Intentionality on the Instalment Plan

DALE JACQUETTE

1. What's in a Name?

Can philosophy of language do without the concept of intentionality? To approach this important question it may be useful to begin with the minimal explanatory requirements for a theory of reference that tries to explain the naming of objects as the simplest linguistic act. The limitations of trying to understand meaning without intentionality are therefore best illustrated by considering what is generally acknowledged to be the most thorough-going attempt to dispense altogether with intentional concepts in Frege's reputedly purely extensionalist semantics of proper names. I shall argue that despite his avowed anti-psychologism, Frege paradoxically needs to include psychological elements alongside his famous distinction between sense and reference in order to preserve the universal intersubstitutability of singular referring expressions *salva veritate* as an adequate extensional criterion of coreferentiality. In so doing, a revisionary Fregean semantics introduces the first instalment of intentionality at the foundations of naming, by which intentionality pervades the philosophy of language.

2. Idea, Sense, and Reference

Frege opens his essay '*Über Sinn und Bedeutung*' by describing a problem about the logical status of identity statements.[1] He asks whether or not identity is a relation, and, if so, whether it is a relation between objects or names. In his *Begriffsschrift*, Frege observes, he had assumed that identity is a relation holding between names rather than objects.[2] This appears reasonable in light of the fact that no two (different) objects can ever be identical, but two names might very well name the same object. Frege defines the concept of proper name as any singular referring expression that serves to designate a definite object. The category of Fregean proper

[1] Gottlob Frege, '*Uber Sinn und Bedeutung*', *Zeitschrift für Philosophie und philosophische Kritik*, **100**, 1892, pp. 25–26; translated as, 'On Sense and Reference', in P. T. Geach and Max Black, *Translations from the Philosophical Writings of Gottlob Frege* (Oxford: Basil Blackwell, 1970), pp. 56–57 (all references to this translation).

[2] Ibid., p. 56: 'Is [identity] a relation? A relation between objects, or between names or signs of objects? In my *Begriffsschrift* I assumed the lat-

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names thereby embraces not only names as ordinarily conceived, but also indexicals and definite descriptions.[3] Frege explains:

> It is clear from the context that 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 taken in the widest range), but not a concept or a relation, which shall be discussed further in another article. 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.[4]

Frege distinguishes between the sense and reference of proper names. Every name has a sense, but not all names refer. Sentences like proper names are also said to have sense and reference. The sense of a sentence is a function of the senses of its component meaningful terms, and refers to one of two reified semantic entities, the True or the False. Proper names and sentences ordinarily have a customary reference *de re*, but in intensional or referentially opaque *oratio obliqua* or *de dicto* contexts they have instead an indirect reference which is their customary sense. It is standardly and understandably but mistakenly said that Frege's theory of names has only these two main divisions of sense and reference. Although Frege regards only sense and reference as relevant to philosophical semantics, he recognizes three distinct aspects of or 'levels of difference' obtaining for names and sentences. In addition to sense (*Sinn*) and reference (*Bedeutung*) as contributing to the objective meaning of an expression, Frege also acknowledges the accompaniment of extrasemantic subjective elements of associated psychological image or idea (*Bild*, *Vorstellung*). Thus, Frege maintains:

[3] Frege's reductive categorization of all singular referring expressions as proper names contrasts with the distinction between names, indexicals and definite descriptions in later Fregean philosophy of language. See Alfred North Whitehead and Bertrand Russell, *Principia Mathematica*, second edition [1925–27] (Cambridge University Press, 1963), Vol. 1, 'Introduction', pp. 30–32; also Chapter III on 'Incomplete Symbols', pp. 66–84. Russell, 'On Denoting', *Mind*, **14**, 1905, pp. 479–493. Ludwig Wittgenstein, *Tractatus Logico-Philosophicus* (London: Routledge & Kegan Paul, 1922), 3.144 and *passim*.

[4] Frege, 'On Sense and Reference', p. 57.

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ter.' Frege, *Begriffsschrift, Eine der arithmetischen nachgebildete Formelsprache des reinen Denkens* [1879], in *Begriffsschrift und andere Aufsätze*, second edition, edited by Ignacio Angelelli (Hildesheim: Georg Olms Verlagsbuchhandlung, 1964), §§8, 20–21. See §8, p. 15; translation by Terrell Ward Bynum in Frege, *Conceptual Notation and Related Articles* (Oxford: Clarendon Press, 1972), p. 126: 'Now, let $\vdash\!\!\!|\ (A \equiv B)$ mean: *the symbol A and the symbol B have the same conceptual content, so that we can always replace A by B and vice versa*."

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> We can now recognize three levels of difference between words, expressions, or whole sentences. The difference may concern at most the ideas, or the sense but not the reference, or, finally, the reference as well. With respect to the first level, it is to be noted that, on account of the uncertain connection of ideas with words, a difference may hold for one person, which another does not find. The difference between a translation and the original text should properly not overstep the first level. To the possible differences here belong also the colouring and shading which poetic eloquence seeks to give to the sense. Such colouring and shading are not objective, and must be evoked by each hearer or reader according to the hints of the poet or the speaker. Without some affinity in human ideas art would certainly be impossible; but it can never be exactly determined how far the intentions of the poet are realized.
>
> In what follows there will be no further discussion of ideas and experiences; they have been mentioned here only to ensure that the idea aroused in the hearer by a word shall not be confused with its sense or its reference.[5]

Frege detaches idea from sense and reference only to set aside idea as irrelevant to semantics. Indeed, Frege's primary interest centres on the concept of reference rather than sense or idea. Roger White in his essay 'Wittgenstein on Identity' remarks Frege's predilection for the concept of reference:

> ... by and large the fragmentary hints we find in Frege do not so much point in the direction of a coherent and sustained reflection on the notion of sense, as much as suggesting that Frege, having established the existence of senses in order to overcome the problems in a theory of meaning he would otherwise be unable to resolve, was content to allude to sense so as to put it to one side for the sake of his main concerns which as far as his reflections on meaning were concerned were almost all bound up with his other notion, the notion of reference.[6]

The shearing-off of psychological idea or connotation as mere poetic 'colouring' or shading' from the semantics of names is anticipated even in Mill's *System of Logic*, a work that Frege in his *Grundlagen der Arithmetik* sharply criticizes in other respects for its psychologism.[7]

[5] Ibid., pp. 60–61.

[6] Roger White, 'Wittgenstein on Identity', *Proceedings of the Aristotelian Society*, New Series, **78**, 1977–78, p. 163.

[7] Frege, *Die Grundlagen der Arithmetik, Eine logisch mathematische Untersuchung über den Begriff der Zahl* [1884], with a translation as *The Foundations of Arithmetic, A logico-mathematical enquiry into the concept of number*, by J. L. Austin (Oxford: Basil Blackwell, 1974), §§710, 16–17, 23, 25.

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Mill writes in Book 1, Chapter 11, §5:

> Proper names are not connotative: they denote the individuals who are called by them; but they do not indicate or imply any attributes as belonging to those individuals. When we name a child by the name of Paul, or a dog by the name Caesar, these names are simply marks used to enable those individuals to be made the subjects of discourse. It may be said, indeed, that we must have had some reason for giving them those names rather than any others; and this is true; but the name, once given, is independent of the reason. A man may have been named John, because that was the name of his father; a town may have been named Dartmouth, because it is situated at the mouth of the Dart. But it is no part of the signification of the word John, that the father of the person so called bore the same name; nor even of the word Dartmouth, to be situate at the mouth of the Dart. If sand should choke up the mouth of the river, or an earthquake change its course, and remove it to a distance from the town, the name of the town would not necessarily be changed ... Proper names are attached to the objects themselves, and are not dependent on the continuance of any attribute of the object.[8]

The parity between Frege's semantics of proper names and sentences is vital to his treatment of the cognitive content of identity statements and substitution failure in intensional contexts. Frege describes the parallel division between the sense and reference of proper names and sentences in an excerpt from a letter to Edmund Husserl, written in 1891. Frege presents this diagram:

Sentence	Proper name	Concept word	
↓	↓	↓	
Sense of sentence	Sense of proper name	Sense of word	
↓	↓	↓	
Reference of sentence (Truth-value)	Reference of proper name (Object)	Reference of concept word→ (Concept)	Object which falls under concept[9]

We can also consider a schematization of semantic relations in Frege's theory of proper name and sentence meaning that includes

[8] John Stuart Mill, *A System of Logic Ratiocinative and Inductive, Being a Connected View of the Principles of Evidence and Methods of Scientific Investigation* [1843], edited by J. M. Robson, in Mill, *Collected Works* (London: Routledge & Kegan Paul, 1973), Vol. VII, p. 33.

[9] Frege, Letter to Edmund Husserl, 1891, in Frege, *Philosophical and Mathematical Correspondence*, edited by Brian McGuinness, translated by Hans Kaal (Oxford: Basil Blackwell, 1979), p. 96.

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idea as a psychological superaddition and the distinction between customary sense and customary and indirect reference as customary sense. Frege's thesis is then represented in this form:

FREGE'S THEORY OF PROPER NAMES

semantic meaning:	Customary reference →object	[concrete or abstract extension]
	customary sense—indirect reference (contains mode of expression)	[abstract set of properties or intension]
linguistic expression:	proper name	[concrete language use]
associated extrasemantic psychological idea		

FREGE'S THEORY OF SENTENCE MEANING

semantic meaning:	customary reference →the True; the False	[abstract extension]
	customary sense—indirect reference (contains mode of expression)	['content' of sentence as function of sense of its component terms]
linguistic expression:	sentence	[concrete language use]
associated extrasemantic psychological idea		

Frege distinguishes between sense and reference in order to explain a puzzle about the 'cognitive content' of identity statements like '*a* = *b*' that otherwise reduce by intersubstitution of coreferential terms to trivial instances of the cognitively uninteresting identity '*a* = *a*'. The sense-reference distinction enables Frege to say that '*a*' and '*b*' have the same customary reference, but not the same indirect reference or customary sense, when '*a* = *b*' is true (or has as its customary reference the True). The difference in the senses of '*a*' and '*b*' accounts for their difference in cognitive content, and hence for the significance or informativeness of true identity statements like '*a* = *b*', when, for example, '*a*' names the morning star and '*b*' names the evening star. The distinction also permits Frege to avoid intersubstitution embarrassments for these terms in propositional attitude and other intensional contexts, such as 'Beatrice believes that Venus is the evening star' (where Beatrice does not believe that Venus is the morning star or that the evening star is the morning star). The Fregean proper

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names 'Venus', 'the evening star', and 'the morning star' all have the same customary reference, but different customary senses, and hence different indirect references. In *oratio obliqua* contexts the terms do not have their customary reference, but instead assume their different customary senses as distinct indirect references. Intersubstitution *salva veritate* is licensed only for coreferential terms. Since the terms in question have different customary senses, they have different (indirect) references in *oratio obliqua*, according to Frege's theory, by which their intersubsitution in such contexts is forbidden. At the end of the essay, in the final paragraph, Frege concludes:

> Let us return to our starting point.
> When we found '*a* = *a*' and '*a* = *b*' to have different cognitive values, the explanation is that for the purpose of knowledge, the sense of the sentence, viz., the thought expressed by it, is no less relevant than its reference, i.e. its truth value. If now *a* = *b*, then indeed the reference of '*b*' is the same as that of '*a*', and hence the truth value of '*a* = *b*' is the same as that of '*a* = *a*'. In spite of this, the sense of '*b*' may differ from that of '*a*', and thereby the thought expressed in '*a* = *b*' differs from that of '*a* = *a*'. In that case the two sentences do not have the same cognitive value. If we understand by 'judgment' the advance from the thought to its truth value, as in the above paper, we can also say that the judgments are different.[10]

I must remark before proceeding on what strikes me as the barefoot implausibility of Frege's distinction between customary and indirect reference. If we have the *true* sentence, 'Beatrice believes that Venus is the evening star', then why suppose that in it 'Venus' does not refer directly to Venus? Isn't that what Beatrice's thought is about? What makes it reasonable to construe Beatrice's belief as about or referring to the customary sense of the proper name 'Venus' rather than the planet itself? If we asked her, wouldn't she simply say that she is thinking about and means to refer to that heavenly body as the object (along with the evening star) of her belief? Why not seek relief from *salva veritate* intersubstitutivity failures in some other way? Notice that we don't get into the least bit of trouble with this naive assumption unless or until we try to exchange coreferential terms 'the morning star' for 'Venus' or 'the evening star' in this hypothetically true statement of Beatrice's belief. Even here we encounter no logical difficulties unless Beatrice happens not to believe that the morning star = the evening star = Venus. Of course, she might not have these beliefs, and that is just the

[10] Frege, 'On Sense and Reference', p. 78.

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problem. But it is only a problem if we are committed like Frege to an extensional theory of meaning whereby the reference of proper names is determined by universal intersubstitutability *salva veritate*.

3. Linsky's Critique of Frege

I now want to develop an argument that takes its departure from a set of criticisms of Frege's theory of meaning raised by Leonard Linsky in his book *Referring*. Linsky advances a series of theorems about Frege's distinction between sense and reference and between customary and indirect reference to unlimited degrees of nested *oratio obliqua* contextuality. Linsky argues in support of these six results:

> *Theorem 1*. If *t* and *t'* are identical in [customary] c-sense they are also identical in [customary] c-reference...
> *Theorem 2*. Expressions identical in [customary] c-sense are everywhere interchangeable *salva veritate*...
> *Theorem 3*. If *t* and *t'* are identical in [customary] c-sense they are everywhere interchangeable in ordinary and first-degree oblique contexts, *salva veritate*...
> *Theorem 4*. No two singular referring expressions are identical in [customary] c-sense...
> *Theorem 5*. Names which differ in [customary] c-reference differ also in [customary] c-sense...
> *Theorem 6*. No sense is a concept of more than one object...[11]

Linsky's *Theorem 5* is the contrapositive of *Theorem 1*, which Linsky derives directly from *1* by *modus tollens*. *Theorem 4* makes both *Theorem 1* and *Theorem 5* vacuously true, a consequence Linsky does not notice, because, according to *Theorem 4*, no two different singular referring terms ever have the same customary sense. The conclusion holds because of Frege's commitment to the purely extensional criterion of corefentiality in his endorsement of Leibniz's principle of uniform intersubstitutability *salva veritate* (which Frege quotes in the original Latin, '*Eadem sunt, quae sibi mutuo substituti possunt, salva veritate*').[12] Terms with different cus-

[11] Leonard Linsky, *Referring* (London: Routledge & Kegan Paul, 1967), pp. 31–35.

[12] Frege, 'On Sense and Reference', p. 64. Frege does not give his source for Leibniz's famous statement of the identity of indiscernibles and indiscernibility of identicals. The passage appears in Gottfried Wilhelm Leibniz, *Mathematische Schriften*, ed. by C. J. Gerhardt [1850–63] (Hildesheim: Georg Olms Verlag, 1971),7, p. 372. See also Michael Dummett, *Frege: Philosophy of Language* (New York: Harper & Row, Publishers, 1973), pp. 542–583.

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tomary reference will not pass the universal intersubstitutability *salva veritate* test. But no two different coreferential terms can pass the universal intersubstitutivity *salva veritate* test, because the required counterexamples are always at hand. We need only stipulate hypothetical subjects like Beatrice who hypothetically believe (or fear, doubt, hope, etc.) *de dicto* something about an object as designated by one term that they need not believe (or fear, doubt, hope, etc.) *de dicto* about the same object as designated by any other coreferential term.

Here is Linsky's explanation of *Theorem 4*, in which he proves that no two singular referring expressions in Frege's semantics can have the same customary sense. The difference in possible truth values of two statements containing *oratio obliqua* indirect discourse contexts featuring an explicit denial of identity holding between any two distinct terms *t* and *t'* as opposed to *t* and itself is sufficient for Linsky to show that on Frege's concept the two terms are not everywhere interchangeable *salva veritate*, and hence by *Theorem 2* that they do not have the same customary sense. Linsky writes:

> The proof of this theorem requires (1) [Jones denied explicitly that $t = t'$] and (2) [Jones denied explicitly that $t = t$] to be oblique contexts of degree one. This is plausible, because degree of obliqueness was explained in terms of statement operators ('necessarily', 'Jones believes that', etc.). The intuitive idea behind the notion of degree of obliqueness is that one oblique statement can be nested within another. Now 'Jones denied that' is clearly the kind of statement operator we here have in mind, and there seems to be no way of getting 'explicitly' separated from 'explicitly denied', so that it may function as an operator on statements of its own.[13]

The argument has this structure:

(1) Let *t*, *t'* be any two singular referring expressions (Fregean proper names) with identical customary sense.
(2) Suppose that it is true that (a) Jones (as anyone might) explicitly denies that $t = t'$, but it is false that (b) Jones explicitly denies that $t = t$ (which would be unreasonable).

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(3) Nevertheless, (b) follows *salva veritate* from hypothetically true sentence (a) on Frege's theory of sense and reference by intersubstituting *t* for *t'* in (a), on the strength of assumption (1) and Linsky's *Theorem 2*. This contradicts the assumption in (2) that sentence (a) is true and sentence (b) is false.

[13] Linsky, *Referring*, p. 35.

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(4) Contrary to assumption (1), therefore, it follows by *reductio ad absurdum* from the contradiction mentioned in (3) that *t* and *t*' on Frege's theory of sense and reference do not have identical customary sense.
(5) But since *t* and *t*' are variables for any two singular referring expressions (Fregean proper names), it follows as Linsky's *Theorem 4* states that according to Frege's theory of sense and reference no two different singular referring expressions (Fregean proper names) have identical customary sense.

4. Identical Sense and the Extensional Criterion

What are the implications of Linsky's theorems about Frege's semantics? Linsky concludes among other things that Frege's theory is ultimately inapplicable to the semantics of natural languages. Linsky writes:

> If [customary] c-sense corresponds to meaning, as surely it must if Frege's theory is to be an account of the semantics of natural languages, identity of [customary] c-sense corresponds to synonymy. The effect of *Theorem 2*, thus understood, is to require that synonymous expressions be everywhere interchangeable *salva veritate*. Now this result is surely unacceptable. Some modern philosophers have adopted accounts of synonymy which require synonymous expressions to be everywhere interchangeable *salva veritate* and have then concluded that there are no synonyms in natural languages. Since it is certain that there are synonyms in English, German, etc., it would seem more reasonable to reject an account of synonymy which requires synonyms to be everywhere interchangeable. But Frege's semantics faces this very difficulty in light of *Theorem 2*.[14]

Linsky's objection is damaging enough. But I want to call attention to the fact that *Theorems 4* and *6* contradict a characteristic Fregean thesis. I agree with Linsky that Frege's sense-reference distinction cannot provide a semantics of natural language. The theory seems at best to apply to an ideal language, like Frege's *Begriffsschrift* was meant to be, containing only purely extensional *oratio recta* contexts with perfectly unambiguous uniquely designating logically proper names. Yet Frege in '*Über Sinn und Bedeutung*' unequivocally declares that: 'The same sense has different expressions in different

[14] Ibid., p. 36.

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languages or even in the same language.'[15] The universal intersubstitutability *salva veritate* requirement implies that no two Fregean singular referring terms can have exactly identical sense. Frege nonetheless requires that the same sense can be differently expressed within a language and in different languages. Indeed, explaining the possibility of translating the meaning of an expression from one language into another is often hailed as one of the most important merits of Frege's semantics.[16]

Suppose that Beatrice believes that the Piazza San Marco is in Venezia, but does not believe that the Piazza San Marco is in Venice (because she does not know that 'Venice' is the English word for 'Venezia').[17] According to Linsky's *Theorems 2* and *3*, the Fregean

[15] Frege, 'On Sense and Reference', p. 58. See Frege, *Nachgelassene Schriften und wissenschaftlichen Briefwechsel*, edited by Hans Hermes, Frederich Kaubertel, and Friedrich Kaulbach, with the assistance of Gottfried Babriel and Walburga Rodding; translated as *Posthumous Writings* by Peter Long and Roger White with the assistance of Raymond Hargreaves (Oxford: 1979), p. 206: 'I use the word "sentence" to refer to a sign that is normally complex, whether it is made up of sounds or written signs. Of course this sign must have a sense. Here I am only considering sentences in which we state or assert something. We can translate sentences into other languages. The sentence in the other language is different from the original one, for its constituents (component sounds) are different and are put together differently; but if the translation is correct, it will express the same sense and of course it is really the sense that concerns us. The sentence is of value to us because of the sense that we grasp in it, which is recognizably the same in the translation too. I call this sense a thought.' And ibid., p. 231: 'With this sentence ["Etna is higher than Vesuvius"] we connect a sense, a thought; we understand it, we can translate it into other languages.'

[16] See *inter alia* G. P. Baker and P. M. S. Hacker, *Frege: Logical Excavations* (Oxford: Basil Blackwell, 1984), pp. 63–76, 88, 200–202, 280. Christian Thiel, *Sense and Reference in Frege's Logic* (Dordrecht: D. Reidel Publishing, Company, 1968), pp. 118–141. Dummett, *The Interpretation of Frege's Philosophy* (Cambridge: Harvard University Press, 1981), pp. 323–342. Wolfgang Carl, *Frege's Theory of Sense and Reference: Its Origins and Scope* (Cambridge University Press, 1994), pp. 96–99. Martin Hahn, 'The Frege Puzzle One More Time', in *Frege: Sense and Reference One Hundred Years Later*, edited by John Biro and Petr Kotatko (Dordrecht: Kluwer Academic Publishers, 1995), pp. 169–183.

[17] See also Linsky, *Oblique Contexts* (University of Chicago Press, 1983), p. 12: 'It is interesting that Frege does not give even a hypothetical example of two names with the *same* sense. Indeed, I do not think that many can be found if we insist on confining ourselves to a single language. But, if this restriction is removed, there is an abundance: "London" and "Londra" (in Italian).'

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proper names 'Venice' and 'Venezia' do not have identical sense, because they are not universally nor in ordinary or first-degree oblique contexts intersubstitutable *salva veritate*. But why not? On what semantic grounds can Frege oppose their intersubstitution? What customary sense doing duty as indirect reference does 'Venice' have that 'Venezia' does not? Going back to my barefoot criticism of Frege's distinction between customary and indirect reference, don't both proper names 'Venice' and 'Venezia' have precisely the same sense expressed in different languages? Don't both terms mean *la Serenissima*, the city of gondolas and canals on the Adriatic that conquered Constantinople in 1204, etc., etc.? What does Frege mean by 'sense' and 'customary sense', such that there could be a difference in the senses of these terms, as he is forced to admit by Linsky's *Theorems 4* and *6*?[18]

[18] My critique of Frege is indirectly related to Saul A. Kripke's belief puzzle for truth conditionally equivalent sentences, 'London is pretty' and '*Londres est jolie*'. Kripke, 'A Puzzle About Belief', in *Meaning and Use*, edited by Avishai Margalit (Dordrecht: D. Reldel, 1979), pp. 239–283. Kripke formulates the puzzle as one about whether or not a native French speaker has the belief at various stages of the process of learning English. For an interesting discussion of Kripke's belief puzzle in connection with Frege's sense-reference distinction, see Dummett, *The Interpretation of Frege's Philosophy*, pp. 83–147. I make no further reference to the extensive literature on Kripke's puzzle beyond mentioning Edward N. Zalta's attempted solution in *Intensional Logic and the Metaphysics of Intentionality* (Cambridge: The MIT (Bradford Books) Press, 1988). Zalta writes, p. 179: 'Clearly, Kripke has a valid argument here. However, one of the premises is false. And that is the assumption that two different names may have the same sense. This is something we emphatically deny, and there are several good ways to show that the senses of distinct proper names are always going to be distinct. It seems to us undeniable that every proper name a person encounters is encountered in a distinct situation. It is not possible to grasp two proper names simultaneously, in exactly the same circumstances.' If the senses of any two singular referring expressions are always distinct, then intersubstitution of coreferential terms is certainly blocked in an otherwise Fregean framework. But Zalta's solution works only by including psychological associations in Fregean senses, which Frege would never have allowed. Zalta nevertheless believes that he is advancing a Fregean account of '*Sinn*' (which he disastrously conflates with Husserl's concept of *noema*). In ibid., note 3, Zalta maintains: 'If the two names are read successively off a list, then the circumstances in which the names are learned are different. The second name is learned in a circumstance in which the first name was just uttered. This difference might be exploited.' I think these last assertions are highly questionable on empirical grounds in experimental cognitive psychology; it is not clear why such names would need to be successively rather than simultaneously learned, perhaps through different sense modalities. The 'solution' to

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Frege says surprisingly little about the nature of sense. His silence reinforces White's assessment that Frege introduces the concept of sense only to set it aside as secondary to what really interests him in the theory of meaning—the extensional analysis of proper name and sentence reference. The clearest clue in Frege's essay as to what he means by 'sense' is contained in a single digression. Frege says: 'The sense of a proper name is grasped by everybody who is sufficiently familiar with the language or totality of designations to which it belongs...'[19] Then, in the note to the above, Frege adds:

> 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 the sense of the name: the teacher of Alexander the Great who was born in Stagira. So long as 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.[20]

Importantly, for present purposes, all of Frege's candidates for the sense of the proper name 'Aristotle' are sets of properties. This is the most common interpretation of Frege's notion of sense, that a proper name has as its customary sense an intension, consisting of the object's properties, and that these in their entirety in turn determine the proper name's customary reference or extension. Frege continues: 'Comprehensive knowledge of the reference would

[19] Frege, 'On Sense and Reference', pp. 57–58.
[20] Ibid., p. 58.

Kripke's belief puzzle it represents in any case is not only non-Fregean in disregarding Frege's assertions that the same sense can be expressed in different languages (note supra 15), but in incorporating subjective temporally-relative learning situation circumstances into a Fregean proper name's supposedly abstract objective sense, thereby disregarding Frege's distinction between sense and idea. The misinterpretation of Frege's semantics appears at the outset in Zalta's exposition, when he concludes, after examining alternative accounts of Frege's concept of sense, p. 159: 'It seems clear that the properties featured in the name-learning situation are linked directly to the sense the name has for a given individual in that situation.' Yet it is precisely to avoid such subjective elements of idiosyncratic personalized and temporalized meaning that Frege distinguishes the objective abstract or platonic sense of a proper name from its psychological associations.

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require us to be able to say immediately whether any given sense belongs to it. To such knowledge we never attain.'[21] It is the epistemic limitations of language users that make it possible for them to have different opinions about the sense of a proper name. The proper name considered more abstractly in itself or from the standpoint of semantic omniscience has a complete set of properties, which for an actual proper name like 'Aristotle' (assuming the traditions are correct) includes such things as {student of Plato; teacher of Alexander the Great; born in Stagira; etc.}, in which every one of Aristotle's properties is included. There is thus an interpretation of the sense of ordinary proper names to unsaturated or free variable predications in the form of a set of properties, the totality of which no mortal knows.

Returning to the problem of Beatrice contemplating the location of Piazza San Marco in Venezia versus Venice, it is obvious that in applying Frege's notion of the customary sense of a proper name as its intension or set of constitutive properties, the two terms 'Venezia' and 'Venice' paradoxically both must and cannot possibly have the same customary sense. They must have the same sense because any constitutive property of Venice is a property of Venezia and vice versa. They cannot possibly have the same customary sense because of Linsky's *Theorems 4* and *6*, which articulate the implications of Frege's commitment to an extensional criterion of customary reference by universal intersubstitutability *salva veritate*, as reflected in Linsky's *Theorems 2* and *3*. Now we see that the problem is not merely, as Linsky rightly but too reservedly concludes, that Frege's distinction between sense and reference disables it from providing a semantics of natural language, nor that the consequence that no two different terms can have the same customary sense contradicts Frege's explicit statement that the same sense can have different expressions in different languages and even in the same language. There is a more fundamental incompatibility between Frege's commitment to the extensional theory of the reference of proper names embodied in the substitutivity *salva veritate* criterion and his notion of customary sense. Frege distinguishes sense and reference so thoroughly that the basis for the distinction in his theory of proper names and sentence meaning is sufficiently at odds in these two parts of his semantics as to constitute an outright logical contradiction at the deepest conceptual foundations of his doctrine.

[21] Ibid.

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5. Idea and the Intentionality of Meaning

What can be done? I see only one possibility of rescuing Frege's theory from this difficulty. The solution, unfortunately, leads him into another logically compromising situation that is equally bad if not worse.

Frege's semantics must avoid the unwanted consequences of accepting the meaning of proper names 'Venice' and 'Venezia' as identical, not only in customary reference, but also in customary sense. The only apparent remedy is to swing over to some version of the position that the meaning of names includes the associated psychological connotations that Frege is eager to eliminate as semantically irrelevant 'ideas'. If customary sense and customary reference of such proper names as 'Venice' and 'Venezia' are precisely the same, but uniform intersubstitutivity *salva veritate* of these terms fails in some *oratio obliqua* contexts like those that describe Beatrice's beliefs, then some other principled basis for blocking their intersubstitution must be found.

But what could it possibly be, in Frege's three-part division between idea, sense, and reference, if the customary sense and reference of 'Venice' and 'Venezia' are identical? The only choice for Frege in trying to preserve the intersubstitutability *salva veritate* criterion from the Venice-Venezia counterexample is to argue that terms cannot be universally intersubstituted *salva veritate* unless they also agree in idea. Only the supposedly semantically irrelevant psychological ideas that Beatrice might differentially think of as associated with one proper name 'Venezia', but not with its English counterpart 'Venice' remains to provide a difference for the sake of which Frege could deny their intersubstitutability in referentially opaque contexts when customary sense and customary and indirect reference are identical. When Beatrice thinks of Venezia, she thinks of the Basilica, the campanile, or Harry's Bar; but when she thinks of Venice, with her smattering of English, she thinks only of wild game (venison). The difference of idea can obtain where the sense and reference of the terms are identical, as a basis for disallowing their intersubstitution *salva veritate* in the intensional *oratio obliqua* doxastic context, 'Beatrice believes that the Piazza San Marco is in _____.'

The psychological 'colouring' or 'shading' that ideas add to names and sentences can be difficult in any case to distinguish phenomenologically or in other ways from their senses. The problem becomes particularly acute if so-called converse intentional properties are allowed to enter into an object's sense.[22] Is it part of the

[22] See Roderick M. Chisholm, 'Converse Intentional Properties', *The Journal of Philosophy*, **79**, 1982, pp. 537–545.

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sense of the Fregean proper name 'Gödel's first theorem' that Beatrice finds its proof baffling? What happens to Frege's sense-reference distinction when ideas themselves are named? Idea in the colouring or shading of a name or sentence must enter into the cognitive meaningfulness of '*a*', '*b*', and '*a* = *b*', where no difference of reference or sense is equal to the task. Not only is 'Venice = Venezia' problematic, but 'Hercules = Herakles = Ercole', 'The largest red round ball = the largest round red ball', and unlimitedly many others.

The only way to forestall Linsky's proof of *Theorem 4* is by preventing the intersubstitution of extensionally coreferential Fregean proper names with intuitively identical intensional sense in all first degree oblique contexts by appeal to some linguistic factor or 'level of difference' other than reference or sense. Then Frege can maintain both the purely extensional intersubstitutability *salva veritate* criterion of coreferentiality and the more intuitively correct thesis that some terms have identical objective sense within a language or as translatable from language to language. But the only remaining third category to which Frege can possibly appeal for the difference he needs to thwart any and all such intersubstitutions is a proper name's associated image or idea. The proposal lands Frege with some version of a psychologistic semantics, which he is at pains to avoid. Yet Frege finally has no choice, and might as well acknowledge the importance of intentionality wherever it proves useful in the theory of meaning, after opening the floodgates to a concept that cannot be completely excluded anyway.

It remains a worthwhile project to explore the requirements for a minimal intentional philosophy of language. What are the fewest or weakest assumptions about the intrinsically intentional thought required to explain the meaning of derivatively intentional expressions of thought? Nor does the subjectivity implied by an intentionalist semantics necessarily constitute a philosophically objectionable idealism, as Frege seems to fear. There is a tradeoff in the usefulness and simplicity of invoking the concept of intentionality generally in semantics versus the ontic economy and objectivity that would accrue to a purely extensionalist theory. Once it is admitted that intentionality must be made part of an adequate account of meaning, then categorical ontic economy and absolute objectivity are repudiated for the sake of satisfactory explanation on any terms, and the question of how little or how much intentionality is needed in the philosophy of language loses most of its metaphysical urgency.

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6. Semantics as a Theory of the Expression of Thought

By bringing in idea as a psychological factor to interdict the inter-substitutivity *salva non veritate* of distinct proper names with identical customary reference and identical customary sense, even an elementary theory of the reference of proper names must effectively supercede the purely extensional approach of a characteristically Fregean (and Russellian, Quinean, etc.) semantics. This is the first instalment of intentionality, which we have now seen a revisionary Fregean semantics must include, despite its disavowal of psychologism and advocacy of an unadulterated extensionalism.

Denying the extensionality of meaning is only a negative ploy that avoids Frege's confusions, but goes no distance toward positively explaining the meaning of names. If we try to answer Shakespeare's cliché 'What's in a name?' by adding associated idea or connotation to pure reference, designation, or denotation, then we are no longer operating within the profoundly antipsychologistic Fregean paradigm that seeks to replace the psychological and subjective with an objective set theoretical concept of existent mind-independent objects in the extensions of predicates as the fundamental principle of semantics.[23] We are driven back in that case after all to individual minds and their private subjective psychological contents in order to explain the meaning of language.

Frege's theory of meaning is important, because, when followed to one of its logical extremes, as we have done here with respect to several key implications of Linsky's criticisms, it reveals the poverty of radical extensionalism in philosophical semantics. Similar remarks apply, though majority opinion in the history of philosophy has not yet reached this settled view in anything like the same degree for Frege's work, about the instructive value of Berkeley's inadvertent reduction of radical empiricism to the absurdity of his insupportable idealism and theism. The failure of Frege's logicist concept of class comprehension and membership in his *Grundgeseteze der Arithmetik* due to Russell's paradox caused him to renounce his originally bifurcated philosophy of mathematics for a

[23] Dummett, *Frege: Philosophy of Language*, especially pp. 157–159. Baker and Hacker, *Frege: Logical Excavations*, p. 280: 'A first possible advantage is that the sense/reference distinction, by ensuring a public object of communication, agreement and disagreement, in conformity with the requirements of antipsychologism, enables us (in principle) to avoid the embarrassment of recognizing private (subjective) objects as unjudgeable.' Joan Weiner, *Frege in Perspective* (Ithaca: Cornell University Press, 1990), pp. 57–59, 157–161, 164–166.

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unified Kantian intuitionism that restores judgment as a basis for the principles of both geometry and arithmetic.[24] But Frege is equally impelled by the problems encountered in his early semantic distinction between idea, sense, and reference toward a parallel rehabilitation of some form of psychologism in the philosophy of language, the need for which with enough time he might also have eventually recognized.

Frege must supplement the distinction between sense and reference with associated psychological idea. He is thereby caught in the dilemma of preserving intersubstitutability *salva veritate* as the criterion of an extensional theory of reference for proper names with identical sense by the only available expedient. The remedy, however, is as fatal as the disease, because the appeal to subjective intentional factors in the determination of meaning contradicts the 'objectivity', as Frege sees it, of a purely extensionalist semantics. But what else is to be expected of an account that requires the intersubstitutability of codesignative terms *salva veritate* even in intensional contexts like those that describe a person's beliefs, doubts, hopes, or fears about objects under different names? In the end, Frege's only choice is to reject the extensional criterion of reference, or to exclude all psychological facts from the idealization of scientific language in a *Begriffsschrift*, neither of which drastic alternatives does he seem willing to accept.[25]

The Pennsylvania State University

[24] See Anthony Kenny, *Frege* (London: Penguin Books Ltd., 1995), pp. 176–177: 'In the last year of his life Frege returned to the Kantian position which he had set out to refute at the beginning of *The Foundations of Arithmetic*: since arithmetic was *a priori*, but had turned out not to be analytic, it must rest, like geometry, on intuition.'

[25] This essay was delivered as a seminar lecture to the philosophy faculty at the Rjksuniversiteit Utrecht, The Netherlands, May 3, 1996, under the sponsorship of the Commission for Cultural, Educational and Scientific Exchange Between the United States of America and the Netherlands, during my tenure as J. William Fulbright Distinguished Lecture Chair in Contemporary Philosophy of Language at the University of Venice, Italy.

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