



Russel and Frege on the Question of Definition in Logic: The Distinction between Meaning and Reference

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Abstract: In the 20th century, beginning with Frege, logical thinking brought fundamental criticism to Aristotle's logical tradition, which had been practiced for centuries. In this context, Russell emerged as an important thinker alongside Frege in establishing new logical thinking. This study examines Frege and Russell's views on definition in logical thinking. In this vein, the study also discusses the limits and functions that modernity has brought to logical thinking. Frege and Russell's explanations of the concepts of meaning and reference have determined the course of the philosophy of language. Frege's distinction between meaning and reference set him apart from other logicians. According to Frege, meaning is a form of presentation of the reference of a name. Frege defined reference as the object to which a name refers. Russell focused on the problem of meaning and reference discussed by Frege. In this context, Russell's 1905 article "On Denoting", considered one of the most important philosophical articles of the 20th century, added depth to this discussion. Our study aims to evaluate the direction of logical thought that emerged in Russell and the character and analytical power of Frege's logic by comparing them in a more specific context. In particular, the ideas put forward by the two thinkers on meaning and reference have been compared.

Keywords: Russell, Frege, logic, definition, meaning, reference.

Introduction

When looking at the philosophy of language from a ‘semantic’ perspective, three types of theories can be discussed: referential, mentalist (idealist), and behaviorist theories. Referential theories are based on the fundamental assumption that language is used to refer to things outside of language. Language can only gain meaning by representing the existence of an orderly world. Idealist theories aim to ground meaning as mental content, while behaviorist theories consider the effect a linguistic acquisition has on the recipient and the resulting responses as the criterion for meaning.¹ In addition to these three theories, it is also necessary to mention realist theory, which accepts meaning as a reality in its own right.

The fundamental premise of realism is that the field of perception constitutes a reality that is distinct from and independent of both mental constructs and purely linguistic constructs. One of the most important proponents of this approach, which has its roots in Plato, is the German mathematician and philosopher Gottlob Frege.²

Frege, who is considered the founder of modern logic and analytical philosophy, wrote the following articles on the fundamental topics of modern philosophy of language: ‘Function and Concept (1891)’, ‘On Sense and Reference (1892)’, and ‘On Concept and Object (1892)’. Frege’s work entitled ‘On Sense and Reference’, in particular, has left a mark on the history of philosophy. In this work, Frege’s distinction between meaning and reference led to the first comprehensive theory of language. Frege’s distinction revealed that knowing the meaning does not require knowing the reference. However, on the other hand, it became possible to ‘talk about objects through meanings and refer to them.’³ In this context, Frege begins by explaining identity while drawing attention to the difference between meaning and reference.⁴

¹ William Alston, *Philosophy of Language* (London: Princeton Hall, 1962), 16-20.

² William Alston, “Meaning,” *Encyclopedia of Philosophy* (New York: The Macmillan Company & Free Press, 1997), IX, 234.

³ İlhan İnan, *Dil Felsefesi* (İstanbul: Anadolu Üniversitesi Yayınları, 2013), 41.

⁴ Gottlob Frege, “Sense and Reference,” trans. Max Black, *The Philosophical Review* 57, no. 3 (1948), 209.

He explains the relationship between identity and names. He illustrates this situation using his famous example of ‘the planet Venus.’

According to Frege, the reference of an expression is the object it refers to. Frege uses the expressions ‘morning star’ and ‘evening star’ for the planet Venus. Here, Frege distinguishes between the object referred to and the meaning of an expression. According to him, even though both expressions refer to the planet Venus, ‘evening star’ is distinct from ‘morning star’ in terms of meaning. Frege states that if a proper name is supported by two names that have the same reference but different meanings, the proper name is correct and illuminating. In this sense, Frege draws attention to the issue of proper names for understanding the relationship between meaning and reference.⁵ We have attempted to clarify the issue by examining Frege’s example of the distinction between meaning and reference in our study.

Bertrand Russell also emphasized the issue of meaning and reference discussed by Frege. Like Frege, Russell does not distinguish between the ‘meaning’ and ‘reference’ of a term. According to Russell, the meaning is reference. In other words, the meaning of a term is the same as what it refers to. According to Russell, to understand the meaning of a sentence, one must know the references of the parts of that sentence. This knowledge must be obtained through direct acquaintances. In this sense, the importance of the knowledge we obtain through direct acquaintance, which is the basis of Russell’s epistemology, comes into play. In this sense, Russell points out that sensory data and universals play an important role in our minds. Therefore, the meaning of a sentence, that is, the proposition expressed by that sentence, must consist of these two. Otherwise, it would not be possible for us to understand the meanings of sentences. Russell defines the universal, as Frege does, as a function.⁶

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⁵ Gottlob Frege, “On Sense and Meaning,” trans. Max Black, *Collected Papers on Mathematics, Logic and Philosophy*, ed. Brian McGuinness (Oxford: Blackwell Publishing, 1984), 157-158.

⁶ Frege, “On Sense and Meaning,” 158.

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Russell addressed the issue of meaning and reference in his work entitled ‘On Denoting’. In his article, Russell also presents a number of logical theories to explain problems related to descriptions. In this article, which sets out Russell’s teachings, he criticises Alexius Meinong and Frege’s views on description and presents a number of logical analyses to prove his teachings. The main topics of these discussions are: 1. ‘Non-referential terms,’ 2. ‘On existence claims,’ and ‘The transposition of terms with the same reference.’⁸ Within the scope of our study, the article discusses the topics of meaning and reference addressed by Russell in his section titled ‘Non-Referential Terms.’ Here, we touch upon the points where Russell diverges from Frege on the issues of meaning and reference. This distinction is clearly illustrated through Russell’s example of ‘The present king of France is a Jew’ in his paradox of non-referential terms. Thus, Russell and Frege’s unique approaches to the logical analysis and ideas they put forward regarding definition, meaning, and reference are evaluated.

⁷ İnan, *Dil Felsefesi*, 60.

⁸ Rosalind Carey and John Ongley, *Historical Dictionary of Bertrand Russell’s Philosophy* (Lanham: Scarecrow Press 2009), 55-56. Also see, İnan, *Dil Felsefesi*, 57-58.

1. The Distinction Between Meaning and Reference in Frege

In his 1982 work, *Sense and Reference*, Frege left behind groundbreaking work on the theory of meaning. This work arose from the question of whether identity is a relationship.⁹ If it is a relationship, is it a relationship between signs or between what signs express? There is no relationship between the objects that signs express. If there were, then when the statement $a=a$ is true, $a=a$ would not be different from $a=b$. On the other hand, since names are arbitrary, there can be no relationship between signs; even if an expression such as $a=b$ indicates a relationship between symbols, it cannot indicate any reality in the extra-linguistic world. However, an expression such as ‘the morning star is the same as the evening star’ indicates an astronomical discovery rather than a linguistic tautology.¹⁰

Frege says that the object represented by a proper name presents itself to us in different ways. The image seen through a telescope pointed at the moon at a certain time will not be the same as the image seen through the same telescope ten days later. What enables meaning to arise is reference. He has often attempted to explain this through a specific description (definite description). In this sense, it is necessary to look at the example Frege frequently provides.

The description of ‘the morning star’ (Phosphorus) as ‘the last bright celestial body to disappear before sunrise’ refers to Venus. This is because, from the perspective of someone living on Earth, there is no other planet that fits this description other than Venus. Similarly, the description of ‘the first bright celestial body to appear after sunset,’ which can be associated with the name ‘Evening Star’ (Hesperus), also refers to Venus. These descriptions convey the meanings of Venus. We can mention more than one meaning that refers to Venus. However, the reference to the name Venus is unique, and it is the planet itself in the sky. Therefore, the names ‘Evening Star’ (Hesperus) and ‘Morning

⁹ The German original of Frege’s work for more information, see, Gottlob Frege, “Über Sinn und Bedeutung,” *Zeitschrift für Philosophie und Philosophische Kritik*, ed. Richard Falckenberg (Leipzig: Verlag von C. E. M. Pfeffer, 1892), C.

¹⁰ Anthony Kenny, *Batı Felsefesinin Yeni Tarihi IV: Modern Dünyada Felsefe*, çev. Burcu Doğan (İstanbul: Küre Yayınları, 2017), 131.

Star' (Phosphorus) are called 'co-referents'. Based on this, Frege proposes a solution based on the distinction between meaning and reference.¹¹ This solution can be summarized as follows:

In the expressions 'The Morning Star is the Morning Star' (Phosphorus is Phosphorus) and 'The Morning Star is the Evening Star' (Phosphorus is Hesperus), the names 'Evening Star' (Hesperus) and 'Morning Star' (Phosphorus) refer to Venus, meaning that their references are the same. The identity expressed by the names in these sentences is the identity of the references. However, since the meanings of the names are different, they differ in our cognitive style. Therefore, what Frege identified between the two sentences is related to the difference in the meanings of proper names.¹²

Frege attempts to apply the distinction between meaning and reference to all types of sentences. His definition of meaning involves three distinct levels: symbols, meanings, and references. According to Frege, we construct meaning using symbols and make references. Frege emphasizes meaning when referring to the existence of proper names. He states that if a proper name is to be used in an expression, we must first ensure that its reference has a meaning. The expression we use to describe the object corresponds to the reference.¹³ In this regard, let us recall the example used by Frege:

According to Frege, those who use the name 'Aristotle' may assign different meanings to it. For some, this meaning may be 'Alexander the Great's teacher,' for others, it may be 'the author of *Metaphysics*' or 'the great philosopher who was Plato's student.'¹⁴ When this proper name is used in a sentence, we can always express its contribution to the meaning of that sentence with a single description. According to Frege, the referent of a proper name such as 'Aristotle' corresponds to the object that provides this description. Another example similar to this proper name can be given as follows:

¹¹ Frege, "Über Sinn und Bedeutung," C, 27.

¹² Nazif Muhtaroglu, "Özel Adların Anlamları Hakkında Bazı Notlar," <https://onculanalitikfelsefe.com/ozel-adlari-anlami-hakkinda-bazi-notlar-nazif-muhtaroglu>.

¹³ Frege, "On Sense and Meaning," 161.

¹⁴ İnan, *Dil Felsefesi*, 83.

For ‘Socrates’: ‘Plato’s teacher’, ‘the Greek who was killed by drinking hemlock’, ‘the philosopher who made “know thyself” his principle’. All these descriptive expressions refer to Socrates. However, the meaning of each of these descriptive and defining statements is different. In this sense, Frege argues that even if the references of two separate statements are the same, their meanings are different. Therefore, in Frege’s view, meaning is not a part of the world but an element that constitutes language.¹⁵

According to Frege, meaning is the thought content of a sentence. Reference, on the other hand, is related to the truth value of the thought that transcends thought. Truth value cannot be determined by meaning/thought alone; it also requires reference.¹⁶

It should be understood that it is more important to know the references of words within a sentence than their references on their own. Even if a word has its own meaning and reference, it is not difficult to say that the true reference will be understood within the context of the sentence when considered together with the speaker’s intention, linguistic agreement, language use, and context. If we ask what determines the reference, meaning, or information content appears as a path and method leading to reference in Frege.¹⁷

Another point Frege draws attention to in his distinction between meaning and reference is whether an expressed thought has meaning if it has no reference. Frege agrees that sentences without reference are possible, such as those found in works of fiction like the *Odyssey*. The reason these sentences have no reference is that they contain words without reference, such as ‘Odysseus.’ Other sentences do have references; thinking about fictional sentences allows us to determine what that reference is.¹⁸ In this context, Frege attempts to explain his

¹⁵ Zeki Özcan, *Dil Felsefesi I: Mantıkçı Paradigma* (İstanbul: Sentez Yayıncılık, 2014), 54.

¹⁶ Gottlob Frege, “On Sense and Reference,” *Meaning and Reference*, ed. A. William Moore (Oxford: Oxford University Press, 1993), 28-29.

¹⁷ İbrahim Bor, *Analitik Dil Felsefesinde Dil, Düşünce ve Anlam* (Ankara: Elis Yayınları, 2023), 116.

¹⁸ Kenny, *Batı Felsefesinin Yeni Tarihi IV: Modern Dünyada Felsefe*, 133.

view that the truth value of a sentence can be explained by its reference with the following argument:

Is it possible for a sentence as a whole to have meaning but no reference? In any case, just as one might expect to find parts of sentences that have meaning but no reference, one might also expect to find sentences of this type, and sentences containing proper names without reference would belong to this type. The sentence ‘Odysseus was brought to the shore of Ithaca while he was asleep’ clearly has meaning. However, since it is uncertain whether the name “Odysseus” in this sentence has a referent, it is also uncertain whether the entire sentence has a referent.”¹⁹

Frege says that we are compelled to understand the reference of a sentence as a truth value, either true or false, depending on the circumstances. Every carefully formulated declarative sentence is the name of one of the objects in question. All true and false sentences have the same reference.²⁰ Within the scope of our study, we have only highlighted Frege’s fundamental distinctions between meaning and reference. However, Frege’s distinction between meaning and reference is not limited to a single subject. In this regard, we must understand that he applied this distinction to identity statements, sentences, and subordinate clauses.²¹ Russell frequently focused on meaning and reference after Frege. The study compares Frege’s views with Russell’s views on knowledge, definition, and meaning. Russell’s interest in meaning and reference undoubtedly made a significant contribution to the philosophy of language and modern logic.

2. Definition, Meaning, and Reference in B. Russell

Russell uses the term ‘reference’²² to refer to linguistic expressions such as a man, any man, all men, the present King of England,

¹⁹ Gottlob Frege, *Anlam ve Gönderge Üzerine*, çev. Halil Kayıkcı (Ankara: Gugukkuşu Yayınları, 2015), 62.

²⁰ Kenny, *Batı Felsefesinin Yeni Tarihi IV: Modern Dünyada Felsefe*, 133.

²¹ For Frege’s distinction between meaning and reference, see, Mustafa Yıldırım, “Frege’nin Anlam ve Gönderge Ayrımı,” *Beytulhikme An International Journal of Philosophy* 7, no. 2 (2017), 163-183.

²² Although there are differences between Frege’s concept of “reference (Bedeutung)” and Russell’s concept of “denotation,” both are translated into Turkish as “gön-

the present King of France, the Revolution of the Earth around the Sun, the Revolution of the Sun around the Earth, the Centre of Mass of the Solar System at the Beginning of the Twentieth Century, etc. Accordingly, an expression refers only through its form. Russell distinguishes this situation in three ways:

1. A sentence may refer to something, but it may not refer to anything in particular; for example, 'The current King of France is bald.'

2. An expression may refer to a specific object; for example, 'The current King of England' refers to a specific man.

3. An expression may be used in an indefinite manner, such as 'a man' or 'many men.' As shown in the example, indefinite expressions may refer to an indefinite man or many men. According to Russell, interpreting such expressions is quite difficult.²³

When interpreting the above expressions, Russell states that the second expression has both meaning and reference. However, he points out that although the first expression has meaning, it has no reference. Indeed, Russell's aim in proposing his theory of definite descriptions is to show that such expressions or propositions without denotation are not meaningless, but rather that they are false in form and have no denotation whatsoever, in other words, that they are false.²⁴In this context, Russell resolves the example of the non-referential statement 'The King of France is bald' in his article 'On Denoting' as follows.

When we accept the view that referential expressions have meaning and refer to something, the first difficulties we encounter concern the situations in which the referent appears. In this sense, the expression 'King of England' refers to the actual king of England, who exists in real life. In other words, this expression refers to an existing person. However, if we use the expression 'The King of France is bald,' we must say that we are referring to a person who is formally referred to

derge". See, Bertrand Russell, "Gönderim Üzerine," çev. Alper Yavuz, *Felsefe Tartışmaları* 49 (2015), 55.

²³ Bertrand Russell, "On Denoting," *Mind, New Series* 56 (1905), 479.

²⁴ Ebru Çimen, "Analitik Felsefe Açısından Anlam," *IX. Mantık Çalıştayı Kitabı*, ed. Vedat Kamer (İstanbul: Mantık Derneği Yayınları, 2019), 164.

as 'The King of France' and that this expression has a referent. However, in reality, France does not have a king, and France is not a monarchy. Nevertheless, if 'the King of England' has meaning, then it is reasonable to think that the version of this expression used for France, i.e., 'the King of France,' also has meaning. However, this proposition has no referent. Therefore, one might assume that the statement 'The King of France is bald' is absurd, but this statement is not absurd. On the contrary, when considered alongside its referent, it indicates a falsehood. Therefore, it would be consistent to label this statement as false rather than absurd. Thus, the statement 'The King of France is bald' is false.²⁵

In his work Russell 'On Denoting', he later states that in the proposition 'The current king of France is bald,' since France is not ruled by a monarchy,

1) 'The current king of France is bald' does not correspond to a true proposition. This is because there is no person to whom the term 'the current king of France,' which is the subject of this sentence, refers. From Russell's point of view, according to the laws of logic,

2) The negation 'The present king of France is not bald' should express a true proposition.²⁶

According to Russell's law of the impossibility of the third state, either 'A is B' or 'A is not B' must be true. Therefore, either 'The current king of France is bald' or 'The present king of France is not bald' must be true. However, if we list bald things and then non-bald things, we cannot find the present king of France in either list.²⁷ In this context, if sentence (2) is the logical opposite of sentence (1), how can we explain that both propositions are false?

According to Frege, the fact that a sentence is meaningful does not necessarily mean that it is true. In Frege's theory, since the referent of a sentence is one of two truth values, either true or false, there could be sentences that are meaningful but neither true nor false. Thus, according to Frege, both sentence (1) and sentence (2) are meaningful, but

²⁵ Russell, "On Denoting," 483.

²⁶ Russell, "On Denoting," 485.

²⁷ Russell, "On Denoting," 490. Also see, Russell, "Gönderim Üzerine," 60-61.

they do not express a true or false proposition. However, Russell does not accept Frege's solution. According to Russell, the meaning of a sentence is identical to its reference. Therefore, he concludes that all meaningful sentences must be either true or false. However, this situation gives rise to the problem we tried to explain above. Russell expresses sentence (1) in his own theory as follows:

(1A) There is an x such that x is the only king of France at present and x is bald.

We can explain this more naturally as follows:

(1B) France currently has a single king, and he is bald.

Since France does not currently have a king, the claim in the first part of this sentence that France currently has a single king is false. Therefore, the entire sentence is false. Now, let us analyse sentence (2), which appears to be the logical opposite of this sentence. The semantic analysis of such sentences determines the issue of 'ambiguity,' which no philosopher in the history of Russell's philosophy has ever addressed before. This sentence can be interpreted in two different ways syntactically:

(2A) There is an x such that x is the only king of France at present and x is not bald.

More naturally, we can express this sentence as follows:

(2B) France has only one king at present, and he is not bald.

In this comment, we first claim that France currently has a king and then say that he is not bald. In other words, logically speaking, we have applied the negation suffix not to the entire sentence but only to the predicate 'baldness.' On the other hand, we can apply the negation suffix to the entire sentence:

(2C) It is not the case that: France's current king is bald.

Finally, if we analyze the sentence (2C), we will arrive at the sentence (2D) given below. (2D) There is no such x that x is the only current king of France and x is bald. The formal/formal representation of (2D) given below is expressed as follows: $\exists x ((x, \text{the present king of$

France & $\forall y (y, \text{the present king of France} \rightarrow y = x) \& x = y$)²⁸

Thus, sentence (2D) expresses a true judgement. However, the other interpretation (2B) expresses a false judgment. In short, if the negation conjunction negates the entire sentence, the proposition is true, but if it negates only the predicate, the proposition is false. In this way, we can explain how both (1) and (2) are false without violating any laws of logic. The reason for the ambiguity of (2) is entirely syntactic: that is, it concerns how we interpret the sentence structure. Russell solves the problem of non-referential terms by drawing on the syntactic ambiguity he identified in sentence (2) and with the help of the Theory of Descriptions. According to him, sentence (1) expresses a false proposition. Sentence (2), on the other hand, expresses a true proposition when the negation is moved to the beginning of the sentence. In this way, no logical law is violated. On the other hand, we do not compromise the principle that every meaningful sentence expresses something true or false.²⁹

When we look at the works of Russell and Frege, we see that their views on proper names differ.³⁰ Russell believes that any proper name should symbolize something and directly represent an object. However, Russell also believes that not every apparent name is a real name. Russell thought that Frege made a mistake by accepting the names 'Aristotle' and 'Alexander's teacher' as symbols of the same type, each with its own meaning and reference. According to Russell, if 'Aristotle' is a real proper name, it has no meaning, but only gains meaning because of its reference. On the other hand, the expression 'Alexander's teacher' is not a name, because unlike a real name, it consists of parts that have their meanings.³¹ In this context, the name 'Aristotle' has a meaning in Russell's thinking depending on the context in which it is used. People can assign different meanings to this name

²⁸ Hans-Johann Glock, *Analitik Felsefe Nedir?*, çev. Osman Baran Kaplan (İstanbul: Albaraka Yayınları, 2008), 69.

²⁹ Russell, "On Denoting," 490; İnan, *Dil Felsefesi*, 67-68.

³⁰ For a comparative study of Russell and Frege on meaning and definite description, see, Alexander Miller, *Philosophy of Language* (London and New York: Routledge, 2007), 23.

³¹ Kenny, *Batı Felsefesinin Yeni Tarihi IV: Modern Dünyada Felsefe*, 139.

(Aristotle). However, what enables us to communicate is that the person referred to is the same in all uses. Russell does not accept Frege's distinction between meaning and reference. According to Russell, only one semantic of terms is discussed. In his view, the meaning of a term is its reference. As we noted earlier, to understand a sentence, we must know the references of all the terms in that sentence. This knowledge is obtained through acquaintances. Russell emphasizes that the mental sensory data and universals of the objects we are familiar with are what we know.³² It does not seem possible for us to become familiar with objects in the external world. We can only know them through description. In this case, if an ordinary proper name in a sentence referred to an object in the external world, it would not be possible for us to understand that sentence. Russell attempts to explain this issue using a sentence to make it clearer:

Let's assume that the subject of the sentence "Aristotle is wise" refers to a person, a famous philosopher of antiquity, within the sentence. Therefore, to grasp the meaning of the name "Aristotle" in this sentence, we would need to be "acquainted" with Aristotle. But we are not, and we cannot be. Therefore, when we hear this sentence, it is impossible to understand it, that is, to grasp the proposition expressed by the sentence. This is because none of us can directly know a person other than ourselves. In other words, in Russell's words, none of us is "acquainted" with Aristotle; we do not know of him "through acquaintance." But we still understand the sentence. As a result of such reasoning, Russell concludes that ordinary proper names do not refer to an external object when used within a sentence. In other words, the name "Aristotle" in this sentence cannot directly refer to that famous philosopher of antiquity. However, it becomes possible to speak of this philosopher indirectly through a description. In short, Russell concludes that a proper name like "Aristotle" must be a description. What this description is can vary depending on the context.

³² Thomas Baldwin, "From Knowledge by Acquaintance to Knowledge by Causation," *The Cambridge Companion to Bertrand Russell*, ed. Nicholas Griffin (Cambridge: Cambridge University Press, 2003), 421. Also see, Bertrand Russell, *Felsefe Sorunları*, çev. Vehbi Hacıkadıroğlu (İstanbul: Say Yayınları, 2021), 28-29.

However, in every context in which the name is used, it must express a description of what is said to be intelligible. In other words, a proper name is an abbreviation for a description, or an implicit description. What this description is may also depend on the knowledge of the person using the name. For example, someone who says “Aristotle is a philosopher” knows Aristotle as the famous Greek philosopher who was the tutor of Alexander the Great. In this case, we can replace the noun “Aristotle,” which is the subject of the sentence, with this description: “The famous Greek philosopher who was the tutor of Alexander the Great is intelligent.” Applying the logical form Russell uses in his Theory of Descriptions to analyze this sentence, we obtain the following statement: “There is an x such that x is the famous Greek philosopher who taught Alexander the Great, and for every y , if y is the famous Greek philosopher who taught Alexander the Great, then y and x are the same, and x is intelligent.” As can be seen, none of the terms in this analysis contains a singular term referring to Aristotle. The analytic expression in question consists entirely of concepts or propositional functions. So, what are these concepts? The first use of “there is an x such that” refers to the concept of existence. Here, the term “ x is the famous Greek philosopher who taught Alexander the Great” refers to the concept of being the famous Greek philosopher who taught Alexander the Great. The term “for every y ” refers to the concept of allness. Here, the term “ y is the same as x ” refers to the concept of identity. The final predicate, “ x is intelligent,” refers to the concept of intelligence. According to Russell, we can only grasp this sentence if we are familiar with all of these concepts. This makes it possible to indirectly judge and think about Aristotle, even though we are unfamiliar with him.³³

Another topic that will be explored, Russell’s and Frege’s views on meaning and reference, is propositional functions. Russell, like Frege, defined the universal as a function. For example, for the universal yellow (1), the predicate “... is yellow” is a function referred to.

³³ İnan, *Dil Felsefesi*, 65. Also, for Russell’s and Frege’s views on reference, see, İlhan İnan, “A Referential Theory of Truth and Falsity,” *The Philosophical Quarterly* 74, no. 2 (2024), 703-707.

When different objects are introduced for the proposition in gap 1, the expression can change.

According to Russell, universals constitute the common aspect of language because they can be grasped by everyone. Russell uses the concept of “variable” to indicate the gaps in predicates. When we remove the subject of a sentence with a subject and predicate and replace it with the symbol “x,” and express it, Russell calls the letter “x” here a “variable.” For example, if we replace x in the sentence “x is wooden” with the expression “the table in front of me,” this corresponds to a description and is true. However, “x” must denote a suitable variable, and then it can be true. However, when we substitute “glass” for this x, the proposition becomes false. Since the glass is not wooden, we create a false statement. Sentences like “x” are wooden and refer to propositional functions. In Russell’s teaching, propositional functions correspond to what we call universals. Russell, like Frege, uses the term “concept” for this technical term. In this sense, we can assume that in Russell’s teaching, all three terms, “propositional function,” “universal,” and “concept,” refer to the same thing. For example, when we substitute Socrates for x in the propositional function referred to by the term “x is a philosopher,” it becomes a true proposition. However, when we substitute Beethoven for “x,” we obtain a false statement. If a reference is to be made in propositional functions, it must refer to something that has a counterpart in the external world. When we substitute the term “all” for x, we can also speak of an implicit propositional function rather than a specific description, such as Socrates in the sentence “all philosophers are intelligent.” In Russell’s theory, the subject of the sentence is not a collection of philosophers or a cluster of philosophers that includes all philosophers. This sentence also implicitly refers to the propositional function “x is a philosopher”: “For every x, if x is a philosopher, x is intelligent.” The term “for every x” in this analysis, just as in Frege’s theory, refers to the universal quantifier.³⁴

Ultimately, like Frege, Russell wanted to base his formal system

³⁴ İnan, *Dil Felsefesi*, 61-62.

on an ideal language. This system sought to avoid the logical errors evident in natural languages – ambiguity, ambiguity, referential failures, category confusions. But Russell’s interests were broader than Frege’s. He applied his new logical techniques to both the foundations of logic and the traditional problems of epistemology and metaphysics.³⁵ Russell, just like Frege, wanted to save language from psychology and, with this aim, worked on the “ideography”³⁶ project developed by Frege. Russell attempted to develop good grammar through this ideography. Its most distinctive characteristic is its ontologically simple structure. Undoubtedly, the path to an ideal language lies in this grammar.³⁷ Thus, with his ideographic project, he strives to construct a language that is contemporary and universal, far removed from the shortcomings of everyday language. Some of the characteristics of this language are as follows:

This language has a formal structure, protecting us from flaws in reasoning and inaccurate interpretations. It also helps us recognize subtle distinctions and express the laws of unification of thought. It must also be an objective language; it must enable us to analyze the propositions that express thoughts.³⁸

Conclusion

Two important thinkers in modern philosophy of language and logic are G. Frege and B. Russell. The primary goal of these philosophers’ work was to construct an ideal language. Russell and Frege focused on the clear and transparent nature of language’s signs, its use, and the syntax of logic. In this process, they viewed language as a tool

³⁵ Glock, *Analitik Felsefe Nedir?*, 65.

³⁶ İdeografi: Yazıda kelimenin harfleri gösterilmeden doğrudan doğruya fikri ifade eden işaret olarak tanımlanır. Çince, Japonca gibi bazı yaşayan dillerdeki veya Antik Mısır dili gibi bazı ölü dillerdeki, harflerin (fonogramların, sesi temsil eden işaretlerin) bulunmadığı yazı sistemlerinde kullanılan, bir sözcüğü veya bir fikri temsil eden grafik semboldür. Terim Yunanca ‘da fikir anlamındaki idea (ἰδέα) sözcüğü ile yazmak anlamındaki grafo (γράφω) sözcüğünden türetilmiştir. Günümüzde aynı anlama gelmek üzere logogram terimi de kullanılmaktadır. Bu yüzden günümüzde ideogramların bulunduğu yazı sistemlerine logografik yazı sistemleri adı verilmektedir. İdeogram zaman zaman piktogram ile karıştırılır. Her ikisinde de resmetme yoluyla temsil etme söz konusuysa da piktogram daha ziyade somut bir şeyi temsil eden bir semboldür. See, <https://tr.wikipedia.org/wiki/İdeografi>.

³⁷ Özcan, *Dil Felsefesi I: Mantıkçı Paradigma*, 173.

³⁸ Özcan, *Dil Felsefesi I: Mantıkçı Paradigma*, 42.

of thought and attempted to address many philosophical problems through language. In this context, Frege's work "Meaning and Reference" and Russell's "On Denoting" hold significant significance in the history of philosophy.

Frege's distinction between meaning and reference set him apart from other thinkers. Frege first established the relationship between meaning and reference by explaining identity statements. He then distinguished between meaning and reference through the lens of sentences. He argued that the meanings of sentences are the thoughts they contain, while their references have truth value. Russell, unlike Frege, did not distinguish between meaning and reference. According to Russell, the meaning is referential. In other words, the meaning of a concept and the thing it refers to are the same. To derive a reference, we need knowledge of things we are directly familiar with, as well as information we acquire through description. In this sense, Russell determined the position of references based on the use of descriptive expressions. Russell analyzed expressions that appear as referents. In this sense, he analyzed sentences that lack references, such as "The King of France is bald."

Another area where Russell and Frege differ is proper names. According to Russell, proper names are shorthand for definite descriptions. For example, the proper name "Aristotle" can be expressed as "Tutor of Alexander the Great" as a definite description. He pointed out that when making a description, there must be entities with a corresponding reference in the external world. According to Russell, if we are to discuss meaning, we can speculate about whether something has a reference. In this sense, Frege pointed out that descriptive expressions such as "Pegasus" lacking reference are incorrect. While Frege argued that even when discussing imaginary entities, a properly constructed proper name can be meaningful, this situation is unacceptable for Russell. According to Russell, such situations only raise ontological problems. Thus, Frege and Russell broadened the scope of applications of definition, descriptive expressions, meaning, and reference, thus shaping the course of philosophy of language.

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