

Frege on Indexicals

Robert May

University of California, Irvine

I.

It is a characteristically Fregean thesis that the sense expressed by an expression is the linguistic meaning of that expression. Sense can play this role for Frege since it meets fundamental desiderata for meaning, that it be universal and invariantly expressed and objectively the same for everyone who knows the language. It has been argued,¹ however, that, as a general thesis about natural languages, the identification of sense and meaning cannot be sustained since it is in conflict with another characteristically Fregean thesis, that sense uniquely determines reference. The argument is quite simple and can be outlined as follows. Assume the two theses we have just stated:²

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1. Most notably by Tyler Burge in "Sinning against Frege," *Philosophical Review* 88 (1979): 398–432, and John Perry in "Frege on Demonstratives," *Philosophical Review* 86 (1977): 494–97, reprinted with appendix in John Perry, *The Problem of the Essential Indexical and Other Essays* (New York: Oxford University Press, 1993); citations are to the reprint.

2. When we say that sense uniquely determines reference, we mean that each sense determines one and only one reference; we do not mean to imply that each reference is determined by one and only one sense.

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- (I) Sense uniquely determines reference.
- (II) Meaning is invariant and universal.

It follows from (I) that if there are different references, then there are different senses; no two references can be determined by the same sense. Now consider expressions—in particular, indexicals and demonstratives³—that have the property that their references may vary from utterance to utterance. These expressions, therefore, may express different senses on each occasion of use. But then sense is *not* invariant, and hence sense *qua* meaning does not satisfy (II). *Ergo*, senses are not meanings. As Tyler Burge puts it: “Sense shifts with context; meaning does not.”⁴

Although the view that senses are not meanings has been highly influential, (it has spurned the development of notions such as David Kaplan’s *character* and John Perry’s *role*), I am inclined to resist it as a reading of Frege, at least on the basis of the argument just outlined. My reasons have to do with premise (I), which I believe is more appropriately stated conditionally:

- (I′) If a sense presents a reference, then it uniquely determines that reference.

For Frege, sense determines reference for a very particular reason; it does so because a sense *presents* a reference, by incorporating a mode of presentation. This is how Frege invariably speaks of the matter whenever he is discussing the senses expressed by proper names, the most renowned passage being found in the opening paragraphs of “On Sense and Reference.” If (I′) replaces (I), then the argument given above is valid only if the senses of demonstrative and indexical expressions are linked to their references in the same way as the senses of proper names, that is, via modes of presentation. Although this assumption has been

3. Of the indexicals Frege discusses, I will focus primarily on the pronominal, (that is, the personal pronouns), leaving aside for the most part temporal indexicals. Demonstratives will also be discussed; even though Frege does not explicitly mention them, much of what he says otherwise about indexicals holds for demonstratives too. In deference to this textual point, I will speak throughout of indexicals and demonstratives, meaning only to distinguish cases.

4. Burge, “Sinning against Frege, 405. Burge (and others) take the variability of sense to be general; sense may vary even if reference is held constant across contexts. On this view, the senses of proper names can be as variable as the senses of indexicals and demonstratives. But this is as unfaithful a reading of Frege on proper names as I will argue here it is for indexicals and demonstratives; see Robert May “The Invariance of Sense,” *Journal of Philosophy* 102 (2006): 111–44.

commonly held among those who have explored Frege's view of indexicals and demonstratives, it is an assumption that I wish to question. Clearly, if the senses of such expressions do not present references, the consequent of (I') cannot be detached and the argument fails. In that event, it is open to broach the question of whether there are such senses of indexicals and demonstratives, senses that, by not presenting a reference, also do not uniquely determine a reference. If there are such senses, and if they are invariantly expressed, we can then maintain the thesis that senses are meanings.

Frege, I think it is clear, believed that indexical and demonstrative expressions have senses; in Frege's view, *all* sentences of *any* language have objective thought correlates. It surely would have been queer for Frege to have placed his only published account of indexicals and demonstratives plunk in the middle of an essay devoted to the elucidation of *sinn*—"The Thought"—in order to show that they did *not* express senses. In this essay, however, Frege does give an explicit argument—the Lauben argument—that the senses expressed by indexicals and demonstratives are different than those expressed by proper names. The goal of a "Fregean" theory of indexicals and demonstratives, I take it, is to make precise just what this difference consists in, with the desideratum that it makes sense contextually within Frege's *oeuvre*. This context largely comprises a message about thoughts, that they are universal and objective and, as such, always distinct from ideas. This is the main theme of "The Thought" and is also the context of Frege's only other discussion of indexicals, his unpublished notes entitled "Logic" of 1897. What Frege is trying to tell us about *thoughts* by his ruminations about indexical and demonstratives is that this is true of *all* thoughts, those containing senses of indexicals or demonstratives being no exception. But if Frege's interest in the senses of indexicals and demonstratives is subsidiary to more general concerns about thoughts, nevertheless his point cannot be sustained at the cost of a conception of thought, especially of thoughts containing senses of indexicals or demonstratives, that is at odds with other entrenched aspects of his thinking. Frege, I believe, did think it all squared; my goal in this essay is to show why he might have thought so.

II.

Put in Fregean terms, the problem posed by indexicals and demonstratives is plain enough: when we take what is invariant and context *independent* about indexicals and demonstratives—their *sense* (or at least an aspect of it)—there is not enough information available to determine

whether the resulting thought is a true thought or a false thought. What is lacking is information about any definite reference; the sense does *not*, in the manner of a proper name, present a reference. But if sense does not present a reference, how can sentences containing indexicals and demonstratives ever be true or false?

To understand Frege's approach to this issue, our initial task is to clarify what it means for a sense not to present a reference. The place to start is with Frege's often-cited remark from "On Sense and Reference" regarding sense and modes of presentation; he says that the sense is "wherein the mode of presentation is contained."⁵ Although I think that Frege's choice of terminology is ultimately somewhat misleading, by implying that sense and mode of presentation are not one and the same (since one is contained in the other), it is suggestive in inviting us to entertain the idea that sense and mode of presentation are dissociable. If they are, one could further speculate that there could be two different kinds of senses, bifurcated into those that do, and those that do not, contain modes of presentation. A sense that does not present a reference is thus a sense that does not contain a mode of presentation. But if there are such senses, a question immediately arises: under what circumstances do we need a mode of presentation of a reference and under what circumstances do we not?

The answer to this question resides, I think, in Frege's theory of judgment. Judgment, according to Frege, is the transition from sense to reference. A speaker's grasp of a thought, and hence of its constituent senses, must be such that it provides the speaker with sufficient information to place him in a position to make this transition, that is, to be able to judge whether the thought grasped is a true thought or a false thought. Senses, therefore, must contain at least that which needs to be conveyed by a sign in order to place a speaker in a position to make a judgment. Now in order for a speaker to make a judgment, one thing that is required is that the speaker be provided with (cognitive) access to the references of the terms, and there are two ways in which this may come to be. Either the reference is already present, or if not, then it needs to be presented.⁶ If the former obtains, then the sense need not

5. Gottlob Frege, "On Sense and Reference," in *Translations from the Philosophical Writings of Gottlob Frege*, ed. Peter Geach and Max Black (Oxford: Basil Blackwell, 1952), 57.

6. There is something of an analogy, although rather loose, to be drawn here with Russell's distinction of knowledge by acquaintance and knowledge by description: a reference would be *present* just in case we are acquainted with sense-data of it; otherwise, it would have to be presented, that is, described.

contain a mode of presentation, as the reference is already present. But if the reference is not otherwise present, then the sense must provide information about it, that is, the sense must then contain a mode of presentation. Why then do we need a mode of presentation of a reference? We need it if the reference is not otherwise present; but for something that is already present, we do not need a mode of its presentation.

Senses, we are thus maintaining, come in two varieties; those that contain modes of presentation and those that do not. The information about reference that senses of the former sort contain presumably need only be supplied to the extent that it would not otherwise be reliably available to the speaker in context. But when a reference *is* present in context, we do not need a mode of its presentation, and so we may use an expression whose sense does not otherwise present a reference. Prototypically, such expressions are indexicals and demonstratives; to the extent that a reference is present, we can speak demonstratively or indexically of it without the need of a further presentation. This is in contrast to proper names, whose senses typically contain modes of presentation. We are thus distinguishing two, and only two, cases: (i) context-independent expressions such as proper names whose senses need to contain modes of presentation since context cannot reliably present a reference; (ii) context-dependent expressions such as indexicals and demonstratives whose senses need not contain modes of presentation since context does present a reference.⁷

To say that demonstrative and indexical expressions express senses that do not contain modes of presentation is not to say, however, that the senses expressed are utterly unconnected to reference; all senses must have some such connection. Thus, let us distinguish senses that *constrain* reference from senses that *present* reference, where a sense that presents a reference thereby constrains reference, but not conversely. Senses that only meet the former, weaker condition merely limit the character or nature of the reference in context; they constrain but do not present. The senses of indexicals and demonstratives are constraining senses; what is required for such senses is that they contain enough information to connect the *present* reference to the thought expressed,

7. Note that for Frege there can be no “crisscrossed” languages in which there are proper names with demonstrative-like senses or demonstratives with name-like senses. This is because the type of an expression is defined by the type of its sense; if there are two types of senses, then there are two types of expressions corresponding to each sort of sense regardless of their particular outer linguistic form.

such that it can be determined in context whether it is a true or false thought. So, for example, the sense of “he” must contain at least the information that the present reference is male, unitary, and neither the speaker nor addressee.⁸ Given that the present reference satisfies these conditions, then the thought expressed by “He is a philosopher” will be a true thought if and only if that reference falls under the concept *is a philosopher*. Similar remarks hold for other terms; the sense of “I” contains the information that the present reference is the speaker; of “you” that it is the addressee. Reference for “pure” demonstratives, were there any, would be constrained to just being present, without any added constraint; real demonstratives, however, are constrained in roughly locational or contrastive terms, to wit, “this” versus “that,” and may be further constrained compositionally, for example, “this star” or “that star.”⁹

In *Grundgesetze*, sec. 32, Frege tells us that every sentence, every name of a truth-value as he would have it, expresses a thought: “The sense of this name—the *thought*—is the thought that these conditions—the conditions under which the name has the True as its reference—are fulfilled.”¹⁰ Although Frege’s specific imposition of this criterion is for sentences of the *begriffsschrift* he employs in his construction of logic, and hence sentences that express only true thoughts (because they are either axioms or theorems), it is a condition that he intends to hold for languages in general, including languages containing indexicals and

8. That is, “he” is standardly used to refer to a third party; note that its use is not precluded if the third party also happens to be the first or second party to a discussion. Well known are exotic cases in which, say, the addressee is referred to by “he” when additionally present, perhaps via picture or a reflection in a mirror, as a third party. Reference to the addressee would be indirect, and unless the speaker intends some sort of irony, would occur when the identity of the parties is unbeknownst to the speaker.

9. What we have said thus far is not dissimilar from the view developed by John Perry in “Frege on Demonstratives.” In Perry’s terminology, we have identified Fregean senses with his notion of role. Perry argues at length against a number of aspects of what he considers Frege’s view of demonstratives, including that their senses are given by the senses of associated descriptions and that there are incommunicable senses. Perry’s arguments are perfectly good against these positions; it is just that these are not positions that Frege held (see discussion in note 34). Perry does purport to give one argument against identifying roles with Fregean thought contents, but it is just to assert the argument we are presently discussing; that is, that role can remain constant while reference, and hence truth-value, can vary. What Perry does not recognize, I am arguing, is that this is not incompatible with Frege’s view of senses as thought contents.

10. Gottlob Frege, *The Basic Laws of Arithmetic* [*Grundgesetze der Arithmetik*], trans. Montgomery Furth (Berkeley: University of California Press, 1967).

demonstratives. In this more general setting, for Frege a thought is *complete* if and only if it is a true thought or a false thought, and a sense is *full* just in case there corresponds a definite reference. Complete thoughts are composed of full senses. For Frege, a sense occurring in a thought *must* be associated with a reference if the thought is to have judgeable content; if there failed to be an association we would not have grounds for computing the reference of the thought to the True or the False. This is what it is for a thought to be complete, to be composed of full senses.

If for a thought to be complete with respect to judgeable content is to be composed of full senses, that is, senses properly associated with references, then what is peculiar about sentences containing indexicals and demonstratives is that the thoughts they express are not complete without supplementation from context; without this they cannot be judged either true or false.¹¹ Indexicals and demonstratives “only acquire their full sense through the circumstances in which they are used,” according to Frege.¹² That is, they only acquire what makes them full—their *reference*—in context. We thus have two cases, depending upon how reference is obtained. Either reference is presented inherently by the sense or it is not. If it is, such as with the senses expressed by proper names, we will have the same reference from context to context; if not, the reference must be supplied by supplementation with a reference present in context. Either we have the thought that the conditions are fulfilled by a *presented* reference or that they are fulfilled by a *present* reference.

11. We must be careful in our usage here. Sentences containing indexicals or demonstratives only ever express complete thoughts. It is not as if there is some other entity, an incomplete thought, that exists prior to supplementation; it is just that we must take the supplementation into account in order to recognize what complete thought is expressed. We might hold, nevertheless, that there are incomplete thoughts, but these would be of a different character. They would be thoughts that contain senses that have modes of presentation but nonetheless fail to have a reference, and hence can be neither true nor false. Such thoughts are not judgeable thoughts; Frege labels them “mock” thoughts. In contrast, indexical and demonstrative thoughts are judgeable thoughts; they may be true or false since the senses of indexicals and demonstratives can be associated with references, via supplementation. The presence of indexical and demonstratives is in no way a “defect” of language in the sense that nonreferential terms are; the latter mark a fundamental breakdown in the relation of sense and reference that the former does not. Nevertheless, the presence of indexicals and demonstratives in a language does render it inappropriate for the codification of reasoning, that is, for logic, but for different reasons than empty names (or vague predicates, for yet even different reasons); see note 49.

12. Gottlob Frege, “Logic,” in *Posthumous Writings*, ed. Hans Hermes, Friedrich Kambartel, and Friedrich Kaulbach (Chicago: University of Chicago Press, 1979), 135.

As we have drawn the Fregean theory of indexicals and demonstratives, such expressions have unique, invariant senses that do not vary from speaker to speaker or from utterance to utterance. These senses determine the conditions that must be satisfied in order that an object qualifies as a present reference in the context; their role is to limit appropriate referential supplementations. This reference will then contribute to fixing whether a true or false thought is expressed by the sentence containing the demonstrative or indexical. A sentence containing an indexical or demonstrative thus expresses a thought that is fully *saturated*—it has all its constituent sense-parts. “He had a beard” expresses a thought that is fully composed of the sense of “he” and the sense of “had a beard” and is so composed timelessly—independently of use—just like the thought expressed by “Frege had a beard.” As Frege says, “the object designated by a proper name seems to be quite inessential to the thought-content of a sentence which contains it,” and so too for indexicals and demonstratives.¹³ Yet these thoughts differ because not all (saturated) thoughts are *inherently* complete in their pairings of sense and reference; thoughts may contain parts that underdetermine judgeable content. For these, the pairing is completed by supplementation with a reference in context; only then is a complete thought expressed, one that can be judged to refer to the True or to the False. As Frege tells us “in every judgement, no matter how trivial, the step from the level of thoughts to the level of reference (the objective) has already been taken.”¹⁴ In effect, then, by supplementation with reference, we will have inherently accomplished at least part of the act of judgment; to this extent, the grasp of the thought expressed is much more closely aligned with judgment than with thoughts containing senses of proper names.

Bear in mind that by “supplementation” Frege does *not* mean that the reference itself becomes a constituent part of the thought expressed; for no thought is that the case. Thoughts do not contain the objects they are about. As Frege first remarks in his letter to Russell (November 13, 1904) and then again in his fragment “Introduction to Logic” (1906), Mont Blanc itself is not a constituent of thoughts about Mont Blanc: “we can’t say that an object is part of a thought as a proper name is a part of

13. Gottlob Frege, “Introduction to Logic,” in *Posthumous Writings*, 191. To emphasize: it is the *object* itself that is inessential to thought-content. This holds universally of thoughts; what does not is whether the thought-contents include modes of presentation, information sufficient in itself to obtain a reference.

14. Frege, “On Sense and Reference,” 64.

the corresponding sentence.”¹⁵ Referential supplementation does not have an impact on this aspect of the sense/reference distinction; Frege’s assertion holds just as much with “indexical or demonstrative” substituted for “proper name.” To repeat, the issue that is brought forth by indexicals and demonstratives is whether a thought, understood as a composition of senses capturing referential invariances, contains sufficient information to determine all of the references. This may or may not be the case; it depends, Frege tells us, on the thought constituents.

It is a consequence of Frege’s theory that the complete thoughts expressed by a given sentence with a demonstrative or indexical can vary from context to context; in some a true thought will be expressed, in others a false thought. As Frege observes:

the same sentence does not always express the same [complete] thought, because the words need to be supplemented in order to get a complete sense, and how this is done can vary according to the circumstances.¹⁶

Whether a thought is a true thought or a false thought is a function of the composition of *references*: “ $P(a)$ ” expresses a true thought *if and only if* a falls under P and a false thought if it does not.¹⁷ Accordingly, to ascertain whether there are different complete thoughts expressed, we need to express the composition of references. “He was wounded” expresses a different complete thought when the reference of “he” is Dr. Lauben as opposed to Rudolph Lingens. As Frege observes, “the sentence ‘I am hungry’ can be true for one person and false for another,” but he immediately follows this up by saying “The sentence, certainly—but not the thought.”¹⁸ Rather, because in each case the pronoun has a different reference, there are two different complete thoughts at play—“for the word ‘I’ in the mouth of the other person denotes a different man, and hence the sentence uttered by the other person expresses a different thought”—and each of these thoughts is invariantly true or false. A

15. Frege, “Introduction to Logic,” 187.

16. Frege, “Logic,” 135.

17. Presupposing a exists; see note 11.

18. Gottlob Frege, *The Basic Laws of Arithmetic*, 14. Frege makes the remarks quoted in this paragraph in the midst of an extended argument against the truth-relativism he perceived to be inherently embedded in psychologistic logic, for which he took the observation that sentences containing indexicals or demonstratives could vary in truth-value to be no argument. Rather, as noted, for Frege it is thoughts that have truth-values, and they do so invariantly. See May, “The Invariance of Sense.”

thought, for Frege, cannot shift from being true to false, or vice versa.¹⁹ A thought is a complete determination of a truth-value (itself a reference), and once fixed, it is fixed for good; what contributes to this determination, the senses *and* the references, “belong to the thought whose truth is in point; its truth itself is independent of place or time.”

The point we are emphasizing here is that if we are to ask what must belong to, or is pertinent to, the thought in order for it to be complete—that is, to be recognizable as a true thought or not—then it is both its sense and its reference. But if so, we must be careful to keep apart, at least conceptually, what belongs to a thought from what is contributed by its constituent senses since these are not the same; this is the lesson of indexicals and demonstratives. The sense expressed by “he” is invariant among the thoughts that can be expressed by “He was wounded,” even if what belongs to the thought varies. Because the senses of indexicals and demonstratives merely constrain, and do not present, reference, different complete thoughts can be made up of the same senses; the difference is *not* the result of the composition of senses per se. The completeness of thoughts does not require that each of their constituent parts contain a mode of presentation, but it does require that they be either true thoughts or false thoughts; for the case at hand, in order to establish their completeness in the context of the here and now, there needs to be supplementation with reference. Thus, when Frege speaks of the supplementation of indexicals and demonstratives, he does not mean that their senses are supplemented with a mode of presentation, which may be different for each context. The desideratum for a Fregean theory of indexicals and demonstratives is *not* to find a way of providing a mode of presentation for a reference in context so as to add a missing ingredient to an inherently incomplete sense. It is not as if such senses have holes or gaps whose fillers must be gleaned from context, once filled the result being a sense that is effectively no different than the sort of sense that is inherently expressed by a proper name. Rather, the point is that indexicals and demonstratives have senses that are of a different kind than the senses expressed by proper names.²⁰

19. It is this observation that lies at the heart of the dispute Frege had with Hilbert, at least from Frege’s side; see the discussion in Aldo Antonelli and Robert May “Frege’s New Science,” *Notre Dame Journal of Formal Logic* 41 (2000): 242–70.

20. Confusion on this is found notably in Perry’s “Frege on Demonstratives.” So, it is not “what Frege has in mind” that “to understand a demonstrative, is to be able to supply a sense for it on each occasion, which determines as reference the value the demonstrative has on that occasion” (15).

Frege on Indexicals

Frege is well known for such maxims as: “We can inquire about reference only if the signs are constituent parts of sentences expressing thoughts.”²¹ The inquiries we have been making are these: (i) how is reference determined in the context of a thought, and (ii) what do senses, the constituents of thoughts, invariably contribute to this determination? For proper names, the answers to these two questions essentially come together. A reference is determined by a mode of presentation, and the mode of presentation is also the invariant contribution. But with indexicals and demonstratives, the answers come apart since the sense does not contain a mode of presentation. Reference is determined by supplementation, and it is the constraints that are invariantly contributed. It is these invariances that a speaker grasps, qua knowing the meaning of an indexical or demonstrative word; qua understanding a sentence, what is grasped is the sense supplemented with a reference, the full sense. Context affects the answer to (i) but not (ii); in contrast, it affects neither with proper names. Thus, depending upon whether judgeable content or invariance is at issue, a thought can come to be seen in different ways. If we ask whether a thought is a true thought or a false thought, then necessarily we have to bring reference onto the stage; but reference may remain in the wings when our focus shifts to what makes up a thought. If at times, the discussion reflects this difference in perspective, we do not mean to be demarcating a distinction between two distinct types of thoughts, between different entities, related as they may be. For Frege, there is just the thought, the complete thought; where thoughts may differ is in what is involved in recognizing their completeness. It will be important to keep this in mind as we proceed.²²

21. Gottlob Frege, *Grundgesetze der Arithmetik*, vol. 2, sec. 97, in *The Frege Reader*, ed. Michael Beaney (Oxford: Blackwell, 1997).

22. The distinction in perspective we are alluding to bears a resemblance to what Christopher Peacocke, in “Demonstrative Thought and Psychological Explanation,” *Synthese* 49 (1981): 187–217, appears to have in mind when he distinguishes between sense tokens and types, elaborating views of Gareth Evans in “Understanding Demonstratives,” reprinted in Gareth Evans, *Collected Papers* (Oxford: Oxford University Press, 1985). There are, however, significant differences in our conceptions. According to Peacocke, it is only *qua* token that senses are invariably associated with references. “A token,” Peacocke says, “can be regarded as obtained by *indexing* a type with an object” (“Demonstrative Thought and Psychological Explanation,” 189), so that sense-tokens can be reckoned as pairings of sense-types and the objects those types are about. With an indexical or demonstrative, this pairing is given by specifying a reference in context for their unique, invariant sense, senses that place requirements on possible indexings. Every use of “I,” for instance, may express a distinct sense-token in virtue of being

III.

Frege's most notable and, we must assume, definitive (for he never returns to the matter) discussion of indexicals and demonstratives is found in "The Thought," in the well-known passage about Dr. Gustav Lauben and associates.²³ In his remarks in this passage, Frege makes two closely related points. The first is that the senses of indexicals and demonstratives are distinct from those of proper names; the second is a suggestion as to the character of the former sort of senses, distinguishing them from ideas, with which they might be confused. Let us consider how Frege develops these points in the course of the "Lauben argument."²⁴

associated with a distinct reference, but all of these tokens are of the same sense-type; there is only a difference in index. Token thoughts are compositions of token senses. It is token thoughts, on Peacocke's view, that people think when they think Fregean thoughts. But such token thoughts, containing as they do objectual *content* (the indexed object), might be thought suspect candidates for being Fregean thoughts. Perry, in *The Problem of the Essential Indexical and Other Essays*, 29, makes essentially this argument, directed specifically toward Evans, and he is right to do so. Peacocke is also not unaware of it; his defense is that his theory is Fregean *de facto*, if not *de jure*, since token thoughts, he argues, can play the roles—being simultaneously the objects of belief and the bearers of truth—that Frege requires of thoughts. An obvious way to get closer to a *de jure* theory would be to take the indexing not materially but as a *formal* annotation, indicating the existence of a relation between the sense and a reference. This would at least have the virtue of not effacing the sense/reference distinction since thoughts would contain no objectual content. But this would not make them any less suspect candidates for Fregean thoughts. If indices are formal marks, then there must be a formal way of representing senses, and hence thoughts. But this is something Frege denies. The only way, according to Frege, that we can represent thoughts is via the sentences that express them; otherwise, logic, which shows how true thoughts follow from other true thoughts, could be undertaken directly on the representation of thoughts rather than on their linguistic manifestations. (Not at issue here is whether senses can be *named*—they can be, for instance by "the sense of α ," α schematic for expressions of the language—only whether they can be *represented*.) To say that senses have indices, either material or formal, is to imbue them one way or the other with characteristics Frege denies they have.

23. Gottlob Frege, "Thoughts," in *Logical Investigations*, ed. P. T. Geach (Oxford: Basil Blackwell, 1977), 1–30. Frege's other explicit discussion of indexicals and demonstratives is found in Frege, "Logic," 134–35. As in "The Thought," his overall point is to establish the objectivity of thoughts, even of the thoughts expressed by indexicals and demonstratives, in opposition to the subjectivity of ideas. This fragment, dated to 1897, presages much of what Frege discusses in "The Thought," at times in almost the same wording.

24. My thoughts in this section have been strongly influenced by Daniel Vest's excellent, insightful discussion of the Lauben argument in his "Who's Gustav Lauben? Frege on Singular Terms and Private Reference" (unpublished manuscript, University of California, Irvine, 2003).

Frege on Indexicals

Frege observes that if the same thought is expressed by two distinct sentences of a language, a speaker of that language who grasps that thought must thereby know that the sentences are about the same things. What Frege then sets out to show, in his parable of Lauben, Peter, and Lingens, is that for pairs of sentences that differ only in that one contains an indexical and the other a coreferential proper name, a speaker may fail to know this (that is, that they are coreferential), and so consequently, indexicals and demonstratives do not express the same sense as (coreferential) proper names. Recall that Rudolph Lingens hears two sentences: (i) "I was wounded" as uttered by Lauben, and (ii) "Dr. Gustav Lauben was wounded," as uttered by Leo Peter, who has also heard Lauben's utterance. Given his grasp of the thought expressed by (i), Lingens will know that it is about Dr. Gustav Lauben, *that person*, for he is the reference present in the context. But his grasp of the thought expressed by (ii) guarantees no such access to that reference; Lingens may not know that the person who uttered "I am wounded" is in fact the person presented by the sense of "Dr. Gustav Lauben," *even though Lingens has grasped the sense of that expression*. The role of a proper name in judgment is different than that of an indexical, even though the name and the indexical corefer. Grasp of the sense of a proper name may not be sufficient to take us to the object that is the reference *even if* that object is in a position to be the reference of an indexical or demonstrative. As Frege puts the issue:

If the same thought was uttered by Dr Lauben and Leo Peter, then Rudolph Lingens, who is fully master of the language, and remembers what Dr Lauben said in his presence, must now know at once from Leo Peter's report that he is speaking of the same thing.

But, Frege concludes,

In this case, Rudolph Lingens cannot know that the same affair is in question. I say, therefore, in this case: the thought which Leo Peter expresses is not the same as that which Dr Lauben uttered.²⁵

Ergo, the sense of a proper name cannot be the same as the sense of an indexical or demonstrative.²⁶

25. Frege, "The Thought," 11.

26. Note that Perry's example in "Frege on Demonstratives" of Heimson and Hume is an elaboration of this aspect of the Lauben argument in terms of two parties rather than three.

Having established the first point mentioned above, Frege now moves to the second, commencing with an observation about senses and proper names. He asks us to consider a circumstance in which two speakers—Leo Peter, again, and now Herbert Garner—have grasped distinct presentations, and hence senses, of the same person, namely, Lauben. Since for Frege the expression of each sense is a distinct proper name, it follows that Peter and Garner have distinct expressions for referring to the good doctor; Frege suggests letting Peter's be "Dr. Lauben," and Garner's, "Gustav Lauben." Sentences containing these names, Frege then tells us, express different thoughts, for Garner (or Peter, for that matter) may take one, but not the other, to be true. The point is not undermined by homonymy. They would still have different names even if they associated their senses with the same linguistic form, and they "would not associate the same thought with the sentence 'Dr. Gustav Lauben was wounded'," although in this case there would be the "awkwardness" that they technically "do not speak the same language," a technicality, however, that is "often unimportant."²⁷ Senses of proper names, and hence proper names themselves, Frege concludes, are distinguished by their "associated manner of presentation of the object so designated."²⁸

At this juncture in the dialectic, Frege observes that "everyone is presented to himself in a special and primitive way, in which he is presented to no-one else." Given the immediately prior conclusion, it follows, as with proper names, that each of these *could* characterize a distinct sense, to be linguistically expressed as each person's sense of the first-person pronoun. This would recapitulate, albeit in a more radical form, the homonymy seen with proper names since everyone would associate the same linguistic form with a different sense. But, Frege argues, the sense of "I" *cannot* contain a mode of presentation by which

27. Languages for Frege consist of signs, bi-unique pairings of senses and linguistic forms; consequently, no language can contain homonyms. There can be some slack allowed on this requirement, however, just so long as the language is not called upon to serve as the *métier* for reasoning, in which case it must be strictly enforced. This is because for Frege a proof shows that a particular true thought follows from other true thoughts by rule-governed manipulations of the linguistic forms inhabited by the thoughts. This procedure would not be reliable, however, if there were more than one thought lurking in any given form, for how would we know which thought it is that has been proven? See Aldo Antonelli and Robert May, "Frege's New Science," *Notre Dame Journal of Formal Logic* 41 (2000): 242–70, especially sec. 2, for discussion of Frege's conception of language.

28. Frege, "The Thought," 12.

a person is presented solely to himself and graspable only by that person. The reason is that the sense of “I” would be essentially subjective and private to each individual, and so thoughts containing such a sense would have characteristics of ideas—they would have “an owner and belong to the contents of his consciousness” and so have “this owner alone.”²⁹ Indeed, Frege seizes upon “I” not only because it is the only indexical that conceivably might have an inherent mode of presentation (we wouldn’t think that there is any comparable mode of presentation for “he,” for instance, that is independent of context), but precisely because it is the case where we might be most tempted to identify thoughts with ideas, and this is a confusion that must be resisted. The sense of the first-person pronoun is not to be identified with the “special and primitive” way one thinks about oneself, whatever that might be. For if it were, there would be senses that could not be grasped by all speakers of the language and, in their inherent variation from speaker to speaker, could not be the meaning of the pronoun in any way that would support communication. A speaker “cannot communicate a thought he alone can grasp,” as Frege tells us.

On our account, Frege’s remark at the head of the Lauben argument that “The occurrence of the word ‘I’ in a sentence gives rise to some further questions” becomes sensible. “I” raises further issues over and above those raised by other indexicals (and demonstratives) just because only it might be thought to have a mode of presentation. The Lauben argument, however, is more general, not limited to peculiarities of the first-person; it is a general argument about the senses of indexicals and demonstratives and how they differ from the senses of proper names.³⁰ But while the argument can be repeated with any indexical or demonstrative whatsoever, the properties of the first-person pronoun are such that they allow Frege to bring the argument into the general theme of “The Thought.” What is at stake for Frege is not so much context-dependence *per se* but, rather, the fundamental difference between thoughts and ideas. This difference persists even with an indexical for which we might assume a sense that is *not* context-dependent and, to this extent, like the sort of sense expressed by a proper name. The sense that I, Robert May, would associate with “I” would not vary from context to context; in *any* context whatsoever, my sense of “I” would deliver me as the reference. But this sense is nevertheless private. Thoughts are not

29. *Ibid.*, 17.

30. This observation is due to Vest, “Who’s Gustav Lauben?”

the sort of things that can be grasped by only one person; if a thought can be grasped by one, it can be grasped by all.

In rejecting such private senses as suitable, Frege suggests rather that one:

must use “I” in a sense which can be grasped by others, perhaps in the sense of ‘he who is speaking to you at this moment’; by doing this he makes the conditions accompanying his utterance serve towards the expression of a thought.³¹

Frege’s use of the phrase “he who is speaking to you at this moment” as a rather prolix rendering of “the speaker” is nonetheless revealing in its reduction of first-person indexicality to a combination of second- and third-person indexicality plus temporal indexicality, wherein no trace of privacy resides. Taken this way, the sense of “I” inherits the notable characteristics of the senses of indexicals more generally: while it does not invariantly have the same reference, the property it specifies is one that *any* object must satisfy in order to be a reference.³² When I utter “I am happy,” I am the reference because I am the speaker; I satisfy the condition of being the one making the utterance. But when you utter “I am happy,” you are the reference because you are the speaker. This condition is invariant from speaker to speaker and from utterance to utterance; it is always part of the thought expressed. The sense Frege suggests is one that, as we have put it, constrains the reference; it does not, and according to Frege cannot, present it, and indeed it need not, as there will always be a present reference, that is, the speaker of the utterance. The sense of the indexical pronoun “I” thus shows in stark relief the characteristic difference between the senses of indexicals and demonstratives and those of proper names, in that only in the latter are there modes of presentation. To reiterate, Frege is *not* recommending private senses as the senses of the first-person pronoun; to the extent that Frege

31. Frege, “The Thought,” 13.

32. Frege ends the Lauben argument with a footnote in which he acknowledges that there is no nondemonstrative description that properly reveals the sense of “I.” Frege puts it that there is no way to “put a thought in the hands of my readers with the request that they should examine it from all sides” other than “wrapped up in a perceptible linguistic form.” But, the way language describes, its “pictorial aspect,” Frege calls it, is improper for the task; senses are not linguistically describable—essentially so, if you will—and so one “fights against language,” in the hope of making clear, or elucidating, thoughts. Frege’s elucidation in the case of the first-person pronoun is just a way of describing the context-independent invariances, yet allowing for variation in reference with use of the pronoun by different speakers.

allows of the possibility of private ways of self-presentation, their overlap with one's ideas of oneself would render them unsuitable as the senses of "I." What he *does* recommend is a sense of quite different character, one that constrains, but does not present, a reference. There are no private senses, not even when we "talk to ourselves"—there is no special way of having first-person thoughts to ourselves.³³ Although the import of my saying something about myself to myself may be quite different than my saying something about myself to others, the semantics of sentences "in my head" is no different than those "on my tongue."³⁴

The sense that Frege recommends for "I" may not be private, but it is nevertheless egocentric.³⁵ When Lauben in Frege's scenario utters "I was wounded," what Lingens grasps is a thought about Lauben, a person whom he identifies as the speaker of the utterance. This identification

33. As opposed to ideas.

34. Note that I am taking exception to a commonly held interpretation of this passage on which Frege is read as *endorsing* private senses for the first-person pronoun when used in thinking about oneself, but holding that because of the exigencies of communication it is necessary to take the sense in spoken language as that of a closely associated definite description. Perry, in "Frege on Demonstratives," is well known for taking this position. On Perry's view, Frege holds this position as a partial patch for "the failure to find a suitable description for the value of the demonstrative, whose sense would complete the sense of the sentence in just the right way. If the sense we are looking for is private and incommunicable, it is no wonder the search was in vain" (19). Perry argues, however, that there can be no senses like this; the reason is that others can take me in the same way as I take myself personally, and so have the same sense of me as I have of myself. My personal, private way of being aware of myself, my mode of presentation, may be as tall, dark, and handsome; certainly others could take me this way as well, even if I was unaware they were doing so. The alternative is that I am presented to myself, as it were, by direct conscious awareness of myself—I present myself simply as me, unmediated by any presentation of me, so that in my private thoughts I would directly refer to myself. But although essentially private, this would be in effect to deny that there are modes of presentation, at least in any sense with which Frege would be familiar. What is queer, however, about Perry's dialectic *as an argument against Frege's view* is that he gives an argument that Frege would wholeheartedly endorse against a position that is hardly Frege's to begin with. Frege would have *agreed* with Perry in rejecting that there are private, incommunicable senses "which would be the natural sense to associate with 'I' if it happen to be used, not merely to communicate with others, but think about oneself" (18).

35. Bertrand Russell, in *Human Knowledge: Its Scope and Limits* (London: George Allen and Unwin, 1948), groups indexicals and demonstratives under the moniker "egocentric" terms. About such terms, Russell observes that they denote "a different object on each occasion of use: what is constant is not the object denoted, but its relation to the particular use of the word. Whenever the word is used, the person using it is attending to something, and the word indicates this something" (107).

cannot, however, be respected when he seeks to utter a sentence that expresses this thought, for if Lingens were to utter “I am wounded,” he would only succeed in referring to himself, not Lauben. What Lingens can do is express a thought that differs in that the constraints are adjusted to reflect the shift in contextual perspective; assuming that context is held constant, this will constrain the thought to the same present reference, that is, Lauben. Lingens can say “He was wounded” (or perhaps, “You were wounded”), but this shift in point-of-view reflects only a shift in constraint, not in reference. In this regard, the relations among the senses of indexicals are different from those between the senses of indexicals and proper names, for in making the shift in sense described, Lingens would know, as Frege puts it, that “he is speaking of the very same thing.” *Knowledge* that there is constancy of reference would not be undermined by a shift in this sort of sense.³⁶ But, as Frege uses the Lauben argument to point out, it is just this constancy that can fail to be preserved when shifting from an indexical to a proper name, even with context held constant. It is for this reason that we can isolate fundamental differences in the nature of the senses of proper names, as opposed to those of indexicals and demonstratives.³⁷

IV.

Insofar as “thought” can be *defined* in Fregean terms, all thoughts are compositions of constituent senses. The association of these senses with expressions of the language, once fixed, is invariant—the sense expressed by “Dr. Gustav Lauben” is always the same, for any given occasion of use, and so too is the sense expressed by “I” or “that.”³⁸ No thought can be a true or false thought, and hence a judgeable thought,

36. It is inadvertent shifts of this nature without the possibility of such knowledge that gives rise to “phone-booth”-puzzles of the sort brought to light by Mark Richard in “Direct Reference and Ascriptions of Belief,” *Journal of Philosophical Logic* 12 (1983): 425–52. See discussion in Robert Fiengo and Robert May, *Indices and Identity* (Cambridge, MA: MIT Press, 1994), sec. 1.2.

37. Notice that the general effect we are considering obtains in all linguistic contexts, indirect as well as direct; compare “Leo Peter believes I am smart,” uttered by Lauben and “Leo Peter believes he is smart,” uttered by Lingens. This is not surprising, given that such beliefs are *de re*, as discussed below, so here too sense can shift so long as reference is known to remain the same. In general, if the Lauben “test” is passed/failed by pairs of expressions in direct contexts, it will be passed/failed regardless of the linguistic context in which they occur.

38. For discussion of the sense invariance of proper names, see May, “The Invariance of Sense.”

unless this composition is proper. In this regard, thoughts containing senses of proper names are no different than their counterparts containing senses of indexicals or demonstratives; in either case we have a proper combination of constituent senses. But unlike thoughts containing the senses of proper names, the composition of thoughts containing senses of indexicals and demonstratives is not complete; for them, it cannot be determined *sans* supplementation with a reference whether it is a true thought or a false thought. This is because the senses of indexicals and demonstratives do not contain modes of presentation. At this point, it might be thought that difficulties loom, particularly in those circumstances in which modes of presentation play a central explanatory role in a Fregean account. I think not, but we need to explore these circumstances with some care to see why. The first case is identity statements.

On the Fregean account of identity statements, if the terms standing astride the identity sign express the same sense, the resulting sentence lacks the requisite cognitive value and is uninformative. Extending the logic, if we have an identity statement in which the same demonstrative or indexical stands on either side of the identity sign, then it might seem that it too should similarly lack cognitive value and be uninformative, given our view of the sense expressed by such terms. It would seem that “That star is that star” should be treated on a par with “Hesperus is Hesperus.” However, as David Kaplan has observed, the former sentence can be used to convey information. So, suppose that one morning, I point to the last visible heavenly body and utter “that star.” I continue my utterance by saying very, very slowly “is” until an evening months later, when I utter “that star,” pointing to the first visible heavenly body. It appears that by my utterance information has been conveyed, indeed the same information that would be conveyed by an utterance of “Hesperus is Phosphorus” in which there are expressions with different senses. So, it would seem that the demonstratives in “That star is that star” express different senses.³⁹

To see why this case does not pose any substantial difficulties, we must be clearer about Frege’s account of identity statements. As I have discussed elsewhere,⁴⁰ the explanatory concept in Frege’s account is *cog-*

39. Perry’s case in “Frege on Demonstratives” (12–13) of the aircraft carrier *Enterprise*, demonstrated first with only its bow observable and then again with only its stern on view, is another case of the same sort.

40. Robert May, “Frege on Identity Statements,” in *Semantic Interfaces: Reference, Anaphora, and Aspect*, ed. Carlo Cecchetto, Gennaro Chierchia, and Maria Teresa Guasti (Stanford: CSLI Publications, 2001), 1–50.

nitive value. Cognitive value is a notion in Frege's theory of judgment—a sentence has the requisite cognitive value if and only if mere grasp is *not* sufficient to judge, and hence know, whether that sentence expresses a true or false thought; it lacks such cognitive value if mere grasp is sufficient. “Hesperus is Phosphorus” is a case of the former sort. Grasp of the distinct senses of “Hesperus” and “Phosphorus” (and grasp of the sense of the identity relation) does not thereby automatically fix whether “Hesperus is Phosphorus” is true or false; yet required is the cognitive leap needed to determine whether the modes of presentation present the same reference. Not so, however, for “Hesperus is Hesperus.” Grasp of the sense of “Hesperus” (and of the sense of the identity sign) is all that is needed to judge that “Hesperus is Hesperus” is true; no further cogitation is needed to know that the modes of presentation associated with the terms of the identity present one and the same reference.

Now how do things work with “That star is that star”? Like “Hesperus is Hesperus” or “Hesperus is Phosphorus”? Recall that by hypothesis the sense of a demonstrative is a constraining sense, not containing a mode of presentation. Thus, the mere grasp of the sense could never provide sufficient information for judgment since it does not contain information that fixes any definite reference, and so we can never establish whether the same reference is presented merely by the grasp of senses. Rather, with demonstratives we must always make the cognitive leap from sense, as it occurs as a thought constituent, to the present reference in context; this is the supplementation with reference of which Frege speaks. “That star is that star” therefore *does* have cognitive value, just like “Hesperus is Phosphorus” and unlike “Hesperus is Hesperus,” and like the former can be either true or false. Cognitive value, we see, depends not just on the form of the identity statement, but also on the nature of the senses expressed.

Observing that “That star is that star” has cognitive value, however, does not do full justice to the informativeness of this statement, for it would have cognitive value even if its truth amounted to nothing more than idly pointing to Venus in the evening twice over. Rather, this sentence is informative because the reference is present in context in two different ways, once as the evening star and once as the morning star. And herein lies an important fact. References, whether they be of indexicals and demonstratives or of proper names, are always objects, the sort of things that according to Frege fall under (first-level) concepts. But references are *never*, on the Fregean view, given to us *simpliciter*; they are always given relative to some mode or condition, with respect to some

characteristics of the reference. This is just as much true of present references; if a reference is present in context, then it is present *in this way or that*. Someone who grasps the thought expressed by “He left,” with Max as the reference of “he,” does so relative to some way that Max is present to him; the overall cognitive state he attains in virtue of grasping this thought involves this information—otherwise, his cognitive relation would be to the object *simpliciter*. The cognitive state attained by someone who has grasped the thought expressed by “Max left” may involve the same information, but its source would be different. It would have been contributed by the sense expressed by “Max”; it is not so contributed by the sense of “he.” Thus, for proper names what counts are *internal* conditions of presentation; their modes of presentation are fixed as a matter of *sense*, and so persevere from occasion of use to occasion of use. Not so with indexicals and demonstratives. For them what counts are *external* conditions of presentation; since modes of presentation of a reference are not linguistically linked to these expressions, they may be as ephemeral as the contexts in which indexicals and demonstratives are deployed.

Given this, it follows that speakers need not wholly conceptualize the mode of the present reference, nor need they decide whether across contexts present references are the same or different on purely conceptual grounds.⁴¹ Speakers could generate such beliefs by appeal to no more than a heuristic to the effect that if present references look (that is, are perceptually) the same, then probably they are the same, and if they look different, then probably they are different. But looks can be deceiving. There may be present references that look different but are the same as well as present references that look the same but are different: suppose that in alternate years Mars, not Venus, is seen first in the evening; we might not know this and think it is the same heavenly body. A speaker who is in a position to assert, with the evening star as the present reference, “That star twinkles brightly,” but is not in a position to assert this with the morning star as the present reference, perceiving it to be quite dim, would be a speaker whose beliefs are mistaken in the former way. He would have come by these beliefs, naturally enough, because Venus seen in the evening is a reference differently present than Venus

41. Thus, knowing that a reference is a present reference does not depend upon anyone being able to supply a description of the way in which the reference is present; accordingly, there is no reason to think that speakers have to be able to declare why they think things look the same or different.

seen in the morning; this one object is present in context in different ways. For such a person, “That star is that star” will be informative; it will mean, so to speak, that the reference, present in this way, is the same as the reference, present in that way. The difference between this sentence and “Hesperus is Phosphorous” now amounts to reference present in two ways and reference presented in two ways. Just as a speaker may not know whether a reference *presented* in this way or that is the same, he may also not know whether a reference *present* in this way or that is the same.⁴²

V.

What our present considerations show is that the notion of present reference, that is, reference present in this way or that, plays a role parallel to the role played by sense, more precisely, mode of presentation, in the account of identity statements that contain proper names. But there is a difference, in that the way the reference is present is not part of the thought expressed by sentences containing demonstratives or indexicals, whereas the way it is presented is part of the thought expressed when there are proper names instead. In this regard, the notion of present reference bears a family resemblance to Frege’s notion in *Begriffsschrift* (and carried on to a large extent in *Grundlagen*) of conceptual content, on which the determination of an object (its *Bestimmungsweise*) is to be distinguished from the object itself, where only the latter is part of content. During this period, and indeed throughout his work, Frege held to

42. An upshot of this discussion is that present reference is not to be identified with the demonstratum. There may be any number of present references corresponding to a single demonstratum, and it is additional knowledge to know that various present references are the same object. Herein lies the difference between a Fregean theory of demonstratives and a direct reference theory, a point emphasized by Richard Heck in his excellent “Do Demonstratives Have Senses?” *Philosophers’ Imprint* 2 (2002): 1–33. Heck presents a view of demonstratives similar to that developed here, although he is more reticent about whether what we have identified as the senses of indexicals and demonstratives, what he calls their standing meaning, deserves that status since the work sense does with proper names is accomplished otherwise. Roughly, Heck’s view is that knowing the thought expressed by a sentence is tantamount to understanding that sentence; but knowing the standing meaning without the supplementation of what we have called the present reference is not sufficient for understanding, and so cannot be the sense expressed. Although I find the view of understanding and communication on which Heck bases his view independently attractive (see the discussion in Robert Fiengo and Robert May, *De Lingua Belief* [Cambridge, MA: MIT Press, 2006]), for the reasons presented in the text, I see the implications of indexicals and demonstratives for the doctrine of sense and reference somewhat differently than Heck.

the view that objects are recognized in terms of their properties. This is true even of the most basic sorts of object, the logical objects. Thus, for Frege, the identity conditions for value-ranges was a central issue: under what circumstances can a value-range be recognized as the value-range of concept F and as the value range of concept G? (See *Grundlagen*, sec. 62.) Logicism, or at least one of its central planks, is the thesis that this condition can be set in purely logical terms (by Basic Law V). With non-logical objects, recognition proceeds otherwise. For instance, for geometrical objects, it is founded in intuition. For nonmathematical objects, we have two ways of recognizing objects, perceptually and conceptually. What marks off demonstrative/indexical reference to objects is that the information on which recognition is based is external to thought, not internal, as with reference made by proper names. And it is this difference that corresponds to the difference between present and presented references.⁴³

Now, a speaker who utters a sentence that expresses an indexical or demonstrative thought does so with respect to the way in which the reference of the indexical or demonstrative is present to *him*; the reference of an indexical or demonstrative is the reference present to the speaker. Just how it is present to the speaker, however, is no encumbrance on the grasp of this thought by a hearer; the hearer may grasp this thought, yet with the reference of the indexical or demonstrative present in an altogether different way. When Lingens hears Lauben's utterance of "I was wounded," how Lauben is present (*not* presented) to himself may be quite different from how he is present to Lingens. If to grasp a thought is to grasp a thought complete in its sense/reference pairings, then with an indexical or demonstrative, this will include grasp of the reference that has been determined by supplementation in this case. But how the reference is personally present to the speaker does not come along with the baggage since it is external to the thought expressed. Unlike proper names—for which how reference is presented is internal to sense—the hearer need not grasp the particular way in which the reference is present to the speaker. The speaker, for his part, need only assume that the reference is present to the hearer (that is,

43. I take it that the notion of present reference is what James Higginbotham has in mind in his "Competence with Demonstratives," *Philosophical Perspectives* 16 (2002): 1–16, when he speaks of "Fregean elements" of indexicals and demonstratives that "are not senses; however, they may involve objects intrinsically, and they may be perceptual rather than linguistic" (13).

assume that it is cognitively accessible), but need not make any assumptions as to the particular way it is present to the hearer. The speaker may believe that the reference is present to the hearer in a way that is similar to the way it is present to him, and indeed this may enhance communicative efficacy, but nothing depends on this for the communicability of thoughts. All that matters is that the same reference is present; there is no requirement that it is present in the same or similar ways to the speaker, the hearer, or anyone else (for instance, in the case of propositional attitude attributions, the agent).⁴⁴

Frege speaks in numerous places of thoughts, and so of their constituent senses, as being timeless; in contrast, that which is not part of thought, but external to it, is temporally, as well as spatially, located. Thus, information that makes a reference present must be temporally and spatially present, something about the here and now. Perceptual awareness is the paradigmatic case. Given the coincidence of an object and information about it in perception, if an object is perceptually present, so too is information about it. For a reference to be present, however, there need not be such coincidence. All that is required for demonstrative/indexical reference is that it be on the *basis* of information present in the here and now, regardless of how the object itself is temporally or spatially situated. If the object is disassociated, information about it may be provided in many ways, including by remembrances, for example a

44. At this point, Frege's view, as we are recounting it, can be contrasted with Peacocke's in "Demonstrative Thought"; the differences are particularly clear with the first person. On Peacocke's reconstruction, Frege held that there are first-person thoughts that contain private, incommunicable senses as constituents, but, and here is Peacocke's innovation, when the exigencies of communication impose themselves, rather than employing such senses, which we do when thinking of ourselves, we refer to them, just as we refer to an expression's customary sense in an oblique context. When we do so, given Peacocke's notion of token senses, reference is to an object, the speaker, under a way of thinking about that object, "that type of way of thinking of something under which any person can think only of himself, and under which no one else can think of him" (190), a sense "which can be a constituent of [his], and no one else's thoughts" (191). We have already voiced our hesitancy to claiming Frege's advocacy of private thoughts, as well as to his advocacy of thoughts with objectual content, Peacocke's token thoughts. To this we can add a further hesitancy. On Peacocke's view, the mode of presentation is internal to the sense, so that all token senses of "I" present their references in the same particular way, as the holder of a private sense. But the point is just the opposite—the mode of presentation, the way the reference is present—is external to sense. Consequently, though the mode of presentation may be private, it is not required to be so; it is not even required to be the same for the speaker and hearer, as we have seen. Unlike Peacocke, on our view, the references of indexicals and demonstratives are *never* senses of anything.

photograph, something that depicts presently things and events past. And although they can not be ostended like the family snapshots, mental images are analogous; they too are part of our current experience as remembrances in the here and now of things and events past.⁴⁵ A reference is recognized as present because information about the reference is present; it is just that this information, unlike that carried along by the sense of a proper name, is external to thought and to a certain extent ad hoc, and so must be available in the current—present—environment.

VI.

It is essential to understanding Frege that we keep clear the distinction between that which falls under a concept—that is, an object—with the grounds by which we recognize objects—that is, how they are present or presented to us. Customarily, a reference is always an object, never the properties by which we recognize an object; something that is just as much true for indexicals and demonstratives as for proper names. But custom does not always hold sway. When we attribute a propositional attitude to an agent, according to Frege, we do so by referring to the thought toward which the attitude is directed. This is what Frege means when he says that, in such indirect contexts, it is the customary sense that is the reference. Now, from this doctrine it follows that in indirect contexts there will be reference to a mode of presentation so long as the sense contains a mode of presentation. Not all senses do, however. The senses of indexicals and demonstratives do not; although they constrain reference, they do not present it in the manner of a proper name. But if this is the fixed, invariant character of the senses of indexicals and demonstratives, it apparently follows that “Max believes that star twinkles at night” and “Oscar believes that star twinkles at night” attribute the same belief to Max and Oscar—they both believe the thought expressed by “that star twinkles at night.” There is nothing wrong with this—it is the case that they each have the same sort of belief—but yet it might seem problematic since it could be that Max’s belief is about Sirius whereas Oscar’s is about Betelgeuse, so that different beliefs are being attributed to Max and Oscar. Comparably different beliefs are also

45. Although I have been brief, bear in mind that these sorts of considerations are not anything peculiar to Frege’s or to Fregean theories per se; an account of the circumstances under which an object can be recognized as a reference or demonstratum of an indexical or demonstrative, and so be present or salient in the context of utterance, will be applicable to *any* theory of indexicals and demonstratives.

attributed by “Max believes Sirius twinkles at night” and “Oscar believes Betelgeuse twinkles at night,” but in this case it is precisely because different thoughts are the references of the embedded clauses; because there are proper names, there is indirect reference to senses with distinct modes of presentation (of, in this case, distinct objects).

Is there a problem here? I think not. There appears to be a conundrum because we have not focused on the relevant aspect of thoughts; what the attitudes give focus to are not issues about invariance, but rather issues about judgeable content. We have already intimated that this is what is at stake when we spoke of beliefs being *about* different things. But what does it mean in Fregean terms for a belief to be *about* something? On Frege’s theory, what we believe are (objective) thoughts. Accordingly, the sentence “Max believes that Sirius twinkles at night” attributes to Max belief of the thought expressed by “Sirius twinkles at night”; the customary sense is the indirect reference, and it is this reference that Max’s belief is said to be *about*.⁴⁶ But thoughts themselves are about things, they are *about* the references of their constituent senses. The thought expressed by “Sirius twinkles at night” is about the reference presented by the sense of “Sirius,” namely, Sirius. Thus, in attributing a belief of a thought, we can also be attributing a belief about the things the thought is about, for if one believes a thought, then ipso facto one has a belief about whatever that thought is about. Thus, if we ask what Max’s belief is *about*, it is proper to answer, not only that it is about the sense of “Sirius,” but also that it is about the object customarily presented by this sense, namely, Sirius. We do not somehow lose contact with this latter sort of information about a thought by passing

46. On Frege’s theory, a belief attribution is true only if an agent believes a particular thought; “Max believes Sirius twinkles at night” is true only if Max believes the thought expressed by “Sirius twinkles at night” that contains the sense of “Sirius.” But suppose that Max doesn’t believe this thought—perhaps he has not grasped the sense of “Sirius” and does not have this proper name in his vocabulary—but yet is willing to assert “That star twinkles at night,” with the demonstrative referring to Sirius. The attribution nevertheless still seems appropriate, as do others, such as “Max believes my favorite star twinkles at night,” where it is contextually obvious that Sirius is the speaker’s favorite star. (See David Kaplan’s notion of pseudo-*de re* attributions.) It is not entirely clear what Frege would say about this circumstance, although he would most likely trace the source of the difficulty to a mismatch in the languages of the speaker and agent. As with other linguistic mismatches, a weaker criterion could be employed, one that only requires that the speaker and the agent have thoughts about the same thing, that is, the criterion that would apply if the attribution had been “Max believes that star twinkles at night.”

from direct to indirect contexts; rather, it remains an accessible aspect of the content of a thought, even when *sinn* is *bedeutung*. Speakers, by their grasp of a thought, gain cognitive access to the content—the reference—of that thought (and its constituent parts), and whatever that access is, including judgment, they will have it regardless of whether the thought is playing the role of customary sense or indirect reference. We do not lose any cognitive access to a thought when moving from direct to indirect contexts; we don't lose track of what it is *about*.⁴⁷

According to Frege, then, a thought is about the references of its constituent senses. This is just as much true of thoughts containing senses of indexicals and demonstratives as it is of those containing senses of proper names. If the reference of the demonstrative is Sirius, then the thought expressed by “That star twinkles at night” is just as much about Sirius as the thought expressed by “Sirius twinkles at night,” and this information will just as much persist in indirect contexts. If “That star twinkles at night” is about Sirius, then so too is “Max believes that star twinkles at night.” So, returning to our examples, it follows, not only that “Max believes Sirius twinkles at night” and “Oscar believes Betelgeuse twinkles at night” attribute beliefs about different things to Max and Oscar, but that “Max believes that star twinkles at night” and “Oscar believes that star twinkles at night” do so too, if the reference of the demonstrative in the first sentence is Sirius and in the second, Betelgeuse. There is no problem here because thoughts containing indexicals and demonstratives are just as much about the references

47. Our remarks here are completely general; if there is cognitive access to reference in a direct context, then there is access at *any* degree of indirection—cognitive access to reference is an hereditary property of the infinite sequence of senses. Suppose that a speaker has grasped a sense of degree $n \geq 1$; its reference will be an indirect sense of degree $n-1$. This is determined by linguistic rule. But this indirect sense will itself have been grasped by the speaker, for it will be the sense expressed at one degree less embedding. A finite number of iterations of this procedure, for any given indirect sense, will ultimately lead back sequentially to the corresponding customary sense, that is, the sense of degree 0, a sense whose reference is not fixed by linguistic rule. Thus, if we grant that a speaker can grasp an indirect sense of any degree (and how could we not?), then it follows that for an indirect sense of any degree, there will be a path back to the customary sense. (Of course, this is moot if there is not an infinite hierarchy of senses, as suggested by Michael Dummett in *Frege: Philosophy of Language*, 2nd ed. [Cambridge, MA: Harvard University Press, 1981], and Terence Parsons in “Frege’s Hierarchies of Indirect Sense and the Paradox of Analysis,” in *Midwest Studies in Philosophy*, vol. 6 of *The Foundations of Analytic Philosophy*, ed. Peter A. French, Theodore Edward Uehling Jr., and Howard K. Wettstein [Minneapolis: University of Minnesota Press, 1981], 37–57.)

associated with their constituent senses as are thoughts containing senses of proper names. Of course, how they come to be associated with their references differs. With indexicals and demonstratives, we cannot be fully apprised of the thought expressed, and so have an inkling of what the thought is about, unless there is supplementation with reference, whereas with proper names mere grasp of sense is sufficient since they contain modes of presentation that determine reference. But nevertheless, adjudicating what a thought is about is a consideration posterior to whether a sense is associated with a present reference or one that is presented. A thought is about the references of its constituent senses, and it matters not to whether thoughts are about the same or different things just how senses are determined to be associated with their references.

On Frege's theory, to the extent that we want to ascertain what a belief is about, beliefs are relations to *complete* thoughts that contain *full* senses as constituents. Thoughts may come upon this completeness in different ways; correspondingly, beliefs may be distinguished between *de dicto* and *de re*, where this corresponds to whether information about reference is conveyed solely in terms of the constituents of thought or not. It is the character of beliefs with indexicals and demonstratives that they are not distinguishable *de dicto*, but only *de re*. To distinguish them, we must transition to the *res* that the beliefs are about; but given that, for the senses of such expressions, the reference will be the present reference, this will inevitably obtain. By way of contrast, beliefs solely with proper names can be distinguished *de dicto*, for their senses contain modes of presentation. Insofar as beliefs, *de re* or *de dicto*, are about complete thoughts, they are about the references that make these thoughts complete. Reference, however, is never *simpliciter*, but is either present or presented. Beliefs are therefore about references in the *way* they are present or presented. Thus, just as one may believe that Phosphorus—Venus, presented as the evening star—twinkles, yet not believe that Hesperus—Venus, presented as the morning star—does, so too one can believe that star—Venus, present as the evening star—twinkles, yet not believe that star—Venus, present as the morning star—does. If beliefs can differ because a given object is presented in this way or that, then so too can beliefs differ because a given object is present in this way or that. Cognitive access to the properties of a reference, regardless of whether that access is come upon through the reference being present or presented, is neither lost nor changed in the transition from direct to indirect contexts. When we believe a thought, we believe it with all the bag-

gage that it carries with it, with all of its cognitive entailments. Insofar as there are differences between indexicals/demonstrative-thoughts and proper name-thoughts in indirect contexts, it just reflects differences found between them in direct contexts.

VII.

In conclusion, it should be clear that the inference we discussed at the commencement of this essay based on (I'):

- (I') If a sense presents a reference, then it uniquely determines the reference,

does not go through for indexicals and demonstratives because they do not express senses that present references. Rather, the senses of these expressions constrain what can be present references. Senses understood this way bear a family resemblance to what Perry calls a “role,” or what James Higginbotham calls (following a usage of Kaplan’s) a “rule of use.”⁴⁸ The “rule of use” metaphor is suggestive if for no other reason than that a speaker who grasps the sense of a word has, on Frege’s view, come to have the linguistic wherewithal that underlies proper use of that word. What I have been arguing, in a sense, is that this wherewithal may be more or less definitive. For the most part, Frege was concerned with senses that invariantly present a particular reference. This, of course, just reflects his foundational concerns about language, that the “conceptual notation” be a proper *métier* for carrying out gap-free proofs. But while logically perfect languages, as Frege constructed them, do not contain indexicals or demonstratives,⁴⁹ other languages do, and when Frege turns to these, he considers, albeit briefly, senses of a more indefinite

48. On Higginbotham’s view in “Competence with Demonstratives,” language use is divided into a setting-up phase and a saying-things phase. Setting up involves establishing a perspective for reference, where this may be set either by meaning, for proper names, or by a rule of use, for indexicals and demonstratives. Higginbotham’s distinctions roughly correlate with the Fregean distinctions of thought grasped/judgment and constraining/presenting senses.

49. A language of pure logic, in fact, could not contain indexicals and demonstratives. If they did, the problem would arise as to how we could know that “it” refers to a number in “It is greater than seven” rather than Julius Caesar. Within the confines of logic itself there would be no way to state this restriction—it is nothing about logic (or arithmetic) that would limit the reference of indexicals and demonstratives. Because of this, languages with such terms would not be compatible with logicism.

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nature. For Frege, all languages, logically perfect or not, are symbolic systems of the same sort. They are all constituted of signs that express senses that are objective, universal, and invariant, something that is just as much true of the indefinite senses of indexicals and demonstratives as of the definite senses of proper names, and correlatively of the thoughts expressed by the sentences containing these terms. As such, the properties of indexicals and demonstratives do not undermine the further Fregean thesis that the sense of an expression is its linguistic meaning.