1

A Millian Heir Rejects the Wages of *Sinn* (1990)

It is argued, in sharp contrast to established opinion, that the linguistic evidence arising out of propositional-attitude attributions strongly supports Millianism (the doctrine that the entire contribution to the proposition content of a sentence made by a proper name is simply the name's referent) without providing the slightest counter-evidence. This claim is supported through a semantic analysis of such *de re* attributions as 'Jones believes of Venus that it is a star.' The apparent failure of substitutivity of co-referential names in propositional-attitude attributions is shown to be evidentially irrelevant through consideration of analogous phenomena involving straightforward synonyms.

I

In *Frege's Puzzle* [27] I defended a Millian theory of the information contents of sentences involving proper names or other simple (noncompound) singular terms. The central thesis is that ordinary proper names, demonstratives, other single-word indexicals or pronouns (such as 'he'), and other simple singular terms are, in a given possible context of use, Russellian 'genuine names in the strict logical sense'.[1] Put more fully, I maintain the following anti-Fregean doctrine: that the contribution made by an ordinary proper name or other simple singular term to securing the information content of, or the proposition expressed by, declarative sentences (with respect to a given possible context of use) in which the term occurs (outside of the scope of nonextensional operators, such as quotation marks) is just the referent of the term, or the bearer of the name (with respect to that context of use). In the terminology of *Frege's Puzzle*, I maintain that the *information value* of an ordinary proper name is just its referent.[2]

[1] See Russell's 'Knowledge by Acquaintance and Knowledge by Description' [22] and 'The Philosophy of Logical Atomism' [23].

[2] Throughout this chapter, I use the term 'Millian' broadly to cover any theory that includes this doctrine. (The term derives from Kripke, 'A Puzzle About Belief' [13].) I0 do not use the term in the

Another thesis that I maintain in *Frege's Puzzle*—and which both Frege and Russell more or less accepted—is that the proposition that is the information content of a declarative sentence (with respect to a given context) is structured in a certain way, and that its structure and constituents mirror, and are in some way readable from, the structure and constituents of the sentence containing that proposition.[3] By and large, a simple (noncompound) expression contributes a single entity, taken as a simple (noncomplex) unit, to the information content of a sentence in which the expression occurs, whereas the contribution of a compound expression (such as a phrase or sentential component) is a complex entity composed of the contributions of the simple components.[4] Hence, the contents of beliefs formulatable using ordinary proper names, demonstratives, or other simple singular terms, are on my view so-called *singular propositions* (David Kaplan), i.e., structured propositions directly about some individual, which occur directly as a constituent of the proposition. This thesis (together with certain relatively uncontroversial assumptions) yields the consequence that *de re* belief (or *belief of*) is simply a special case of *de dicto* belief (*belief that*). To believe *of* an individual *x*, *de re*, that it (he, she) is *F* is to believe *de dicto* the singular proposition about (containing) *x* that it (he, she) is *F*, a proposition that can be expressed using an ordinary proper name for *x*. Similarly for the other propositional attitudes.

more restricted sense of a theory that includes the (apparently stronger) thesis that the reference of a simple singular term completely exhausts the 'linguistic function' of the term (whatever that means). John Stuart Mill himself was almost certainly not a Millian, strictly speaking, but his philosophical view of proper names is very much in the spirit of Millianism—enough so for genuine Millians, such as myself, to be counted his heirs.

[3] This separates the theory of *Frege's Puzzle*, together with the theories of Frege, Russell, and their followers, from contemporary theories that assimilate the information contents of declarative sentences with such things as sets of possible worlds, or sets of situations, or functions from possible worlds to truth values, etc.

Both Frege and Russell would regard declarative sentences as typically reflecting only *part of* the structure of their content, since they would insist that many (perhaps even most) grammatically simple (noncompound) expressions occurring in a sentence may (especially if introduced into the language by abbreviation or by some other type of explicit 'definition') contribute complex proposition-constituents that would have been more perspicuously contributed by compound expressions. In short, Frege and Russell regarded the prospect of expressions that are grammatically simple yet semantically compound (at the level of content) as not only possible but ubiquitous. Furthermore, according to Russell's Theory of Descriptions, definite and indefinite descriptions ('the author of *Waverley*', 'an author', etc.), behave grammatically but not semantically (at the level of content) as a self-contained unit, so that a sentence containing such an expression is at best only a rough guide to the structure of its content. Russell extends this idea further to ordinary proper names and most uses of pronouns and demonstratives. This makes the structure of nearly any sentence only a very rough guide to the structure of the sentence's content. The theory advanced in *Frege's Puzzle* sticks much more closely to the grammatical structure of the sentence.

[4] There are well-known exceptions to the general rule—hence the phrase 'by and large'. Certain nonextensional operators, such as quotation marks, create contexts in which compound expressions contribute themselves as units to the information content of sentences in which the expression occurs. Less widely recognized is the fact that even ordinary temporal operators (e.g., 'on April 1, 1986' + past tense) create contexts in which some compound expressions (most notably, open and closed sentences) contribute complexes other than their customary contribution to information content. See 'Tense and Singular Propositions' [29]. In addition, compound predicates are treated in *Frege's Puzzle* as contributing attributes, as single units, to the information contents of sentences.

Here I will elaborate and expand on certain aspects of my earlier defense of Millian theory, and present some new arguments favoring Millianism. It is commonly held that Millianism runs afoul of common-sense belief attributions, and other propositional-attitude attributions, in declaring intuitively false attributions true. Ironically, the main argument I shall propose here essentially relies on common-sense belief attributions and the semantics of the English phrase 'believes that'. I shall argue, in sharp contrast to established opinion, that the seemingly decisive evidence against Millianism from the realm of propositional-attitude attributions is no evidence at all, and is in fact evidentially irrelevant and immaterial. If I am correct, common-sense propositional-attitude attributions, insofar as they provide any evidence at all, strongly support Millianism without providing even the slightest counter-evidence (in the way that is commonly supposed).

Historically, the most influential objection to the sort of theory I advocate derives from Frege's notorious 'Hesperus'–'Phosphorus' puzzle. The sentence 'Hesperus is Phosphorus' is informative; its information content apparently extends knowledge. The sentence 'Hesperus is Hesperus' is uninformative; its information content is a 'given'. According to my theory, the information content of 'Hesperus is Hesperus' consists of the planet Venus, taken twice, and the relation of identity (more accurately, the relation of identity-at-t, where t is the time of utterance). Yet the information content of 'Hesperus is Phosphorus', according to this theory, is made of precisely the same components, and apparently in precisely the same way.[5] Assuming a plausible principle of compositionality for propositions, or pieces of information—according to which if p and q are propositions that involve the very same constituents arranged in the very same way, then p and q are the very same proposition—the theory ascribes precisely the same information content to both sentences. This seems to fly in the face of the fact that the two sentences differ dramatically in their informativeness.

This puzzle is easily transformed into an argument against Millian theory, by turning its implicit assumptions into explicit premisses. The major premiss, which I call *Frege's Law*, connects the concept of informativeness (or that, in Frege's words, of 'containing a very valuable extension of our knowledge') with that of cognitive information content (what Frege called '*Erkenntniswerte*', or 'cognitive value'):

If a declarative sentence S has the very same cognitive information content as a declarative sentence S', then S is informative if and only if S' is.

A second premiss is the compositionality principle for propositions. A third critical premiss consists in the simple observation that whereas 'Hesperus is Phosphorus' is informative, 'Hesperus is Hesperus' is not. Assuming that the information contents of 'Hesperus is Phosphorus' and 'Hesperus is Hesperus' do not differ at all in structure

---

[5] It has been argued, however, that the information content of a sentence is a function not only of the information-values and the sequential order of the information-valued parts but also of the very logical structure of the sentence as a whole, and that therefore, since the two identity sentences differ in logical structure, the modes of composition of the information values of their parts are different from one another. See Putnam [17], especially note 8 (also in [29], pp. 157n10). For response, see Church [2]; Scheffler [31] (pp. 42n7); Soames [33]; and Salmon [27] (pp. 164–165n4).

or mode of composition, it follows that they differ in their constituents.[6] This points to a difference in information value between the names 'Hesperus' and 'Phosphorus'. Since these names are co-referential, it cannot be that the information value of each is simply its referent.

As I pointed out in *Frege's Puzzle* (pp. 73–76), there is a very general difficulty with this Fregean argument: an exactly similar argument can be mounted against any of a wide variety of theories of information value, including Frege's own theory that the information value of a term consists in an associated purely conceptual representation. It happens that I, like Hilary Putnam, do not have the slightest idea what characteristics differentiate beech trees from elm trees, other than the fact that the English term for beeches is 'beech' and the English term for elms is 'elm'.[7] The purely conceptual content that I attach to the term 'beech' is the same that I attach to the term 'elm', and it is a pretty meager one at that. My concept of elm wood is no different from my concept of beech wood. Nevertheless, an utterance of the sentence 'Elm wood is beech wood' would (under the right circumstances) be highly informative for me. In fact, I know that elm wood is not beech wood. At the same time, of course, I know that elm wood is elm wood. By an argument exactly analogous to the one constructed from Frege's puzzle about the informativeness of 'Hesperus is Phosphorus' we should conclude that the information value of 'elm' or 'beech' is not the conceptual content.[8]

---

[6] See the previous note. There is considerable conflict, however, between Putnam's stance described therein and his more recent concession in his 'Comments' on Kripke's 'A Puzzle about Belief' [19] (p. 285), that 'certainly Frege's argument shows meaning cannot just *be* reference'.

[7] This particular example is due to Putnam, whose botanical ignorance cannot possibly exceed my own. See 'Meaning and Reference' [18] (p. 704).

[8] I had made this same general point earlier in a review of Leonard Linsky's *Names and Descriptions* [154] (p. 451). There, however, I labored under the illusion that the original Fregean argument is sound.

It may be objected that my concept of elm trees includes the concept of being called 'elms' in English, and perhaps even the concept of being a different genus from the things called 'beeches' in English, making the purely conceptual contents different after all. Even setting aside the question of whether such differences can show up in a purely conceptual representation, this objection is mistaken. In the relevant sense of 'conceptual content', such concepts as that of being called 'elm' in English are not part of the conceptual content I attach to the term 'elm'. Not everything one believes about elms can be part of the information value of the term 'elm', or of the conceptual representation attached to the term 'elm', as the notion of conceptual representation is intended in Fregean theory. Otherwise, every sentence *S* that is sincerely uttered by someone and that involves the word 'elm' (not in the scope of quotation marks or other such devices) would be such that the conditional ⌜If there are any elms, then S⌝ is analytically true for the speaker. One could not acquire new beliefs expressed by means of the term 'elm', and hence one could not change one's mind about anything expressed in terms of 'elm' (e.g., that Jones is standing by an elm tree), without literally changing the subject. In particular, there are compelling reasons for denying that any concept like that of being called such-and-such in English can be part of the information value of terms like 'elm' and 'beech'. It is not analytic, for example, that elms are called 'elm' in English. (That 'elm' applies to elms in English is a nontrivial piece of information about English. Things might have been otherwise, and it is not 'given' or known *a priori* what the expression 'elm' applies to in English.) Whatever the information value of 'elm' is, there are terms in other languages that have the same information value—e.g., the German words '*Ulme*' and '*Rüster*'. The information value of these German terms does not include any concept of what things of that kind

This argument employs the same general strategy, and mostly the very same premisses (including Frege's Law and the compositionality principle for propositions), as the original Fregean argument in connection with 'Hesperus' and 'Phosphorus'. This generalized Fregean strategy may be applied against virtually any minimally plausible and substantive theory of information value. In this particular application of the generalized strategy, the relevant informative identity statement is not even true, but that does not matter to the general strategy. The truth of an informative identity statement is required only in the application of the general argument against theories that locate information value, at least in part, in reference. In the general case, only informativeness is required. False identity statements are always informative—so informative, in fact, as to be misinformative. Thus, virtually any substantive theory of information value imaginable reintroduces a variant of Frege's puzzle (or else it is untenable on independent grounds, such as Kripke's modal arguments against orthodox Fregean theory).

The sheer scope of the generalized Fregean strategy—the fact that, if sound, it is applicable to virtually any substantive theory of information value—would seem to indicate that the strategy involves some error. That the generalized strategy does indeed involve some error can be demonstrated through an application of the generalized strategy to a situation involving straightforward (strict) synonyms for which it is uncontroversial that information value is exactly preserved. Suppose that foreign-born Sasha learns the words 'ketchup' and 'catsup' not by being taught that they are perfect synonyms, but by actually consuming the condiment and reading the labels on the bottles. Suppose further that, in Sasha's idiosyncratic experience, people typically have the condiment called 'catsup' with their eggs and hash browns at breakfast, whereas they routinely have the condiment called 'ketchup' with their hamburgers at lunch. This naturally leads Sasha to conclude, erroneously, that ketchup and catsup are different condiments that happen to share a similar taste, color, consistency, and name. He thinks to himself, 'Ketchup is a sandwich condiment, but no one in his right mind would eat a sandwich condiment with eggs at breakfast; so catsup is not a sandwich condiment.' Whereas the sentence 'Ketchup is ketchup' is uninformative for Sasha, the sentence 'Catsup is ketchup' is every bit as informative as 'Hesperus is Phosphorus'. Applying the generalized Fregean strategy, we would conclude that the terms 'catsup' and 'ketchup' differ in information value for Sasha. But this is clearly wrong. The terms 'ketchup' and 'catsup' are perfect synonyms in English. Some would argue that they are merely two different spellings of the very same

are called in English. A German speaker may know what an elm is—may have a concept of an elm tree—without having the foggiest idea what elms are called in English. Also, for most terms, such as 'tree', 'table', 'anthropologist', 'green', etc., it is distinctly implausible to suppose that the information value of the term includes the concept of being so-called in English. Each is perfectly translatable into any number of languages. The typical German speaker knows what a tree is—has the concept of a tree—even if he or she does not have any opinion as to the English term for a tree. There is no reason why 'elm' should be different from 'tree' in this respect. See Kripke, *Naming and Necessity* [12] (pp. 68–70) and 'A Puzzle about Belief' [13] (note 12), and my *Frege's Puzzle* (pp. 163–164*n*2).

English word.⁹ Most of us who have learned these words (or these spellings of the single word) probably learned one of them in an ostensive definition of some sort, and the other as a strict synonym (or as an alternative spelling) of the first. Some of us learned 'ketchup' first and 'catsup' second; for others the order was the reverse. Obviously, it does not matter which is learned first and which second. Either word (spelling) may be learned by ostensive definition. If either may be learned by ostensive definition, then both may be. Indeed, Sasha has learned both words (spellings) in much the same way that nearly everyone else has learned at least one of them: by means of a sort of ostensive definition. This manner of acquiring the two words (spellings) is unusual, but not impossible. Sasha's acquisition of these words (spellings) prevented him from learning at the outset that they are perfect synonyms, but the claim that he therefore has not learned both is highly implausible. Each word (spelling) was learned by Sasha in much the same way that some of us learned it. Even in Sasha's idiolect, then, the two words (spellings) are perfectly synonymous, and therefore share the same information value. Since this contradicts the finding generated by the generalized Fregean strategy, the generalized Fregean strategy must involve some error. This discredits the original Fregean argument.¹⁰

What is the error? It is tempting to place the blame on Frege's Law. In Sasha's case, the sentences 'Catsup is ketchup' and 'Ketchup is ketchup' have the very same information content, yet it seems that the first is informative and the second is not. This would be a mistake. A sentence is *informative* in the sense invoked in Frege's Law only insofar as its information content is a 'valuable extension of our knowledge', or is knowable only *a posteriori*, or is not already 'given', or is nontrivial, etc. There is some such property P of propositions such that a declarative sentence S is informative in the only sense relevant to Frege's Law if and only if its information content has P. Once the informativeness or uninformativeness of a sentence is properly seen as a derivative semantic property of the sentence, one that the sentence has only in virtue of encoding the information that it does, Frege's Law may be seen as a special instance of Leibniz's Law, the doctrine that things that are the same have the same properties:

---

⁹ Indeed, a similar example could be constructed using the American and British spellings of 'color', or even differing *pronunciations* of 'tomato'.

¹⁰ The argument given here involving the terms 'ketchup' and 'catsup' is related to Kripke's 'proof' of substitutivity using two Hebrew words for Germany, and to his argument involving 'furze' and 'gorse', in the conclusion section of 'A Puzzle about Belief' [13]. All of these arguments are closely related to Church's famous arguments from translation. (See especially 'Intensional Isomorphism and Identity of Belief' [2].) For further discussion of the relation between the position taken in Kripke's article on belief and the position defended here see *Frege's Puzzle* (pp. 129–132), and 'Illogical Belief' [28].

The example of Sasha, like the 'beech'–'elm' example, demonstrates that the difficulty involved in Frege's puzzle is more general than it appears, arising not only on my own theory of information value but equally on a very wide range of theories, including various Fregean theories. This is not peculiar to Frege's puzzle. Although I will not argue the case here, a great many criticisms that have been leveled against the sort of account I advocate—perhaps most—are based on some difficulty or other that is more general in nature than it first appears, and that equally arises on virtually any substantive theory of information value in connection with the example of Sasha's understanding of the synonyms 'ketchup' and 'catsup'. (*Cf.* 'Illogical Belief'.) Perhaps I will elaborate on this matter in later work.

if the information content of S is the information content of S', then the information content of S has the informative-making property P if and only if the information content of S' does. Since Frege's Law is a logical truth, it is unassailable.

By the same token, the sentence 'Catsup is ketchup' is definitely not informative *in this sense*. The proposition it semantically contains is just the information that ketchup is ketchup, a proposition that clearly lacks the relevant informative-making property P. The sentence 'Catsup is ketchup', unlike the sentences 'Ketchup is ketchup' and 'Catsup is catsup', is 'informative' in various other senses. If uttered under the right circumstances, the former can convey to someone like Sasha that the sentence itself is true, and hence that the words (or spellings) 'ketchup' and 'catsup' are English synonyms, or at least co-referential. To someone who already understands 'ketchup' but not 'catsup', an utterance of the sentence can convey what 'catsup' means. These pieces of linguistic information about English do have the informative-making property P, but in order for a sentence to be informative in the relevant sense its very information content itself must have the informative-making property P. It is not sufficient that utterances of the sentence typically impart information that has P, if that imparted information is not included in the semantic information content of the sentence. The question of information value concerns semantically contained information, not pragmatically imparted information.

Exactly analogously, once the word 'informative' is taken in the relevant sense, thereby rendering Frege's Law a truth of logic, one of the other crucial premises of the original Fregean argument against Millian theory is rendered moot. Specifically, with the word 'informative' so understood, and with a sharp distinction between semantically contained information and pragmatically imparted information kept in mind, the assumption that the sentence 'Hesperus is Phosphorus' is informative *in the relevant sense* requires special justification. To be sure, an utterance of the sentence typically imparts information that is more valuable than that typically imparted by an utterance of 'Hesperus is Hesperus'. For example, it may impart the nontrivial linguistic information about the sentence 'Hesperus is Phosphorus' itself that it is true, and hence that the names 'Hesperus' and 'Phosphorus' are co-referential. But presumably this is not semantically contained information. The observation that 'Hesperus is Phosphorus' can be used to convey information that has the informative-making property P does nothing to show that the sentence's semantic content itself has the property P. It is by no means obvious that this sentence, stripped naked of its pragmatic impartations and with only its properly semantic information content left, is any more informative in the relevant sense than 'Hesperus is Hesperus'. I claim that the information content of 'Hesperus is Phosphorus' is the trivial proposition about the planet Venus that it is it—a piece of information that clearly lacks the informative-making property P. It is by no means certain, as the original Fregean argument maintains, that the difference in 'cognitive value' we seem to hear between 'Hesperus is Hesperus' and 'Hesperus is Phosphorus' is not due entirely to a difference in pragmatically imparted information. Yet, until we can be certain of this, Frege's Law cannot be applied and the argument does not get off the ground. In effect, then, the original Fregean argument begs the question,

by assuming that the typical impartations of 'Hesperus is Phosphorus' that have the informative-making property P are included in the very information content. Of course, if one fails to draw the distinction between semantically contained and pragmatically imparted information (as so many philosophers have), it is small wonder that information pragmatically imparted by 'Hesperus is Phosphorus' may be mistaken for semantically contained information. If the strategy of the original Fregean argument is ultimately to succeed, however, a further argument must be given to show that the information imparted by 'Hesperus is Phosphorus' that makes it seem informative is, in fact, semantically contained. In the meantime, Frege's 'Hesperus'–'Phosphorus' puzzle is certainly not the conclusive refutation of Millian theory that it has been taken to be. For all that the Fregean strategy achieves, some version of Millianism may be the best and most plausible theory available concerning the information value of proper names.

II

What evidence is there in favor of the Millian theory? One extremely important consideration comes by way of the paradigms of nondescriptional singular terms: individual variables. A related consideration involves pronouns. Consider the following so-called *de re* (as opposed to *de dicto*), or *relational* (as opposed to *notional*), propositional-attitude attribution, expressed in the formal mode by way of quantification into the nonextensional context created by the nonextensional operator 'that':

(1) $(\exists x)[x =$ the planet Venus & Jones believes that x is a star].

Such a *de re* locution might be expressed less formally in colloquial English as:

(1′) Jones believes of the planet Venus that it is a star.

What is characteristic of these *de re* locutions is that they do not specify how Jones conceives of the planet Venus in believing it to be a star. It is left open whether he is thinking of Venus as the first heavenly body visible at dusk, or as the last heavenly body visible at dawn, or instead as the heavenly body he sees at time t, or none of the above. The Fregean (or 'neo-Fregean') theorist contends that this lack of specificity is precisely a result of the fact that the (allegedly sense-bearing) name 'Venus' is positioned outside of the scope of the oblique context created by the nonextensional operator 'believes that', where it is open to substitution of co-referential singular terms and to existential generalization. What is more significant, however, is that another, non-sense-bearing singular term is positioned within the scope of the nonextensional context: the last bound occurrence of the variable 'x' in (1), the pronoun 'it' in (1′). Consider first the quasi-formal sentence (1). It follows by the principles of conventional formal semantics that (1) is true if and only if its component open sentence

(2) Jones believes that x is a star

is true under the assignment of the planet Venus as value for the variable 'x'—or in the terminology of Tarski, if and only if Venus *satisfies* (2). The open sentence (2) is

true under the assignment of Venus as value of '*x*' if and only if Jones believes the proposition that is the information content of the complement open sentence

(3) *x* is a star

under the same assignment of Venus as the value of '*x*'.

A parallel derivation proceeds from the colloquial *de re* attribution (1′). Sentence (1′) is true if and only if its component sentence

(2′) Jones believes that it is a star

is true under the anaphoric assignment of Venus as referent for the pronoun 'it'. As with the open sentence (2), sentence (2′) is true under the assignment of Venus as the referent of 'it' if and only if Jones believes the information content of

(3′) It is a star

under this same assignment.

Now, the fundamental semantic characteristic of a variable with an assigned value, or of a pronoun with a particular referent, is precisely that its information value is just its referent. The referent-assignment provides nothing else for the term to contribute to the information content of sentences like (3) or (3′) in which it figures. In fact, this is precisely the point of using a variable or a pronoun rather than a definite description (like 'the first heavenly body visible at dusk') within the scope of an attitude verb in a *de re* attribution. A variable with an assigned value, or a pronoun with a particular referent, does not have in addition to its referent a Fregean sense—a conceptual representation that it contributes to semantic content. If it had, (3) and (3′) would semantically contain specific general propositions, under the relevant referent-assignments, and (2) and (2′) would thus be notional rather than relational. If (2) and (2′), used with reference to Venus, are to be relational—if they are to fail to specify how Jones conceives of Venus—the contents of (3) and (3′) under the assignments of Venus to '*x*' and 'it' can only be the singular proposition about Venus that it is a star, the sort of proposition postulated by the Millian theory. This means that the information value of the variable or the pronoun must be its referent.

What is good for the variable or the pronoun, under an assigned referent, is good for the individual constant. Indeed, the only difference between a variable and a constant is that the variable varies where the constant stands fast. The semantics for a given language fixes the reference of its individual constants. It happens that some particularly useful operators, included in the usual mathematical languages, operate simultaneously on a certain kind of simple singular term and a formula, by surveying the various truth values that the operand formula takes on when the operand singular term is assigned different referents (and the rest of the sentence remains fixed), and then assigning an appropriate extensional value to the whole formed from the operator and its two operands. (Technically, the extension of such an operator is a function from the extension of its operand formula with respect to its operand term to an appropriate extension for the compound formed by attaching the operator to an appropriate term and a formula—where the extension of a formula S_v *with respect to* a term v is a function that assigns to any assignment of a referent to v the corresponding

truth value of S_v under that referent-assignment.) If a given language includes operators of this sort, it is natural for it to include also special singular terms that are not coupled with a particular referent to which they remain faithful, and that are instead allowed to take on any value from a particular domain of discourse as temporary referent. These special singular terms are the individual variables, and the operators that induce their presence are the variable-binding operators. Individual variables are singular terms that would be individual constants but for their promiscuity. Conversely, then, individual constants are singular terms that would be variables but for their monogamy. The variability of a variable has nothing whatsoever to do with the separate feature that the variable's information value, under an assignment of a referent, is just the assigned referent. It is the simplicity of the variable that gives it the latter feature; the variability only guarantees that the information value also varies. Once the variable is assigned a particular value, the variable becomes, for all intents and purposes pertaining to that assignment, a constant. Hence, if the open sentence (3), under the assignment of Venus as the value of 'x', semantically contains the singular proposition about Venus that it is a star, then the closed sentence

  a is a star,

where 'a' is an individual constant that refers to Venus, semantically contains this same proposition. Assuming that the individual constants of natural language are the proper names, single-word indexical singular terms, and other (closed) simple singular terms, the considerations raised here support the Millian theory.[11]

There is an alternative way of looking at the same result. All of us are accustomed to using special variables or pronouns that have a restricted domain over which they range. In ordinary English, the pronoun 'he' often ranges only over males, the pronoun 'she' only over females. Among special-purpose technical languages, some variables range only over numbers, some only over sets, some only over times. The domain over which a variable ranges (at least typically) must be non-empty, but it can be quite small in size. In standard extensional second-order logic, for example, the range of the second-order variables 'p', 'q', and 'r' is the pair set consisting of (representatives of) the two truth values. Could there be variables whose range is a unit set? Of course there could. Why not? Except that it would be odd to call such

---

[11] The foregoing argument is closely related to a somewhat different argument advanced in *Frege's Puzzle* (pp. 3–7) for the conclusion that so-called *de re* propositional-attitude attributions, such as (1) and (1′), attribute attitudes toward singular propositions. (This is not a premiss of the argument; it is a conclusion.) The latter argument was derived from a similar argument of David Kaplan's involving modality in place of propositional attitudes. The new argument is an argument by analogy: Individual constants are relevantly analogous to individual variables and pronouns, differing only in their constancy; hence, so-called *de dicto* propositional-attitude attributions involving proper names also attribute attitudes toward singular propositions. This argument by analogy to variables and pronouns occurred to me sometime in late 1980, and although it is not proffered in *Frege's Puzzle*, it was this argument more than any other that actually convinced me of the highly contentious thesis that the information value of a proper name, or any other closed simple singular term, is simply its referent and nothing more. The argument of the following section occurred to me immediately thereafter. (*Cf. Frege's Puzzle*, p. ix.) A version of the latter of these is proffered in *Frege's Puzzle* (pp. 84–85, 114–118, and *passim*).

terms 'variables'. Their range is too restrictive to allow for genuine *variation*, in an ordinary sense; they are maximally restricted. Let us not call them 'variables', then. What should we call them? We could call them 'invariable variables'. (This has the advantage that it emphasizes the exact analogy with the less restrictive variables.) Alternatively, we could call them 'constants'. In fact, we do. The proper names and demonstratives of ordinary language might be seen as nothing other than the hypothesized 'invariable variables'. Proper names and unrestricted variables are but the opposite limiting cases of a single phenomenon.[12]

III

This sort of consideration favoring the sort of account I advocate is complemented by a new application of a general form of argument that has been suggested, and usefully exploited, by Saul Kripke.[13]

What compelling evidence is there that the proper names of ordinary language are not simply the hypothesized invariable variables? We have seen that the original Fregean argument from the alleged informativeness of 'Hesperus is Phosphorus' is illegitimate, or at least seriously incomplete. What other evidence is there? An alternative argument against Millian theory derives from the apparent failures of substitutivity in propositional-attitude attributions. Consider the familiar story of Jones and his ignorance concerning the planet Venus. Jones sees a bright star in the dusk sky, before any other heavenly body is visible, and is told that its name is 'Hesperus'. Subsequently he sees another bright star in the dawn sky, later than any other heavenly body is visible, and is told that its name is 'Phosphorus'. What Jones is not told is that these are one and the very same heavenly body, the planet Venus. Although Jones believes the

---

[12] I know of no convincing evidence that proper names (and natural-language simple singular terms generally, other than pronouns) are not invariable pronominals. The fact that proper names do not seem to be grammatically bindable by quantifier (or other) antecedents cannot be taken as conclusive refutation of the thesis that names are maximally restricted variables. Since quantification employing such variables would not differ in truth value from the unquantified open sentence, binding such variables would serve no useful purpose; the natural evolution of language would have little reason to introduce a device for binding these special invariable pronominals. In any event, the general argument in the text does not require the premise that proper names are variables of a special sort (maximally restricted); it requires only the premise that names are sufficiently *analogous* to (unrestricted) variables—together with the usual semantics governing existential quantification, conjunction, and identity (or the natural semantics governing anaphora in English locutions of the form ⌜Of *a*, . . . it . . . ⌝), and the further premise that a (closed or open) sentence of the form ⌜*a* believes that *S*⌝ is true (under an assignment of values to variables) if and only if the referent of *a* believes the information content of *S*. See the previous note.

[13] *Cf.* Kripke, *Naming and Necessity* [12] (pp. 108). Kripke's general methodological observation is given in more detail in 'Speaker's Reference and Semantic Reference' [14] (especially p. 16). Kripke does not explicitly consider applying the general strategy specifically to substitutivity-failure objections to Millianism. Whereas he clearly regards such objections as inconclusive at best (see his 'A Puzzle about Belief' [13]), I am not certain that he would endorse this particular application of the 'schmidentity' strategy to showing the substitutivity phenomena evidentially irrelevant. (I hope that he would.)

proposition that Hesperus is Hesperus, he seems not to believe (and indeed to disbelieve) the proposition that Hesperus is Phosphorus. That is, upon substitution of 'Phosphorus' for the second occurrence of 'Hesperus' in the true sentence

(4) Jones believes that Hesperus is Hesperus

we obtain the evidently false sentence

(5) Jones believes that Hesperus is Phosphorus.

   The apparent failure of substitutivity in propositional-attitude attributions is generally taken by philosophers to constitute a decisive refutation of the sort of account I advocate. But the very phenomena that appear to show that substitutivity fails would arise even if the Millian theory were absolutely correct (for standard English) and substitutivity of co-referential proper names in propositional-attitude attributions were uniformly valid. In particular, the same feeling of invalidity in connection with substitution in such attributions as (4) would arise even in a language for which it was stipulated—say, by an authoritative linguistic committee that legislates the grammar and semantics of the language, and to which all speakers of the language give their cooperation and consent—that the theory of *Frege's Puzzle* is correct. Suppose, for example, that such a committee decreed that there are to be two new individual constants, 'Schmesperus' and 'Schmosphorus'. (I am deliberately following the genius as closely as possible.) It is decreed that these two words are to function exactly like the mathematician's variables 'x', 'y', and 'z' as regards information value, except that they are to remain constant (with whatever other differences this key difference requires)—the constant value of the first being the first heavenly body visible at dusk and the constant value of the second being the last heavenly body visible at dawn. Suppose further that some English speakers—for example, the astronomers—are aware that these two new constants are co-referential, and hence synonymous. Nevertheless, even if our character Jones were fully aware of the legislative decree in connection with 'Schmesperus' and 'Schmosphorus', he would remain ignorant of their co-reference. Jones would dissent from such queries as 'Is Schmesperus the same heavenly body as Schmosphorus?' Would those who are in the know—the astronomers—automatically regard the new constants as completely interchangeable, even in propositional-attitude attributions? Almost certainly not. English speakers who use 'ketchup' and 'catsup' as exact synonyms but who do not reflect philosophically on the matter—and even some who do reflect philosophically—may be inclined to assent to the sentence 'Sasha believes that ketchup is a sandwich condiment, but he does not believe that catsup is.'[14] On reflection, however, it emerges that this sentence expresses a logical impossibility, since the proposition that catsup is a sandwich condiment just is the proposition that ketchup is a sandwich condiment. Similarly, speakers who agree to abide by the legislative committee's decree about 'Schmesperus' and 'Schmosphorus' and who recognize that these two terms are co-referential—especially if these speakers

---

[14] For similar claims, see for example Burge's 'Belief and Synonymy' [10]. Burge explicitly disagrees with my contention that such claims express logical impossibilities.

do not reflect philosophically on the implications of the decree in connection with such *de re* constructions as (1)—might for independent pragmatic reasons be led to utter or to assent to such sentences as 'Jones believes that Schmesperus appears in the evening, but he does not believe that Schmosphorus does' and 'Jones believes that Schmesperus is Schmesperus, but he does not believe that Schmesperus is Schmosphorus.' The astronomers may be led to utter the latter sentence, for example, in order to convey (without knowing it) the complex fact about Jones that he agrees to the proposition about Venus that it is it, taking it in the way he would were it presented to him by the sentence 'Schmesperus is Schmesperus' but not taking it in the way he would were it presented to him by the sentence 'Schmesperus is Schmosphorus'. The astronomers would thus unknowingly speak in a way that conflicts with the usage to which they have agreed. This, in turn, would lead to their judging such belief attributions as 'Jones believes that Schmesperus is Schmosphorus' not only inappropriate but literally false, and to the unmistakable feeling that substitution of 'Schmosphorus' for (some occurrences of) 'Schmesperus' in such attributions as 'Jones believes that Schmesperus is Schmesperus' is logically invalid. Insofar as the same phenomena that give rise to Frege's puzzle about identity sentences and to the appearance of substitutivity failure would arise even in a language for which the theory advanced in *Frege's Puzzle* was true by fiat and unanimous consent (and do in fact arise with respect to such straightforward strict synonyms as 'ketchup' and 'catsup'), these phenomena cannot be taken to refute the theory.

<div align="center">IV</div>

The anti-Millian argument deriving from the apparent failure of substitutivity is closely related to the original Fregean argument about the informativeness of 'Hesperus is Phosphorus'. The analogue of the questionable premiss that 'Hesperus is Phosphorus' is informative is the assertion that (5) is false (or that 'Hesperus is Phosphorus' does not correctly give the content of one of Jones's beliefs, etc.). This premiss too, I claim, is incorrect.[15] However, this premiss, unlike its analogue in

---

[15] I do not deny the initial intuitive force of the premisses that 'Hesperus is Phosphorus' is informative and that (5) is false; I argue that they are nevertheless erroneous, and I propose an explanation for their initial pull. My rejection of these premisses is by no means a standard position among Millians. A more common Millian reaction is to concede these premisses, and to challenge instead the relevant analogue of Frege's Law—for example, the common and extremely plausible assumption that if 'Hesperus' has the same information value as 'Phosphorus' (as Millianism requires), then (4) is true if and only if (5) is. (The assumption has been challenged merely on the grounds that Millianism is not committed to it. Such a reaction misjudges the force of the Fregean argument: the assumption is independently compelling, and taken in conjunction with the other premisses, it precludes Millianism. The Millian is under the gun to reject either this premiss or one of the others as untrue, and to motivate his or her rejection of the offending premiss.) It has been argued, for example, that whereas (5) attributes belief of a proposition, it does not attribute belief of the very content of 'Hesperus is Phosphorus' (i.e., the singular proposition about Venus that it is it). This merely evades the general problem. Consider instead the parallel assumption that if 'Hesperus is Phosphorus' has the same information (proposition) content as 'Hesperus is Hesperus', then the former correctly gives the content of one of Jones's beliefs if and only if the latter does.

the original Fregean argument, does not simply beg the question. The intuition that (5) is false (according to the story) is strong and universal. We have seen that this intuition cannot be regarded as decisive—or even evidentially relevant—regarding the question of the actual truth value of (5), since (for some reason) the intuition of falsity would arise in any case. But there are forceful reasons for deeming (5) false, and the intuition of falsity must be addressed and explained. A full reply to the objection from the apparent failure of substitutivity involves greater complexities.[16]

In *Frege's Puzzle*, I propose the sketch of an analysis of the binary relation of belief between believers and propositions (sometimes Russellian singular propositions). I take the belief relation to be, in effect, the existential generalization of a ternary relation, *BEL*, among believers, propositions, and some third type of entity. To believe a proposition p is to adopt an appropriate favorable attitude toward p when taking p in some relevant *way*. It is to agree to p, or to assent mentally to p, or to approve of p, or some such thing, when taking p a certain way. This is the *BEL* relation. The third relata for the *BEL* relation are perhaps something like *modes* of acquaintance or familiarity with propositions, or *ways* in which a believer may take a given proposition. The important thing is that, by definition, they are such that if a fully rational believer adopts conflicting attitudes (such as belief and disbelief, or belief and suspension of judgment) toward propositions p and q, then the believer must take p and q in different ways, by means of different modes of acquaintance, in harboring the conflicting attitudes towards them—even if p and q are in fact the same proposition. More generally, if a fully rational agent construes objects x and y as distinct (or even merely withholds construing them as one and the very same—as might be evidenced, for example, by the agent's adopting conflicting beliefs or attitudes concerning x and y), then for some appropriate notion of a *way* of taking an object, the agent takes x and y in different ways, even if in fact $x = y$.[17] Of course, to use a distinction of Kripke's, this formulation is far too vague to constitute a fully developed *theory* of ways-of-taking-objects and their role in belief formation, but it does provide a *picture* of belief that differs significantly from the sort of picture of propositional attitudes

---

This assumption is virtually as certain as Frege's Law. Yet common sense dictates that 'Hesperus is Hesperus' does, and 'Hesperus is Phosphorus' does not, correctly give the content of one of Jones's beliefs (since Jones sincerely and reflectively assents to the first while dissenting from the second, etc.). *Cf. Frege's Puzzle* (pp. 5–6, 87–92, and *passim*).

[16] I provide only an outline of my reply here. See *Frege's Puzzle* (especially pp. 80–118) for the details.

[17] An appropriate notion of a way of taking an object is such that if an agent encounters a single object several times and each time construes it as a different object from the objects in the previous encounters, or even as a different object *for all he or she knows*, then each time he or she takes the object in a new and different way. This is required in order to accommodate the fact that an agent in such circumstances may (perhaps *inevitably will*) adopt several conflicting attitudes toward what is in fact a single object. One cannot require, however, that these ways-of-taking-objects are rich enough by themselves to determine the object so taken, without the assistance of extra-mental, contextual factors. Presumably, twin agents who are molecule-for-molecule duplicates, and whose brains are in exactly the same configuration down to the finest detail, may encounter different (though duplicate) objects, taking them in the very same way. Likewise, a single agent might be artificially induced through brain manipulations into taking different objects the same way. *Cf. Frege's Puzzle* (p. 173*n*1).

advanced by Frege or Russell, and enough can be said concerning the *BEL* relation to allow for at least the sketch of a solution to certain philosophical problems, puzzles, and paradoxes involving belief.[18]

In particular, the *BEL* relation satisfies the following three conditions:

(a) *A* believes *p* if and only if there is some *x* such that *A* is familiar with *p* by means of *x* and *BEL*(*A*, *p*, *x*);[19]

(b) *A* may believe *p* by standing in *BEL* to *p* and some *x* by means of which *A* is familiar with *p* without standing in *BEL* to *p* and all *x* by means of which *A* is familiar with *p*;

(c) In one sense of 'withhold belief', *A* withholds belief concerning *p* (either by disbelieving or by suspending judgment) if and only if there is some *x* by means of which *A* is familiar with *p* and not-*BEL*(*A*, *p*, *x*).

These conditions generate a philosophically important distinction between withholding belief and failure to believe (i.e., not believing). In particular, one may both withhold belief from and believe the very same proposition simultaneously. (Neither withholding belief nor failure to believe is to be identified with the related notions of disbelief and suspension of judgment—which are two different ways of withholding belief, in this sense, and which may occur simultaneously with belief of the very same proposition in a single believer.)

It happens in most cases (though not all) that when a believer believes some particular proposition *p*, the relevant third relatum for the *BEL* relation is a function of the believer and some particular *sentence* of the believer's language. There is, for example, the binary function *f* that assigns to any believer *A* and sentence *S* of *A*'s language, the *way A* takes the proposition contained in *S* (in *A*'s language with respect to *A*'s context at some particular time *t*) were it presented to *A* (at *t*) through the very sentence *S*, if there is exactly one such way of taking the proposition in question. (In some cases, there are too many such ways of taking the proposition in question.)

According to this account, (5) is true in the story of Jones and the planet Venus, since Jones agrees to the proposition that Hesperus is Phosphorus when taking it in a certain way—for example, if one points to Venus at dusk and says (peculiarly enough) 'That is that', or when the proposition is presented to him by such sentences as 'Hesperus is Hesperus' or 'Phosphorus is Phosphorus'. That is,

BEL[Jones, that Hesperus is Phosphorus, *f* (Jones, 'Hesperus is Hesperus')].

Jones also withholds belief concerning whether Hesperus is Hesperus. In fact, according to my account, he believes that Hesperus is not Hesperus! For he agrees

---

[18] The *BEL* relation is applied to additional puzzles in 'Reflexivity'[26].

[19] I do not claim that a sentence of the form ⌜*A* believes *p*⌝ is exactly synonymous with the existential formula on the right-hand side of the 'if and only if' in condition (a). I do claim that condition (a) is a (metaphysically) necessary, conceptually *a priori* truth. (See note 5 above concerning the contents of predicates. It may be helpful to think of the English verb 'believe' as a *name* for the binary relation described by the right-hand side of (a), i.e., for the existential generalization on the third argument-place of the *BEL* relation.) My claim in *Frege's Puzzle* (p. 111) that belief may be so 'analyzed' is meant to entail that condition (a) is a necessary *a priori* truth, not that the two sides of the biconditional are synonymous. (My own view is that something along these lines is all that can be plausibly claimed for such purported philosophical 'analyses' as have been offered for ⌜*A* knows *p*⌝, ⌜*A* perceives *B*⌝, ⌜*A* (nonnaturally) means *p* in uttering *S*⌝, etc.)

to the proposition that Hesperus is not Hesperus, taking it in the way he would were it presented to him by the sentence 'Hesperus is not Phosphorus'. That is,

BEL[Jones, that Hesperus is not Hesperus, *f* (Jones, 'Hesperus is not Phosphorus')],

and hence, assuming Jones is fully rational, it is not the case that

   BEL[Jones, that Hesperus is Hesperus,*f* (Jones, 'Hesperus is Phosphorus')].

As noted above, these consequences of my account do not conform with the way we actually speak. Instead it is customary when discussing Jones's predicament to say such things as 'Jones does not realize that Hesperus is Phosphorus; in fact, he believes that Hesperus is *not* Phosphorus.' It is partly for this reason that the anti-Millian's premiss that (5) is false does not simply beg the question. Yet, according to my account, what we say when we deny such things as (5) is literally false. In fact, (5)'s literal truth conditions are, according to the view I advocate, conditions that are plainly fulfilled (in the context of the Jones story). Why, then, do we not say such things, and instead say just the opposite? Why is it that substitution of 'Phosphorus' for 'Hesperus'—or even of 'Schmosphorus' for 'Schmesperus'—*feels* invalid in propositional-attitude attributions? Some explanation of our speech patterns and intuitions of invalidity in these sorts of cases is called for. The explanation I offer in *Frege's Puzzle* is somewhat complex, consisting of three main parts. The first part of the explanation for the common disposition to deny or to dissent from (5) is that speakers may have a tendency to confuse the content of (5) with that of

(5′) Jones believes that 'Hesperus is Phosphorus' is true (in English).

Since sentence (5′) is obviously false, this confusion naturally leads to a similarly unfavorable disposition toward (5). This part of the explanation cannot be the whole story, however, since even speakers who know enough about semantics to know that the fact that Hesperus is Phosphorus is logically independent of the fact that the sentence 'Hesperus is Phosphorus' is true, and who are careful to distinguish the content of (5) from that of (5′), are nevertheless unfavorably disposed toward (5) itself—because of the fact that Jones demurs whenever the query 'Is Hesperus the same heavenly body as Phosphorus?' is put to him.

The second part of my explanation for (5)'s appearance of falsity is that its denial is the product of a plausible but mistaken inference from the fact that Jones sincerely dissents (or at least does not sincerely assent) when queried 'Is Hesperus Phosphorus?', while fully understanding the question and grasping its content, or (as Keith Donnellan has pointed out) even from his expressions of preference for the Evening Star over the Morning Star. More accurately, ordinary speakers (and even most nonordinary speakers) are disposed to regard the fact that Jones does not agree to the proposition that Hesperus is Phosphorus, when taking it in a certain way (the way it might be presented to him by the very sentence 'Hesperus is Phosphorus'), as sufficient to warrant the denial of sentence (5). In the special sense explained in the preceding section, Jones withholds belief from the proposition that Hesperus is Phosphorus, actively failing to agree with it whenever it is put to him in so many words, and this fact misleads ordinary speakers, including Jones himself, into concluding that Jones harbors

no favorable attitude of agreement whatsoever toward the proposition in question, and hence does not believe it.

The third part of the explanation is that, where someone under discussion has conflicting attitudes toward a single proposition that he or she takes to be two independent propositions (i.e., in the troublesome 'Hesperus'–'Phosphorus', 'Superman'–'Clark Kent' type cases), there is an established practice of using belief attributions to convey not only the proposition agreed to (which is specified by the belief attribution) but also the way the subject of the attribution takes the proposition in agreeing to it (which is no part of the semantic content of the belief attribution). Specifically, there is an established practice of using such a sentence as (5), which contains the uninteresting proposition that Jones believes the singular proposition about Venus that it is it, to convey furthermore that Jones agrees to this proposition *taking it in the way he would were it presented to him by the very sentence 'Hesperus is Phosphorus' (assuming he understands this sentence).* That is, there is an established practice of using (5) to convey the false proposition that

BEL[Jones, that Hesperus is Phosphorus, f (Jones, 'Hesperus is Phosphorus')].

V

An unconventional objection has been raised by some self-proclaimed neo-Fregeans against versions of Millianism of the sort advanced in *Frege's Puzzle*. It is charged that such theories are, at bottom, versions of a neo-Fregean theory.[20] Ironically, this unorthodox criticism is invariably coupled with the further, standard criticism that such versions of Millianism are problematic in some way or other that neo-Fregean theory is not (for example, in counting sentence (5) true). The fact that this more familiar criticism is directly contrary to the newer criticism is all but completely ignored. More importantly, this more recent criticism betrays a serious misunderstanding of the gulf that separates Frege's theory from that of Mill or Russell.

It should be said that the theory of *Frege's Puzzle* does indeed follow Frege's theoretical views in a number of significant respects. First and foremost, the theory sees the information value (contribution to proposition-content) of such compound expressions as definite descriptions as complexes whose constituents are contributed by the component expressions and whose structure parallels the syntactic structure of the compound itself. Although my theory has been called 'neo-Russellian', it departs radically from the theory of Russell in treating definite descriptions as genuine singular terms, and not as contextually defined 'incomplete symbols' or quantificational locutions. In addition to this, a semantic distinction is observed, following Frege's distinction of *Bedeutung* and *Sinn*, between a definite description's referent and the

---

[20] The charge has been made both in oral discussion and in print. See Forbes [5] (pp. 456–457), Smith [32], and Wagner [34] (p. 446). A very similar charge was apparently first made by Gareth Evans, in Section VI of his 'Understanding Demonstratives' [3] (pp. 298–300). Although Evans's criticism was aimed at John Perry's views on demonstratives, a great deal of my reply to my own critics extends to Evans's criticism of Perry.

description's information value. A similar distinction is maintained for predicates, sentential connectives, quantifiers, other operators, and even for whole sentences. The referent of a predicate is taken to be its semantic characteristic function from (sequences of) objects to truth values; the information value is taken to be something intensional, like an attribute or concept. Sentences are viewed entirely on the model of a definite description that refers (typically nonrigidly) to a truth value. The content ('information value') of a sentence is taken to be a proposition—the sort of thing that is asserted or denied, believed or disbelieved (or about which judgment is suspended), etc., something that is never-changing in truth value. The account of predicates, sentences and the rest as referring to their extensions is defended by means of the principle of extensionality (the principle that the referent of a compound expression is typically a function solely of the referents of the component expressions and their manner of composition). In all of these respects, the theory advanced in *Frege's Puzzle* self-consciously follows Frege.

There remains one crucial difference, however: the information value of a simple singular term is identified with its referent. This major plank makes the theory Millian (or 'neo-Russellian'), and hence severely and deeply anti-Fregean.

Although a great deal of attention has been paid to the differences between Russell and Frege over the question of whether it is false that the present king of France is bald, their disagreement on this question is dwarfed in significance by their disagreement over the information values of simple proper names. This primary bone of contention emerged in correspondence in 1904, even before Russell came to herald his Theory of Descriptions, which later supplemented his Millianism.[21] Russell answered Frege's protest that Mont Blanc with its snowfields cannot be a constituent of the 'thought', or information, that Mont Blanc is more than 4000 meters high, arguing that unless we admit that Mont Blanc is indeed a constituent of the content of the sentence 'Mont Blanc is over 4000 meters high' we obtain the absurd conclusion that we know nothing at all concerning Mont Blanc. Although Frege apparently made no attempt at a response (Russell did not seem to be fully apprehending Frege's remarks), one can be certain that he did not regard Russell's vision of the proposition that Mont Blanc is over 4000 meters high as merely a minor departure from his own sense-reference theory. There can be no real doubt that Frege would have vigorously denounced all versions of Millianism as completely inimical to his theoretical point of view.[22]

---

[21] In Frege's *Philosophical and Mathematical Correspondence* [8] (pp. 163, 169–170; also in Salmon and Soames, *Propositions and Attitudes* [30], pp. 56–57).

[22] The (allegedly) neo-Fregean charge that my account is ultimately Fregean is sometimes coupled with (and perhaps predicated on) an extraordinary interpretation of Frege, advanced by Evans (in 'Understanding Demonstratives' [3], and in *The Varieties of Reference* [4] (pp. 22–30 and *passim*), on which Frege is supposed to have held that typical nonreferring proper names have no Fregean sense and that declarative sentences involving such names (in ordinary extensional contexts, or in 'purely referential position'), while they appear to express thoughts, do not really do so. This highly unorthodox interpretation is based heavily on what seems a tendentious reading of an ambiguous passage in Frege's *Posthumous Writings* [7] (p. 30). Evans and his followers may have been misled by Frege's unfortunate term 'mock thought' (the translators' rendering of Frege's '*Scheingedanke*', which might also be translated as 'sham thought' or 'pseudo-thought'), and by his

What, then, is the rationale for the charge that my version of Millianism is, at bottom, a neo-Fregean theory? My critics have not been absolutely clear on this point. The charge appears to stem from my acknowledgment of something like *ways of taking objects*, and my reliance on them to explain away the appearance of falsity in connection with such propositional-attitude attributions as (5). To this somewhat vague and general criticism, a specific and detailed response was offered in *Frege's Puzzle*.²³ To begin with, my ways-of-taking-objects do not have all of the features that characterize Fregean senses. (See below.) Even if they had, however, they play a significantly different role in my theory. My analogy to the philosophy of perception (pp. 122–125) illustrates the anti-Fregean nature of my view (despite its acknowledgment of sense-like entities): Whereas my theory is analogous to the naive theory that we perceive external objects—apples, tables, chairs—Fregean theory is analogous to the sophisticated theory that the only objects of genuine perception are percepts, visual images, auditory images, and so on. The naive theorist of perception sees the 'sees' in 'Jones sees the apple' as expressing a relation between perceivers and external objects, and its

habitual use of the term 'fiction' in an artificially broad sense—roughly, as a term for any piece of discourse or line of thought (whether of fiction, in the ordinary sense, or otherwise) in which senses occur without *Bedeutungen* and/or in which sentences or their thought contents occur that are either without truth value or not put forward as true. (This use of 'fiction' is not especially remarkable for a mathematician/logician/philosopher keenly interested in truth and its properties.) Evans evidently thought that Frege regarded any such discourse on the model of genuine fiction, and as only seeming to have cognitive content.

In the same work by Frege appear numerous passages that unambiguously preclude Evans's unconventional interpretation. *Cf.*, for example, pp. 118, 122, 194, and especially 191–192, 225. Similar remarks occur in '*Über Sinn und Bedeutung*', in English in [9], pp. 162–163. Curiously, Evans dismisses these passages as 'dubiously consistent with the fundamentals' of Frege's post-1890 philosophy of semantics, although Evans fails to cite any passage which is uncontroversially post-1890 and in which Frege unambiguously asserts something straightforwardly inconsistent with these passages (something that uncontroversially entails that the sense of an ordinary proper name depends for its existence on the object it determines). This interpretive stance makes it difficult to imagine what Evans and his followers would accept as convincing evidence that Frege did not hold the theory they attribute to him. (In fact, Frege's use of the phrase 'mock proper name' or 'pseudo proper name'—for nonreferring but nevertheless real singular terms—in the central passage cited by Evans would, even by itself, tend to indicate that Evans's reading of this very passage is not faithful to Frege's intent. *Cf.* also Frege's 'Thoughts' [6] (p. 38), where Frege speaks of 'mock assertions' made either by actors on the stage—'it is only acting, only fiction'—or in poetry, where 'we have the case of thoughts being expressed without being actually put forward as true', not for lack of the thoughts themselves but for lack of 'the requisite seriousness' on the speaker's part.) In any event, Frege unambiguously denied (*Posthumous Writings* [7], pp. 187, 225) that the referent of a proper name like 'Mont Blanc' or 'Etna' is involved in any way in the name's information value; Frege's *explicit* theory (whether internally consistent or not, and whether compatible with any secret doctrines or not) is therefore diametrically opposed to Millianism. (*Cf.* Salmon, *Reference and Essence* [25] (pp. 9–23), and *Frege's Puzzle* (pp. 46–50, 63–65, 78). John McDowell, who appears to follow Evans's misreading of Frege, nevertheless disagrees with Evans's notational-variant charge on these, or related, grounds. See McDowell's 'Engaging with the Essential' [15] (p. 61), and '*De Re Senses*' [16] (especially p. 104*n*15).) The important point as far as the present discussion is concerned is that (whatever Frege's real views were) my own view is a form of genuine Millianism.

²³ A number of passages in *Frege's Puzzle* are devoted to pointing out significant advantages of my version of Millianism over Fregean theory (and hence significant differences between them). *Cf.* pp. 2–7, 66–71 (and *passim*), and chapter 9, especially pp. 119–126. See also note 18 above.

grammatical direct object 'the apple' as occurring in purely referential position and referring there to the apple. By contrast, the sophisticated theorist sees the 'sees' as expressing a relation between perceivers and mental objects, and 'the apple' as referring *in that context* to Jones's visual apple image. The two theories disagree fundamentally over *what is perceived*. The naive theorist need not deny that internal sensory images play a role in perception. He or she may even propose an analysis of perceptual relations (like seeing) that involves existential generalization over mental objects. Why not? Perception obviously does involve experience; there need be no quarrel over such trivial and extremely general matters. The fundamental disagreement over the objects of perception remains. This disagreement will manifest itself not only in differing interpretations of such sentences as 'Jones sees the apple', but often even in differing judgments concerning its truth value (for instance when Jones is hallucinating).

Likewise, I do not quarrel with Fregeans over the trivial question of whether belief and disbelief involve such things as conceptualizing. Our fundamental disagreement concerns the more substantial matter of *what is believed*—in particular, the question whether what is believed is actually made up entirely of such things as 'ways of conceptualizing'. The *ways of taking objects* that I countenance are, according to my view, not even so much as mentioned in ordinary propositional-attitude attributions. In particular, on my view, a 'that'-clause makes no reference whatsoever to any way of taking the proposition that is its referent, and a 'that'-clause whose only singular terms are simple (such as the one occurring in (5)) makes no reference whatsoever to any way of taking (or conceiving of, etc.) the individuals referred to by those terms. Consequently, ways-of-taking-objects are not mentioned in (an appropriate specification of) the truth conditions of such an attribution. The only way they come into the picture at all is that in some cases, a certain sort of analysis of the propositional attribute designated by the relevant predicate (e.g., belief) involves existential generalization over them—and even this is not true in all cases. There are many propositional locutions that are not attitudinal as such, and that consequently do not involve ways-of-taking-objects in the way that belief does—for example, 'The laboratory test indicates that Mary has contracted the disease' or better still 'It is necessary that Mary is human' (perhaps even 'Jones asserted that Venus is a star'). In short, my ways-of-taking-objects have nothing whatsoever to do with the semantic content of ordinary sentences, and consequently they have nothing whatsoever to do with the semantics of propositional attributions, even attributions of propositional attitude. Ways-of-taking-objects hail from philosophical psychology, not from philosophical semantics.

By contrast, for the Fregean, ways of conceptualizing objects are explicitly referred to in, and pivotal to the truth conditions of, all propositional attributions. I sharply disagree with the Fregean who claims that alethic modality—or even that laboratory tests—involve such things as conceptualizing in just the same way that belief does. (Consider the Fregean account of such valid inferences as 'The physician believes whatever the laboratory test indicates, and the test indicates that Mary has contracted the disease; hence the physician believes that Mary has contracted the disease', or 'It

is necessary that Mary is human, and Jones believes that Mary is human; hence Jones believes at least one necessary truth.')[24] My fundamental disagreement with Fregeans over the objects of propositional attitude is manifested not only in our differing interpretations of propositional-attitude attributions, but often even in different judgments concerning their truth value. (Recall the conflict between the charge that my version of Millianism is neo-Fregean, and the more orthodox Fregean criticisms of Millianism.)

Fortunately, Graeme Forbes has provided a somewhat more detailed account of how my view is supposed to 'dissolve' into a neo-Fregean theory.[25] It is especially instructive to examine his rationale for this criticism.

Forbes exploits the fact that the neo-Fregean is not shackled by the letter of Frege's specific views, and may preserve the general spirit of Frege's theoretical point of view while departing in various details. Forbes proposes two ways in which a neo-Fregean theory can converge, in certain respects, with my version of Millianism.[26] One thing the neo-Fregean may do is to regard a belief attribution ⌜Jones believes that S⌝, as uttered by a given speaker, as asserting not that Jones stands in the belief relation specifically to P, where P is the 'thought' (proposition) that is the sense of S in the speaker's idiolect, but instead that Jones stands in the belief relation to some thought or other that is relevantly *similar* to P. In this way, the neo-Fregean might find his or her way to delivering the same (somewhat liberal) verdicts as I do with respect to various controversial propositional-attitude attributions (presumably, such as (5)).

Forbes's second proposal suggests a particular way of fleshing out the similarity relation involved in the first proposal, one that is designed to ensure that the neo-Fregean's verdicts will always coincide exactly with mine. It is well-known that Fregean theory runs into difficulty with such *de re* constructions as (1) or (1′). Although Frege himself was largely tacit concerning constructions involving *belief of*, a number of neo-Fregeans have proposed various ways of accommodating them within the spirit of Fregean theory. The most famous (and I believe the most compelling) of these neo-Fregean proposals is still David Kaplan's from 'Quantifying In' [10].[27] For present purposes, we shall modify Kaplan's proposal slightly. As can be gleaned

---

[24] Notice also the relative lack of hesitation in substituting for 'Mary' in 'The test indicates that Mary has contracted the disease' any other proper name Mary may have, or even the pronoun 'she' accompanied by ostension to Mary. Where ways-of-taking-objects obviously play no role, they do not matter to what we say in ascribing attitudes. Notice also our reluctance to substitute 'the woman who spent 17 years studying primate behavior in the wild'. Where ways-of-taking-objects obviously do play a role, they do matter to what we say.

[25] Forbes [5] (p. 457).

[26] Although Forbes does not treat these two proposals as two parts of a single proposal, I shall treat them in unison in this reconstruction of his criticism. Forbes's overall criticism is considerably more effective when his two proposals are united into a single proposal, and I believe that doing so does not necessarily conflict with Forbes's intentions. Either proposal taken alone leaves obvious and significant (not merely notational) differences between the resulting (so-called) neo-Fregean account and my version of Millianism.

[27] Kaplan himself has long since given up on neo-Fregean attempts to accommodate the effects of direct reference.

from the previous section, the Fregean's difficulty with such constructions as (1) arises from a lack of genuine Fregean sense in connection with the open sentence (3), taken under an assignment of a value to *x*. Kaplan's analysis (as here modified) reconstrues (1) in such a way that (3) is no longer regarded as a proper (i.e., semantic) constituent. Specifically, the open sentence (2) is analyzed into the following:

(6) $(\exists \alpha)[\alpha$ *represents x* to Jones & Jones believes $\ulcorner \alpha$ is a star $\urcorner]$,

where the special representation relation designated in the first conjunct is such as to entail that α is an individual concept (a sense appropriate to a singular term) that determines *x* as its referent, and where the quasi-quotation marks occurring in the second conjunct are sense-quoting marks that function in a manner analogous to standard quasi-quotation marks with respect to (i.e., without attempting to quote the sense of) the sense variable 'α'.[28] (Think of this analysis as resulting from a contextual definition for open 'that'-clauses, analogous to Russell's contextual definition for definite descriptions—complete with scope distinctions, the definiendum's lack of 'meaning in isolation', and all the rest.) It is a (fairly) straightforward matter to extend this analysis of such quasi-formal *de re* constructions as (1) to such informal constructions as (1′): The neo-Fregean analysis of (2′) is obtained from (6) by substituting the pronoun 'it' for the free variable '*x*'.[29] Replacing the bound occurrence of (2) in (1) by its analysis (6) (or the scattered occurrence of (2′) in (1′) by a nonscattered occurrence of its analysis), we obtain something equivalent to

(7) $(\exists \alpha)[\alpha$ *represents* Venus to Jones & Jones believes $\ulcorner \alpha$ is a star $\urcorner]$,

    The neo-Fregean is struck by the fact that this analysis of (1) and (1′) is significantly similar to my proposed analysis of

(8) Jones believes that Venus is a star.

It is a small step to obtain (7) from (8). One need only extend Kaplan's analysis further, to cover all cases in which a simple singular term—whether a variable or pronoun, or even a proper name or demonstrative—occurs free in a propositional-attitude attribution. We thus obtain a special neo-Fregean theory, one according to which (8) asserts that Jones stands in the belief relation to some thought or other to the effect $\ulcorner \alpha$ is a star $\urcorner$, where α is a sense that represents Venus to Jones. Thus (8) is counted true both by this theory and by my version of Millianism. Similarly, (5) is seen on this theory as asserting that Jones stands in the belief relation to some

---

[28] Strictly speaking, different analyses result from different choices for the representation relation.
[29] Notice that the proposed analyses of such constructions as (2) and (2′), if sound, would effectively block the argument given in Section II above in connection with (1) and (1′)—by falsifying the premise that an open sentence of the form $\ulcorner a$ believes that $S \urcorner$ is true under an assignment of values to variables if and only if the referent of *a*, under the assignment, believes the content of *S*, under the assignment. (See note 13 above.) The argument takes (2) and (2′) at face value, rather than as contextually defined in terms of quantification and quasi-sense-quotation. Kaplan's analysis allows the neo-Fregean to eschew singular propositions altogether, even in the semantics of *de re* constructions. But how plausible is it—independently of the Fregean motivation for the analysis—that (3) is not a (semantic) constituent of (2)?

thought or other to the effect ⌜α is β⌝, where each of α and β is a sense that represents Venus to Jones. Thus (5) is also counted true, as with my Millianism. Therefore, Forbes argues, my version of Millianism dissolves, for all intents and purposes, into this special neo-Fregean theory—with my talk of 'singular propositions' and 'ways of taking objects' merely a notational variant of the neo-Fregean's talk of 'representation' and 'individual concepts'.[30]

One significant difficulty with this neo-Fregean proposal is that it does not validate such apparently valid inferences as 'Smith believes that Bush will win the presidency, and so does Jones; hence there is something (some proposition) that both Smith and

---

[30] A full development of this (allegedly) neo-Fregean theory would involve David Kaplan's procedure of *articulation*, described in 'Opacity' [11] (p. 270).

I have not followed Forbes's proposal in detail. Forbes (on my reconstruction—see note 27) suggests instead that my Millianism be taken to be a notational variant of a neo-Fregean theory according to which (8) asserts that Jones stands in the belief relation to some thought or other to the effect ⌜α obtains⌝, where α represents the entire singular proposition about Venus that it is a star to Jones. This proposal is thwarted, however, in case Jones believes Venus to be a star (so that (8) is, on my view, true), but—perhaps because of Jones's philosophical skepticism concerning singular propositions in general—he does not also believe this singular proposition to obtain (so that Forbes's suggested construal of (8) is false). An analogous difficulty arises if the belief that the singular proposition obtains is replaced with the belief that Venus has the property of being a star. (Suppose Jones is skeptical of properties.)

Forbes's proposed (alleged) version of neo-Fregeanism follows his own in substituting the singular proposition about Venus that it is a star for its truth value as the referent of the sentence 'Venus is a star', and likewise in substituting the property of being a star for (the characteristic function of) its extension as the referent of the predicate 'is a star'. These planks disqualify Forbes's theory as genuinely neo-Fregean. Furthermore (as Alonzo Church and Kurt Gödel independently showed), assuming extensionality, each plank precludes the conjunction of the following two plausible principles: (a) that a definite description refers to the individual that uniquely answers to it, if there is one; (b) that trivially equivalent expressions are, if not strictly synonymous, at least close enough in meaning as to ensure their having the same referent. Forbes apparently rejects both of these principles. In fact, he adopts a Russellian account both of definite descriptions and of modal contexts. These various anti-Fregean elements strongly invite the countercharge that Forbes's so-called neo-Fregean theory collapses into a neo-Russellian theory. (But see below.)

A more literal reading of Forbes's proposal is that my assertion that '(8) is true if and only if there is a way of taking the singular proposition about Venus that it is a star such that Jones agrees to this proposition when taking it that way' is merely a notational variant of the neo-Fregean's thesis that the *de re* attribution 'Jones believes of the state of affairs of Venus's being a star that it obtains' is true if and only if there is some state-of-affairs concept α that represents Venus's being a star to Jones and Jones believes ⌜α obtains⌝. This interpretation construes my assertions ostensibly assigning truth conditions to (8) as really making disguised reference to a different sentence altogether, and as assigning the truth conditions to this other sentence instead of to (8). I find this interpretation incredible, and assume it is not what Forbes intends. More likely, he means that my analysis of belief, together with the neo-Fregean analysis of *de re* locutions, make my use of (8) into a notational variant of the neo-Fregean's use of 'Jones believes of the state of affairs of Venus's being a star that it obtains'. (Analogously, Evans (*Varieties of Reference* [4]) seems to propose that Perry's use of such an attribution as (8) is a notational variant 'at best' of the neo-Fregean's use of something like (1').) But this would hardly make my (or Perry's) theory of (8) into a notational variant of the neo-Fregean's theory of *the very same sentence* (8)—we would still disagree concerning its truth conditions—unless the envisaged neo-Fregean goes further and construes (8) as a paraphrase of something like the relevant *de re* attribution. The proposal in the text represents my attempt to construct the strongest possible case for the spirit of Forbes's (and Evans's) criticism while staying as much as possible within the spirit of Fregean theory (and the bounds of plausibility).

Jones believe.'[31] This constitutes one fairly dramatic difference between the proposed theory and my version of Millianism. But there are more fundamental differences.

Does the proposed neo-Fregean theory even agree with my version of Millianism on every question of propositional-attitude attribution, without exception, as it is designed to do? On my theory, any propositional attribution involving a proper name within the scope of the 'that'-operator is deemed equivalent to the corresponding *de re* construction in which the name is moved outside the scope of the 'that'-operator. (For instance, (8) is true if and only if (1′) is.) Thus Forbes's proposed neo-Fregean theory succeeds in echoing the verdicts of my version of Millianism only insofar as neo-Fregean analyses along the lines of Kaplan's succeed in capturing the truth conditions of *de re* constructions. Several direct-reference theorists (including Kaplan) have mounted an impressive case that Kaplan-style neo-Fregean analyses fail in this attempt. Hilary Putnam's Twin-Earth argument suffices to demonstrate the point.[32] Oscar believes his friend Wilbur to be stingy, while Oscar's exact doppelganger on Twin Earth, Oscar$_{TE}$, likewise believes his friend Wilbur$_{TE}$ to be stingy. Duplicates in every detail, Oscar and Oscar$_{TE}$ believe the very same Fregean (nonsingular) thoughts. Neither Oscar nor Oscar$_{TE}$ is in possession of any Fregean individual concept (in which only senses occur as constituents) that differentiates between Wilbur and Wilbur$_{TE}$, and consequently neither possesses a Fregean sense that determines the relevant friend as referent independently of context. Assuming that the objects of belief (whether Fregean thoughts or Russellian singular propositions) and their constituents determine their objects (truth values, individuals, etc.) independently of context,[33] each believes something *de re* that

---

[31] Strictly speaking, this depends on the details of Forbes's neo-Fregean proposal. (The proposed theory certainly does not validate the inference 'Smith believes that Bush will win the presidency, and so does Jones; hence there is some proposition to which both Smith and Jones stand in the belief relation.') Forbes has confirmed in personal correspondence that the intended theory does not validate the inference in the text—on the most straightforward reading of its conclusion—and instead allows only the much weaker conclusion that Smith and Jones believe propositions of the same type. (He proposes taking this weaker conclusion as an alternative reading of the conclusion in the text.)

[32] 'Meaning and Reference' [18] (pp. 700–704 and *passim*). *Cf. Frege's Puzzle* (pp. 66–67, 70, 176*n*7).

[33] This assumption is shared by both Frege and myself. As Frege noted, propositions, or 'complete thoughts,' (unlike indexical sentences or their conventional meanings—or their senses-in-abstraction-from-context) do not change in truth value, or in the objects they concern, when placed in different settings within a single possible world. The alternative would be an account that allows that one subject *A* may believe one and the very same proposition (complete thought) *p* as another subject *B*, yet *A*'s belief of *p* is correct, or concerns *C*, while *B*'s belief of *p* is incorrect, or does not concern *C*—because of their differing contexts. Any such indexical account of propositions (as opposed to sentences or their meanings) evidently gets things wrong. For suppose *p* is the alleged 'indexical thought' believed by both Oscar and Oscar$_{TE}$ to the effect ⌜$α$ is stingy⌝, where $α$ is the relevant (complete) 'indexical individual concept'. Notice first that *p* cannot be the thought that Wilbur is stingy, since Oscar$_{TE}$ does not believe that thought (in his context, whatever that means), or any other thought concerning Wilbur. (The thought that Wilbur is stingy has nothing whatever to do with Wilbur$_{TE}$—on Twin Earth or anywhere else. It is definitely *not* indexical.) Nor is *p* the thought that *this* person here [pointing to Wilbur] is stingy, for precisely the same reason. Evidently, we do not express *p* (in our dialect) with the words 'Wilbur is stingy' or 'He [pointing to Wilbur]

the other does not. Oscar's belief concerning Wilbur is therefore irreducible to his beliefs of Fregean (nonsingular) thoughts. The sentence 'Oscar believes that Wilbur is stingy', which is true on my theory, is deemed false by the proposed neo-Fregean theory. The theories are thus diametrically opposed on a key issue.

The Twin-Earth thought experiment illustrates a further, and more central, divergence between my theory and Fregean theory. The way in which Oscar takes Wilbur is presumably exactly the same as the way in which $Oscar_{TE}$ takes $Wilbur_{TE}$ — despite the fact that Oscar's thought of Wilbur that he is stingy and $Oscar_{TE}$'s thought of $Wilbur_{TE}$ that he is stingy concern different individuals. By contrast, for the Fregean, each individual concept determines a unique object, or nothing at all. Oscar's thought that Wilbur is stingy and $Oscar_{TE}$'s thought that $Wilbur_{TE}$ is stingy, if they were to have such thoughts concerning different individuals, would have to contain different individual concepts; the sense that Oscar attaches to the name 'Wilbur' would have to be different from the sense that $Oscar_{TE}$ attaches to the same name. This is made impossible by the fact that Oscar and $Oscar_{TE}$ are exact duplicates.[34] This sort

is stingy'. Nevertheless, barring singular propositions, p is supposed to be the thought that Oscar expresses (in his idiolect) with these words (or with these words-accompanied-by-pointing). Similarly for $Oscar_{TE}$ — otherwise, they would not have the same nonsingular thoughts, and consequently would not be exact duplicates. Thus, on most theories (including orthodox Fregean theory and most of its contemporary variations), Oscar should be able to utter the words 'My Twin-Earth counterpart believes with me that Wilbur is stingy' truthfully (thereby attributing to $Oscar_{TE}$ a belief of p). But he cannot. The alleged indexical thought p, therefore, does not exist. (The fact that Oscar cannot truthfully say '$Oscar_{TE}$ believes that Wilbur is stingy' might be urged as evidence in favor of the theory described in the text! On that theory, coupled with indexical thoughts, Oscar could truthfully say '$Oscar_{TE}$ does not believe that Wilbur is stingy, but the sentence "Wilbur is stingy" does correctly give the content, in my idiolect, of one of $Oscar_{TE}$'s beliefs.' But taking the argument in this way would be perverse. The point of the argument is precisely that the thought that Oscar expresses with the words 'Wilbur is stingy' in his idiolect is no more indexical than the thought that we express in our dialect.)

[34] I can find no plausible way out of this problem for the Fregean. A favored response to this difficulty by self-proclaimed neo-Fregeans has been the postulation of special senses the grasping of which leaves no distinctive trace in one's inner (wholly internal, 'purely psychological') state of consciousness — so that exact duplicates like Oscar and $Oscar_{TE}$, whose inner states are exactly the same, nevertheless grasp different 'individual concepts'. This move faces a serious dilemma: Either the postulated 'senses' involve nonconceptual objects (presumably the objects they determine, or their surrogates) as constituents — and are thus individuated by their means — or they do not. If the former, the postulation amounts to the adoption of precisely the sort of theory against which Frege (post-1890) rebelled, while misleadingly couching this anti-Fregean theory in Fregean terminology and labeling the theory with the misnomer 'neo-Fregean'. An 'object-involving sense' — a Fregean *Sinn* with nonconceptual components — is a *contradiction in adjecto*; the hypothesized theory is the proverbial wolf in sheep's clothing. (See note 22 above. The arguments of the preceding sections apply equally against this anti-Fregean theory. See also *Frege's Puzzle* (p. 67–70).) If the latter, the response seems little more than a desperate attempt to stipulate or hypothesize what is intuitively impossible, or even conceptually incoherent. The very notion of a concept (*qua* graspable content) seems to include as a necessary condition that those concepts actively grasped or apprehended by someone at any given time, if free of constituents not themselves grasped by the mind, are determined by the grasper's inner state of consciousness — in the sense that such a concept is grasped by someone if and only if it is also grasped by anyone in exactly the same inner state. Actively grasping a purely conceptual concept just *is* a matter of (or, at least, supervenes on) being in a particular inner mental state. *Cf.* the last paragraph of 'Thoughts' [6] (p. 54), where Frege says that grasping or believing a thought is 'a process in the inner world of a thinker', and that 'when

of consideration points up a crucial difference—in many respects *the* crucial differ-
ence—between my ways-of-taking-objects (which are not precluded from determin-
ing their objects only contextually) and Fregean senses (which, since they are
information values, cannot do so). (See note 18 above.)

The neo-Fregean might attempt to remedy this serious difficulty with his or her
attempt to accommodate *de re* constructions, by tinkering with the Kaplan-style
analysis (for example, by relaxing the determination requirement on representation).
I remain doubtful that this can be successfully accomplished in a plausible manner
without resorting to singular propositions, or the like. But suppose I am wrong
and the neo-Fregean can find Fregeanistically acceptable necessary-and-sufficient
conditions for *de re* belief and other *de re* propositional attributes, including alethic
necessity. (Committed neo-Fregeans might suppose that this *must* be possible.)
Would this show that my version of Millianism is simply a notational variant of a
suitably designed neo-Fregean theory? Certainly not. Even if (1′) is true with respect
to a possible circumstance if and only if Jones believes some Fregean thought or other
of such-and-such a sort in that possible circumstance—so that, on my view, (8) is
also true exactly on the same Fregean condition—still (8), according to my account,
does not *say* that this Fregean condition is fulfilled. On my view, (8) asserts a certain
relationship—the belief relationship—between Jones and the singular proposition
about Venus that it is a star. It does not merely *characterize* Jones's belief as being of
some Fregean thought *or other* of such-and-such a special sort; it *specifies* a particular
belief and attributes it to Jones. In short, even if the neo-Fregean's promise can be
kept by adjusting the Kaplan-style analysis (a very big 'if'), the suitably designed neo-
Fregean theory ascribes to (8) a very different semantic content from that ascribed by
my version of Millianism. The neo-Fregean's semantic truth conditions for (8) are,
at best, *a priori* and metaphysically necessarily equivalent to my own. They are not
identical.

Finally, we must consider whether the suitably designed theory would be neo-
Fregean. It is true, of course, that a neo-Fregean need not follow the master in
every detail. (I do not know of any follower of Frege, for instance, who has not
shied away from Frege's views concerning the concept *horse*.) But there must be
some limit as to how much departure still qualifies as neo-*Fregean*. Certainly the the-
ory of Russell, for example, differs too extensively from that of Frege on central issues
to qualify as neo-Fregean. (It is worth noting in this connection that Russell

---

a thought is grasped, it . . . brings about changes in the inner world of the one who grasps it'. See
also *Reference and Essence* [25] (pp. 56–58, 65–69). If Oscar's believing ⌜α is stingy⌝ is a 'process
in Oscar's inner world', where α is a purely conceptual individual concept representing Wilbur, and
Oscar$_{TE}$ is in exactly the same inner state, how can he fail to believe exactly the same thing? On the
other hand, if grasping the postulated individual concepts is not just a matter of being in a particular
inner mental state, the entire account becomes quite mysterious. What exactly are these postulated
entities—and what is the justification for calling them 'senses' or 'purely conceptual concepts' that
the mind 'grasps', when the (alleged) act of grasping them leaves no distinguishing trace in one's
inner state? (Contrast our concepts of *blue*, *down*, *left*.) Is there any plausible reason to suppose that
there are such concepts that are pure yet traceless? What would *grasping* such an entity amount to,
over and above one's inner state? Is there any plausible reason to believe that the mind engages in
such activity?

too recognized certain nonsemantic elements from philosophical psychology in his correspondence with Frege over the proposition that Mont Blanc is over 4000 meters high. It is highly doubtful that Frege saw this as simply another way of saying what he himself was saying.) The sort of theory that Forbes envisions (on this reconstruction of his criticism) is a theory that denies that the 'that'-operator occurring in (8) is functioning there merely as a device for sense-quotation, in the same way that it functions in 'Jones believes that the first heavenly body visible at dusk is a star'; specifically, it denies that (8) asserts a relationship between Jones and the sense of the sentence 'Venus is a star'. Furthermore, the theory denies that (8) specifies a particular belief and attributes it to Jones, claiming instead that (8) merely characterizes Jones's belief as being one or another of a particular sort. Most significantly, the theory construes any occurrence of a simple singular term (even of a proper name) within the scope of the 'that'-operator in a propositional attribution (even in an attribution of propositional attitude) as completely open to substitution by any co-referential simple singular term. The theory is specifically designed to have the consequence that Jones believes that Hesperus is Hesperus if and only if he also believes that Hesperus is Phosphorus. It draws no significant distinction at all, in fact, between the ostensibly *de dicto* (8) and the patently *de re* (1′). Otherwise it would be very different from my version of Millianism—obviously so—and hence unsuited to support Forbes's charge of mere notational variance. I submit that there is not enough of Frege's overall theoretical point of view left here for this (would-be) theory to warrant the epithet 'neo-Fregean'.[35] The same would be true of any of its notational variants.

Nor is the envisioned theory a version of Millianism exactly. It is more a curious admixture, a strange brew made up of elements of both Fregeanism and Millianism. I do not claim that one (perhaps even an erstwhile Fregean) could not find reason to adopt this strange theory; I claim only that doing so would involve abandoning too much of the spirit of orthodox Fregean theory for the proponent to qualify as a neo-Fregean. Indeed, if (much to my surprise) genuinely Fregean necessary-and-sufficient conditions are eventually found for the *de re*, I would urge any committed anti-Millian to give the envisioned blend of Fregeanism and Millianism serious consideration as a superior alternative to neo-Fregeanism. Given greater flexibility, however, I would strongly advise against its adoption. Some version of genuine Millianism is much to be preferred. (This was the moral of Sections II and III above.)

---

[35] Essentially this same point is made, on similar grounds, by Mark Richard, 'Taking the Fregean Seriously' [21] (pp. 221–222). There, and also in 'Attitude Ascriptions, Semantic Theory, and Pragmatic Evidence' [20] (pp. 247–248), Richard makes the related criticism of (something like) the envisaged 'neo-Fregean' theory that, since it validates substitution of co-referential names, it lacks one of the primary motivations for the original Fregean theory of senses. (Here Richard also recognizes that the envisaged theory and Millianism assign different, even if equivalent, truth conditions to such propositional-attitude attributions as (8).)

REFERENCES

[1] Burge, T. (1978). 'Belief and Synonymy', *Journal of Philosophy*, 75: 119–138.

[2] Church, A. (1954). 'Intensional Isomorphism and Identity of Belief', *Philosophical Studies*, 5(5): 65–73. Also in N. Salmon and S. Soames (eds), *Propositions and Attitudes* (Oxford: Oxford University Press, 1988).

[3] Evans, G. (1981). 'Understanding Demonstratives', in H. Parret and J. Bouveresse (eds), *Meaning and Understanding* (Berlin and New York: De Gruyter).

[4] Evans, G. (1982). *The Varieties of Reference* (Oxford: Oxford University Press).

[5] Forbes, G. (1987). 'Review of Nathan Salmon's *Frege's Puzzle*', *The Philosophical Review*, 96(3): 455–458.

[6] Frege, G. (1918). 'Thoughts', in N. Salmon and S. Soames (eds), *Propositions and Attitudes* (Oxford: Oxford University Press, 1988). Originally appeared in English in *Mind* 65 (1956): 289–311.

[7] Frege, G. (1979). *Posthumous Writings*. H. Hermes, F. Kambartel, and F. Kaulbach (eds), P. Long and R. White (trans.) (Chicago: University of Chicago).

[8] Frege, G. (1980). *Philosophical and Mathematical Correspondence*. G. Gabriel, H. Hermes, F. Kambartel, C. Thiel, and A. Veraart (eds) (Chicago: University of Chicago Press).

[9] Frege, G. (1984). *Collected Papers on Mathematics, Logic, and Philosophy*. Brian McGuinness (ed.) (Oxford: Basil Blackwell).

[10] Kaplan, D. (1969). 'Quantifying In', in D. Davidson and G. Harman (eds), *Words and Objections: Essays on the Work of W. V. Quine* (Dordrecht: Reidel). Also in L. Linsky (ed.), *Reference and Modality* (Oxford: Oxford University Press, 1971).

[11] Kaplan, D. (1986). 'Opacity', in L. E. Hahn and P. A. Schilpp (eds), *The Philosophy of W. V. Quine* (La Salle: Open Court).

[12] Kripke, S. (1972). *Naming and Necessity* (Cambridge, Mass.: Harvard University Press).

[13] Kripke, S. (1979). 'A Puzzle about Belief', in A. Margalit (ed.), *Meaning and Use* (Dordrecht: Reidel). Also in N. Salmon and S. Soames (eds), *Propositions and Attitudes* (Oxford: Oxford University Press, 1988).

[14] Kripke, S. (1979). 'Speaker's Reference and Semantic Reference', in P. French, T. Vehling, and H. Wettstein (eds), *Contemporary Perspectives in the Philosophy of Language* (Minneapolis: University of Minnesota Press.

[15] McDowell, J. (1981). 'Engaging with the Essential', *Times Literary Supplement*, (January 16, 1981): 61–62.

[16] McDowell, J. (1984). '*De Re* Senses', in C. Wright (ed.), *Frege: Tradition and Influence* (Oxford: Basil Blackwell).

[17] Putnam, H. (1954). 'Synonymity and the Analysis of Belief Sentences', *Analysis*, 14: 114–122. Also in N. Salmon and S. Soames (eds), *Propositions and Attitudes* (Oxford: Oxford University Press, 1988).

[18] Putnam, H. (1973). 'Meaning and Reference', *Journal of Philosophy*, 70: 699–711.

[19] Putnam, H. (1979). 'Comments', in A. Margalit (ed.), *Meaning and Use* (Dordrecht: Reidel).

[20] Richard, M. (1986). 'Attitude Ascriptions, Semantic Theory, and Pragmatic Evidence', *Proceedings of the Aristotelian Society*, 87: 243–262.

[21] Richard, M. (1988). 'Taking the Fregean Seriously', in D. Austin (ed.), *Philosophical Analysis: A Defense by Example* (Dordrecht: Reidel).

[22] Russell, B. (1911). 'Knowledge by Acquaintance and Knowledge by Description', Chapter X of *Mysticism and Logic and Other Essays* (London: Longmans, Green and Company). Also

in N. Salmon and S. Soames (eds), *Propositions and Attitudes* (Oxford: Oxford University Press, 1988).

[23] Russell, B. (1918). 'The Philosophy of Logical Atomism', in R. C. Marsh (ed.), *Logic and Knowledge* (London: George Allen and Unwin, 1956). Also in D. Pears (ed.), *The Philosophy of Logical Atomism* (La Salle: Open Court, 1985).

[24] Salmon, N. (1979). 'Review of Leonard Linsky's *Names and Descriptions*', *Journal of Philosophy*, 76(8): 436–452.

[25] Salmon, N. (1981). *Reference and Essence* (Princeton: Princeton University Press, and Oxford: Basil Blackwell).

[26] Salmon, N. (1986). 'Reflexivity', *Notre Dame Journal of Formal Logic*, 27(3): 401–429. Also in N. Salmon and S. Soames (Oxford: Oxford University Press, 1988).

[27] Salmon, N. (1986). *Frege's Puzzle* (Cambridge, Mass.: MIT Press).

[28] Salmon, N. (1989). 'Illogical Belief', in J. Tomberlin (ed.), *Philosophical Perspectives 3: Philosophy of Mind and Action Theory* (Atascadero, Calif.: Ridgeview).

[29] Salmon, N. (1989). 'Tense and Singular Propositions', in J. Almog, J. Perry, and H. Wettstein (eds), *Themes from Kaplan* (Oxford: Oxford University Press).

[30] Salmon, N. and Soames, S. (eds) (1988). *Propositions and Attitudes* (Oxford: Oxford University Press).

[31] Scheffler, I. (1955). 'On Synonymy and Indirect Discourse', *Philosophy of Science*, 22(1): 39–44.

[32] Smith, A. D. (1988). 'Review of Nathan Salmon's *Frege's Puzzle*', *Mind*, 97(385): 136–137.

[33] Soames, S. (1987). 'Substitutivity', in J. J. Thomson (ed.), *On Being and Saying: Essays for Richard Castwright* (Cambridge, Mass.: MIT Press).

[34] Wagner, S. (1986). 'California Semantics Meets the Great Fact', *Notre Dame Journal of Formal Logic*, 27(3): 430–455.