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Sinning Against Frege

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## SINNING AGAINST FREGE \*

Tyler Burge

Fregean *Sinn* has been provocative, seminal, and prolific. But ever since it was propagated in English speaking philosophy, it has been widely misunderstood. Recent condemnations of *Sinn*—from Searle and Wittgenstein to Kripke and Donnellan—have to a significant degree rested on misunderstanding. My mission here is primarily historical. It is to trace the misunderstanding, and right some of the historical wrongs. I will not try to redeem Frege from all transgression, nor will I count *Sinn* a virtue. But I believe that better acquaintance with *Sinn* is a precondition for successfully eschewing it.

The basic misunderstanding is the identification of Frege's notion of *Sinn* (sense) with the notion of linguistic meaning. The misunderstanding is an easy one to fall into for two reasons. For one, the term "meaning" has always been vague, multi-purposed, and to some extent adaptive to the viewpoint of different theories. Pressing the term into service to characterize Frege's notion has seemed harmless enough, as long as it is made clear that the notion is restricted to an aspect of meaning relevant to fixing the truth value of sentences. A second reason for the misunderstanding has been that Frege did not lavish any considerable attention on the area in which the differences between sense and the ordinary notion of meaning are clearest—context-dependent reference.

Although the differences between meaning and sense are easiest to notice with indexicals (including proper names), the distinction issues from the fundamental cast of Frege's work, a cast discernible throughout his career independently of issues about indexicals. Baldly put, Frege was primarily interested in the eternal structure of thought, of cognitive contents, not in conventional linguistic meaning. He pursued this interest by investigating the structure of language, and much of his work may be seen as directly relevant to theories of linguistic meaning.

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\* I am grateful to the John Simon Guggenheim Foundation for its support, and to the referee for his comments. Scholarly tradition credits the moralistic tone of Fregean research to Paul Benacerraf.

But the epistemic orientation of his theorizing leads to a notion of sense with a different theoretical function from modern notions of meaning.

## I

Why is it a mistake to identify Fregean sense with meaning? The grounds for avoiding the identification are most evident in "The Thought," where Frege discusses various indexical expressions. Frege argues that the thought expressed by an indexical sentence, which he identifies with its sense, may remain the same even as the sentence is changed.

(A) If a time indication should be made in present tense, one must know when the sentence was uttered to grasp the thought correctly. Thus the time of utterance is part of the expression of the thought. If someone wants to say today what he expressed yesterday using the word 'today', he will replace this word with 'yesterday'. Although the thought is the same, the verbal expression must be different, to compensate for the change of sense which would otherwise be brought about by the different time of utterance. The case is the same with words like 'here' and 'there'. In all such cases, the mere wording, as it can be written down, is not the complete expression of the thought—but one further needs for its correct apprehension the knowledge of certain circumstances accompanying the utterance, which are used as means of expressing the thought. Fingerpointings, gestures and glances may belong here too. The same utterance containing the word 'I' will express different thoughts in the mouths of different people, of which some may be true and others false.<sup>1</sup>

<sup>1</sup>Gottlob Frege, *Logische Untersuchungen* (Vandenhoeck and Ruprecht, Göttingen, 1966), pp. 37–8. Translations of this article throughout are mine. See "The Thought," in *Essays on Frege*, Klemke ed. (University of Illinois Press, Urbana, 1968), pp. 516–17. The translation by A.M. and M. Quinton contains an ungrammatical English sentence in passage (A) and is in certain other minor respects not quite as literal as the present one. For example, in the third sentence, their translation (without justification) reads "must" instead of "will." Page references in the text are to the Klemke volume. Most of the views, and even some of the particular phrasings, of "The Thought" (1918–19) may be found in two unpublished introductions to what was apparently planned to be a textbook entitled "Logik." The first was written sometime between 1879 and 1891; and the second, of somewhat greater length, is dated 1897. See *Nachgelassene Schriften*, Hermes, Kambartel, and Kaulbach, eds. (Felix Meiner, Hamburg, 1969), pp. 1–8, 137–163. In the latter fragment Frege makes it even clearer that the sense associated with indexicals shifts: "Words like 'here', 'now' achieve their full sense always only through the circumstances in which they are used . . . and the same sentence does not always express the same thought, because the words require supplementation to yield the complete sense, and . . . this supplementation can be different according to circumstances" (p. 146).

According to Frege, when the context of utterance shifts, the sense of sentences containing “I,” “here,” “there,” “yesterday” or “today” can also shift. Since the senses of other words of the sentence need not shift, the shift in sense is associated with the indexicals. (See note 1; esp. *Nachgelassene Schriften*, op cit., p. 146, where this point is more explicit than in (A).) It is not important to our interpretation whether one sees the indexical as “expressing” a sense in the context (Frege does not use this locution), or whether one sees the sense that is subject to contextual shift as expressed (or indicated) by the “circumstances accompanying the utterance,” the person’s demonstrations, and so forth. I hedge this point by writing of the sense associated with the indexical in the context. Clearly Frege holds such senses may shift with context.

Do the meanings of indexical expressions shift? The most natural answer to this question is clearly “no.” The relevant expressions are each governed by a single linguistic rule and have a single context-free dictionary entry. In learning the meanings of these words, one comes to know how to use and understand the words regardless of what occasion arises. Given a context and the meaning of the expression, the referent can usually be determined. Thus on the most natural construal of the notion of meaning, sense and meaning must be distinguished.

Frege also clearly thinks that the thought or sense expressed in an indexical utterance *can* be the same as that expressed in another utterance containing an indexical with a different meaning. As is stated in (A), “yesterday” and “today,” used in appropriately different contexts, can be employed to express the same sense. Here, sense remains constant while meaning shifts. So the linguistic meaning of indexicals need not even be *part* of the sense associated with them in a given context. The indexically identified referent may be presented in thought independently of the particular mode of indexical expression used to communicate the thought. This should not be surprising in view of the eternal context-free nature of senses, a feature we shall discuss later.

In sum, a single indexical expression (“today”) may be associated with different senses on different occasions; and indexical expressions with different meanings (“yesterday” and “today”)

may, in their respective contexts, be associated with the same sense. (*May* be: as I shall next argue, the fact that they have the same referent in their respective contexts, does not guarantee that they are associated with the same sense; in most cases, one would expect them to be associated with different senses, since the thinker's epistemic perspective is likely to differ.) Sense seems to vary independently of the meaning of indexicals.

Some philosophers claim that in one sense of "meaning," the meaning of an indexical expression is its referent. Now it is clear that the referents of "I," "here," "today" and so forth shift with the context. Could we count indexical expressions with the same reference as always making the same contribution to the thought expressed on the respective occasions? To put it another way, could we identify sense with reference ("meaning") for these indexical expressions?<sup>2</sup>

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<sup>2</sup> Michael Dummett, in *Frege: Philosophy of Language* (Duckworth, London, 1973) p. 384, misinterprets Frege in this way, basing the interpretation on passage (A). Actually Dummett only identifies thoughts expressed by  $A(s_1, \dots, s_n)$  and  $A(t_1, \dots, t_n)$ , where  $s_1, \dots, s_n$  and  $t_1, \dots, t_n$  are indexical expressions with the same respective referents. He says nothing about the sense associated with the indexicals. But the difference between this interpretation and the one we discuss is irrelevant to the points we make. Dummett's interpretation is ably criticized by John Perry, "Frege on Demonstratives," *Philosophical Review* 86 (1977), pp. 474–497, who cites the third and (in a different form) the second of the reasons against Dummett's interpretation given below. Perry clearly distinguishes Frege's notion from both meaning and reference, though he is less charitable in his renunciation of *Sinn* than I think appropriate. In particular, Perry writes as if Frege made a *mistake* in identifying the senses of sentences, which Perry thinks are naturally taken to be meanings (or what he calls roles), with thoughts. I think this view reflects the picture of Frege as a theorist primarily of meaning rather than of thought—a picture I shall argue is distorted. Given Frege's original purpose in introducing sense—to account for differences in possible belief—given his consistent explication of the notion in terms of a mode of presentation, and given his explicit disavowals of concern with language, it seems better to see Frege's notion of thought as explicating what he *meant* by "sense." Frege's mistake (for our present purpose) lies in his account of the nature of thoughts (context-free and "complete in every way"). These remarks are elaborated below. For a discussion of the distinction between meaning and sense and a criticism of Frege in a less historical and more constructive setting, see my "Belief *De Re*," *The Journal of Philosophy*, LXXIV; 1977, section IV. I think there are deep problems with Frege's account other than those detailed in "Belief *De Re*" and in the present article. But discussing them would carry us beyond our present purpose.

“No” again. There are two textual reasons and one systematic reason for scouting this reading. In the first place, the passage (A) does not clearly support the interpretation. Frege says that the time of utterance is part of the *expression* of the thought—he does not say that it is a component of the thought. Surely Frege would have announced and explicated the identification of the sense of an indexical (in a context) with its referent if he had believed in such an identification. Both the sense and referent of indexical expressions shift with context, but this is because the sense is the epistemic basis for determining the referent—not because it *is* the referent.

A second reason for rejecting the identification of sense and referent is that in the pages immediately following (A), Frege clearly indicates that “I” may be used with different senses (giving rise to different thoughts) even though it is applied to the same person (“The Thought,” p. 519). Moreover, in the same section Frege treats proper names as having different senses while applying to the same person. If Frege had envisioned a sharp distinction between proper names and certain indexicals on this matter, he would have reported his vision.

In this section, Frege repeats his view that sense accounts for the way a referent can be presented indexically in distinct ways. This constitutes the systematic ground for not identifying sense and referent. It is possible to believe what is expressed by “Today is Friday” and (without in any ordinary sense changing one’s mind) doubt what is expressed by “Yesterday was Friday,” even though “yesterday” and “today” (in their different contexts) pick out the same day. Similarly, for most of the other indexical expressions Frege mentions. But Frege’s primary motivation for introducing sense was to account for differences in cognitive value. Thus the thought expressed by the different utterances may be different, as will the senses associated with the indexicals. There is no reason to think that when he came to indexicals, Frege forgot his own ground for postulating senses.<sup>3</sup> Thus the

<sup>3</sup> See the opening section of “On Sense and Reference” in *Translations of the Philosophical Writings of Gottlob Frege*, Geach and Black eds., (Blackwell, Oxford, 1966). Citations of this article in the text will be to this volume. In a letter of 1919 (at roughly the same time as the publication of “The Thought”) to the historian Darmstaedter, Frege distinguishes sense and reference by the usual appeal to the paradox of identity and writes: “When an astronomer

sense of an indexical should not be identified with its meaning, whether one construes “meaning” in a more or less ordinary way, or as amounting to reference.

The same sort of point can be made about Frege’s view of the sense of proper names. In “On Sense and Reference” Frege writes

(B) In the case of an actual proper name such as ‘Aristotle’ opinions as to the sense may differ. It might for instance be taken to be the following: the pupil of Plato and teacher of Alexander the Great. Anybody who does this will attach another sense to the sentence ‘Aristotle was born in Stagira’ than will a man who takes as sense of the name: the teacher of Alexander the Great who was born in Stagira. So long as the reference remains the same, such variations of sense may be tolerated, although they are to be avoided in the theoretical structure of a demonstrative science and ought not to occur in a perfect language. [“On Sense and Reference,” p. 58]

Shortly thereafter Frege writes, “To every expression belonging to a complete totality of signs, there should certainly correspond a definite sense; but natural languages often do not satisfy this condition, and one must be content if the same word has the same sense in the same context.” The implication is clearly that the senses associated with proper names and other indexical constructions shift with context. In “The Thought” (pp. 516–518), Frege makes similar remarks emphasizing the variability of the sense of a proper name for different users and in different contexts. In this respect Frege treats names and indexicals in the same way.<sup>4</sup> Thus for reasons similar to those given earlier,

asserts something of the Moon, the Moon itself is not part of the expressed thought” (*Nachgelassene Schriften*, op cit., p. 275, see also *Translations*, op. cit., p. 64).

<sup>4</sup> It is less clear what Frege thought the differences are between names and (ordinary) indexical expressions. He emphasizes that in a sense names are not part of a natural language (“The Thought,” p. 517); one can be fully competent in the language but fail to associate with a name the sense associated by the speaker in the context. But the same could be said of many uses of indexicals. (See further discussion below.) Two papers which are not historically oriented, but which take up positions on the role of indexicals and names in expressing thought, as distinguished from effecting communication, that are very broadly similar to Frege’s are Hector-Neri Castañeda, “On the Philosophical Foundations of the Theory of Communication: Reference,” *Midwest Studies in Philosophy* II (1977), esp. pp. 172–3; and Brian Loar, “The Semantics of Singular Terms,” *Philosophical Studies* 30 (1976), pp. 353–377. See also note 22 below.

Relevant to the interpretation of Frege just proposed, Ruth Marcus writes in a recent review (*The Philosophical Review*, LXXXVII (1978), p. 503):

the sense of a proper name should not be identified with its meaning.

It is sometimes held that names do not have a meaning. Justifications for this view usually allude to the point that different competent speakers may not “understand” each other’s use of a name. But Frege himself makes this point in *explaining* the notion of sense (see (B)). So the point cannot responsibly be used against him. Rather, Frege’s notion of sense, as applied to proper names, is such that a competent speaker may not catch on to the sense of another competent speaker’s use of a name. Insofar as this cannot be said of the meaning of a name, if any, sense and meaning must be distinguished. The cognitive value of a name (at a given occurrence) may well be idiosyncratic.

Sometimes it is held that the meaning of a proper name is its bearer. But it is clear, for reasons we adduced in connection with ordinary indexical constructions, that sense is not identifiable with meaning on this construal. Moreover, if there is a meaning associated with a name like “Aristotle” that is mastered merely

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There is perhaps another theory of sense to be culled from some Fregean texts. . . . On that (alternative?) reading the sense of a term is whatever is grasped or understood by a speaker on a particular occasion of use and may vary from occasion to occasion as well as from speaker to speaker. . . . To see this as *the* Fregean view runs counter to Frege’s anti-psychologism and his belief in the “common stock of thoughts” in a community of speakers. What would become of the Fregean slogan “To give the meaning is to give the truth conditions”.

All that Frege writes about indexicals and proper names makes it clear that the view described is not an alternative reading, but is the only correct reading of his view of *these* terms. Frege defends his antipsychologism largely through his treatment of thoughts, and of logicomathematical objects and laws, as ontologically independent of minds. The antipsychologism is fully compatible with his views about indexicals and proper names, which for him did not belong to a language of pure thought in any case. Nor is there an inconsistency between these views and there being among thinkers a common stock of thoughts. People may have common thoughts, whether indexically or non-indexically expressed. Strictly speaking, the cited Fregean slogan is not to be found in Frege. He showed by example that one should analyze component senses with an eye to their role in fixing truth or falsity. Such analysis applies to thoughts whether contextually expressed or not. It should be noted that Marcus is apparently arguing against taking the view to be Frege’s view of the sense of *all* terms (although her discussion does key on proper names and does not distinguish meaning and sense). She is clearly right in holding that there is no basis for taking Frege to have applied the view in question to all terms.

by learning how such names are used in the language—when one learns what it is to be an Aristotle<sup>5</sup>—then sense and meaning in *this* sense are not identifiable: Sense shifts with context; meaning does not.

These passages dealing with the context dependence of indexical constructions, including proper names, are but the most obvious signs of the cognitive orientation of Frege's notion of sense. That orientation dominates his introduction of the notion in "On Sense and Reference." The paradox of identity, whose discussion opens the essay, is a problem about information expressed through language. That problem can be shown to resist attempts to solve it by reference to differences of meaning. Two indexical identity-sentence occurrences with the same component referents and even the same linguistic meaning may differ in informational or cognitive value, and may be used to express different beliefs. For example, "this is identical with this," or "Bertrand is the same person as Bertrand," may be informative in one occurrence and trivially true in another. (See "Belief *De Re*," note 2 above.) Moreover, Frege's solution to the problem in terms of different senses is expressly cognitive in character. As noted earlier, sense is explicated as containing the "way of being given" (*Art von Gegebensein*)—the mode by which an object is presented in thought ("On Sense and Reference," *Translations*, p. 57). This association is maintained throughout his writings. The senses of nonindexical sentences, or sentences used in a context, are thoughts. Thus senses are, or are components of, abstract thoughts (*Gedanken*, thought contents). (See "On Sense and Reference," pp. 59, 62–63, and *Nachgelassene Schriften*, p. 275.) Thoughts may be expressed and apprehended through language. But they are ontologically and conceptually independent of language and of human agents. (See "The Thought," pp. 533–34, and *Nachgelassene Schriften*, p. 146.)

It is well known that Frege more than once disavowed primary concern with language. These disavowals have been taken to be a sign of weakness, a sort of fallback position utilized when difficulties threatened. There may be some truth in this point. But

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<sup>5</sup> See my "Reference and Proper Names," *The Journal of Philosophy* LXX (1973), pp. 425–439.

the basic import of Frege's remarks is best grasped by taking him at his word:

If it is one of the tasks of philosophy to break the domination of the word over the human mind by laying bare the misconceptions that through the use of language almost unavoidably arise concerning the relations between concepts and by freeing thought from that which only the means of expression of ordinary language, constituted as they are, saddle it, then my ideography . . . can become a useful tool for the philosopher.<sup>6</sup>

I have to content myself with presenting the reader with a thought, in itself immaterial, shrouded in sensible linguistic form. The metaphorical aspect of language thus presents difficulties. The sensible always breaks in and makes expression metaphorical and so improper. So a battle with language arises and I am compelled to occupy myself with language although it is not my proper task here. ["The Thought," p. 519n.]

Frege's primary concern with knowledge and thought is also explicit throughout his career. It occurs in the title of his first great work: "*Conceptwriting: A Formal Language, Modeled on that of Arithmetic, of Pure Thought.*" And it recurs in his statements on his task as logician:

It is possible for one sentence to give no more and no less information than another; and, for all the multiplicity of languages, mankind has a common stock of thoughts . . . the task of logic can hardly be performed without trying to recognize the thought in its manifold guises. [*Translations*, op. cit., p. 46n.]

Neither logic nor mathematics has the task of investigating souls and the contents of consciousness whose bearer is a single person. Perhaps their task could be represented rather as the investigation of the mind, of the mind not of minds. ["The Thought," p. 531]

Frege's interest was cognitive. He sought to understand the abstract structures and logical laws which were in his view the essence of thought and a basis for knowledge. His approach to this domain was deeply original in its opposition to psychologism and its lack of interest in scepticism. (In this regard it is fruitful, if one does not push the point too far, to see him as an heir of Kant, divested of the trappings of psychology and the fear of scepticism, but continuing an investigation into the abstract structure of cognition.) Equally original were Frege's rigorous,

<sup>6</sup> *Begriffsschrift* in *Frege and Gödel*, van Heijenoort ed. (Harvard University Press, Cambridge, Mass., 1970), p. 70. Frege also disavows primary concern with language in *Translations*, op. cit., pp. 54, 58; and in *Nachgelassene Schriften*, op. cit., p. 7.

mathematical methodology and his reliance on linguistic structure as the starting point for analysis. But analysis of language was only the means, or to borrow Wittgenstein's metaphor, the ladder, by which one arrived at an understanding of language-independent thought.<sup>7</sup>

## II

"Meaning" is, as mentioned, a highly adaptive term. And perhaps one could harmlessly (and trivially) identify sense with "meaning" in a favored sense of "meaning," a sense that allows for the contextual promiscuity of *Sinn*. But in fact, discussions of Frege—especially in recent times—have not made this allowance.

The identification of sense with meaning began with Russell, Frege's earliest English commentator, who simply translated "Sinn" as "meaning."<sup>8</sup> Subsequent translations have mostly been more circumspect. But an important exception is Feigl's translation of "Über Sinn und Bedeutung." Although Feigl usually translates "Sinn" as "sense," there is a significant slip in the translation of the third sentence in passage (*B*), where "meaning" is exchanged for "sense," apparently as an equivalent translation of "Sinn": "Whoever accepts this sense [Plato's disciple and the teacher of Alexander the Great] will interpret the meaning of the statement 'Aristotle was born in Stagira' differently from one who interpreted the sense of 'Aristotle' as the Stagirite teacher of Alexander the Great."<sup>9</sup> This translation was probably influential, as we shall see.

<sup>7</sup> See also *The Foundations of Arithmetic*, J. L. Austin trans. (Northwestern University Press, Evanston, 1968), pp. iii–iv.; *Translations*, op. cit., p. 59; *Nachgelassene Schriften*, op. cit., pp. 1–8, 142–161; "The Thought," op. cit., pp. 511n, 534, and passim. For numerous explicit parallels between Kant and Frege, see *The Foundations of Arithmetic*. A broader discussion of the influence of Kant may be found in Hans D. Sluga's "Frege and the Rise of Analytic Philosophy," *Inquiry* 18 (1975), pp. 471–98, sections III and VII.

<sup>8</sup> Bertrand Russell, *The Principles of Mathematics* (W. W. Norton & Co., New York, originally published 1902), p. 501.

<sup>9</sup> "On Sense and Nominatum," H. Feigl, trans., in *Readings in Philosophical Analysis*, Feigl and Sellars eds. (Appleton-Century-Crofts, New York, 1949), p. 86. See G. Frege, *Kleine Schriften* (Angellied, Georg Olms, Hildesheim, 1976), p. 144.

The explication of *Sinn* in terms of meaning may be found in a multitude of sources. For example, Church—Frege’s most powerful exponent—wrote in his review of Carnap’s *Introduction to Semantics*:

Frege makes this same distinction between the intensional meaning, the *sense* (*Sinn*) which a name expresses, and the extensional meaning, the *designatum* (*Bedeutung*) which the name denotes or designates. . . . Briefly, the sense of an expression is its linguistic meaning, the meaning which is known to anyone familiar with the language and for which no knowledge of extra-linguistic fact is required; the sense is what we have grasped when we are said to *understand* the expression.

Carnap follows suit, writing, “The concepts of sense and intension refer to meaning in a strict sense, as that which is grasped when we understand an expression without knowing the facts.”<sup>10</sup>

These explications are based on a passage in “On Sense and Reference”:

(C) It is natural, now, to think of there being connected with a sign . . . besides that to which the sign refers, which may be called the reference of the sign, also what I should like to call the *sense* of the sign, wherein the mode of presentation is contained. . . . The sense of a proper name is grasped by everybody who is sufficiently familiar with the language or totality of designations [signs] to which it belongs. . . . [“On Sense and Reference,” pp. 57–8]

Later Frege writes, “A proper name . . . *expresses* its sense, *stands for* or *designates* its reference” (*ibid.*, p. 61).

The association of sense with signs and the claim that understanding the language is sufficient for grasping the sense of a “proper name” certainly suggest the identity of sense and meaning. But the suggestion is misleading. Frege’s remarks in (A) and (B) about the sense of context-dependent expressions undermine the identity. In fact, passage (B) cited above, is appended as a footnote to (C). This footnote should have served as warning against strictly identifying meaning (or what is “grasped” by everyone sufficiently competent in the language) and sense. For in the footnote, (B), Frege points out that proper names like

<sup>10</sup> Alonzo Church, “Carnap’s *Introduction to Semantics*,” *The Philosophical Review* LII (1943), p. 301; Rudolf Carnap, *Meaning and Necessity* (University of Chicago Press, Chicago, 1964), p. 125. Although more elaborate in his discussion of Frege’s notion of sense, Michael Dummett, in *Frege: Philosophy of Language*, *op. cit.*, continues in substantially the tradition that Church and Carnap established. See, for example, pp. 2, 92, 364, 584–85, 589, and *passim*.

“Aristotle” may have senses that are *not* “grasped” by everyone who is competent in the language.<sup>11</sup> Passages (A) and (B) indicate that Frege, in using the term “sense,” was primarily concerned with mode of presentation, with the objective content of thoughts, rather than with the meaning of linguistic expressions. The objective thought content expressed with sentences containing proper names like “Aristotle” was regarded by Frege as (normally) publicly accessible, but not purely by virtue of mastering the language. One would need to know something about the speaker and the context as well.

Language, for Frege, is the prime or only instrument for expressing objective language-independent thoughts. But the rules governing language interest him only insofar as they illuminate the structure of such thoughts. Frege would perhaps have granted that meaning and sense are identical in a “perfect,” context-free language. But this would be because such a language would be perfectly fitted to express thought contents.

It must be said that Church and Carnap were interested only in such context-free languages. So although their explication fails to give the sense, or meaning, of “sense” (“Sinn”), it can perhaps be seen as at least extensionally accurate, given their purposes. But the explication carried the seeds of misunderstanding, seeds that bore fruit in the next generation’s controversy over proper names.

Since Wittgenstein’s *Investigations* numerous objections have been flung at Frege’s theory (or remarks) about the sense of proper names. Several of these are undermined or seriously

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<sup>11</sup> In interpreting passages (B) and (C), one must be careful with the term “proper name.” Immediately before passage (C), Frege stipulates a special, technical and misleadingly broad use for the term: “by ‘sign’ and ‘name’ I have here understood any designation representing a proper name, which thus has as its reference a definite object (this word being taken in its widest range). . . . The designation of a single object can also consist of several words or other signs. For brevity, let every such designation be called a proper name.” The term “proper name” in passage (C) should be taken in this special, broad sense—as applying to any singular term, including definite descriptions. Indeed, in (C) Frege seems to have in mind singular terms that might occur in a context-free, “perfect” language usable in a demonstrative science. In the appended footnote, passage (B), Frege focuses on proper names like “Aristotle”—proper names in the ordinary, narrow sense of the term. *These* proper names constitute an exception to the generalization articulated in (C).

weakened by the misunderstanding we have been discussing. Perhaps the simplest is Searle's first objection:

Do proper names have senses? Frege argues that they must have senses, for he asks, how else can identity statements be other than trivially analytic . . . [But, if Frege is right, in identities involving proper names like 'Tully = Cicero'] each name must have a different sense, which seems at first sight most implausible, for we do not ordinarily think of proper names as having sense at all in the way that predicates do; we do not, e.g. give definitions of proper names.<sup>12</sup>

The point that we do not give definitions to proper names is in effect acknowledged by Frege in (B). The sense or information value of proper names and other context-dependent devices differs from their meaning (if any) precisely because no linguistic rule or dictionary entry can capture the different information that might be carried by these devices in different contexts. Searle's objection could be considered relevant only if this difference were ignored.

This misunderstanding of Frege's view of names is accompanied by a related misunderstanding of his view of general terms. Kripke writes,

Mill says that *all* 'general' names are connotative; such a predicate as 'human being' is defined as the conjunction of certain properties which give necessary and sufficient conditions for humanity—rationality, animality and certain physical features. The modern logical tradition, as represented by Frege and Russell, seems to hold that Mill was wrong about singular names, but right about general names. ["Naming and Necessity," *op.cit.*, p. 322]

Of course, Frege did not think that the sense of a nonindexical expression (which we will presume "human being" to be) varies with the speaker. The sense such an expression expresses is determined by the relevant facts—conventional, environmental—about the speaker's language. But there is not the slightest evidence that Frege thought that this sense was in general, or often, to be defined by "properties," or even senses, expressed in *other* terms of the language. Frege's test for whether two expressions, *F* and *G*, express the same sense is whether it

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<sup>12</sup> John Searle, "Proper Names," *Mind* LXVII (1958), pp. 166–173, reprinted in *Readings in the Philosophy of Language*, Rosenberg and Travis, eds. (Prentice Hall, Englewood Cliffs, 1971), p. 212. Page references will be to this volume. Saul Kripke, in "Naming and Necessity" in *Semantics of Natural Language*, Davidson and Harman eds. (Reidel, Dordrecht, 1972), p. 255, in effect gives the same argument.

is possible to believe the thought that . . . *F* . . . and fail to believe the thought that . . . *G* . . . On this test “human being” and any expression made up of terms for rationality, animality and certain physical characteristics will clearly fail to have the same sense.

A second argument, which I shall call the rigid designator argument, can be found in Searle but is more thoroughly developed by Kripke. Searle writes (as if he were elaborating or extending Frege’s theory):

Suppose we agree to drop “Aristotle” and use, say “the teacher of Alexander”, then it is a necessary truth that the man referred to is Alexander’s teacher—but it is a contingent fact that Aristotle ever went into pedagogy. . . .

Kripke writes

A proper name, properly used, simply was a definite description abbreviated or disguised. Frege specifically said that such a description gave the sense of the name.

Frege and Russell certainly seem to have the full-blown theory according to which a proper name is simply synonymous with the description which is used to replace it.

If the name *means the same* as [a] description . . . it will not be a rigid designator. It will not necessarily designate the same object in all possible worlds, since other objects might have had the given properties in other possible worlds, unless (of course) we happened to use essential properties in our description. So suppose we say, ‘Aristotle is the greatest man who studied under Plato’. If we used that as a *definition*, the name ‘Aristotle’ is to mean ‘the greatest man who studied under Plato’. Then of course in some other possible world that man might not have studied under Plato and some other man would have been Aristotle. . . .<sup>13</sup>

This argument has been taken by some to reduce to absurdity Frege’s view that proper names have a sense at all, let alone the sense of a definite description.

To begin with, it must be repeated that it is not Frege’s view that proper names are synonymous with, have the same meaning as, or are abbreviations of definite descriptions. It is perhaps significant that in supporting his gloss of “sense” in terms of meaning, Kripke quotes the Feigl translation earlier criticized (op. cit., p. 257).

As an argument against the view that proper names have

<sup>13</sup> Searle, op. cit., p. 217; Kripke, op. cit. pp. 255–257.

sense, the rigid designator argument has almost nothing to be said for it. (Kripke does not strictly present it as such, but many have taken it in this way.) Sense was introduced to account for cognitive content. Even if one supposed that the referents of names were all that mattered in analyzing their role in discourse bearing on necessity, one would have no reason at all to think that different names do not sometimes make different contributions to cognitive content. Indeed, the failure of substitution of co-referential names in belief contexts and Frege's paradox of identity—which were the primary phenomena to be explained in terms of sense—are altogether ignored by the rigid designator argument.

A more limited conclusion that has been drawn from the argument is that proper names do not (ever) have the sense of definite descriptions. (It is unclear whether Frege thought that the senses of proper names were always descriptive, but he did seem to think they sometimes were.) Even taken this way, the argument is unsound. But discussing it will require some detail.

The premise of the argument—that proper names are always rigid—has sometimes been disputed. It is said that proper names do not always function as rigid designators. It is replied that in such cases, we are not dealing with genuine proper names. It is counter-replied that the reply reduces the original claim to a stipulation about “proper name” and has no theoretical interest. This is denied. And so forth. In my view, talk of proper names as themselves being rigid is a mistake. Proper names are context-dependent referential expressions which are usually *used rigidly*, but which sometimes in certain anaphoric occurrences are used nonrigidly. Still, I think, Kripke and Searle had a genuine insight into the overwhelmingly normal use of proper names. This use often differs from that of definite descriptions. In discussing the argument, I shall simply grant its premise, at least to the extent of assuming that *for purposes of interpreting natural language discourse*, uses of proper names should always be treated as rigid.

As a first step in evaluating the argument, I want to compare Frege's approach to these matters with a more widely discussed approach, most naturally associated not with Frege, but with Russell. On the Russellian approach, one might attempt to accommodate the rigid designator argument, while maintaining

that proper names have the sense of definite descriptions, by claiming that proper names *always* have wide scope. On this account, proper names' having sense is compatible with their referential rigidity, just as a definite description's having sense is compatible with its having wide scope. The idea can be illustrated as follows. "It is not necessary that Aristotle was a teacher" is taken to have something like the form:

( $\lambda x$ ) Aristotle ( $x$ ) [-Nec (Teacher ( $\lambda x$ ) Aristotle ( $x$ ))]

to use Russell's own notation untouched by his theory of descriptions. ("Aristotle is such that it is not necessary that he was a teacher.") Since the name is outside the scope of the necessity predicate or operator, its referent must be taken to be its actual referent. This holds even if the name is associated with a descriptive sense in the context. (I improve on (1) in note 15a below.)

Unlike this Russellian line, the Fregean approach does not rest on a claim about logical syntax. It makes a purely semantical point. On this approach one can accommodate (or express) the rigid designator intuition by saying that proper names always maintain their customary referent in counterfactual contexts. Such a view is compatible with holding that proper names are associated with descriptive senses in those contexts. (Actually, Frege wrote nothing about metaphysical modality. He might have taken any of various lines in response to Searle and Kripke's modal intuitions. I am concerned only to show that he was in a position to accept them.) Since the senses of proper names vary from person to person, a Fregean might reason, such names are pragmatically well suited to those intensional contexts of natural language where fixing on the referent is more important than conveying a particular way of thinking about the referent. Since in modal contexts (unlike belief contexts), there is no general reason why the sense associated with proper names by a given person might be particularly important, proper names tend to serve the purpose of fixing on a referent. The (near) rigidity of names and other indexical devices is thus the offspring of a marriage of convenience between cognitively promiscuous linguistic devices and contexts where *Sinn* does not matter.

Kripke is at pains to distinguish between the rigid-nonrigid distinction and the wide scope-narrow scope distinction:

The facts that the ‘the teacher of Alexander’ is capable of scope distinctions in modal contexts and that it is not a rigid designator are both illustrated when one observes that the teacher of Alexander might not have taught Alexander (and in such circumstances would not have been the teacher of Alexander). On the other hand, it is not true that Aristotle might not have been Aristotle. [op. cit., note 25]

These remarks do, I think, make it evident that the notion of being rigid is not the same as the notion of having wide scope: a definite description could have wide scope, yet not be rigid. (This is perhaps all that Kripke wanted to establish at this point: the intent is unclear.) But the remarks do not serve, as some have taken them, as a defense of the rigid designator argument against the Russellian response that proper names are rigid because they always have wide scope. To serve that purpose, they would have to be supplemented by the claim that since names do not have narrow scope, they do not have wide scope either. I see no reason to accept this claim, or to think that it has any force against the view that names always (or normally) have wide scope.

Moreover, the claim has no carryover to the Fregean response that names always have customary reference in counterfactual contexts. The analogous claim against Frege would be that since proper names, unlike definite descriptions, do not have oblique reference in counterfactual contexts, they do not have customary reference in such contexts. Obviously this conclusion is untempting. In fact, it is self-defeating, since the assumption of the rigid designator argument is that proper names have a constant customary reference. So far nothing in the argument has touched the view that proper names have sense, descriptive or otherwise.

Passage (B) intimates that ordinary proper names and other indexical devices do not occur in thought, or in a language perfectly suited to thought. Such a language, however, should be expected to express the thoughts which Searle and Kripke express with rigidly used proper names. Let  $[S(A)]$  abbreviate a (nonmetalinguistic) canonical expression for the oblique denotation, or sense, of any expression  $A$ , and let “The  $F$ ” express the sense contextually associated with “Aristotle.” Then as a first approximation, we have the following:

(i)  $\neg\text{Nec}(S(\text{‘Teacher’})) (\text{The } F)$   
 (“It is not necessary *of* the  $F$  that he be the teacher of Alex-

ander.”) Thoughts expressed in ordinary language with proper names are always such that the customary reference of the name (and of the name’s sense) is maintained in counterfactual contexts. (I improve on (i) in note 15a below.)

This is not the end of the matter, however. Kripke’s remarks contain a distinction between saying of Aristotle that it is not necessary that he is the teacher of Alexander, and saying that in a given counterfactual situation Aristotle is not the teacher of Alexander.

Not only is it true *of* the man Aristotle that he might not have gone into pedagogy; it is also true that we use the term ‘Aristotle’ in such a way that in thinking of a counterfactual situation in which Aristotle didn’t go into any of the fields and do any of the achievements we commonly attribute to him, still we would say that was a situation in which *Aristotle* did not do these things. [op. cit., p. 279]

The idea here may be that the appeal to wide scope can account for the first locution but not the second. (Again the intent is not clear.)

David Kaplan has defended a more explicit version of the argument Kripke may have had in mind.<sup>14</sup> The strategy is this. Take the proposition expressed by an occurrence of “Aristotle was a philosopher.” Got it? Call the proposition “Ari.” Now carry this proposition over into a counterfactual circumstance in which *a*) whatever description you associated with “Aristotle” (abbreviate this description by “The *F*”) was satisfied not by Aristotle or any other philosopher, but by someone else, and *b*) Aristotle remains as involved in philosophy as he ever was. Kaplan claims that Ari is true in the counterfactual circumstance, whereas the proposition expressed by “The *F* is a philosopher” would be false. Thus “Aristotle” could not, on the relevant occasion, be associated with what “The *F*” normally

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<sup>14</sup> The argument has been given on numerous public occasions. It also appears in a circulated mimeograph, “Demonstratives,” 1977. As written, Kaplan’s argument applies only to demonstratives, though verbally he has tried it out on proper names. Frege would have to deal with both forms. Incidentally, Kaplan’s piece is quite sensitive to the distinction between Fregean sense and meaning, but like Perry’s (note 2) it tends to see Frege as an errant theorist of meaning or propositions. In conversation, Kaplan has agreed that the strategy involving “@,” discussed below, circumvents the rigid designator argument, though as noted, his orientation on these matters is somewhat different.

expresses; and the corresponding sentences (on the relevant occasion) could not have expressed the same proposition. The point of the argument is to show that one need not rely on contexts like “It is necessary that . . .” to bring out the difference between names and definite descriptions.

This supplemental argument has more force against the Russellian “wide scope response” than against the Fregean response. The “wide scope response” depends on using an expression like “it is necessary that” as a syntactical pivot around which a proper name could swing into wide position. The supplemental argument attempts to remove the pivot. The original Fregean response, however, does not depend on a pivot, since its force is purely semantical. I think that the supplemental argument should not convert a Fregean living in *Sinn*. Two general points are open to him.

The first is that the supplemental argument, at least as presented by Kaplan, is not clearly relevant to Frege’s position. Kaplan invites us to consider the proposition expressed by “Aristotle is *F*,” then has us carry this proposition over into a counterfactual circumstance. We are led to conclude that the proposition has a different truth value than Frege would say it has. But the matter is not so simple. In particular, the term “proposition” is a source of trouble. I want to dwell on this point for a while.

There is a tradition, stemming from Russell and Church, of using the term “proposition” in interpreting Frege’s “*Gedanke*.” I think this tradition no less misleading than that of using “meaning” to interpret “*Sinn*.” In 1943 Church wrote, “The translation of Frege’s ‘*Gedanke*’ as ‘proposition’ is clearly justified by his explanation, ‘nicht das subjektive Thun des Denkens, sondern dessen objektiven Inhalt, der fähig ist, gemeinsames Eigenthum von Vielen zu sein.’”<sup>15</sup> Church’s motive in proposing his translation is to avoid any reference to inner mental occurrences of individuals. But neither this motive nor the passage

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<sup>15</sup> Alonzo Church, Review of Quine’s “Notes on Existence and Necessity,” *Journal of Symbolic Logic* 8 (1943), p. 47. The German runs: “not the subjective act of thinking, but its objective content, which can be the common property of many.” The passage occurs in “On Sense and Reference,” note 7. See Russell, *The Principles of Mathematics*, op. cit., pp. 502ff.

Church quotes justifies translating “*Gedanke*” as “proposition.” “*Gedanke*” means “thought.” There is nothing contradictory or even unordinary about a thought had or considered by many people. Frege himself argues that his use of “*Gedanke*” is in agreement with ordinary usage. He emphasizes that thought (*Gedanke*) is not the act of thinking (*Denktat*) and is not to be seen as produced by thinking. He continues:

But my construal stands in agreement with many ordinary ways of speaking. Doesn't one say that the same thought is grasped by this person and that, that someone has repeatedly thought the same thought? Now if the thought arose only through thinking, or consisted in thinking, the same thought could arise, vanish, and arise again—which is absurd. [*Nachgelassene Schriften* op. cit., pp. 147–149]

This passage, and others, clearly requires translating “*Gedanke*” as “thought.” In using the term to interpret Frege, one must simply remember that it is thought contents that Frege intends, not occurrences in individuals' minds.

Like “meaning,” “proposition” is vague and multi-purposed. But using it to translate “*Gedanke*” obscures the fact that Frege explicitly tied his investigations of logic to Kantian issues about (normative) laws of thought and judgment. Translating “*Gedanke*” as “proposition” tends to assimilate Frege's work to a tradition which, though heavily indebted to him, is more narrowly concentrated on issues in the semantics of natural language. Frege's intent is clear even where he is not using the term “*Gedanke*”: “Neither logic nor mathematics has the task of investigating souls and the contents of consciousness whose bearer is a single person. *Perhaps their task could be represented rather as the investigation of the mind, of the mind not of minds.*” (“The Thought,” p. 531, italics mine.) If one understood “proposition” in terms of thought content, one would be on the right track. But typically, the notions of abstract thought and judgment, which were paramount for Frege (and nineteenth century logicians generally), are ignored in favor of the notion of linguistic meaning, which was expressly secondary. (See note 6 above and “The Thought,” notes 1, 3, and 5.)

Kaplan argues that the *proposition* expressed by an occurrence of “Aristotle was a philosopher” would be true even in the counterfactual circumstances in which the definite description

that allegedly expresses the sense associated with the occurrence of "Aristotle" denotes some nonphilosopher. (Kaplan glosses "proposition" as "what is said" in the indirect discourse sense.)

The Fregean can reasonably reply that his interest is in thoughts, not "propositions." When a person uses "Aristotle was a philosopher," he thinks a thought and associates, contextually, a sense or thought component with the name. To isolate the thought expressed by the sentence, one must get at the cognitive significance of the name for the person on the occasion of use. One might *say of* Aristotle that he was a philosopher. We might even say that one thinks *of* Aristotle that he is a philosopher. (See (i).) But the *thought* expressed by an occurrence of "Aristotle was a philosopher," the Fregean might continue, involves the sense of a definite description. Nothing in the argument bears on whether the person's thought remains true or not in the counterfactual circumstance. For the Fregean, that depends on what thought component the person associates with "Aristotle."

The Fregean might concede intuitions Kaplan's argument plays upon. He might concede that Aristotle might have been a philosopher even as the *F* remained nonphilosophical (where "Aristotle" maintains customary reference). He might concede that the "proposition" that Aristotle was a philosopher would be true in such a circumstance. In fact, the Fregean can provide a reconstruction of the relevant notion of proposition. (Kaplan's technical term is "content.") The notion is gotten by taking the thought expressed by the relevant occurrence of "Aristotle was a philosopher" and replacing the sense expressed by "Aristotle" with its (actual) denotation. Holding the denotation constant, one considers whether it (he) would be a philosopher in the counterfactual circumstance. The result is an artificial construct called a "proposition," (See (i).) Such a proposition may indeed be counted true in the counterfactual circumstance in which the thought, or the proposition, that the *F* was a philosopher is not true. But the mere availability of such a notion of proposition does not at all count against carrying out an investigation of cognitive phenomena that appeals to thoughts. As long as such propositions can be constructed out of Fregean thoughts, the basic Fregean viewpoint remains intact. (See note 3.) I think this construction cannot in general be carried out. (See *opera*,

note 15a below.) But nothing in the rigid designator argument shows this.

The Fregean might concede more: that in many cases a proposition in this sense is all that is really *communicated through ordinary language* when proper names, or other indexicals are used. (“So long as the reference remains the same, such variations of sense [in ordinary language] may be tolerated . . .” See (B).) Many modal contexts, indirect-discourse contexts, and even belief contexts, in ordinary language ignore the possibly idiosyncratic senses associated with indexicals or proper names to concentrate on the publicly salient referent. On the other hand, these propositions do nothing by themselves to solve the problems of cognitive value and oblique belief contexts which thoughts were introduced to solve.

So far, I have argued that the Fregean can leave it open whether the *senses* contextually associated with names apply rigidly to their referents. But a second point is available to him. He can simply say that proper names are contextually associated with senses only of rigid descriptions: The sense of a name must apply to the same object under consideration of all counterfactual circumstances, the same object it applies to in nonmodal identity contexts. Nor is this much of a restriction. Frege could have said that “Aristotle” is contextually associated with the sense expressed by “the @ pupil of Plato who taught Alexander the Great,” where “@” functions to insure that the sense of the ensuing description does not waffle or fail in its denotation as one considers different possible circumstances.<sup>15a</sup> The device

<sup>15a</sup> This device can be used to provide a simplification of the strategy represented by (i) above. The Fregean could replace (i) with: -Nec(S(“Teacher”)S (“The @ F)). (See note 3.) This sort of definition runs into trouble as applied to belief contexts, trouble I have discussed in “Belief *De Re*,” op cit., section III, and “Kaplan, Quine and Suspended Belief,” *Philosophical Studies* 31 (1977), pp. 197–203. But the trouble, which is also trouble for (i) understood in the Fregean way, stems from epistemic considerations and is not created by the rigid designator argument.

“@” differs from “actual” only in that “The @ F” picks out the actual F (in “our world”) not only when it is used in an actual context and evaluated under counterfactual circumstances, but also if it were used in counterfactual circumstances. (There is no need for Frege to find an exactly corresponding locution for “@” in natural language.) This distinction between “actual” and “@” deprives one of the basis commonly used to argue that “actual” is an indexical. See David K. Lewis, “Anselm and Actuality,” *Nous* 4 (1970),

can be fitted to any description, and its availability by itself shows that the supplemented rigid designator argument does not cut very deeply as an objection to Frege.

None of the preceding is meant to imply that non-Fregean theories of cognitive content are impossible, or even that Fregean *Sinn* is justified. Indeed, I favor a non-Fregean theory. Rather it is to say that the rigid designator argument, in all its known forms, presents no counterexample to a Fregean theory of thoughts and does not touch the phenomena that the theory was introduced to explain.

A further objection typically raised against Frege is that sentences of the form “Aristotle was the *F*” (where “the *F*” represents a description that gives the sense of “Aristotle”) are not *analytic*. It should be clear that on Frege’s view no linguistic rules will determine that the utterance is true. So analyticity in its modern sense, like meaning, is not at issue. On the other hand, what is expressed by a particular utterance of the sentence would be (virtually) logically true, on Frege’s view. Is this plausible?<sup>16</sup> To answer the question it will be important to discuss a pair of related objections that have been brought against Frege.

Many have noted that it is epistemically possible for the description a person associates with a name to turn out to be false of the name’s object. Thus, we could discover that Aristotle

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pp. 175–188. It should be noted that Frege is *not* committed to cashing out “@” in terms of the senses of definite descriptions. As I mentioned earlier, he is nowhere committed to associating all singular expressions with the senses of definite descriptions. In fact, *obliquely occurring singular terms function as singular terms and appear to have nondescriptive senses in his system*. See his letter to Russell, 12/28/1902 in Gottlob Frege, *Wissenschaftlicher Briefwechsel*, Hermes, Kambartel, and Kaulbach eds. (Felix Meiner, Hamburg, 1976).

Moreover, it is quite doubtful that “@” need be or contain a singular term. I shall not go into this matter in detail since it is complex. But in any discussion of Frege and modality, it should be remembered that Frege’s semantical method as applied to modal contexts does not yield the model-theoretic or possible-world framework. Nor is there any simple argument that it should use such a framework.

<sup>16</sup> Searle, *op. cit.*, p. 215; Kripke, *op. cit.*, pp. 255, 257–8. In calling sentences of the form ‘F(The F)’ “virtually logically true” I am hedging an issue over how to interpret such sentences (or their occurrences) if the singular term fails to be uniquely satisfied by an object. In some logics, the sentence (occurrence) is nevertheless true; in others, it is not. In either case, the form shares the unformativeness of logical truths.

wasn't a pupil of Plato or a teacher of Alexander. But suppose that a student, knowing little else to associate with "Aristotle," associates only these descriptions. Do we really want to say either that the student uttered a logical truth or that he failed to refer to Aristotle on the occasion when he said "Aristotle was the greatest pupil of Plato and the teacher of Alexander"? This rhetorical question is backed by a corollary claim that it is implausible to say that the pupil expressed a different proposition than, say, his teacher, who associated other and perhaps more fortunate descriptions with the name.<sup>17</sup>

We may begin with the corollary claim. There are certainly notions of proposition according to which it *is* implausible to differentiate between the pupil's and teacher's propositions. But "proposition" is not Frege's term. He explicates *Sinn* in terms of mode of presentation to a thinker and counts the sense expressed by a sentence a thought. It is considerably more plausible that in some sense or other, the pupil was thinking a somewhat different thought from the teacher on the relevant occasion. Of course, there is intuitively something the teacher and pupil said, believed, communicated in common. And it is a drawback of Frege's account that he does not address this point. But the sin is more clearly one of omission than of commission. It is evident that with proper names and other indexicals, Frege was more impressed by the individual's information than by mankind's "common stock of thoughts," which he highlighted in non-indexical constructions. It is clear that people with nonoverlapping descriptions associated with a name may not communicate very well. Their thought contents may be in principle publicly accessible, but in fact idiosyncratically entertained. The intuitions that Frege was trying to account for seem genuine. Whether or not his account is optimal, it is not a conclusive line of objection to point to other intuitions he ignored.

Is it plausible that the pupil expressed a logical truth or failed to refer, in the circumstance that we are imagining? Again, it seems intuitively that in some sense the student said and believed something false about Aristotle. And Frege says nothing about

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<sup>17</sup> Wittgenstein, *Investigations* 79; Searle, *op. cit.*, p. 258; Donnellan, "Proper Names and Identifying Descriptions" in *Semantics of Natural Language*, *op. cit.*, pp. 361–62.

this intuition. On the other hand, it is not obvious, given the student's impoverished and mistaken information, that there is no sense in which the student's own thinking failed to pick out Aristotle. It seems to me that nothing much is to be gained by insisting on the point against Frege. There is no evident reason why the student's performance cannot be evaluated from a variety of viewpoints.

The question does arise whether Frege's theory is equipped to account for the intuitions he passed over. This is a complicated question that I shall not discuss in detail, since Frege said nothing about it. But a word is in order. It is certainly open to Frege to claim that while, in a sense, the student's own thinking failed to pick out Aristotle, we can also hold that the student made a statement and held a belief that was false of Aristotle because the student intended to refer to *whomever the teacher referred to*. The teacher (and we) associate senses with the name (Frege might presume) that are more fortunate than the student's. A sense given by the underlined expression would, on these assumptions, pick out Aristotle. And the student would, from the viewpoint of this evaluation, have said and believed something false about him, while also expressing a thought that failed to pick out Aristotle at all. Alternatively, the student may be seen as using the proper name anaphorically to express the very sense that the teacher associates with the name. Thus the sense *expressed* by the student would be different from, and additional to, the sense that he grasps in his own thinking. On either view, the intuition that the student said and believed something in common with the teacher could then be explained in terms of their saying and believing the same thing *of* the same person. (This is a locution Frege himself used. See *Nachgelassene Schriften*, op. cit., p. 275.) I do not present these remarks as an adequate solution. I do not think that they are. What I want to indicate is that if one recognizes the variety of intuitions at issue, it is not clear—*on the basis of considerations raised so far*—that Frege's theory cannot do reasonable justice to them. It is a peculiarly philosophical mistake to assume a person's linguistic performance or propositional attitude is to be evaluated from only one viewpoint. The mistake is common to many of Frege's critics. Frege may have made it too.

These remarks can be extended to apply to the question of whether it is plausible that an ordinarily informed person might express a logical truth by saying “Aristotle is the pupil of Plato and teacher of Alexander.” (We shall suppose here that in fact Aristotle *was* the pupil of Plato and teacher of Alexander.) Frege seems to have anticipated this issue in passage (B)—picking an example in which a sentence expresses a virtual logical truth in one mouth and an ordinary factual assertion in another. He would say that a sentence of the form “Aristotle is *F*” can be judged not to express a logical truth only from a viewpoint in which the sense attached to “Aristotle” is independent of that expressed by “*F*.” Persons using different senses for “Aristotle” connect themselves to one another by guessing each other’s senses (near enough) and perhaps by carrying an auxiliary sense such as “whomever the rest of them are referring to.” The picture is not as neat or precise as one might like. But it is not impossibly unintuitive.

We now turn to a brace of objections to Frege that seem more serious. The first is that Frege gave no means of determining the sense of a name used by a person. Except in a few cases, the person is likely to be at a loss to say what the sense of a name is. If we allow all the descriptions at his disposal to count, then (assuming he is well-informed) his sense will be too vulnerable to reference failure even to sympathetic intuitions. Moreover, if such failure did not occur, all singular thoughts using the name would be virtual logical truths. On the other hand, it is hard to see how to delimit the sense, if the person himself is not able to do so.<sup>18</sup>

Frege’s position on how senses are determined is more complex than is commonly supposed. An attentive reading of passage (A) and a related passage in “The Thought” indicates that Frege believed that the sense associated with indexical expressions, in a context, is not determined by the speaker’s beliefs or psychological state in any simple sense:

(A) If a time indication is made in present tense, one must know when a sentence was uttered to grasp the thought correctly. Thus the time of utterance is part of the expression of the thought. . . . Although the thought [expressed by “Today

<sup>18</sup> Wittgenstein, *op. cit.*, 79; Searle, *op. cit.*, pp. 214–15; Kripke, *op. cit.*, p. 257; Donnellan, *op. cit.*, Section V.

...” and by “Yesterday . . .” in a given pair of contexts] is the same, the verbal expression must be different, to compensate for the change of sense which would otherwise be brought about by the different time of utterance.

(D) The words ‘this tree is covered with green leaves’ are not sufficient by themselves for the utterance; the time of utterance is involved as well. Without the time indication this gives we have no complete thought, i.e. no thought at all. [“The Thought,” p. 533]

The sense appears to be determined by the context (by the time in these cases) in a way that does not completely depend on attitudes of the speaker.<sup>19</sup> The picture is not that of a person’s assigning a sense to his indexical construction, but of his using an indexical construction and a sense’s being assigned to the construction, and a thought to the sentence, by the context. Frege apparently does not assume that a person must be able to give a non-indexical account of the thoughts he expresses in indexical terms. He does leave some latitude for the speaker’s intentions even in the use of ordinary indexical constructions. He suggests that someone could use “I” either in a “special and original” (“besonderen und ursprünglichen”) way, or in the sense of “he who is speaking to you at this moment” (“The Thought,” p. 519). But apparently the context plays a primary role in assigning the sense or thought component of indexical occurrences, independently of the speaker’s other thoughts or beliefs.

This picture is subtle and intriguing. But as it stands, it presents only a direction—one very different from that which is commonly attributed—not a theory. It should also be noted that Frege does not appear to have applied the picture to proper names. (See passage (B).) Thus it remains unclear precisely how the senses of proper names or indexical expressions are contextually determined. With names we rely more on the person; with other indexicals, more on his context. But a clear account of what senses are assigned, and how, is missing in both cases. Although serious, this objection is hardly knockdown. Taken by

<sup>19</sup> Hilary Putnam, in “The Meaning of ‘Meaning’” in *Philosophical Papers* (Cambridge University Press, Cambridge, 1975), p. 218, in effect attributes to Frege the view that grasping meaning (or sense) is just a matter of being in a psychological state. I know of no place where Frege states or implies this view. Although he does not explicitly take issue with it, passages (A) and (D’) tend to controvert it.

itself, it appears to demand merely that an incomplete story be completed or continued. The problem arises when one tries to continue it plausibly, a problem shaped by a final objection.

Frege required that senses be sufficiently complete to determine their associated referents by their very nature. The truth value of a thought expressed by a sentence utterance of the form “Aristotle is  $\phi$ ” or “It is raining” must be determined purely by the eternal nature of the thought. The sense of a proper name or indexical construction is a timeless abstract entity that bears its relation to its denotation or referent in an eternal, context-free manner. It bears this relation in complete detachment from anything a person does or anything that happens to him. Senses are or are components of thoughts, but they determine their referents in regal independence of the thinker’s activity. They are simply there to be grasped (“The Thought,” pp. 530–31, 533–34; and *Nachgelassene Schriften*, pp. 147–49).

This conception leads to several fundamental difficulties with Frege’s system. But the one I shall discuss here is special to context-dependent reference. The problem is that it seems intuitively implausible that a person who uses proper names and indexical constructions always has or grasps abstract thought components (I shall call them “concepts”) that are sufficiently complete to determine uniquely and in a context-free way the things he refers to. For example, one might grant Frege the ploy of interpersonal cross-reference (“whomever he referred to”) with proper names discussed earlier. But there may not always be a “back-up” person so readily at hand. And sometimes no person or group of persons meeting the condition of conceptual completeness will be available in one’s community. There is no guarantee that such chains of cross-reference will always eventuate in someone with a complete sense or thought component.

The problem is even more stark with demonstratives. Frege writes

(D’) But are there not thoughts which are true today but false in six months time? The thought, for example, that the tree there is covered with green leaves, will surely be false in six months time? No, for it is not the same thought at all. The words ‘this tree is covered with green leaves’ are not sufficient by themselves for the utterance; the time of utterance is involved as well. Without the time indication this gives we have no complete thought, i.e. no thought at all. Only a sentence supplemented by a time indication and complete in every respect ex-

presses a thought. But this, if it is true, is true not only today or tomorrow but timelessly. [See *Nachgelassene Schriften*, pp. 4–5; “The Thought,” pp. 533.]

But it is not intuitively plausible that a person’s conceptual abilities will always include a grasp of a context-free, complete “time indication.” The problem is not just that he may not know what time it is. It is that an inventory of thoughts he believes, of the conceptual resources that enter his beliefs, may be insufficient to uniquely determine the time (or other object) to which he succeeds in referring indexically.<sup>20</sup>

Frege appears to be caught between two objectives that he had for his notion of sense. He wanted the notion to function as conceptual representation for a thinker (though in principle accessible to various thinkers, except in special cases). And he wanted it uniquely to determine the referents of linguistic expressions and mental or linguistic acts.<sup>21</sup> The problem is that people have thoughts about individuals that they do not individuate conceptually.

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<sup>20</sup> For elaboration of this sort of point, though often with a focus on meaning rather than sense, see Wittgenstein, *op. cit.*, *passim*; Strawson, *Individuals* (Anchor, Garden City, 1963), pp. 6–9; Donnellan, *op. cit.*, sections V, VII–IX; Kripke, *op. cit.*, pp. 291–92; “Belief *De Re*,” *op. cit.*, section IV. Even when a person *can* uniquely describe the objects he indexically refers to, the indexically expressed attitudes are intuitively not the same as their eternally expressed counterparts. For the former essentially involve the subject’s *application* of attitudinal contents in a particular context to contextually identified entities. The latter need involve no such ability to make a contextually appropriate application.

<sup>21</sup> Frege, “The Thought,” pp. 533–34; “On Sense and Reference,” p. 58. This function of determining the reference has also been misunderstood or distorted. I have elsewhere warned against identifying it with Kripke’s pragmatic notion of fixing a referent. See Kripke, *op. cit.*, pp. 274–78; “Belief *De Re*,” pp. 356–57. There is also a widespread tendency to “operationalize” Frege’s function of determining the reference—identifying it, say, with a method or procedure of verification. This is anachronistic, though perhaps not uninteresting from an historical point of view. Frege’s notion is vaguer. Although some of his examples suggest this interpretation (e.g., the telescope analogy, “On Sense and Reference,” p. 60), Frege simply requires that for every sense there be at most one referent. I should note that my use of “concept” in the text is to be strictly distinguished from Frege’s “concept” (*Begriff*). Frege’s term can be glossed as “a function whose values are truth values”; first-level concepts are the referents of predicates. I use “concept” to apply to components of thoughts, in Frege’s sense of “thought,” which are not themselves thoughts—senses of expressions other than sentences. I shall broaden this use of “concept” in a few pages.

It is unclear how Frege would have dealt with this problem had it been forced upon his attention. I shall consider two sorts of responses. One preserves most of Frege's doctrine (though it is not compatible with everything he said), but seems implausible. The other gives up a fundamental tenet of the doctrine.

One response is to postulate *special* senses for proper names and demonstratives (as used in a context), senses that are not expressed by any other expressions in the language. These senses or concepts would completely fix their referents and would do so in a context-independent way, although they would be expressed or thought only contextually. One might say, for example, that the sense or concept expressed by "Aristotle," in a context, is that of being Aristotle. The sense of a use of "this" or "now" would perhaps be that of being *this* or being *now*.<sup>22</sup> One might see these senses or concepts as assigned by the context in the manner suggested above, so that they could not fail to have the "right" referent.

I think that anyone not already bent on preserving a philosophical outlook will find this sort of response thin and implausible. It amounts to describing senses or concepts with all the theoretically required features without doing anything to assuage the original doubt that there are such senses or concepts. It is not clear what one is being told when it is said that the sense of "Aristotle" is the concept of being Aristotle. The expression "the concept of being Aristotle" does not suffice to convey what is intended, for it is just as context-dependent as the proper

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<sup>22</sup> This sort of move may be seen in variations on Carnap's idea of assigning individual concepts to proper names. See *Meaning and Necessity*, op. cit. Of course, such concepts as Carnap conceived them are not sufficiently fine to serve Frege's epistemic purposes. It may also be seen as kin to the idea attributed to Boethius by Plantinga (and favored by Plantinga himself) of letting the proper name "Aristotle" express the property of being Aristotle. See Alvin Plantinga, "The Boethian Compromise," *American Philosophical Quarterly* 15 (1978), pp. 129–138. Here again, unless properties are distinguished as finely as senses expressed in a context, the idea will not suffice to meet Frege's epistemic demands—those that issue from the various forms of the paradox of identity. Versions of this general approach are also defended in Diana Ackermann, "Proper Names, Propositional Attitudes and Non-Descriptive Connotations," *Philosophical Studies* 35, (1979), pp. 55–69; and Castañeda, op. cit., and "Perception, Belief, and the Structure of Physical Objects and Consciousness," *Synthese* 35 (1977), pp. 285–351. The approach-type has been proposed informally by several others.

name. This insufficiency takes two forms. In the first place, there are lots of Aristotles—which one is intended? We seem to rely on the context to pick out the “right” one. But intuitively we do not—at least not always—rely on some contextually associated complete sense or concept which eternally determines the referent. In the second place, the name “Aristotle” may carry—even for a given Aristotle, a given speaker or thinker, and a given time—different cognitive values. “Aristotle is Aristotle,” as used at a given time, may express a surprising discovery rather than a triviality (See my op. cit., note 2).

Analogous points hold for demonstratives. One can believe “what is expressed” by “*i* is *F*” (where “*i*” represents any demonstrative and *F*, a nonindexical predicate) in one context and disbelieve “what is expressed” by the the same sentence in another context even though *a*) “*i*” applies to the same entity and *b*) intuitively one is not changing one’s mind. For example, one might correctly believe that today is Thursday, and later in the same day, having thought twenty-four hours had passed, disbelieve that today is Thursday. Frege will need indefinitely many complete senses, even holding both the referent of the indexical and the indexical itself fixed. As before, the appeal to concepts or senses “complete in every way,” that by their nature uniquely fix the referents of these context-dependent expressions, has no intuitive substance.

A side issue here, but one important to Frege, is that the appeal to special senses inexpressible in other terms provides a dubious basis for an account of communication. For given that those senses must be distinguished so finely (roughly to match the person’s particular epistemic viewpoint in a context), and given that they cannot be explicated in nonindexical terms, it is difficult to see how they can ever be communicated. For each person’s epistemic viewpoint, even in a given situation, is different. To be sure, Frege thought (plausibly) that communication with proper names and other indexicals is in some respects less reliable than with other expressions. And he held that each person had a sense for “I” that was *in principle* incommunicable to anyone else (“The Thought,” p. 519). But Frege’s point about “I” seems to have been a rather clumsy attempt to capture the mundane, but special fact that only *a* can take the first person

veiwpoint toward *a*. And it is evident that Frege did not hold that all senses for indexicals are in principle incommunicable.<sup>23</sup> He gives examples of indexicals which he thinks can be communicated (“I” in one sense, “he,” “you,” “this,” present tense, and proper names, “The Thought,” pp. 517, 519, 533). But if senses or concepts are individuated finely enough to bear Frege’s epistemic load (accounting for possible differences of belief), yet are counted rich enough to meet his semantical requirement (specifying by their very abstract natures a unique referent), it is hard to see how communication with indexical constructions could depend on them in practice, whatever one said about the matter in principle. It is not clear, however, what Frege thought about communication involving indexical sentences.

One might think of an indexical like “this” as contextually associated with a largely qualitative sense, something like what is presented in the visual field. (See “On Sense and Reference,” p. 60.) But this idea increases intelligibility without achieving adequacy. It is in principle possible for identical visual fields to be associated with different referents. And no supplementation of the visual field with concepts will always be sufficient to make it plausible that the referent is completely determined by the nature of complete senses or concepts (as opposed to indexicals) that the person employs. (See note 20.) The appeal to visual fields or qualitative senses does little to capture uses of “now” and tenses, or the first-person pronoun, or blind pointings, or indexicals based on memory (where imagery fades), or proper names of people or entities with whom we are not acquainted.

The troublemaker underlying these contortions is the assumption that a person using indexical constructions always thinks thoughts that are context-free and “complete in every way”—that the contents of a person’s beliefs and so forth, are always

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<sup>23</sup> Perry, *op. cit.*, sees the appeal to incommunicability in the case of “I” as the result of pressure from some of the problems that we have discussed. I do not find this plausible. Appeal to incommunicability emerges only with “I,” but the problems of incompleteness arise with other indexicals as well. These problems raise worries about how communication might occur in practice; but it is not clear why they should lead one to appeal to incommunicability in principle. There is also no clear evidence that Frege considered the problems we are discussing.

completely conceptualized. What I mean to convey by “completely conceptualized” is that the truth value of the cognitive content—of what the thinker grasps, thinks, or believes—is eternally fixed given its nature, given the kind of content it is. A trademark of a sense or Fregean thought component is that it can in principle be expressed on indefinitely many occasions. For nothing in its expression or in its being thought affects its referential relations. (See “The Thought”, pp. 530–31.) Its relation to its referent(s) is atemporal and depends purely on its own nature and the inventory of the world. The problem we have been discussing is that thoughts sometimes appear to be irreducibly context-bound. The response in terms of special senses tries to confine the context-dependence to the *expression* of thoughts, maintaining that the thoughts themselves are eternally self-sufficient. This is a consistent position. But it is intuitively implausible. Its implausibility emerges in the strained, ad hoc and inarticulate character of attempts to specify or evoke the senses or concepts that are supposed to be indexically expressed. There seems no natural means of transcending the indexical character of our thought expressions or thought ascriptions.

An entirely different response to these problems concedes the context-bound character of thoughts. Frege himself held views that could perhaps have been mobilized to yield such a response. In *The Foundations of Arithmetic* he appealed to Kant’s notion of intuition in his discussion of geometry:

A geometrical point, regarded by itself, cannot be distinguished from any other; the same holds for lines and planes. Only when more points, lines, planes are simultaneously apprehended in an intuition, does one distinguish them. When in Geometry general propositions are extracted from intuition, this can be explicated by the fact that the intuited points, lines, planes are not at all special (*besondere*) and thus can count as representatives of their kind.<sup>24</sup>

The notion of intuition, though somewhat vague, is fitted to the problem that we have raised for Frege. It is used to account

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<sup>24</sup> Frege, *The Foundations of Arithmetic*, op. cit., section 13; my translation here. I have tried to avoid using English technical, philosophical terms in translation unless they clearly match Frege’s notions. Thus I translate “*besondere*” as “special” rather than as “particular.” On the notion of intuition, see Kant, *Critique of Pure Reason*, A19–B33.

for a thinker's apprehension of an entity without his being able to distinguish it conceptually from all other entities. The apprehension of it depends essentially on contextual, nonconceptual relations to it. Different contexts necessarily mark different intuitions.

The notion of intuition is treacherous. The task of explicating it tends to bring out the worst in philosophers: appeals to special kinds of infallible knowledge, which nevertheless cannot be conveyed, and the like. Indeed, the notion has tended to take on many of the objectionable features of the "special senses" discussed earlier. In my view, it is best to see the notion simply as indicating a thinker's contextual indexical application of concepts (constant nonindexical thought components) to individuals. Such application may be (perhaps always will be) backed or guided by further images, descriptions, concepts or the like. But these need not be sufficient to individuate the entities about which the thinker is thinking, nor need they be regarded as constituents of the intuition or of the relevant thought. A thought expressed in the form "that *G* is *F*" may be seen as an indexical, intentional application of the concept *F* (in the just stated sense of "concept") to an entity which is described, but perhaps not completely individuated by the concept *G*. The context-bound application is a part of the representational function of the thought. There is nothing in the *nature* of the intuition, regarded apart from its context, that determines that it picks out the individual that it does. Individuative reference—even in thought—is partly a matter of the context in which concepts are applied by the thinker.

The view makes communication intelligible. A hearer can note the contexts in which indexicals are applied (rather than having to divine an idiosyncratically associated concept) and can utilize his notes to find the intended referent. A thorough discussion of the approach is out of place here. Suffice it to say that I think an appeal to some nonconceptual, context-dependent notion like intuition—or intentional, contextual application—is exactly what Frege needed to handle demonstratives, tense, and proper names.

Why did Frege not introduce this sort of notion? Throughout his career, his genius was focused on liberating logical theory

from the vagaries of traditional epistemology. Understandably, he was deeply impressed with the explanatory power of his logical principles that reference (including truth value) is a function of sense, and that the sense of a complex expression is a function of the senses of the parts. When he came to treating proper names and demonstratives, the impulse to apply these principles was overwhelming. Yet the notion of sense was originally introduced to deal with problems about informativeness—problems about knowledge and belief. And Frege was systematic enough to want his logical principles to do epistemological work in his discussion of context-dependent referential devices. The fundamental error of Frege's theory of these devices is that the logical principles, applied in their full strength, are epistemically implausible. It is not the case that for every indexical construction in each context in which it is successfully used, the user or thinker grasps a sense or concept that is complete enough by its very nature and apart from contextual application to specify the referent uniquely. Frege's focus on logic blurred his vision of epistemology. A similar short-sightedness has been inherited by most of Frege's critics, interpreters and followers. Influenced by his revolutionary approach to language and logic, they have tended to underestimate the depth of his insights and ambitions in epistemology. Indeed, recent thinking, far more than Frege, has ignored the demands of epistemology for the enticements of semantics.

There is a moral to be drawn here about criticisms of Frege: Only epistemically oriented criticisms are likely to be relevant to Fregean *Sinn*. Frege's notion marks a set of problems in the theory of cognition that cannot be reasonably ignored. Better acquaintance with *Sinn* should yield a richer understanding of the range of problems Frege bequeathed us. And in the light of such understanding, Frege's *Sinn* can be forgiven, if not justified.

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