Making Things with Words: Frege and Wittgenstein on Inference and Representation

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§ 1. Introduction

IN THE PASSAGE 5.132: Wittgenstein states:

> If *p* follows from *q*, I can make an inference from *q* to *p*; deduce *p* from *q*. The nature of the inference can be gathered only from the two propositions. They themselves are the only possible justification of the inference. "Laws of inference", which are supposed to justify inferences, as in the works of Frege and Russell, have no sense, and would be superfluous.

It is not quite clear what Wittgenstein means by the laws of inference. I will here assume that he has inferential rules in focus. His remarks suggest the reading that he criticizes references to the inferring agent and to her rules in justifying the step from premises to the conclusion, although that is not what he exactly says in the quoted passage. However, he also writes:

> Does not my study of sign–language correspond to the study of thought–processes, which philosophers used to consider so essential to the philosophy of logic? Only in most cases they got entangled in unessential psychological investigations, and with my method too there is an analogous risk (TPL 4.1121).

There is no doubt whatsoever that the Wittgenstein of the *Tractatus* is primarily interested in language; he does not consider natural agents who use language and to whom expressions mean something. We as human beings make claims and seek to justify them, and we imagine what kind of world is possible. Wittgenstein appears to delete the agent, the I, who judges, asserts and infers. He both excludes the inferrer, her rules and acts, and emphasizes the step from

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thought–processes to sign–language. He is particularly worried about being blamed for psychologism; that would be a philosophical position in which logic is given a psychological foundation.

The present paper first summarizes interpretations of Wittgenstein's view on inference, which all easily agree that like Frege, Wittgenstein rejects psychologism. It then discusses Frege's views on assertion, inference, and meaning, and compares them with the views presented in the *Tractatus*. It argues with a few interpreters that contrary to what the *Tractatus* tells us, Wittgenstein is close to Frege in his conception of inference and representation. Still, it notes that Frege differs from Wittgenstein in his project of showing the origins of entailment and assertion in acts of inferring and asserting. The paper then pays attention to features in the *Tractatus* that resemble Austin's idea of linguistic phenomenology. Austin's relation to Frege is compared with Husserl's relation to Kant. The paper argues that like Frege, Wittgenstein goes further than Austin in combining language with objects of the world, to which a philosopher can attribute existence only by calling them by their names.

§ 2. Interpretations of Wittgenstein's criticism against Frege: preliminary remarks

In the passage quoted above, Wittgenstein criticizes both Frege and Russell. I will focus on Frege's view on inference and on various construals of Wittgenstein's criticism. Some scholars argue that there is a genuine disagreement between Wittgenstein and Frege, while others claim that Wittgenstein has misinterpreted Frege's position and that there is no disagreement between them, after all. The third group of scholars maintain that Wittgenstein has correctly interpreted Frege, but his own view is in the end the same as Frege's. Colin Johnston (2011), for example, is one of those who see a difference between Frege's and Wittgenstein's positions. He argues that Wittgenstein rejects the distinction between thought and judgment, and further assertion, because he is interested in entailment and not in inference. Johnston claims that for Wittgenstein, assertoric force does not have any privileged theoretical position (Johnston 2011, pp. 66–67). Frege would certainly agree with Wittgenstein that mental acts are not the concern of logic. As we will see later in this article, assertoric force plays an important theoretical role in Frege's view on assertion and inference; however, that does not mean that the two philosophers would be so far from each other as Johnston argues.

On Martin Gustafsson's interpretation, Wittgenstein takes representation and inference to be equally basic and mutually dependent notions, which can be seen from his way of understanding the functioning of logical constants. Gustafsson maintains that the Wittgenstein of the *Tractatus* both proposes a semantic account of the connectives in terms of truth–conditions, and holds a view which can be described as inferentialist. On his reading, for Wittgenstein "a proposition can figure in inferences only insofar as it is a picture of the world, and vice versa" (Gustafsson 2014, p. 77). Truth–tables are often regarded as giving meaning to connectives, but Gustafsson characterizes them as "logically perspicuous rearticulations of the logical structure of propositions" (*ibid.*, p. 81). He supports his thesis by paying attention to the fact that in the truth–table notation, which makes logical interconnections transparently visible, no connectives are needed; he proposes that this is precisely inferentialism in the sense that propositions appear as nodes in an inferential network of other propositions (*ibid.*, p. 86). The observation that inferentialism and representationalism are not mutually exclusive can also be made from Frege's semantics, as I will argue in the next section.

As Gilad Nir notes in his interpretation, Frege's view on inference is not vulnerable to the so–called Carroll's paradox. That is because for Frege, logical rules, such as modus ponens, are the basis of his logical system and cannot be expressed in that system (Nir 2021, p. 46). Carroll's paradox would result from codifying the appreciation of validity of an inference as a premise that would be added to the inference. That addition would change the form of the original inference, and the new inference would then be in need of justification. Turning the appreciation of the validity of the new inference into a premise would again result in a new inferential sequence in need of justification, and the regress would continue without stopping. Because Frege does not approve of the idea that the rules of inference could be on the same level with the rest of the premises, his conception of logic does not give rise to the regress. Likewise, as Nir argues, for Wittgenstein the appreciation of logical relations is internal to the significant use of signs, which means that no separate act of inferring is needed (Nir 2021, p. 45). For Wittgenstein, if two propositions contradict one another or if one proposition follows from another, that is shown by the structure of the propositions (TLP 4.1211). Wittgenstein's view is that the logical form can be shown, but it cannot be said (TLP 4.1212). Nir convincingly argues that the relations of logical structure show themselves in propositions, which simultaneously means that they belong to the inferential nexus of a competent

speaker (Nir 2021, p. 56). However, he also claims that unlike Wittgenstein, Frege extends the realm of content beyond the realm of expression, because he thinks that rules of inference have content. On Nir's view, Wittgenstein's criticism against Frege can be seen as ensuing from his holistic construal of the relation between inference and understanding. What I will argue in the next section is that even if there may be a minor disagreement between Frege and Wittgenstein, they both share the idea of the limits of language and reject the outsider's point of view, from which one could consider the relations between language and the world.

§ 3. Frege and Wittgenstein on language, agents, and acts

The previous section introduced three aspects which are relevant to comparisons between Frege's and Wittgenstein's conceptions of inference. They are the idea of limits of language, the relation between inferentialism and representationalism, and the concepts of assertion and assertoric force.

Starting with Erik Stenius work on Wittgenstein's *Tractatus*, several philosophers have paid attention to the continuity between Kant and Wittgenstein. Kant wanted to show the limits of knowledge and experience, while Wittgenstein sought for the limits of language[1]. If we draw a line from Kant to Wittgenstein, we cannot ignore Frege and his idea of universal language. Frege's conceptual notation is meant to be universal in the precise meaning that all that can be thought can be expressed in that language. In the "Preface" of his *Begriffsschrift*, Frege locates himself in the tradition which starts from Leibniz's ideas of *calculus ratiocinator* and *lingua characterica*, which is the term that Frege uses for Leibniz's *lingua characteristica* and which was also used by Adolf Trendelenburg, to whom Frege refers[2]. As a universalist in the philosophy of logic, Frege combines semantics and syntax by introducing a formula language with contents. He has semantic views, such as the distinction between sense and reference, but he does not offer any semantic theory that would require a step outside the limits of language[3]. The structure of his

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[1]   See Stenius (1960), Kannisto (1986), and Appelqvist (2020).

[2]   Frege, BS, "Vorwort", and "Über den Zweck der Begriffsschrift", BS (1964, p. 98).

[3]   For Frege's universalist conception of logic, see, e.g., van Heijenoort's seminal article (1967). Also see Goldfarb (2010).

universal language represents what is not language, such as objects and functions. Therefore, we may see Frege as anticipating views that Wittgenstein upholds and develops in his *Tractatus*[4]. In the "Preface" of the *Grundgesetze der Arithmetik I* Frege argues that logical laws are "the most general laws, which prescribe universally how one should think if one is to think at all" (GGA I, p. XVI; Beaney 1997, p. 203). Hence, on his view, logical laws determine the limits of all thought. That view rescues Frege from the danger of Carroll's paradox. For the same reason, his conception of logical language can be called transcendentalist.

Thomas Ricketts (1986) develops the interpretation of Frege's logic by arguing that Frege supports the idea of common logic, which helps us to solve disputes and disagreements in communication. On his view, the basic laws of logic present the standard of correctness. If the basic laws of logic are the standard of correctness and if all thinking takes place inside logic, those laws cannot be proved outside logic. That also means that we can neither judge nor assert their validity. Ricketts argues that all we can do is to apprehend the validity of rules like *modus ponens* (Ricketts 1986, p. 77 and pp. 80–83). If our apprehensions manifest linguistically in inferences we make and accept, as Ricketts concludes, that amounts to saying that for Frege as well as for Wittgenstein, inferential rules are already present in linguistic forms. Ian Proops, for his part, maintains that for Wittgenstein, logical entailment has to do with internal relations between forms of propositions, but those forms cannot be expressed in language; still, he argues that the *Tractatus* speaks in favour of a notation, that is, the notation of truth–tables, which makes the internal relations visually apparent[5]. That interpretation is compatible with those maintained by Nir and Gustafsson. The view that these scholars find in the *Tractatus* clearly ensues from Wittgenstein's belief in the limits of language, a belief that he shares with Frege.

Wittgenstein's worry about inferences may be located in the role that a subject or an agent, I, seems to play in inferring; like Frege, he wants to exclude all psychological considerations from the field of logic. If his criticisms were to hit Frege, that would mean that Frege allows the subject and her thoughts and acknowledgments of thoughts to play a part in studies of logical inference. As a strict antipsychologist, Frege would not approve of the idea that the I who infers,

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[4]   See Frege (1892); cf. TLP 3 and 6.13.

[5]   See Proops (2002), p. 288 and pp. 294–295. Also see Wischin (2017) and Haaparanta (2023).

judges, and asserts is a natural agent. A few interpreters, for example Maria van der Schaar, have suggested a way out of this conundrum. The solution to the problem is that Frege's I is regarded as transcendental. However, we need not provide this subject with any special metaphysical being; it suffices to assume that it is the first person point of view which cannot reach its outside (van der Schaar 2018). Similar interpretations of the *Tractatus* have been convincingly supported in the literature[6]. Wittgenstein writes:

> We cannot think what we cannot think; so what we cannot think we cannot *say* either (TLP 5.61).

He continues:

> This remark provides the key to the problem, how much truth there is in solipsism. For what the solipsist *means* is quite correct; only it cannot be *said*, but it makes itself manifest. The world is *my* world: this is manifest in the fact that the limits of *language* (of that language which alone I understand) mean the limits of *my* world (TLP 5.62).

If Frege's inferrer is an ideal transcendental subject, who acknowledges the rules of inference and who, unlike natural agents, has the faculty to follow those rules in each and every situation, we might assume that Wittgenstein has no problem with approving of Frege's line of thought. However, that is not what we can find in his *Tractatus*. Frege starts with inferences and judgings and introduces judgments and their contents, which he presents by means of diagrams in his logical works. He thus makes inferential chains and their conclusions, that is, theorems of logic, into objective items of sign–language. The origins of those entities are in the acts of the agent. Unlike Frege, Wittgenstein excludes those origins from his logical considerations.

It is easy to notice that like Frege, Wittgenstein does not discuss natural agents. Wittgenstein remarks:

> There is no such thing as the subject that thinks or entertains ideas. If I wrote a book called *The World as I found it*, I should have to include a report on my body, and should have to say which parts were subordinate to my will, and which were not, etc., this being a

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[6]   See Kannisto (1986) and Pihlström (2004). Also see contributions to Appelqvist (2020).

method of isolating the subject, or rather of showing that in an important sense there is no subject; for it alone could *not* be mentioned in that book (TLP 5.631).

Moreover, Wittgenstein states:

A proposition *shows* how things stand *if* it is true. And it *says that* they do so stand (TLP 4.022).

Wittgenstein turns inference into entailment between propositions. Besides showing the meaning, propositions also do the work of assertions, since even the Fregean judgment stroke or assertion sign is deleted.

Frege takes the step from inferences to sign–language by writing the act of judging as the judgment stroke and the judged content by means of the content stroke. In the *Begriffsschrift* he argues that two judgments have the same conceptual content if the same consequences can be derived from them, when they are combined with a set of common premises (BS, § 3). In contemporary semantics, that view is called inferentialism[7]. Inferentialism may be a modest doctrine which only concerns the meanings of the logical vocabulary of a formula language and which claims that those meanings are determined by means of inferential rules. An inferentialist may also go further and argue that meanings of all expressions are determined by inferential rules, even if those rules need not be explicitly formulated.

Frege's later distinction between *Sinn* (sense) and *Bedeutung* (reference) is usually considered a standard example of a representationalist view. In "Über Sinn und Bedeutung" (1892) Frege states that in an identity statement the two names have the same reference but different senses or different ways of presenting the reference (KS, p. 143). Frege's examples include "the Evening Star" and "the Morning Star" as senses expressed by "Venus", and "the teacher of Alexander the Great" and "the pupil of Plato" as senses expressed by "Aristotle" (KS, p. 144). If Venus is presented as the Morning Star and a judgment is made that it is the Morning Star, several things can be inferred from this judgment. In "Ausführungen über Sinn und Bedeutung" (1892–1895) Frege tells us that objects are given via their senses (NS, p. 135). That implies that they are nodes in a conceptual framework, in which we can move back and

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[7]   See, e.g., Brandom (1994).

forth via inferential steps. It thus seems that as far as Frege's semantic views are concerned, inferentialism and representationalism do not exclude each other[8]. As Gustafsson argues, the *Tractatus* also supports both inferentialism and representationalism.

It seems that the focus of the disagreement between Frege and Wittgenstein is in their differing attitudes towards assertoric force. For Frege, it plays an important theoretical role, while Wittgenstein does not seem to give it any value. In his "Der Gedanke" (1918) Frege repeats his important distinctions, which he already adopted in his early writings. They are the grasp of the thought (*das Fassen des Gedankes*), which is thinking (*das Denken*), the acknowledgement of the truth of a thought (*die Anerkennung der Wahrheit eines Gedankens*), which is judging (*das Urteilen*), and the manifestation of this judgment (*die Kundgebung dieses Urteils*), which is asserting (*das Behaupten*) (KS, p. 346). Outcomes of acts of judging and asserting are the judgment and the assertion. For Frege, assertoric force is hidden in the form of the sentence, even when we use the expression "it is true that" in front of the sentence. That is what he states in his "Logik" (1897) (NS, p. 140). He adds in his "Einleitung in die Logik" (1906) that assertoric force lies in the word "is" (NS, p. 211). In 1915 he writes that in language assertoric force is tied to the predicate ("Meine grundlegenden logischen Einsichten", NS, p. 272). In his "Was kann ich als Ergebnis meiner Arbeit ansehen?" (1906) Frege lists the dissociation of assertoric force from the predicate among his most important discoveries (NS, p. 200), which means that he gives an important theoretical role to assertoric force, as Johnston argues. We may describe this phase of Frege's analysis as regressive, because Frege finds assertoric force in the predicate of a natural language sentence, detaches it from the rest of the sentence, and moves backwards to the acts of judging and asserting. He then expresses assertoric force as a component of a logically explicit expression in his formula language of pure thought, which thus preserves the traces of the original acts.

On Wittgenstein's view, no traces of assertoric acts need to be shown in propositions. Still, Wittgenstein maintains that propositions take care of saying and communicating. He notes:

> A proposition must use old expressions to communicate a new sense. A proposition communicates a situation to us, and so it must be *essentially* connected with the situation.

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[8]   See Haaparanta (2018), pp. 339 – 340. Also see Sundholm (2009), pp. 283–284.

(TLP 4.03)

He also adds:

> The verb of a proposition is not "is true" or "is false", as Frege thought: rather, that which "is true" must already contain the verb (TLP 4.063).

As noted above, Frege has the idea that assertoric force is bound up with the predicate, but that is not to say that the verb of any proposition would be "is true" or "is false", on his view. Frege as it were steps backwards to the process of inference and to the judgmental and assertoric acts, while Wittgenstein stays on the level of signs.

On Wittgenstein's view, logical form is both in propositions and in reality, but it cannot be represented. Wittgenstein argues:

> Propositions can represent the whole of reality, but they cannot represent what they must have in common with reality in order to be able to represent it —logical form. In order to be able to represent logical form, we should have to be able to station ourselves with the propositions somewhere outside logic, that is to say outside the world (TLP 4.12).

There is no disagreement between Frege and Wittgenstein at this point, because they both acknowledge that we are tied to the limits of language.

§ 4. Propositions and sentences as objects of analysis: Frege, Austin, and Wittgenstein

For Wittgenstein, propositions reveal the form of the world. They include logical forms, which are both in the language and in the world.

Wittgenstein states:

> It is obvious that an imagined world, however different it may be from the real one, must have *something* — a form— in common with it (TLP 2.022).

He continues:

> Objects are just what constitute this unalterable form (TLP 2.023).

He also adds:

> The substance of the world *can* only determine a form, and not any material properties. For it is only by means of propositions that material properties are represented —only by the configuration of objects that they are produced (TLP 2.0231).

We noted above that Frege writes the assertoric force into his sign language. In his later article "Die Verneinung" (1918) Frege points out that asserting is not the only act that can be attached to the contents. There are interrogative sentences, for example, in which other acts than assertings are present in the sentences (KS, pp. 362–364). However, his *Begriffsschrift* focuses on judgings and their contents, which are also present in linguistic expressions called assertions.

Frege's later writings anticipate J. L. Austin's theory of speech acts. In his first lecture of *How to Do Things with Words*, Austin criticizes philosophers for the assumption that all statements describe states of affairs; instead, he seeks to show that describing is not the only thing language does (Austin 1961, pp. 1–3). Assertoric acts and assertoric force are recognized in Frege's logic, but Austin develops the ideas that Frege presents in his "Verneinung". If we compare the early Frege's and Austin's views, especially the views included in Austin's last lectures of *Doing Things with Words*, we may say that Austin did to the early Frege what Edmund Husserl did to Immanuel Kant. Kant focuses on perception and its forms, and the categories that inform the perceived and that also appear as forms of judgment. The forms of perception and categories can be found in the objects of experience in transcendental analysis[9]. Like Kant, Husserl analyzes the world as it is given in experience. However, unlike Kant, he finds traces of various types of intentional acts in its objects of experience. Besides acts of perceiving and remembering, Husserl includes volitional and emotional acts into noetic acts which inform the world we live in. Emotions and volitions are thus drawn into the field of epistemology. The traces of noetic acts appear to us in what he calls noemas, such as the perceived object as perceived, the

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[9] See, e.g., A 68/B 93, A 97, and A 238–247/B298–303.

remembered object as remembered, and the loved object as loved[10]. Husserl's noeses and noemas also include the noesis called judging (*urteilen*) and the noema called the judged as judged or the judgment (*das Geurteilte als solches* or *das Urteil*) (Hua I/1, p. 203 and p. 216). Objects of phenomenological analysis, which is one kind of transcendental analysis, thus vary from objects to judgments.

Austin can be said to extend the field of acts presented by the early Frege, just as Husserl extended the field that Kant originally presented. Besides assertoric acts and assertoric force, Austin pays attention to several illocutionary and perlocutionary acts, which need an agent, and which for an analyst are present in linguistic expressions (Austin 1962, p. 108). Therefore, the label "linguistic phenomenology", which is the term Austin uses, catches the most important features of his philosophical enterprise (Austin 1961, p. 130). Acts are there in expressions as forces, which can be discerned from linguistic expressions in analysis, just as a phenomenologist like Husserl discerns traces of various acts in the objects of experience.

For Wittgenstein, logical forms are both in propositions and in the world. Therefore, in the comparison proposed above, Frege and Wittgenstein are Kantian in the sense that they assume the world to be provided with logical forms, which are also present in the universal logical language, in the language which we cannot overcome. Unlike Wittgenstein, Frege is also willing to discern the traces of assertoric acts in that language. Both Frege and Wittgenstein need the transcendental subject, not needed by Austin. Austin's subject is the natural subject, and he discusses various illocutionary and perlocutionary forces and acts, not merely assertoric force and acts of assertion. Wittgenstein moves further than Austin, all the way up to things of the world, which he thinks *are there* only by means of words.

§ 5. Conclusions

I argued in this paper that even if Wittgenstein gives up psychologism, he, like Frege, cannot get rid of the subject, who must be considered transcendental. Both Frege and Wittgenstein share the idea of limits of language, which do not allow us to consider inferential rules outside that language. Like Frege, Wittgenstein objectifies assertions as propositions. Propositions of the sign–

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[10]   See Hua I/1, pp. 193, 202–205, 210, and 220.

language and the world which they represent are present to us simultaneously; there is no outsider's perspective on this world. Kant would not say that there are objects outside forms of intuition and categories. Likewise, on Frege's and Wittgenstein's view, we are not allowed *to say* that there is a world or things outside words. Frege takes the step to assertions and inferences by considering sentences of natural language, in which assertoric force is hidden in their assertoric form, especially in the word "is". For Frege, the act of judging or asserting can be found in the word "is", which is a logical, hence not a material word. As we saw above, Frege distinguishes assertoric force from the predicate of the sentence and gives a place for it at the beginning of the translation of the sentence into his conceptual notation. He also makes the judgment into an object and writes down the act of judging and asserting as a judgment stroke or a vertical stroke. That move does not change the fact that assertoric force is already in the logical form of the sentence, which is the view Wittgenstein accepts. We may say that unlike Frege, Wittgenstein is not interested in the genealogy of propositions.

Austin comes into the picture with his idea of linguistic phenomena, which contain illocutionary and perlocutionary forces and which refer back to illocutionary and perlocutionary acts. In the last lectures of his *How to Do Things with Words*, he also includes assertoric acts into illocutionary acts, which make themselves present in sentences. Assertions are there as phenomena and thus as objects waiting for linguistic, and simultaneously phenomenological, analysis. Wittgenstein combines language with objects of the world, to which a philosopher can attribute existence only by calling them by their names.

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Making Things with Words: Wittgenstein on Inference and Representation

Some interpreters argue that for Wittgenstein, logic is not concerned with proof and inference, but with truth and entailment, and that Wittgenstein regards inference as a theme of psychology. That construal is often supported by *Tractatus* 5.132, where Wittgenstein states that only the propositions which serve as the premise and the conclusion can justify the inference, hence that no mediation by an inferential act and laws of inference is needed. Wittgenstein considers the idea of mediation to be Frege's view, and he also rejects Frege's distinction between thought and assertion. Other scholars, for their part, argue for the interpretation that Wittgenstein's own view is not far from what Frege held. Still others claim that for Wittgenstein, inference and representation are equally basic notions. The present paper first discusses interpretations of Wittgenstein's view on inference, proposed by Martin Gustafsson, Colin Johnston, Gilad Nir, Göran Sundholm, and Kurt Wischin. It then compares the views presented in the *Tractatus* with Frege's semantic views, including Frege's pragmatic ideas in his later writings, as well as with J.L. Austin's speech act theory. It argues that contrary to what *Tractatus* explicitly tells us, Wittgenstein is close to Frege in his conception of inference and representation. Moreover, the paper pays special attention to features in the *Tractatus* that resemble Austin's idea of doing things with words.

Keywords: Inference · Entailment · Representation · Frege · Austin.

Haciendo cosas con palabras: Wittgenstein sobre la inferencia y la representación

Algunos intérpretes arguyen que para Wittgenstein la lógica no se preocupa de pruebas e inferencias, sino con la verdad y la consecuencia, y que Wittgenstein considera la inferencia como un tópico para la psicología. Esa construcción busca frecuentemente como suporte a la sección 5.132 del *Tractatus*, donde Wittgenstein

declara que sólo las proposiciones que sirven de premisa y conclusión son capaces de justificar la inferencia, por consiguiente, no se requiere ninguna mediación por actos inferenciales ni leyes de inferencia. Wittgenstein piensa que la idea de la mediación es el punto de vista de Frege y rechaza, además, la distinción de Frege entre pensamiento y afirmación. Otros eruditos por su parte arguyen a favor de una interpretación en el sentido de que el punto de vista del propio Wittgenstein no está muy lejos del que tenía Frege. Aun otros afirman que para Wittgenstein, la inferencia y representación son nociones igualmente de básicas. Este trabajo discute primero las interpretaciones del punto de vista de Wittgenstein sobre la inferencia, propuestas por Martin Gustafsson, Colin Johnston, Gilad Nir, Göran Sundholm y Kurt Wischin. Después compara los puntos de vista presentados en el *Tractatus* conlos puntos de vista sobre semántica de Frege, incluyendo las ideas pragmáticas de Frege en sus escritos tardíos, y también con la teoría de actos de habla de J. L. Austin. Se arguye que, contrariamente a lo que el *Tractatus* nos dice explícitamente, Wittgenstein está cerca de Frege en su concepción de la inferencia y representación. El trabajo presta especial atención a características en el *Tractatus* que se asemejan a la idea de Austin de hacer cosas con palabras.

Palabras claves: Inferencia · Consecuencia · Representación · Frege · Austin.

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