a concept (*Begriff*) as a special kind of function which is signified by incomplete expression. Frege conceives truth value as “the circumstance that it is true or false” and for him “there are no further truth-values”, only “the True” and “the False” (Frege, 1892, p. 63). This formalism is not merely technical; it expresses his conviction that arithmetic reveals objective, mind-independent truths. This thought seems similar to Plato’s Forms. For Frege, thoughts or expressions of theorems like Pythagorean’s, are timelessly and independently true. It doesn’t require neither consciousness nor a bearer (Frege, 1956, p. 302)⁴. Yet, to be able to render arithmetic meaningful, the existence of an ontological realm is necessary. Without the ontological realm, signs lose meaning (Stenlund, p. 76, 84).

To illustrate this point, examining Frege’s example is essential, and it is as in the following:

We saw that the value of our function $x^2 = 1$ is always one of the two truth-values. Now if for a definite argument, e.g. -1 , the value of the function is

⁴ There are many debates related to Frege’s Platonism although he is usually accepted as a Platonist. For Kluge, Frege’s concept of sense, even if have some similarities in surface with Platonic ideals such as being “non-sensible, atemporal and non-spatial”, it would be “a superficial resemblance” to accept him as Platonic (Kluge, 1980, p. 227). He claims that “there are weighty reasons” to reject the belief for Platonist interpretation (1980, p. 62). On the other hand, for instance, Reck (2005) scrutinises Frege’s Platonist statements to investigate the idea. For him, there are two theses: Platonism A which includes analogy to real world, objecthood, and truth correspondance; and Platonism B, on the contrary, is related to natural laws, numbers and logic. According to Reck, Frege’s account is closer to the latter. Many other examples can be included to this debate, however, it would exceed the limits of this essay.

the True, we can express this as follows: 'the number -1 has the property that its square is 1'; or, more briefly, '-1 is a square root of 1'; or '-1 falls under the concept: square root of 1'. If the value of the function $x^2 = 1$ for an argument, e.g. for 2, is the False, we can express this as follows: '2 is not a square root of 1' or '2 does not fall under the concept: square root of 1'. We thus see how closely that which is called a concept in logic is connected with what we call a function. Indeed, we may say at once: a concept is a function whose value is always a truth-value. (Frege, 1891, p. 138-139)

Frege's formulation highlights how logic captures objective truth through this functional structure, separating concepts from psychological associations or subjective usage.

Another example can be given to explain the relationship between function and concept as it is significant for the rest of the essay. According to this, for instance, "if the function $x^2 = 1$ returns for an argument the value the True, Frege says that the argument falls under the concept ξ is a number whose second power is 1; if the function returns for the argument the value the False, the argument does not fall under this concept" (Textor, 2011, p. 229). As it can be seen, a function is a concept which determines whether the reference is true or not. However, it does not have to be a function in terms of having an x and its power. It can be constructed as in the following: " $() > 2$ " denotes the concept being greater than 2, which maps every object greater than 2 to The True and maps every other object to The False (Zalta, 2016,). This indicates that numbers such as 3, 8 or 56 would fall under the concept which is greater than 2 and thus true. As stated before, it was Frege's aim to involve functions in language. These examples given above are related to numbers and equalities, but in daily language, functions are used as well⁵.

Building on Frege's formal account of functions and truth-values, we now turn to a very different approach. Nietzsche's treatment of language and truth shifts the focus from logical structure to the historical, metaphorical, and affective foundations of meaning. The intention here is not to draw a harmonious picture between the two philosophers, rather to offer a broader perspective on epistemological and linguistic views.

2. Nietzsche on Language, Metaphor, and Perspectivism

Nietzsche's account of meaning and truth departs radically from Frege's formalism and logic-based semantics. His concerns are genealogical and rhetorical rather than analytical. In his early essay *OTL*, Nietzsche presents a provocative view: truth is not the faithful correspondence between words and things, but rather a product of metaphorical transformation and social convention. He

⁵ Examples of this will be given in the third section of this essay, while comparing it with Nietzsche.

conceives truth as “a mobile army of metaphors, metonymies, anthropomorphisms” established on human relations, used for a very long time so that it is forgotten that they are illusions and metaphors (*OTL*, pp. 29-30). There is no truth for him since “there are many kind of eyes [...] and consequently there are many kind of “truths” (*WP*, §540). Neither we can know truth: “We do not ‘know’ nearly enough to be entitled to any such distinction. We simply lack any organ for knowledge, for ‘truth’” (*GS*, 354). For Nietzsche, truth becomes a way of designating things. It has force and same validity widespread and “the legislation of language likewise yields the first laws of truth” (*OTL*, p. 23). Nietzsche refers to truth not as something that can be discovered but “as the product of creation” and “our creations eventually became our truths” (Nehamas, 1985, p. 174). This position rejects the idea that language transparently reflects reality. Instead, Nietzsche claims that our concepts originate in metaphor: sensations are translated into images, which are then further translated into words. These words become habitual, fixed by linguistic convention, and mistaken for literal truth.

Nietzsche argues that while language allows individuals to mediate between themselves and the world, there is no possibility of direct correspondence between linguistic propositions and the factual features of reality. As Zarathustra puts it, “how should there be any outside-myself?” Words, Nietzsche suggests, establish arbitrary connections between sounds and aspects of the world, but these sounds do not inherently “contain” the qualities they refer to. Since this link is conventional rather than intrinsic, it cannot reveal any essential or eternal truth about the world. In other words, language, as a symbolic system, fails to give us truthful knowledge of the world (*BGE*, §268). Instead, understanding depends on a shared cultural background that shapes our vocabulary (*GS*, §354). He claims that consciousness arises primarily for the sake of communication and that the words we become conscious of are merely superficial signs (Gori, 2017, p. 208). Human beings invent words which are to denote objects or situations. However, it is not merely finding similarities with their own understanding, perspective or experiences. In the long turn, those inventions become conventions which make everyone to obey it in the name of the truth. Yet, as concepts depend on the human psychology or cultural factors, they alter from language to language (Sluga, 2007), and so is the truth.

In Nietzsche’s view, the so-called “truth” is nothing but a collective agreement to use the same metaphors in the same way. The only way for anyone to claim that he possesses truth is to forget its illusiory nature (*OTL*, p. 24). Language does not lead us to objective knowledge, but instead gives us an appearance of stability, an illusion necessary for survival. For example, even if one believes to have knowledge of trees, colours, snow or flowers, she only possesses metaphors which are firstly stimulated by nerves and translated into an image as the first metaphor, and it is imitated by a sound which is the second metaphor. To

illustrate this, Nietzsche gives the example of a deaf man who would gaze in confusion at the Chladnian sound-figures in sand, sees the vibration of a string as the cause of sound, and thus thinks he has learnt what sound is (*OTL*, p. 26). Nietzsche believes that this is what happens to all of us when using language. He considers language as a work “originally at the construction of concepts” (*ibid*, p. 41).

The very act of forming a concept, he says, already involves abstraction and generalization. A concept arises by equating dissimilar things: “Every word becomes a concept, [...] when it has to fit countless more or less similar—that is, strictly speaking, never equal, hence blatantly unequal—cases”. Each concept is constructed on human experiences with the object by separating it from the others. Nietzsche illustrates this point by criticizing the very foundations of how language is formed. He questions the assumption that language emerges from a concern for truth or certainty. For example, when we say “the stone is hard,” we treat “hard” as if it refers to an objective property, when in fact it merely reflects a subjective impression. We assign grammatical genders arbitrarily by calling the tree masculine, the plant feminine without any grounding in truth. Similarly, we name a creature a “snake” based solely on its slithering motion, which could just as easily describe a worm (*ibid*, p. 27).

Across different languages, the immense variety of expressions for the same phenomena shows that truth or adequacy is never the guiding principle in naming. Rather, the origin of language lies in metaphor and in our relation to things, not in an objective grasp of their essence. The “thing-in-itself”, pure and unmediated truth, remains inaccessible even to the creator of language, and is not the goal of linguistic designation, which serves pragmatic and human-centered ends (*ibid*, pp. 25-26). Nietzsche critiques the formation of concepts as a forgetting of the original metaphorical act. Once metaphors lose their imaginative force and are no longer perceived as such, they become reified as objective truths. This process generates an illusion of stability in language and knowledge. Nietzsche explains the relation between concept and truth as in the following:

[...] concepts, too, as bony and eightcornered as dice, and just as moveable, are but the lingering residues of metaphors, and that the illusion of the artistic rendering of a nerve stimulus into images is, if not the mother, then at least the grandmother of every concept. In this dice game of concepts, however, “truth” means using every die as it is marked, counting its dots precisely, establishing correct classifications, and never violating the order of castes and rankings of class. (*OTL*, pp. 32-33)

Here, Nietzsche criticizes not only the formation of concepts, but also the moral demand to conform to them. For him to be truthful means to employ the usual metaphors.; “morally expressed, the obligation to lie in accordance with

a fixed convention” in a manner of herd style (*OTL*, p. 30). People unconsciously tell lies since they misuse the already established conventions as they prefer “the valid tokens of designation –words” or statements such as “I am rich” and this way he makes the “unreal appear to be real” (*ibid*, p. 23). This critique highlights Nietzsche’s belief that what we call “truth” is less about uncovering objective reality and more about preserving social coherence through shared illusions.

For Nietzsche there are many perspectives at least as much as the number of observers. He stands against absolute truths and thus writes that “there is only a perspective seeing, only a perspective “knowing”; and the more affects we allow to speak about one thing, the more eyes, different eyes; we can use to observe one thing, the more complete will our “concept” of this thing, our “objectivity,” be” (*GM*, III, 12). It illustrates that truth cannot be obtainable by one perspective only as in the commonly known elephant story. According to it, six blind men touch different parts like trunk or tail of an elephant and resemble those parts to a wall, a rope, a snake or a tree and such. Although each of them considers that they find reality or truth, none of them is able to tell it is an elephant. They can only assert their own perspective. If they collect all of the information they obtain, they might get the idea of elephant.

In this view, knowledge is never absolute or detached, but always situated within a perspective. Every perception, judgment, or concept arises from a particular position, shaped by bodily drives, cultural background, and linguistic norms. There is no “thing-in-itself” accessible independently of interpretation as it is “nonsensical” when “all the relationships, all the ‘properties,’ all the ‘activities’ of a thing” are removed “the thing does not remain over” (*WP*, 558). The thing-in-itself cannot be independent of interpretation since it is perspectival (Nehamas, 1985, p. 81).

Nietzsche’s view that all language is interpretation, shaped by contingent human needs and perspectives, directly challenges Frege’s goal of stabilizing reference and securing objectivity. For Nietzsche, the longing for absolute, independent truth is itself a psychological need, a product of the will to power that seek to fix meaning and impose order. For him truth is not a pre-existing property to be uncovered. Instead he suggests that truth is a dynamic effect of interpretation, grounded in language and historical contingency.

It might be claimed that Nietzsche’s account of language, truth, and meaning seems to stand in sharp contrast to Frege’s formal semantics. Yet both thinkers share a crucial insight: that language does not merely reflect the world but plays an active role in shaping it. The difference lies in how they respond to this insight. The next section will point to similarities and dissimilarities between the two philosophers’ approaches.

3. Shared Assumptions and Divergences

Although Nietzsche and Frege come from very different philosophical traditions, they share several foundational assumptions. Frege and Nietzsche both engage deeply with the problem of language and its relation to reality. At the same time, the philosophical aims, methods, and conclusions they draw from these assumptions diverge significantly. While Frege constructs a logical system to anchor language in truth-values and semantic stability, Nietzsche deconstructs the assumptions behind such stability, arguing that language is fundamentally metaphorical, perspectival, and historically contingent. Although they depart to different directions along the way, the initial concern is the same.

To begin with, Frege argues that the mode of presentation of *Bedeutung* is provided by the sense of an expression and the difference of sense between two statements reveals the difference in their “cognitive value” (Klement, 2002, p.59). It can be claimed that such a value depends on the mental and psychological situations of the subjects’ exchanging thoughts during communication. Consider the following example:

Jones might prove a certain thought and then communicate it to Smith who, as it happens, actually associates a different thought with that same sentence; Smith then correctly derives some other thought from that one and then communicates it back to Jones, who in turn associates a different thought with that sentence, one that does not actually follow from the thought that he associated with the original sentence. (Heck & May, 2006, p. 32).

This example illustrates a problem Frege identifies with communication. a single expression can be associated with different thoughts by different individuals, which leads to shifts in meaning during communication. Because of this, Frege argues that each proper name should ideally have a single associated mode of presentation. While this rule can be relaxed in casual contexts, precise communication requires such consistency. In the light of these, a kind of subjectivity might be attributed to the way of obtaining the sense of a statement. It depends on the subject who acquires information or a thought from an expression, in this case through communication. Furthermore, it can be said that cognitive values of an expression might alter the meaning significantly because of its mental or physical aspects. Yet, it might be claimed that this is similar to perceiving reality and describing it in terms of language. At this point, it seems possible to find a common ground for Frege and Nietzsche.

The similarity between these two approaches seems to lie in the cognitive aspect which might be due to physical or mental situation. They cannot be found arbitrary as Nietzsche asserts that “the spell of grammatical functions is in the last resort the spell of physiological value-judgments and racial conditions” or in other words of psychological situations (cited in Sluga, 2007, p. 19). It

might be for this reason Nietzsche considers truth, reality or language as anthropomorphic. According to him, human beings designate everything in a relationship with themselves, yet they can only arrive at metaphors.

Both thinkers challenge the naive belief that words simply correspond to things in the world. For Frege, concepts are functions that assign truth values to objects—they are structured and formal. Similar to Frege, Nietzsche also rejects the idea that language can directly correspond to reality. According to Nietzsche, language does not uncover but fabricates reality; it depends on a human being to constitute a relationship between language and objective reality depending on sensory experience through metaphorical abstraction. A concept, for him, is what remains after a series of reductions and generalizations from immediate experience. When we call something a “leaf,” for instance, we ignore all the variations and individual characteristics of particular leaves. We simplify, abstract, and forget the richness of the original perception. This forgetting is what allows a metaphor to become a concept, and what allows a concept to appear true (Nietzsche, 2020, p. 28). From this standpoint, the notion of a fixed reference is untenable. Words do not refer to immutable objects but to socially agreed-upon simplifications. The supposed transparency of meaning is, for Nietzsche, a function of forgetting that all language is metaphor. Thus, even the concept of reference is contingent on a chain of metaphors that cannot secure objectivity.

Interestingly, both acknowledge the multiplicity of interpretation. For Frege, ideas are subjective and changes from man to man. As a result of this, different ideas might be associated with the same sense as in the example of Bucephalus. Moreover, the same object can be connected to one idea by someone and to another by someone else even if they grasp the same sense. In other words, “if two persons picture the same thing, each still has his own idea” yet as their sensations might be different and it is not exactly comparable (Frege, 1892, p. 60). Similarly Nietzsche embraces this multiplicity of interpretation. He insists that meaning is inherently perspectival and rooted in the individual’s position and affects. His metaphor of the blind men describing different parts of the elephant makes this point: each person has a perspective, but no single person can access the whole truth. Even if they combine all their views, the totality would still be a construction. Yet Frege treats these differences as irrelevant to meaning proper, which is grounded in public, logical structure. Nietzsche, in contrast, insists that meaning is inherently plural and perspectival. This contrast actually reflects deeper metaphysical commitments. Frege’s project is constructive and logical, aiming to reveal objective semantic structures while Nietzsche’s is genealogical and critical, aiming to uncover the human, historical, and affective origins of linguistic convention.

It can be seen that human beings build concepts and designate truths according to their own. However, their perspectives should not conflict with the conventions of society. For this reason, if there is a new issue that there is no convention on, it is sufficient to create “new names, and valuations and appearances of truth” to create new “things” (GS, §58). When applied to the Venus example, naming it “Evening Star” and “Morning Star” creates two different designations. For Nietzsche, this reflects how language generates new appearances through naming. Each term carries a different metaphorical perspective. Frege, on the other hand, argues that if someone does not know both names refer to the same object, then logic demands that they are treated as distinct. He insists that each name corresponds to its own mode of determination. From this point of view, it seems that Frege supports what Nietzsche despises. However, this divergence does not imply that Frege is unaware of the multiplicity of cognitive associations tied to a single reference.

As mentioned before, for Frege, the same object might give different senses, yet it ought not to be connected with the same idea. According to him, ideas are subjective and changes from man to man. As a result of this, different ideas might be associated with the same sense such as; “A painter, a horseman, and a zoologist will probably connect different ideas with the name 'Bucephalus'” (Frege, 1892, p. 59). In such a case, each of these people would have a different idea of Bucephalus although the sense is same just as blind men having different idea of the elephant. This does not mean their ideas do not have truth value. Nietzsche, as well as Frege, attributes a truth value to ideas but in a limited way. For instance, if someone creates a definition for mammals, later inspects a camel and declares “Behold, a mammal”, this is a way of revealing truth. Frege seems to point a similar idea as he agrees that “All whales are mammals” is a general statement but “if we ask which animal then we are speaking of, we are unable to point to anyone in particular. Even supposing that a whale is before us, our sentence still does not assert anything of it” (cited in Textor, 2011, p. 95). It is a limited truth because it is anthropomorphic for Nietzsche, thus does not contain a single point which could be said to be “true in itself”, in real and in a universally valid sense, regardless of mankind (2010, p. 34). In other words, Nietzsche attempts to show that men-made conventions about language are not true because they are designated by the very experiences of men, not related to the object itself. Considering Frege’s claim that extensive knowledge of the *Bedeutung*, or the object, requires realising each sense that belongs to it immediately, and thus no one can acquire such knowledge (Frege, 1892, pp. 57-58). Perhaps for this reason Nietzsche claims, as people cannot know the nature or the thing’s itself, it causes the unconsciously telling lies as mentioned before. This epistemic limitation is central to Nietzsche’s wider critique of objectivity and has led to different interpretations of his perspectivism.

Clark and Nehamas, the two significant Nietzsche commentators, offer contrasting accounts on his perspectivism and this debate may provide a useful axis for comparing Frege and Nietzsche. Maudemarie Clark (1990) reads Nietzsche as a thinker who, despite rejecting metaphysical realism, still operates within an epistemological framework that allows for non-metaphysical objectivity. According to Clark, Nietzsche is in an epistemologically constrained position: He denies the existence of an absolute, interpretation-independent truth, but he does not abandon the notion of better or worse interpretations. On this view, truth remains viable as a function of coherence, explanatory power, or fit within a shared interpretive context. Clark locates this nuanced form of objectivity particularly in Nietzsche's later works such as *The Genealogy of Morals* and *Ecce Homo*, where he critiques absolute truth claims without rejecting the possibility of more or less adequate interpretations (Clark, 1990, pp. 103–117). He affirms that truth is not about correspondence to a reality "in itself," but is rather an idealization of justified human interpretation under non-metaphysical constraints (Clark, pp. 94–97, 127–144). Overall, it might be claimed that Nietzsche's critique is not of truth per se, but of a dogmatic, metaphysical conception of truth.

In contrast, Alexander Nehamas (1985) develops a more radical reading, in which Nietzsche's perspectivism is tightly connected to aestheticism. For Nehamas, Nietzsche sees the world as interpretations of our practices and lives. There are no facts outside of interpretation, and interpretation itself is not merely epistemic: "In itself, the world has no features, and these can therefore be neither correctly nor wrongly represented" (Nehamas, 1985, p. 45). In this view, Nietzschean truth is best understood not as correspondence or even coherence, but as an act of interpretation that attributes meaning (1985, p. 62). In other words, For Nehamas, Nietzschean truth is not something to be discovered but something created—a form of life, a mode of existence. According to him, a feature of a character may have a very different value in different contexts" thus it would be "wrong to think that the same things are true or false from every point of view or that truth is always useful and falsehood always harmful" (Nehamas, 1985, p. 52). This seems suitable with Nietzsche's constructive view of meaning which includes inventing new names for new situations. Here, the act of naming is itself an act of world-making. If there is no fixed referent, then language does not reveal what is, but brings forth what can be. In this framework, the thinker, the poet, or the philosopher becomes not a passive mirror of truth, but a creator of meaning.

This divergence in readings is significant when brought into dialogue with Frege. Frege's project is committed to the possibility of objective knowledge, grounded in a stable semantic architecture. He distinguishes between sense and reference to preserve the logical integrity of language. For Frege, a statement

has a truth value—the True or the False—regardless of how or whether it is interpreted. The sense of a sentence may vary from person to person, but the reference (i.e., its truth value) remains fixed, assuming the sentence is meaningful and properly constructed.

Clark's Nietzsche retains something akin to this Fregean notion of objectivity, albeit without the metaphysical grounding. She sees Nietzsche as rejecting timeless, context-transcendent truths, while still permitting critical evaluation between competing interpretations. In this light, Nietzsche's perspectivism does not abandon the concept of objectivity altogether, but redefines it in human, historical, and cultural terms. Nehamas's Nietzsche, by contrast, represents a sharper break with Frege. For Nehamas, Nietzsche's perspectivism entails that all meaning and truth are inseparable from the style of interpretation itself. There is no neutral standpoint from which to judge interpretations, no logical space of reasons that stands outside of contingent rhetorical and aesthetic forms. The eternal recurrence theory is developed exactly for this reason: accepting the word as it and searching for any meanings behind it (Nehamas, 1985, p. 232).

These interpretive differences point to a fundamental opposition between Nietzsche and Frege. Frege constructs a system that aspires to clarity, precision, and universality—a logic that secures reference and truth independently of context or subjectivity. Nietzsche, particularly in Nehamas's reading, views such aspirations as products of historical illusion and metaphysical prejudice. Truth is not discovered but invented, and logic itself is not neutral but a cultural artifact shaped by human needs and values. For Nietzsche, as he writes in *Twilight of the Idols*, "logic is the attempt to understand the world according to ourselves, to impose upon it our own image" (*TI*, Reason in Philosophy, §5, p. 169).

Logic also signals to even broader disagreement between the two. In Frege's logical system, each term and well-formed formulas designates expressions which include firstly "simple names of objects" such as "2" or " π ", secondly complex terms that denotes objects such as " 2^2 " or " $3 + 1$ ", and lastly sentences which also included in the second kind of denotation (Zalta, 2016). Frege seems to use these various expressions to explain language with a new attitude which paves the way for many developments. Usage of laws of logic and arithmetic is what makes it possible. In other words, his logical system assigns functions to concepts, turning them into mappings from objects to truth values. Concepts are thus logical tools, defined in terms of their role in producing truth.

Nietzsche, in contrast, criticises logic which he sees as is a kind of facilitation not for truth but as a mediator of expression (*WP*, §538). For him, "logic

is merely slavery within the fetters of language” (Hales, 1996, p. 821). As mentioned before, Nietzsche considers truth is an illusion since it is a convention and a schema or a metaphor which is established anthropomorphically. For him, language is the foundation of the metaphysical assumptions embedded in common sense realism—beliefs in substances, identity, and a “true world” that has no actual counterpart in reality (Gori, 2017, p. 209). The same approach might be observed in his opposition to logic. He claims that “logic too depends on presuppositions with which nothing in the real world corresponds, for example on the presupposition that there are identical things, that the same thing is identical at different points of time” (*HAH*, Of First and Last Things, §11). A further examination can be found in *TI*, where he writes that “...science of formulae, sign-systems: such as logic and that applied logic, mathematics. In these reality does not appear at all, not even as a problem; just as little as does the question what value a system of conventional signs such as constitutes logic can possibly possess” (cited in Hales, 1996, p. 821). Therefore Nietzsche believes that logic is not an imperative “to know the true” but rather an arrangement of a world which we would call as true and this time he asks a new question which is that “are the axioms of logic adequate to reality or are they a means and measure for us to create reality, the concept “reality,” for ourselves” (*WP*, §516)?

It is quite clear that Nietzsche would answer this question negatively as he thinks logic is bounded in examples of identical case and thus, cannot be a will to truth because it can only be carried through after “a fundamental falsification of all events assumed” (*ibid*, §512). It is claimed that Frege attempts to develop a logical system which is to capture complex theories about semantics, meaning and language, yet he fails (Klement, 2002). Nietzsche’s critics might be found true from this point of view. As it can be seen, Nietzsche does not favour logic on the way of attaining truth because it is based on universal principles and systems of propositions which he considers as mere conventions. Hence, logic causes people embrace object realism which is treated as universally valid. He is against such an attitude because he believes in perspectives. For this reason, he seems to advocate another kind of thinking if one demands to know reality.

Frege’s mature logical system includes sentences as denoting terms which have truth values (Zalta, 2016). For instance, “Socrates is mortal” is a simple proposition which Frege analysis as the argument “Socrates” and “x is mortal”. In such cases of propositions, value of a function is “conceptual content” of that proposition (Beaney, 2007, p. 96). Sentences can also be complex. In this sense, concepts or functions map objects to either the True or False. Frege sees these two truth values as objects and separates functions and objects sharply. In sum, an expression can either have both sense and reference or just sense without reference. Sense is a mode of presentation and thus it is sufficient

to have a meaning for a statement. However, it does not satisfy us if reference is missing because “we are concerned with its truth value” (Frege, 1892, p. 63). It is contained as the thought of a sentence which has a truth value, i.e. is in general true or false. This is the *Bedeutung* of the sentence, if there is no reference; it means that there is no truth value for that statement since there is no corresponding object in reality.

Nietzsche, by contrast, interrogates the supposed neutrality and universality of logic. In *Twilight of the Idols*, he attacks the foundations of logic and grammar, stating that logical identity ($A = A$) is not a law of nature but a grammatical prejudice: “The law of identity proves itself to be a belief in the ‘being’ of things” (TI, Reason in Philosophy, §5, p. 169). For Frege, the natural laws of mathematical or logical cannot be changed at all, since it is not invented but discovered (1879, p. 4, 133). However, Nietzsche argues that logic rests on evolved habits of thought rather than metaphysical necessity. It depends on presuppositions which do not correspond to the real world like the presupposition of “there are identical things, that the same thing is identical at different points of time”, and this also applies to mathematics, “which would certainly not have come into existence if one had known from the beginning that there was in nature no exactly straight line, no real circle, no absolute magnitude” (HAH, Of First and Last Things, §11). Language, similarly, does not provide any information related to reality. It functions not by virtue of abstract logical relations but through rhetorical force, repetition, and metaphor. Grammar in this context can be understood as faith or as “the tendency to suppose that the structure of language gives us knowledge of the world” (Clark, 1990, p.108). For Nietzsche, this is not a discovery of truth, but a creation shaped by belief, habit and convenience.

As mentioned before both Frege and Nietzsche recognize that language mediates rather than mirrors the world. However, their assessments of this mediation differ sharply. Frege aims to salvage objectivity through logical structure, insisting that despite variability in sense, reference can be stabilized. Nietzsche, in contrast, denies that any such stabilization is epistemically or metaphysically possible: for him, all meaning is perspectival, culturally contingent, and ultimately illusory. In *The Genealogy of Morals*, he argues that what is often called “objective” knowledge is merely the dominant perspective made to appear neutral. Truth, for him, is always dependent on the power structures and cultural conditions that shape human judgment. Frege would reject this view, since for him, the truth of a thought is independent of who holds it. He writes that even if nobody believes a thought, it can still be objectively true. This shows a fundamental difference: Frege sees objectivity as the goal of logic, while Nietzsche sees it as an illusion maintained by social forces.

In conclusion, although Frege's initial interest in mathematics and logic, when it comes to language both he and Nietzsche begin with skepticism, yet they respond in very different ways. Frege builds a system to overcome ambiguity and provide stable meaning. Nietzsche dismantles systems to reveal their contingent and metaphorical roots. While Frege's philosophy aims to formalize thought, Nietzsche's aim is to expose the historical and affective origins of thinking. These differences reflect their deeper philosophical commitments—Frege to logic and truth, Nietzsche to critique and perspective.

Conclusion

It is clear that both Frege and Nietzsche are interested in language, concept, truth and logic. Both of them doubt the reliability of common language and do not trust it. Nevertheless, although they seem to depart from same point, they prefer to choose different paths to clarify these doubts and to establish their systems. Frege attempts to prove his logical system and its extension to language with the laws of logic and arithmetic. He separates sense and reference to illustrate the difference between two semantic relations in terms of meaning to solve two puzzles about language (Zalta, 2016). He applies to functions to enhance his work and include complex sentences which consists empty spaces. With the usage of functions, truth values can be attributed to concepts which map expressions either to true or false. However, truth is not definable in the content of the word (cited in Sluga, 2007, p. 4-5).

Nietzsche, on the other hand, is also critic about truths since he sees them as a mystery, a metaphor or an illusion in terms of its anthropomorphic constitution. According to him, also, truth itself is not definable since each person has "an eye", i.e. own perspective. This causes everyone to define truth from their own point of view. The collection of perspectives cannot give us the truth. Contrary to Frege, this cannot be achieved with logical presuppositions or universal definitions. Neither logic nor language can be trustable in this sense. Therefore, it can be said that Nietzsche is interested in a similar questions which Frege takes into account. However, he uses the same terms with a different sense from Frege. In fact, even this point seems to justify their philosophies. There is the same object, i.e. language in this case; however they perceive it differently because language provides them with different senses. This could be related to the example of "Bucephalus". Nietzsche is a philologist and Frege is a logician. Therefore, it is understandable that they approach language separately.

To sum up, although there are many differences in terms of their holding the subject, it is attempted to shown that their notions coincide from time to time. This comparison demonstrates not only a philosophical contrast but also

a mutual challenge: Frege's precision illuminates the structure of rational thought, while Nietzsche's suspicion reveals the cultural and psychological scaffolding that undergirds such structures. Their differing approaches open up broader questions about how language both enables and limits our access to the world.

Hitherto, Frege has been influencing analytic philosophers such as Bertrand Russell, Ludwig Wittgenstein, Rudolf Carnap and Michael Dummett and so many others. Frege's legacy, especially in exploring issues of meaning, reference, and logical form still can be seen. On the other hand, Nietzsche has remained a pivotal figure for post-structuralist and continental thinkers. Philosophers such as Richard Rorty, Michel Foucault, Alexander Nehamas, Maude-marie Clark and Brian Leiter have drawn on Nietzsche's perspectivism and his critique of metaphysics to analyse the nature of truth, knowledge, and subjectivity. Frege's formalist attempt and Nietzsche's genealogical method continue to inspire contrasting but equally significant approaches to problems of language and truth. Together, these commentators demonstrate that Frege and Nietzsche not only shaped their own traditions but continue to affect central debates in the philosophy of language, truth, and epistemology. The main endeavour for both is to relate language to the world. Even if contrasting from time to time, understanding their respective contributions allows us to better navigate modern debates about the nature of meaning, truth, and the scope of human knowledge.

References

1. Beaney, (2007) "Frege's Use of Function-Argument Analysis and his Introduction of Truth-Values as Objects", in (Ed. D. Greimann) *Essays on Frege's Conception of Truth*, (pp. 89–104), Amsterdam: Rodopi B.V.
2. Chateaubriand, O (2007), "The Truth of Thoughts: Variations on Fregean Themes", in (Ed. D. Greimann) *Essays on Frege's Conception of Truth*, (pp. 105–126), Amsterdam: Rodopi B.V.
3. Clark, M (1990), *Nietzsche on Truth and Philosophy*, Cambridge: Cambridge University Press.
4. Frege, G (Jul., 1956), "The Thought: A Logical Inquiry", *Mind*, Vol. 65, No. 259, pp. 289–311.
5. Frege, G (1891/1960), Function and Concept, (Tr. P. Geach & M. Black), *Translations from the Philosophical Writings of Gottlob Frege*, (pp. 21–41), Oxford: Basil Blackwell.
6. Frege, G (1892a/1960), On Sense and Reference, (Tr. P. Geach & M. Black), *Translations from the Philosophical Writings of Gottlob Frege*, (pp. 56–78), Oxford: Basil Blackwell.
7. Frege, G (1892b/1960), On Sense and Reference, (Tr. P. Geach & M. Black), *Translations from the Philosophical Writings of Gottlob Frege*, (pp. 42–55 Oxford: Basil Blackwell.
8. Hales, SD (1996), Nietzsche on Logic, *Philosophy and Phenomenological Research*, Vol. 56, No. 4. (Dec., 1996), pp. 819–835.
9. Heck, RG & Robert May, R (2006), 'Frege's Contribution to Philosophy of Language', Smith, BC (ed.), *The Oxford Handbook of Philosophy of Language*, Oxford: Oxford University Press. pp. 3–39.
10. Gori, P 2017, "On Nietzsche's Criticism towards Common Sense Realism in Human, All Too Human I, 11", *Philosophical Readings IX.3*, pp. 207–213.
11. Klement, KC (2002), *Frege And The Logic Of Sense And Reference*, New York & London: Routledge.
12. Kluge, E.H.W (1980), *The Metaphysics of Gottlob Frege: An Essay in Ontological Reconstruction*, Springer Science+Business Media Dordrecht.
13. Macbeth, D (2007), "Striving for Truth in the Practice of Mathematics: Kant and Frege", in *Essays on Frege's Conception of Truth*, (Ed. D. Greimann), Amsterdam: Rodopi B.V.
14. Nietzsche, F (1873/2010) "On Truth and Lying in a Non-Moral Sense", in *Truth and Untruth: Selected Writings*, (Tr. T. Carman), New York: Harperennial Press.
15. Nietzsche, F (1882; Part 5: 1887/2001), *The Gay Science*, (Tr. B. Williams), Cambridge: Cambridge University Press.
16. Nietzsche, F, *On the Genealogy of Morals* (1887) and *Ecce Homo* (1888), (Tr. WA. Kaufmann and R Hollingdale), Vintage Books, 1989.
17. Nietzsche, F (1878/1996) *Human, All Too Human*; (Tr. RJ. Hollingdale), Cambridge: Cambridge University Press.

18. Nietzsche, F (1906/1967), *The Will to Power*, trans. W. Kaufmann, New York: Viking.
19. Polimenov, T (2018), 'Semantic and Pragmatic Aspects of Frege's Approach to Fictional Discourse' in *New Essays on Frege: Between Science and Literature*, (Ed. G. Bengtsson, S. Saatela, A. Pichler), Springer International Publishing, pp. 119-143.
20. Reck E. H (2005), "Frege on Numbers: Beyond the Platonist Picture", *Harvard Review of Philosophy*, Vol. 13, no. 2, pp. 25-40.
21. Sluga, H (2007), 'Truth and the Imperfection of Language', *Essays on Frege's Conception of Truth*, (Ed. D. Greimann), Amsterdam: Rodopi B.V.
22. Stenlund, S (2018), 'Frege's Critique of Formalism', in *New Essays on Frege: Between Science and Literature*, (Ed. G. Bengtsson, S. Saatela, A. Pichler), Springer International Publishing, pp. 75-86.
23. Textor, M (2011), *Frege on Sense and Reference*, London & New York: Routledge.
24. Zalta, EN (2016), 'Gottlob Frege', *The Stanford Encyclopedia of Philosophy* (Winter 2016 Edition), E N. Zalta, 2016 (ed.), Retrieved May, 8, 2025 from <https://plato.stanford.edu/archives/win2016/entries/frege/>