Frege on indirect sense: a reply to Georgalis

Introduction

Georgalis claimed that when Frege wrote 'Über Sinn und Bedeutung' Frege thought that the indirect [ungerade] sense of an expression was identical to its normal [gewöhnlich] sense (Georgalis 2022: e.g. 4, 5, 13). In this paper, I present five arguments for the falsity of Georgalis' claim which are based on three pieces of apparent counterevidence: a passage from Frege's letter to Russell dated 28.12.1902; a passage from Frege's letter to Russell dated 20.10.1902; and a passage from 'Über Sinn und Bedeutung'. I outline possible counter-arguments and responses.

Frege's letter to Russell dated 28.12.1902

The first piece of apparent counterevidence is a passage from Frege's letter to Russell dated 28.12.1902. Frege's letter was actually cited by Georgalis, but he thought that nothing in it conflicted with his claim (Georgalis 2022: 5 fn.3).

Here is the relevant passage:

Da »M« an den beiden Stellen verschiedene Bedeutungen hat im Satze "der Gedanke, dass alle zur Klasse M gehörenden Gedanken wahr sind, gehört nicht zur Klasse M" $[(A)^1]$, so muss auch in dem Ausdrucke "der Gedanke, dass <u>der Gedanke, dass alle zur Klasse M gehörenden Gedanken wahr sind, nicht zur Klasse M gehöre" [(B)] eine Verschiedenheit der Bedeutungen von »M« bestehen bleiben. Man kann sagen, dass wir im doppelt Unterstrichenen die ungerade Bedeutung zweiten Grades haben, in dem einmal Unterstrichenen dagegen die ungerade Bedeutung ersten Grades.</u>

(Frege 1976: 236)

Since 'M' has different Bedeutungen in the two places in the sentence "the thought that <u>all</u> thoughts belonging to class M are true does not belong to class M", there must also be a difference in the Bedeutungen of 'M' in the expression "the thought that <u>the thought that all thoughts belonging to class M are true does not belong to class M". One can say that in the twice-underlined part we have the indirect Bedeutung of the second degree, whereas in the once-underlined part we have the indirect Bedeutung of the first degree.²</u>

It is clear that when he wrote this passage Frege thought that the Bedeutung which 'M' had in the first place in which it occurred in (B) was distinct from the Bedeutung which 'M' had in the second place in which it occurred in (B). (See also (Mendelsohn 2005: 151) for a corroborating assessment.)

^{1 &#}x27;(A)', '(B)', etc. are used as abbreviations of quotations of German expressions. There is a Key after the Appendix and before the References in which I list all of the abbreviations and important propositions. I recommend that the reader have this to hand.

² See the Appendix for information about all of the translations in this paper and for information about the use of punctuation and symbols in the main text.

In what follows I shall use "doubly indirect Bedeutung" rather than "indirect Bedeutung of the second degree" for convenience. Hence, I say that when he wrote this passage, Frege thought that the doubly indirect Bedeutung of 'M' was distinct from the (singly) indirect Bedeutung of 'M'.

The following proposition is relevant to the first three arguments for the falsity of Georgalis' claim:

Parity

It is not the case that

Frege thought that the indirect sense of an expression was identical to its normal sense, when writing 'Über Sinn und Bedeutung'; and

Frege did not think that the indirect sense of an expression was identical to its normal sense, when writing his letters to Russell.

Here is the first argument. Assume that when Frege wrote the relevant passage of the letter dated 28.12.1902, Frege thought that the doubly indirect Bedeutung of 'M' was identical to its indirect sense and that the indirect Bedeutung of 'M' was identical to its normal sense. If Frege also thought, then, that the indirect sense of an expression was identical to its normal sense, he was committed to the doubly indirect Bedeutung of 'M' being identical to its indirect Bedeutung. But clearly he thought that the doubly indirect Bedeutung of 'M' was distinct from its indirect Bedeutung. So either he didn't think, then, that the indirect sense of an expression was identical to its normal sense, or he had contradictory commitments concerning indirect speech. Assuming he didn't have contradictory commitments concerning indirect speech, he didn't think, then, that the indirect sense of an expression was identical to its normal sense. So either Parity is false or Georgalis' claim is false. Assuming Parity is true, Georgalis' claim is false.

I think there is another argument for the falsity of Georgalis' claim which is based on the same piece of apparent counterevidence. This argument is not independent of the first, but, as I hope will be clear, a defender of Georgalis' claim would need to address both arguments. Before I present the argument, I draw attention to a fact in need of explanation.

Note that Frege did not just assert that the Bedeutung which 'M' had in the first place in which it occured in (B) was distinct from the Bedeutung which 'M' had in the second place in which it occured in (B). Rather, Frege used "muss" ["must"] because he was assuming that it was not possible for the Bedeutung which 'M' had in the first place in which it occurred in (A) to be distinct from the Bedeutung which 'M' had in the second place in which it occurred in (A) without the Bedeutung which 'M' had in the first place in which it occurred in (B) being distinct from the Bedeutung which 'M' had in the second place in which it occurred in (B).

Frege *inferred* the distinctness of the Bedeutung which 'M' had in the first place in which it occurred in (B) and the Bedeutung which 'M' had in the second place in which it occurred in (B) from the distinctness of the Bedeutung which 'M' had in the first place in which it occurred in (A) and the Bedeutung which 'M' had in the second place in which it occurred in (A). Less accurately: Frege inferred the distinctness of the doubly indirect Bedeutung of 'M' and the indirect Bedeutung of 'M' from the distinctness of the indirect Bedeutung of 'M' and the normal Bedeutung of 'M'. This fact needs to be explained.

A plausible explanation of this fact is that when Frege wrote the relevant passage, he thought that because the normal Bedeutung of 'M' and the indirect Bedeutung of 'M' were distinct, the normal sense of 'M' and the indirect sense of 'M' must also be distinct, and he also thought that the normal

What I say here is, I think, in opposition to the following claim of Skiba's: "There [in the 28.12.1902 letter] he [Frege] claims, without argument, that the doubly indirect referent of an expression must be different from its singly indirect referent" (Skiba 2015: 51).

sense of 'M' was identical to the indirect Bedeutung of 'M' and that the indirect sense of 'M' was identical to the doubly indirect Bedeutung of 'M'.

The second argument for the falsity of Georgalis' claim is as follows: the aforementioned explanation is correct; Parity is true; if the aforementioned explanation is correct and Parity is true, then when he wrote the passage Frege had contradictory commitments concerning indirect speech or Georgalis' claim is false; when Frege wrote the passage, he didn't have contradictory commitments concerning indirect speech; hence, Georgalis' claim is false.

If a defender of Georgalis' claim were to reject the aforementioned explanation, then it would be incumbent upon them to explain why Frege inferred the distinctness of the doubly indirect Bedeutung of 'M' and the indirect Bedeutung of 'M' from the distinctness of the indirect Bedeutung of 'M' and the normal Bedeutung of 'M'. Since I doubt that a defender of Georgalis' claim could accept Parity and offer a different explanation which is at least equally plausible, I think they should reject Parity. Rejecting Parity also allows them to defend Georgalis' claim from the first argument.

Frege's letter to Russell dated 20.10.1902

The second piece of apparent counterevidence is this passage from Frege's letter to Russell dated 20.10.1902:

In der Periode "Aristoteles glaubte, dass die Geschwindigkeit eines fallenden Körpers der Fallzeit proportional sei" [(C)] haben wir in dem Nebensatze ungerade Rede. Was der Sinn dieses Satzes wäre, wenn er Hauptsatz wäre, ist nun seine Bedeutung. Ich kann sagen: der Nebensatz ist hier ebenso der Eigenname eines Gedankens, wie "Aristoteles" der Eigenname eines Philosophen ist. Der Nebensatz drückt hier nicht einen Gedanken aus, sondern bezeichnet einen Gedanken.

(Frege 1976: 232)

In the period "Aristotle believed that the velocity of a falling body is proportional to the fall-time" we have in the subordinate-sentence indirect speech. What would be the sense of this sentence, if it were a main-sentence, is now its Bedeutung. I can say: the subordinate-sentence is here the proper-name of a thought, just as "Aristotle" is the proper name of a philosopher. The subordinate-sentence does not here express a thought, but rather designates a thought.

This passage is not cited in (Georgalis 2022).

Frege might have been speaking about "dass die Geschwindigkeit eines fallenden Körpers der Fallzeit proportional sei" [(D)] in speaking of the subordinate-sentence and Frege might have been speaking about "die Geschwindigkeit eines fallenden Körpers der Fallzeit proportional sei" [(E)]. He spoke as if the subordinate-sentence could be a main-sentence. So it seems that Frege thought

⁴ Parsons discussed the possibility that what Frege thought when writing the letter was incompatible with what he thought when writing 'Über Sinn und Bedeutung' (Parsons 1981: 40). Parsons didn't believe that there was an incompatibility: he took what was said in the letter to be an extension of the theory proposed in 'Über Sinn und Bedeutung'.

⁵ In (Boisvert & Lubbers 2003: 32), Boisvert & Lubbers claim that in the letter to Russell "Frege explicitly embraces the infinite hierarchy of senses". I think that if Frege does embrace an infinite hierarchy of senses, he does not do so explicitly. For an idea of what Frege could have written, in order to have embraced an infinite hierarchy explicitly, see (Simchen 2018: 257).

that (D) or (E) was the same sentence as "die Geschwindigkeit eines fallenden Körpers ist der Fallzeit proportional" [(F)]. 7,8

It is necessary for the soundness of the argument based on this passage that at least one of (i) and (ii) is true.

- (i)
- When writing the relevant passage of the letter dated 20.10.1902, Frege thought that the normal sense of (D) was a thought and that (D) had its indirect sense in (C) and that the indirect sense of (D) was not a thought.
- (ii)

When writing the relevant passage of the letter dated 20.10.1902, Frege thought that the normal sense of (E) was a thought and that (E) had its indirect sense in (C) and that the indirect sense of (E) was not a thought.

I assume that at least one of them is true.

It is obvious that if at least one of (i) and (ii) is true, and if, when writing the relevant passage, Frege thought that the indirect sense of an expression was identical to its normal sense, then he had contradictory commitments concerning indirect speech. Hence what follows is an argument for the falsity of Georgalis' claim: when Frege wrote the relevant passage he didn't have contradictory commitments concerning indirect speech; at least one of (i) and (ii) is true; Parity is true; so Georgalis' claim is false.

Again, it looks as if a defender of Georgalis' claim should reject Parity. But rejecting Parity is not sufficient to defend Georgalis' claim: there is a piece of apparent counterevidence in 'Über Sinn

- The law is stated in this way in at least two 19th Century German Physics books: https://archive.org/details/handbuchderphys17unkngoog/page/109/mode/1up [Accessed 2022.05.16]. https://archive.org/details/bub gb Eu4MAAAAYAAJ/page/131/mode/1up [Accessed 2022.05.16].
- In saying that it seems that Frege thought that (D) or (E) was the same sentence as (F), I am saying that it seems that Frege treated the written form dass die Geschwindigkeit eines fallenden Körpers der Fallzeit proportional sei and the written form die Geschwindigkeit eines fallenden Körpers ist der Fallzeit proportional as written forms of one and the same sentence ('at some level of analysis') or that Frege treated die Geschwindigkeit eines fallenden Körpers der Fallzeit proportional as written form die Geschwindigkeit eines fallenden Körpers ist der Fallzeit proportional as written forms of one and the same sentence ('at some level of analysis'). In this paper, whenever I speak of Frege thinking that some sentence is the same sentence as some sentence, I mean something like this (mutatis mutandis).

There are many connections between the questions addressed in this paper and the Frege point (Geach 1965), but I can only mention these connections here.

- 8 "Frege as a rule favoured neutral examples using 'eternal' sentences such as '2+3=5' and 'ice is less dense than water'." (Sundholm 2001: 63). For some of the subordinate-sentences in Frege's example sentences, it is difficult to determine which sentence(s) Frege would have thought them to be the same as. Even with so-called 'eternal' sentences it is not trivial. Some of Frege's presuppositions about sentences and indirect speech raise many difficult questions about what Frege should have thought about the tenses, moods, and pronouns of subordinate-sentences of indirect speech. I can only mention these questions here.
- 9 A defender of Georgalis' claim should have an indepenent reason for thinking that Parity is false.

Frege distinguishes between direct speech and normal speech/the normal way of using words, in 'Über Sinn und Bedeutung', but in the two letters to Russell cited above, Frege writes as if direct speech is the same as normal speech (Künne 2015: 139–140, n.13, n.14). I think that it is not the case that in 1892 Frege thought that direct speech and normal speech were distinct, and then in 1902 thought that direct speech and normal speech were the same. Rather, I think that at the time of his writing those letters to Russell, Frege had forgotten how he used "gerade" [direct] and "gewöhnlich" [normal] in 'Über Sinn und Bedeutung'. (Künne says that Frege "lost his grip on his terminology" (Künne 2015: 139).)

Perhaps a defender of Georgalis' claim would argue that this is evidence that what Frege wrote in the letters is not a reliable indicator of what he thought when writing 'Über Sinn und Bedeutung'.

und Bedeutung' itself.

'Über Sinn und Bedeutung'

The third piece of apparent counterevidence is this passage from 'Über Sinn und Bedeutung':

Zu den mit "daß" eingeleiten abstrakten Nennsätzen gehört auch die ungerade Rede, von der wir gesehen haben, daß in ihr die Wörter ihre ungerade Bedeutung haben, welche mit dem übereinstimmt, was gewöhnlich ihr Sinn ist. In diesem Falle hat also der Nebensatz als Bedeutung einen Gedanken, keinen Wahrheitswert; als Sinn keinen Gedanken, sondern den Sinn der Worte "der Gedanke, daß ", welcher nur Theil des Gedankens des ganzen Satzgefüges ist. Dies kommt vor nach "sagen", "hören", "meinen", "überzeugt sein", "schließen" und ähnlichen Wörtern.

(Frege "Über Sinn und Bedeutung" 2008: 33 [37])

To the abstract noun-sentences [Nennsätzen] introduced with "that" belong also [those of] indirect speech, in which we have seen the words to have their indirect Bedeutung, which is coincident [übereinstimmt] with what is normally their sense. In this case then the subordinate-sentence [Nebensatz] has as Bedeutung a thought, not a truth-value; as sense not a thought, but the sense of the words "the thought that ", which is only part of the thought of the entire complex sentence. This happens after "say", "hear", "think", "be convinced", "infer" and similar words.

This passage is not cited in (Georgalis 2022).

It is not clear what Frege means by "der Nebensatz" here; but unlike with the passage from Frege's letter to Russell dated 20.10.1902, it *is* necessary to determine *exactly* what he means *here*. I assume that α is true or β is true.

α

The subordinate-sentences Frege wrote of in the second sentence of the passage were abstract noun-sentences introduced with "daß" which occurred 'after' "sagen", "glauben", and "meinen" ('"daß"-sentences of "sagen", "glauben", and "meinen"').

β

The subordinate-sentences Frege wrote of in the second sentence of the passage were sentences which occurred in the place 'after' the "daß" of a "daß"-sentence of "sagen", "glauben", and "meinen".

Consider a sentence Frege himself used as an example in 'Über Sinn und Bedeutung' (Frege "Über Sinn und Bedeutung' 2008: 33–34 [37]):

"Copernicus glaubte, daß die Bahnen der Planeten Kreise seien" [(G)]

"Copernicus believed that the orbits of the planets are circles"

"daß die Bahnen der Planeten Kreise seien" [(H)] is a a "daß"-sentence of "sagen", "glauben", and "meinen" and "die Bahnen der Planeten Kreise seien" [(I)] occurs in the place 'after' the "daß" of (H). (Also consider Frege's example cited above: (D) is a "daß"-sentence of "sagen", "glauben",

and "meinen" and (E) occurs in the place 'after' the "daß" of (D).)

Because Frege wrote "the subordinate-sentence [Nebensatz] has...as sense not a thought", we know that if β is true, then γ or δ is true.

When Frege wrote the passage, he thought that the *normal sense* of a sentence which occurred in the place 'after' the "daß" of a "daß"-sentence of "sagen", "glauben", and "meinen" was not a thought.

δ

When Frege wrote the passage, he thought that the *indirect sense* of a sentence which occurred in the place 'after' the "daß" of a "daß"-sentence of "sagen", "glauben", and "meinen" was not a thought.

Kripke and Burge were committed to the truth of β and δ ((Kripke 2011: 259); (Burge 2005: 169, fn.9)). So were: Carnap (1947: 123); Parsons¹⁰ (1982: 325–326); Boisvert & Lubbers (2003: 34, fn.7); and Künne (2015: 146).

If δ is true, and ϵ is true, then, when writing the passage, Frege had contradictory commitments concerning indirect speech or Georgalis' claim is false.

ε When Frege wrote the passage, Frege thought that the *normal sense* of a sentence which occurred in the place 'after' the "daβ" of a "daβ"-sentence of "sagen", "glauben", and "meinen" was a thought.

What follows is an argument for the falsity of Georgalis' claim: when writing the passage, Frege did not have contradictory commitments concerning indirect speech; δ is true; ϵ is true; hence, Georgalis' claim is false. A defender of Georgalis' claim should reject δ or ϵ .

Note that if they accept one of γ and δ , they should probably accept the other; and if they reject one of γ and δ , they should probably reject the other—if Frege really did think that the indirect sense of an expression was identical to its normal sense, then for any expression he probably would have thought its indirect sense was not a thought if he thought its normal sense was not a thought, and vice versa.

Hence, if a defender of Georgalis' claim accepts β , they should reject ϵ ; and if they accept ϵ , they should reject δ , γ , and β .

If a defender of Georgalis' claim rejects β , they must accept α . Because Frege wrote "the subordinate-sentence [Nebensatz] has...as sense not a thought", we know that if α is true, then either ζ is true or η is true.

When Frege wrote the passage, Frege thought that the *normal sense* of a "daβ"-sentence of "sagen", "glauben", and "meinen" was not a thought.

η When Frege wrote the passage, Frege thought that the *indirect sense* of a "daß"-sentence of "sagen", "glauben", and "meinen" was not a thought.

¹⁰ Parsons wrote: "in the passage...[Frege] commits himself to: the customary sense of 'the thought, that Joan will win' = the indirect sense of 'Joan will win' (1982: 326).

Note that if a defender of Georgalis' claim accepts one of ζ and η , they should probably accept the other; and if they reject one of ζ and η , they should probably reject the other—the reason is the same as before.

If η is true, and θ is true, then, when writing the passage, Frege had contradictory commitments concerning indirect speech or Georgalis' claim is false.

θ

When Frege wrote the passage from 'Über Sinn und Bedeutung', Frege thought that the *normal sense* of a "daß"-sentence of "sagen", "glauben", and "meinen" was a thought.

What follows is another argument for the falsity of Georgalis' claim: when writing the passage, Frege did not have contradictory commitments concerning indirect speech; η is true; hence, Georgalis' claim is false.

If a defender of Georgalis' claim accepts α , they should reject θ ; if they accept θ , they should reject η , ζ , and α .

Hence, I conclude that a defender of Georgalis' claim must:

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accept \alpha, \zeta, \eta, and reject \theta; or accept \beta, \gamma, \delta, and reject \epsilon.
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Frege definitely thought that the normal sense of a sentence like (F) and "die Bahnen der Planeten sind Kreise" [(J)] was a thought, so if he thought that sentences like (F) and (J) occurred 'after' the "daß" of a "daß"-sentence of "sagen", "glauben", and "meinen", ϵ is probably true. Hence I think that if a defender of Georgalis' claim were to argue for the falsity of ϵ , they would have to argue that Frege did not think that sentences like (F) and (J) occurred 'after' the "daß" of a "daß"-sentence of "sagen", "glauben", and "meinen". I do not consider further the option of accepting β , γ , δ , and rejecting ϵ here. I do consider and assess the option of accepting α , ζ , η , and rejecting θ .

I now present and discuss apparent evidence for the truth of α and θ and consider what a defender of Georgalis' claim should say in response to the evidence for the truth of θ .

Consider the following three paragraphs of 'Über Sinn und Bedeutung', in the last of which Frege refers to what he has said in the previous two paragraphs and to what he has said in the apparent counterevidence passage of 'Über Sinn und Bedeutung' already quoted:

Der Nebensatz mit "daß" nach "befehlen", "bitten", "verbieten" würde in gerader Rede als Imperativ erscheinen. Ein solcher hat keine Bedeutung, sondern nur einen Sinn. Ein Befehl, eine Bitte sind zwar nicht Gedanken, aber sie stehn doch mit Gedanken auf derselben Stufe. Daher haben in den von "befehlen", "bitten" u. s. w. abhängigen Nebensätzen die Worte ihre ungerade Bedeutung. Die Bedeutung eines solchen Satzes ist also nicht ein Wahrheitswerth, sondern ein Befehl, eine Bitte u. dgl.

Aehnlich ist es bei der abhängigen Frage in Wendungen wie "zweifeln, ob", "nicht wissen, was". Daß auch hier die Wörter in ihrer ungeraden Bedeutung zu nehmen sind, ist leicht zu sehn. Die abhängigen Fragesätze mit "wer", "was", "wo", "wann", "wie", "wodurch" u. s. w. nähern sich zuweilen scheinbar sehr Adverbsätzen, in denen die Worte ihre gewöhnliche Bedeutung haben. Sprachlich unterscheiden sich diese Fälle durch den Modus des Verbs. Beim Conjunctiv haben wir abhängige Frage und ungerade Bedeutung der Worte, sodaß ein Eigenname nicht allgemein durch einen andern desselben Gegenstandes ersetzt werden kann.

In den bisher betrachteten Fällen hatten die Worte im Nebensatze ihre ungerade Bedeutung und daraus wurde erklärlich, daß auch die Bedeutung des Nebensatzes selbst eine ungerade war; d. h. nicht ein Wahrheitswerth, sondern ein Gedanke, ein Befehl, eine Bitte, eine Frage. Der Nebensatz konnte als Nennwort aufgefaßt werden, ja man könnte sagen: als Eigenname jenes Gedankens, jenes Befehls u. s. w., als welcher er in den Zusammenhang des Satzgefüges eintrat.

(Frege "Über Sinn und Bedeutung" 2008: 35 [38–39])

The subordinate-sentence [Nebensatz] with "that" after "command", "request", "forbid" would appear in direct [gerader] speech as an imperative [Imperativ]. Such a thing [Ein solcher] has no Bedeutung, just a sense. A command, a request are indeed not thoughts, but nevertheless they stand, with thoughts, on the same level. Hence in the dependent subordinate-sentences of "command", "request" etc., the words have their indirect [ungerade] Bedeutung. The Bedeutung of such a sentence is therefore not a truth-value, but a command, a request and the like.

It is similar with the dependent question [Frage] in phrases such as "doubt whether", "not know what". That here too the words are to be taken in their indirect Bedeutung is easy to see. The dependent question-sentences [Fragesätze] with "who", "what", "where", "when", "how", "whereby" etc. seem at times to be very close to adverb-sentences, in which the words have their normal [gewöhnlich] Bedeutung. These cases distinguish themselves linguistically through the mood of the verb. With the subjunctive we have a dependent question [Frage] and indirect Bedeutung of the words, so that a proper name cannot generally be replaced by another of the same object.

In the cases so far considered, the words in the subordinate-sentence [Nebensatze] had their indirect [ungerade] Bedeutung, and this made it explicable [daraus wurde erklärlich] that the Bedeutung of the subordinate-sentence itself was also an [eine] indirect [ungerade] one; i.e. not a truth-value, but a thought [Gedanke], a command, a request, a question [Frage]. The subordinate sentence could be understood as a noun [Nennwort], indeed, one could say: as a proper name [Eigenname] of that thought, command, etc., as which it entered into the context of the complex sentence.

In the first sentence of the first paragraph, Frege was referring to abstract noun-sentences introduced with "daß" which are like those in (K)–(P):

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"Er…befahl, dass auf den 4. Oktober 1582 der 15. Oktober 1582 folgen soll."<sup>11</sup> [(K)] "He…commanded that October 15<sup>th</sup> 1582 should follow October 4<sup>th</sup> 1582"
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"Gott hat seinen Engeln befohlen, dass sie dich behüten auf allen deinen Wegen."¹² [(L)] "God has commanded his angels that they watch over you in all your ways."

"Die Veranstalter bitten, dass kleinere Kinder begleitet werden."¹³ [(M)] "The organizers request that smaller children be accompanied."

¹¹ An article on the Julian and Gregorian calendars in the IDS Corpora **A99/OKT.74300** *St. Galler Tagblatt* 23.10.1999. In this part of the article the author is discussing Pope Gregory XIII's papal bull *Inter gravissimas*. [Accessed 2022.05.28]

¹² A passage from *Psalms* quoted at least twice in the IDS Corpora **A09/AUG.06727** *St. Galler Tagblatt* 28.08.2009 and **BRZ06/SEP.08513** *Braunschweiger Zeitung* 16.09.2006. [Accessed 2022.05.28]

¹³ The IDS Corpora A00/NOV.75845 St. Galler Tagblatt 06.11.2000. [Accessed 2022.06.01]

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"Wir bitten, dass alle Helfer sich an den vereinbarten Treffpunkten einfinden."<sup>14</sup> [(N)] "We request that all helpers come to the agreed upon meeting points."
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"Apple verbietet, dass Bösewichte in Filmen ein iPhone nutzen."<sup>15</sup> [(O)] "Apple forbids that villains in films use an iPhone."
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"Jehova verbietet, daß Aeltern ihre Kinder auf seinem Altare hinopfern."¹⁶ [(P)] "Jehova forbids that parents sacrifice their children on his altar."

In the first sentence of the second paragraph, Frege spoke of dependent questions of "zweifeln". In doing so, he was probably speaking about abstract noun-sentences introduced with "ob" which occurred after "zweifeln" ('"ob"-sentences of "zweifeln"')—these sentences seem to be question-sentences [Fragesätze].¹⁷ Consider the following example:

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"Copernicus zweifelte, ob die Bahnen der Planeten Kreise seien" [(Q)] "Copernicus doubted whether the orbits of the planets are circles"
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There is nothing particularly 'question-like' about the sentence which occurs 'after' the "ob" of "ob die Bahnen der Planeten Kreise seien"—it is just (I), the same sentence that occurs after the "daß" of (H). Generally speaking, there is nothing particularly 'question-like' about the sentences which occur 'after' the "ob" of an "ob"-sentence of "zweifeln"—those sentences seem not to be question-sentences.

However, answering the question of whether Frege was referring to "ob"-sentences of "zweifeln" and answering the question of whether Frege was referring to sentences which occurred 'after' the "ob" of an "ob"-sentence of "zweifeln" may require one to answer the question of whether, when writing 'Über Sinn und Bedeutung', Frege thought that for every sentence-question, its normal sense was the normal sense of an assertion-sentence. I do not address this last question here. ¹⁸ *Prima facie*, in the first sentence of the second paragraph, he was referring to "ob"-sentences of "zweifeln".

I assume that if, in the first sentence of the first paragraph, Frege is speaking about abstract noun-sentences introduced with "daß" like those in (K)–(P), and if, in the first sentence of the second paragraph, Frege speaks about "ob"-sentences of "zweifeln", like the one in (Q), then in speaking of subordinate-sentences in the third paragraph, he is speaking of abstract noun-sentences. If, in speaking of subordinate-sentences in the third paragraph, he is speaking of abstract noun-sentences, then α is probably true.

¹⁴ Adapted from a passage in the IDS Corpora M00/MAI.24651 Mannheimer Morgen 27.05.2000. [Accessed 2022.05.28]

^{15 &}lt;u>https://www.derstandard.at/story/2000115049191/apple-verbietet-dass-boesewichte-in-filmen-ein-iphone-nutzen</u> [Accessed 2022.05.16].

¹⁶ Adapted from a passage in https://books.google.co.uk/books?id=GPJhAAAAcAAJ [Accessed 2022.05.16].

¹⁷ Even if "ob"-sentences of "zweifeln" are question-sentences, one could argue about what relations there are between "ob"-sentences of "zweifeln" and questions (the sort of non-linguistic object Frege refers to in the third paragraph). In *Die deutsche Sprache und ihre Literatur*, Dr. Max Wilhelm Götzinger (a German grammarian writing in the 19th Century) wrote that an "ob"-sentence of "zweifeln" had the form of a question-sentence, but had no 'underlying' question (Götzinger 1839: 270 §125. 2.). I learned of this book reading (Künne 2015).

¹⁸ Frege definitely thought so when writing 'Der Gedanke' (Frege "Der Gedanke" 1966 [1918]: 34–35 [62]) and 'Die Verneinung' (Frege "Die Verneinung" 1966 [1919]: 55–56 [145]). Textor thought that he thought so when writing 'Über Sinn und Bedeutung' (2021: 227 fn.2). Dummett, Hanks, Künne, and Bobzien thought that Frege thought not when writing 'Über Sinn und Bedeutung' ((Dummett 1981: 307–308); (Hanks 2007: 142–143); (Künne 2010: 427–429); (Bobzien 2021: 163–164)).

If Frege was referring to abstract noun-sentences in the third paragraph, then the fact that he said "the Bedeutung of the subordinate-sentence itself was also an indirect one [eine ungerade]" suggests that θ is true. It suggests that θ is true because it suggests that Frege thought something which entailed, for example, that (H) had its *indirect* Bedeutung in (G)—because Frege thought that (H) designated a thought in (G), if he did think that (H) had its *indirect* Bedeutung in (G), then he thought that its indirect Bedeutung was a thought and hence that its normal sense was a thought.

A defender of Georgalis' claim should say in response that Frege thought, for example, that (H) had its *normal* Bedeutung in (G) and that what Frege said is compatible with Frege thinking that the normal Bedeutung of a "daß"-sentence of "sagen", "glauben", and "meinen" is the indirect Bedeutung of some other expression (e.g. the sentence 'after' the "daß" of the "daß"-sentence of "sagen", "glauben", and "meinen"). ^{19,20}

To support their response, a defender of Georgalis' claim could point out that Frege seems to have thought that "dass" had its normal Bedeutung in (A) when writing the counterevidence passage from his letter to Russell dated 28.12.1902 (look at what is, and what is not underlined). So they might say: it is likely that when Frege wrote 'Über Sinn und Bedeutung', he thought that "daß" had its normal Bedeutung in (G); Frege would have thought that (H) had its indirect Bedeutung in (G) only if he would have thought that "daß" had its indirect Bedeutung in (G); but because it is likely that he thought that "daß" had its normal Bedeutung and not its indirect Bedeutung in (G), it is likely that Frege didn't think that (H) had its indirect Bedeutung in (G), and thought instead that it had its normal Bedeutung in (G); so if α is true, then it is likely that Frege thought that the normal Bedeutung of (H) was a thought and that the normal sense of (H) was not a thought, which is consistent with accepting α and rejecting θ .

In this passage from a letter Frege sent to Russell dated 13.11.1904, Frege, in speaking of the subordinate-sentence of "Copernicus meinte, dass die Planetenbahnen Kreise seien" [(R)], is clearly speaking of "dass die Planetenbahnen Kreise seien" [(S)]:

Man kann nach meiner Redeweise einen Gedanken bezeichnen und man kann ihn ausdrücken. Jenes geschieht in der ungeraden Rede. "Copernicus meinte, dass die Planetenbahnen Kreise seien" ist ein Beispiel dazu. Durch den mit "dass" eingeleiteten Nebensatz wird ein Gedanke bezeichnet, während durch den ganzen Satz (Hauptsatz und Nebensatz) ein Gedanke ausgedrückt wird. Copernicus selbst konnte den Gedanken, dass die Planetenbahnen Kreise seien, ausdrücken. In unserm ganzen Satze bezeichnet der Eigenname "Copernicus" ebenso einen Mann, wie der Nebensatz "dass die Planetenbahnen Kreise seien" einen Gedanken bezeichnet; und es wird gesagt, dass zwischen diesem Manne und diesem Gedanken eine Beziehung bestehe, nämlich dass der Mann den Gedanken für wahr hielt. Hier stehen also so zu sagen der Mann und der Gedanke auf derselben Bühne. Dagegen stehen der Mann und der Gedanke des ganzen Satzes "Copernicus meinte, dass die

¹⁹ If a defender of Georgalis' claim were to think that Frege thought: that (I) had its indirect sense and Bedeutung in (G), that (I) designated and exressed a thought in (G), that (H) had its normal sense and Bedeutung in (G), and that the normal sense of (H) was not a thought; then they should think that Frege was committed to the sense of "daß" not being an "identity map" cf. (Parsons 1982: 325).

²⁰ I think that this response is inconsistent with what Georgalis himself wrote. He wrote: "Importantly, for the exceptional case of indirect context, the sense of the embedded that-clause coincides with its reference, as Frege explicitly tells us." (Georgalis 2022: 2); and "Unquestionably, Frege thought that reference shifts occurred in indirect contexts, as the sense expressed by a that-clause does not determine its customary referent." (Georgalis 2022: 3–4).

²¹ Angelelli seems to have thought that when writing 'Über Sinn und Bedeutung' Frege thought that if an expression₁ had its indirect Bedeutung in some other expression₂, then any constituent of that expression₁ had its indirect Bedeutung in that other expression₂ (Angelelli 1967: 64). The soundness of the counter-argument considered above depends upon the truth of a view like this. I won't consider the plausibility of a view like Angelelli's here.

Planetenbahnen Kreise seien" nicht auf derselben Bühne. Wenn man sagt, dass hierin der Name "Copernicus" einen Mann bezeichne, so kann man nicht sagen, dass der ganze Satz einen Gedanken bezeichne; denn die Verbindung des Namens mit dem Manne ist ganz verschieden von der des ganzen Satzes mit dem Gedanken. Der Mann wird bezeichnet, der Gedanke wird ausgedrückt. Auch wird der Mann zu dem Gedanken nicht in Beziehung gesetzt.

(Frege 1976: 246)

According to my way of speaking, one can designate a thought and one can express it. The former happens in indirect speech. "Copernicus thought that the planetary orbits are circles" is an example of this. By the subordinate-sentence introduced with "that" a thought is designated, whereas by the whole sentence (main-sentence and subordinate-sentence) a thought is expressed. Copernicus himself was able to express the thought that the planetary orbits are circles. In our whole sentence: the proper name "Copernicus" designates a man, just as the subordinate-sentence "that the planetary orbits are circles" designates a thought; and it is said that there is a relation between this man and this thought, namely that the man held the thought to be true. Here the man and the thought are, so to speak, on the same stage. On the other hand, the man and the thought of the whole sentence "Copernicus thought that the planetary orbits are circles" are not on the same stage. If one says that the name "Copernicus" herein designates a man, then one cannot say that the whole sentence designates a thought; for the connection of the name with the man is quite different from that of the whole sentence with the thought. The man is designated, the thought is expressed. Moreover, the man is not placed in relation to the thought.

This suggests that (i) is true and that α is true. It suggests that (i) is true because it suggests that in speaking of the subordinate-sentence of (C) in the passage from his letter to Russell dated 20.10.1902, Frege was referring to (D); and if, in speaking of the subordinate-sentence of (C), Frege was speaking about (D), then (i) is true, and in particular Frege thought then that the normal sense of (D) was a thought. If Frege thought then that the normal sense of (D) was a thought, then this suggests that θ is true.

If a defender of Georgalis' claim rejects Parity, then they should probably think that the claims Frege made in his letter to Russell dated 20.10.1902 are not a reliable indicator of what he thought when he wrote 'Über Sinn und Bedeutung'. So they might say: even if the passage from the letter to Russell dated 13.11.1904 suggests that (i) is true, the truth of (i) does not indicate that θ is true.

In the second section I said that it seems that Frege thought that (D) or (E) was the same sentence as (F). One might think it is obvious that Frege thought that (E) and (F), and not (D) and (F), were the same sentence. But in a much discussed passage of 'Meine grundlegenden logischen Einsichten' there is evidence that Frege thought that "dass das Meerwasser salzig ist" [(T)] was the same sentence as "das Meerwasser ist salzig" [(U)]:

Das Wort "wahr" ist nicht ein Eigenschaftswort im gewöhnlichen Sinne. Wenn ich das Wort "salzig" prädikativ den Worten "das Meerwasser" hinzufüge, bilde ich einen Satz, der einen Gedanken ausdrückt. Um deutlicher zu machen, dass nur der Gedanke ausgedrückt, aber nichts behauptet werden solle, setze ich den Satz in die abhängige Form um: "Dass das Meerwasser salzig ist" [(T)]. Stattdessen könnte ich ihn auch von einem Schauspieler auf der Bühne in seiner Rolle sprechen lassen; denn man weiss, dass der Schauspieler in seiner Rolle nur scheinbar mit behauptender Kraft spricht. Die Kenntnis des Sinnes der Worte "ist salzig" ist zum Verständnis des Satzes erforderlich, da er einen wesentlichen Beitrag zum

Gedanken gibt – in den blossen Worten "das Meerwasser" hätten wir ja überhaupt keinen Satz und keinen Gedankenausdruck. Ganz anders ist es beim Worte "wahr". Wenn ich dieses prädikativ den Worten "dass das Meerwasser salzig ist" hinzufüge, bilde ich ebenfalls einen Satz, der einen Gedanken ausdrückt. Aus demselben Grunde wie vorhin setze ich auch diesen in die abhängige Form um: "Dass es wahr ist, dass das Meerwasser salzig ist" [(U)]. Der hierin ausgedrückte Gedanke fällt zusammen mit dem Sinn des Satzes "dass das Meerwasser salzig ist". Das Wort "wahr" liefert also durch seinen Sinn keinen wesentlichen Beitrag zum Gedanken. Wenn ich behaupte "es ist wahr, dass das Meerwasser salzig ist", so behaupte ich dasselbe wie wenn ich behaupte "das Meerwasser ist salzig". Hierin ist zu erkennen, dass die Behauptung nicht in dem Worte "wahr" liegt, sondern in der behauptenden Kraft, mit der der Satz ausgesprochen wird. Danach könnte man meinen, das Wort "wahr" habe überhaupt keinen Sinn. Aber dann hätte auch ein Satz, in dem "wahr" als Prädikat vorkäme, keinen Sinn. Man kann nur sagen: das Wort "wahr" hat einen Sinn, der zum Sinne des ganzen Satzes, in dem es als Prädikat vorkommt, nichts beiträgt.

(Frege 1983: 271–272)

The word "true" is not an adjective in the ordinary sense. If I predicatively attach the word "salty" to the word "seawater", I form a sentence that expresses a thought. In order to make it clearer that the thought is only being expressed, but nothing is meant to be asserted, I put the sentence into the dependent form: "that seawater is salty". Alternatively I could have it spoken by an actor on stage in his role; because one knows that an actor in his role only seemingly speaks with assertoric force. Knowledge of the sense of the words "is salty" is required for an understanding of the sentence, since the sense makes an essential contribution to the thought - indeed, in the mere word "seawater" we would have no sentence and no thought-expression at all. It is quite different with the word "true". If I predicatively attach this to the words "that seawater is salty", I likewise form a sentence that expresses a thought. I put this too into the dependent form, for the same reason as before: "that it is true that seawater is salty". The thought expressed herein coincides with the sense of the sentence "that seawater is salty". Hence, the word "true" makes no essential contribution to the thought with its sense. If I assert "it is true that seawater is salty", I assert the same thing as if I assert "seawater is salty". One can see in this that the assertion does not lie in the word "true", but in the assertoric force with which the sentence is uttered. So one might think the word "true" has no sense at all. But in that case a sentence in which "true" occurred as a predicate would have no sense either. One can only say: the word "true" has a sense that contributes nothing to the sense of whole sentence in which it occurs as a predicate.

It seems that when he wrote *this* passage Frege was committed to (T) being the same sentence as (U). Assuming that Frege thought that "dass das Meerwasser salzig sei" [(V)] was the same sentence as (T),²² he was also committed to (V) being the same sentence as (U).²³ If he was

²² To judge that this passage has no relevance because the verbs in these subordinate-sentences are in the indicative mood, whereas in the abstract noun-sentences of Frege's indirect speech examples the verbs are in the subjunctive mood, would require one to question, for example, whether Frege thought that (I) was the same expression as (J). If the difference between the subjunctive form of the verb and the indicative form of the verb does not prevent us from attributing to Frege a belief in the sameness of (I) and (J), then it should not prevent us from attributing to Frege a belief in the sameness of (V) and (T).

While it might seem strange to think of (V) as the same sentence as (U), it is perhaps less strange to think of "ob das Meerwasser salzig sei" as the same sentence as "ist das Meerwasser salzig". After all, would you avoid using "ob" in giving an indirect speech report in German of what I had said if I had said "is seawater salty"?

committed to (V) being the same sentence as (U), then this suggests that α is true and it suggests that Frege thought that (D) and (F) were the same sentence when he wrote his letter to Russell dated 20.10.1902, and hence that (i) is true. If he was committed to (V) being the same sentence as (U), when he wrote this passage from 'Meine grundlegenden logischen Einsichten', he was also committed to the normal sense of (V) being a thought, because Frege definitely thought then that the normal sense of (U) was a thought. If he was committed to the normal sense of (V) being a thought, then this suggests that θ is true. Note that Frege says that (T) *expresses* a thought, that its *sense* is a thought. *This* suggests that Frege thought the normal sense of (T) was a thought. Assuming that Frege thought that (T) was the same sentence as (V), it suggests that Frege was committed to the normal sense of (V) being a thought.

A defender of Georgalis' claim should say in response that Frege wrote this work roughly 10 years after the letters to Russell cited here, and roughly 20 years after the publication of 'Über Sinn und Bedeutung' (Frege 1983: 271 fn.1); so if what he wrote in the letters to Russell is not a reliable indicator of what he thought when he wrote 'Über Sinn und Bedeutung', then what he wrote in this unpublished work is probably not a reliable indicator of what he thought when he wrote 'Über Sinn und Bedeutung' either.

In the last part of this section I turn to what Künne has written regarding α . Künne has in effect argued that α is false (2015: 145–146). If he is right, then a defender of Georgalis' claim must argue for the falsity of ϵ , and the responses presented above on their behalf are irrelevant.

Künne thought that Frege's use of "Nebensatz" "oscillated" (2015: 146). He thought that when Frege was referring to subordinate sentences of "sagen", "glauben", and "meinen", Frege sometimes did and sometimes did not refer to "daß"-sentences of "sagen", "glauben", and "meinen". He agrees, of course, that in the passage from the letter to Russell dated 13.11.1904, Frege was referring to (S)—a "daß"-sentence of "sagen", "glauben", and "meinen"—in speaking of the subordinate-sentence of (R). But Künne also in effect argued that α is false and β is true (Künne 2015: 145–146).

He assumed that Frege thought that the normal Bedeutung of a sentence which occurred in the place 'after' the "daß" of a "daß"-sentence of "sagen", "glauben", and "meinen" was a truth-value and he assumed that Frege thought that the normal Bedeutung of a "daß"-sentence of "sagen", "glauben", and "meinen" was not a truth-value (Künne 2015: 146). Because he interprets Frege as contrasting the indirect Bedeutung of a subordinate-sentence with its normal Bedeutung (respectively) in writing "a thought, not a truth-value" (see the counterevidence passage of 'Über Sinn und Bedeutung'), he infers that in speaking of subordinate-sentences there, Frege was speaking about sentences which occurred in the place 'after' the "daß" of a "daß"-sentence of "sagen", "glauben", and "meinen", and not "daß"-sentences of "sagen", "glauben", and "meinen" themselves.

I don't know why Künne made the second assumption. I see no evidence for its truth in Frege's writings, and I see some evidence for its falsity: if Frege was committed to the normal sense of (V) being a thought, then presumably he was also committed to the normal Bedeutung of (V) being a truth-value (see the passage from 'Meine grundlegenden logischen Einsichten' cited above, and the discussion of it).

Künne does also cite the following passage from the first volume of Frege's *Grundgesetze der Arithmetik* (published in 1893):

Ich hatte früher in dem, dessen äussere Form ein Behauptungssatz ist, zweierlei unterschieden: 1) die Anerkennung der Wahrheit, 2) den Inhalt, der als wahr anerkannt wird. Den Inhalt nannte ich beurtheilbaren Inhalt. Dieser ist mir nun zerfallen in das, was ich Gedanken, und das, was ich Wahrheitswerth nenne. Das ist die Folge der Unterscheidung

von Sinn und Bedeutung eines Zeichens. In diesem Falle ist der Sinn des Satzes der Gedanke und seine Bedeutung der Wahrheitswerth. Dazu kommt dann noch die Anerkennung, das der Wahrheitswerth das Wahre sei. Ich unterscheide nämlich zwei Wahrheitswerthe: das Wahre und das Falsche. Dies habe ich in meinem oben erwähnten Aufsatze über Sinn und Bedeutung eingehender begründet. Hier mag nur erwähnt werden, dass die ungerade Rede nur so richtig aufgefasst werden kann. Der Gedanke nämlich, der sonst Sinn des Satzes ist, wird in der ungeraden Rede seine Bedeutung.

(Frege 1966: x)

Previously I distinguished two things in that whose external form is an assertion-sentence: 1) the acknowledgement of the truth, 2) the content which is acknowledged as true. The content I called judgeable content. For me this is now broken down into what I call thought and what I call truth-value. This is the consequence of the distinction between the sense and Bedeutung of a sign. In this case the sense of the sentence is the thought and its Bedeutung is the truth-value. In addition there is the acknowledgement that the truth-value is the True. I distinguish two truth-values: namely, the True and the False. This I have justified in more detail in my above mentioned essay on sense and Bedeutung ['Über Sinn und Bedeutung']. Here it may only be mentioned that indirect speech can only be correctly understood thus [i.e. in terms of sense and Bedeutung]. For the thought, which is normally the sense of the sentence, becomes in indirect speech its Bedeutung.²⁴

But "Nebensatz" does not appear in this passage. What Frege writes here is compatible with Frege thinking, for example, that (H) and (J) were the same sentence.

In conclusion, a defender of Georgalis' claim must:

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accept \alpha, \zeta, \eta, and reject \theta; or accept \beta, \gamma, \delta, and reject \epsilon.
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I have discussed apparent evidence for the truth of α and θ , and possible responses a defender of Georgalis' claim can give in defence of their rejection of θ .

Conclusion

I have discussed five arguments for the falsity of Georgalis' claim based on three pieces of apparent counterevidence. I think that Georgalis' claim is false, but I have shown how one might try to defend it.

²⁴ Here are three other translations of the key sentence: "For in indirect speech, the thought, which is normally the sense of the proposition, becomes its reference." (Frege 2013: x); "The thought, that is, which is normally the sense of a sentence, becomes in indirect discourse its *Bedeutung*." (Frege 1997: 198); "The thought ..., which is normally the sense of a sentence, becomes in indirect speech its Bedeutung" (Künne 2015: 145).

Appendix

Translations are the result of meticulously editing the output of Google Translate using:

• Extant English translations of Frege's writings

the version of Max Black's translation of 'Über Sinn und Bedeutung' in *The Frege Reader* (1997), Feigl's translation of 'Über Sinn und Bedeutung' (Frege 1949), Hans Kaal's translations of Frege's letters to Russell in (Frege 1980), the version of Long & White's translation of 'Meine grundlegenden logischen Einsichten' in *The Frege Reader*, the version of Geach & Stoothoff's translation of 'Der Gedanke' in *The Frege Reader*, and Ebert & Rossberg's translation of *Grundgesetze der Arithmetik* (Frege 2013)

• Deutsch-Englisch English-German Dictionaries

the Oxford-Duden German Dictionary (1997), the Collins German dictionary (1999)

- Wiktionary (https://www.wiktionary.org/)
- Reverso Context search engine (https://context.reverso.net/translation/)
- The online Grimms' dictionary (http://dwb.uni-trier.de/de/)
- IDS Corpora
- Relevant books and papers written on Frege

(Textor 2011), (Künne 2010), (Künne 2015)

The input was text from German collections of Frege's works which are cited in the main text. I also consulted a digital copy of 'Über Sinn und Bedeutung' which has been created by scanning a physical copy of the hundredth volume of *Zeitschrift für Philosophie und philosophische Kritik*. ²⁵ In presenting the German text, I have made changes to punctuation and formatting to match that of the original documents: for example, in presenting Frege's letter to Russell dated 28.12.1902 I have underlined parts of the text because Frege himself underlined those parts to help explain what he thought to Russell.

I use ''' and ''' to refer to logical and mathematical symbols, bits of punctuation, abbreviations, Greek letters, and essays; and to scare-quote. I use '"' and '"' to refer to English expressions and to quote other people (punctuation in the reproduced passages is as it is in the original). I use ',,' and '"' to refer to German expressions. I use ' ' to refer to strings of letters, spaces, and punctuation marks. ' α ', ' β ', ' γ ', etc. are used as names of important propositions.

There is a Key after this section in which I list all of the abbreviations and important propositions.

^{25 &}lt;a href="https://deutschestextarchiv.de/book/show/frege_sinn_1892">https://deutschestextarchiv.de/book/show/frege_sinn_1892.

Key

Abbreviations

Frege's Letter to Russell dated 28.12.1902

- (A) "der Gedanke, dass alle zur Klasse *M* gehörenden Gedanken wahr sind, gehört nicht zur Klasse *M*"
- "der Gedanke, dass der Gedanke, dass alle zur Klasse M gehörenden Gedanken wahr sind, nicht zur Klasse M gehöre"

Frege's Letter to Russell dated 20.10.1902

- (C) "Aristotleles glaubte, dass die Geschwindigkeit eines fallenden Körpers der Fallzeit proportional sei"
- "dass die Geschwindigkeit eines fallenden Körpers der Fallzeit proportional sei"
- (E) "die Geschwindigkeit eines fallenden Körpers der Fallzeit proportional sei"
- (F)
 "die Geschwindigkeit eines fallenden Körpers ist der Fallzeit proportional"

'Über Sinn und Bedeutung'

- "Copernicus glaubte, daß die Bahnen der Planeten Kreise seien"
- (H) "daß die Bahnen der Planeten Kreise seien"
- (1) "die Bahnen der Planeten Kreise seien"
- (J) "die Bahnen der Planeten sind Kreise"
- (K) "Er…befahl, dass auf den 4. Oktober 1582 der 15. Oktober 1582 folgen soll."

(L) "Gott hat seinen Engeln befohlen, dass sie dich behüten auf allen deinen Wegen."
(M) "Die Veranstalter bitten, dass kleinere Kinder begleitet werden."
(N) "Wir bitten, dass alle Helfer sich an den vereinbarten Treffpunkten einfinden."
(O) "Apple verbietet, dass Bösewichte in Filmen ein iPhone nutzen."
(P) "Jehova verbietet, daß Aeltern ihre Kinder auf seinem Altare hinopfern."
(Q) "Copernicus zweifelte, ob die Bahnen der Planeten Kreise seien"
(R) "Copernicus meinte, dass die Planetenbahnen Kreise seien"
(S) "dass die Planetenbahnen Kreise seien"
(T) ,,dass das Meerwasser salzig ist"
(U) ,,das Meerwasser ist salzig"
(V) dass das Meerwasser salzig sei"

Important propositions

Introduction

Georgalis' claim

When Frege wrote 'Über Sinn und Bedeutung' Frege thought that the indirect [ungerade] sense of an expression was identical to its normal [gewöhnlich] sense.

Frege's letter to Russell dated 28.12.1902

Parity

It is not the case that

Frege thought that the indirect sense of an expression was identical to its normal sense, when writing 'Über Sinn und Bedeutung'; and

Frege did not think that the indirect sense of an expression was identical to its normal sense, when writing his letters to Russell.

Frege's letter to Russell 20.10.1902

- When writing the relevant passage of the 20.10.1902 letter, Frege thought that the normal sense of (D) was a thought and that (D) had its indirect sense in (C) and that the indirect sense of (D) was not a thought.
- (ii) When writing the relevant passage of the 20.10.1902 letter, Frege thought that the normal sense of (E) was a thought and that (E) had its indirect sense in (C) and that the indirect sense of (E) was not a thought.

'Über Sinn und Bedeutung'

α

The subordinate-sentences Frege wrote of in the second sentence of the passage were abstract nounsentences introduced with "daß" which occurred 'after' "sagen", "glauben", and "meinen" (',,daß"-sentences of "sagen", "glauben", and "meinen"').

β

The subordinate-sentences Frege wrote of in the second sentence of the passage were sentences which occurred in the place 'after' the "daß" of a "daß"-sentence of "sagen", "glauben", and "meinen".

When Frege wrote the passage, he thought that the *normal sense* of a sentence which occurred in the place 'after' the "daß" of a "daß"-sentence of "sagen", "glauben", and "meinen" was not a thought.

δ

When Frege wrote the passage, he thought that the *indirect sense* of a sentence which occurred in the place 'after' the "daß" of a "daß"-sentence of "sagen", "glauben", and "meinen" was not a thought.

- When Frege wrote the passage, Frege thought that the *normal sense* of a sentence which occurred in the place 'after' the "daß" of a "daß"-sentence of "sagen", "glauben", and "meinen" was a thought.
- Vhen Frege wrote the passage, Frege thought that the *normal sense* of a "daβ"-sentence of "sagen", "glauben", and "meinen" was not a thought.
- When Frege wrote the passage, Frege thought that the *indirect sense* of a "daß"-sentence of "sagen", "glauben", and "meinen" was not a thought.
- θ When Frege wrote the passage from 'Über Sinn und Bedeutung', Frege thought that the *normal sense* of a "daß"-sentence of "sagen", "glauben", and "meinen" was a thought.

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