How Not to Become a Millian Heir

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HOW *NOT* TO BECOME A MILLIAN HEIR*

I

Millianism is a highly contentious doctrine in the theory of meaning. It is the thesis that the contribution made by an ordinary proper name to securing the information content of, or the proposition expressed by, a declarative sentence in which the name occurs (outside of the scope of such nonextensional operators as quotation marks), as the sentence is used in a possible context, is simply the name's referent (bearer) in the given use.[1] The unpopularity of the doctrine stems heavily — perhaps primarily — from the fact that it leads to a serious philosophical difficulty discovered by Gottlob Frege, and which I have dubbed 'Frege's Puzzle': Let a and b be distinct but co-referential proper names such that the identity sentence $\ulcorner a = b \urcorner$ contains information that is knowable only a *posteriori*, and can therefore be informative. Then how can this sentence $\ulcorner a = b \urcorner$ differ at all in cognitive information (propositional) content from $\ulcorner a = a \urcorner$, which is *a priori* and uninformative?

In *Frege's Puzzle*[2] I proposed an analysis according to which the puzzle relies on three components: (i) a compositionality principle that propositions formed in the very same way from the very same components are the very same proposition; (ii) the principle, which I call 'Frege's Law', that declarative sentences sharing the same cognitive information (propositional) content do not differ in informativeness or epistemological status; and (iii) the observation that there are co-referential proper names a and b (for example, 'Hesperus' and 'Phosphorus') such that $\ulcorner a = b \urcorner$ is informative and *a posteriori* even though $\ulcorner a = a \urcorner$ is always uninformative and *a priori*. Together these assertions comprise the main premises of a powerful argument against Millianism. Most Millians, if forced to give direct response, would probably reject Frege's Law. And taken in one sense, I would agree. I argued, however,

that properly understood, Frege's Law should be seen as analytic, and that the only objectionable assertion is the first half of (*iii*). There can be no co-referential names *a* and *b* such that $\ulcorner a = b \urcorner$ is either *a posteriori* or informative *in the only senses of 'a posteriori' and 'informative' that are relevant to Frege's Puzzle.*

Howard Wettstein and Kai-Yee Wong have recently argued independently that the Millian ought to embrace the first half of (*iii*) and reject the second half.[3] They claim that Millians (at any rate Millians of my ilk), if we are to be consistent, should maintain that for any proper name *a* — or at least any proper name that refers to an empirically observable entity like a person or a planet — the reflexive identity sentence $\ulcorner a = a \urcorner$ is typically neither *a priori* (in something like the traditional sense) nor trivial.

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

Wettstein makes this dramatic claim in the course of an argument that Millians should reject the view, which he calls 'the mental apprehension picture of reference', that using a proper name competently to refer to its referent requires special epistemic contact with the referent (either through the user's association of nontrivial individuating or other substantive properties with the name, or through a special causal connection with the referent). I quote at length:

> Frege's data themselves — the idea that two names can, unbeknownst to the competent speaker, co-refer — don't seem all that dramatic. Is it, after all, so obvious, that we should know of any two co-referring names that they co-refer? But put Frege's data together with the mental apprehension picture and sparks fly . . . [The] mental apprehension conception is what propels the puzzle. Were we to radically deny the former and adopt an epistemically innocent way of thinking about reference, as I have suggested we should, Frege's data would present no special problem . . .
>   I argued above that Frege's puzzle, so called, is generated not by Frege's data alone, but only in conjunction with the mental apprehension conception of reference. Is it so obvious, I asked, that there is something deeply puzzling about the very idea that a speaker can be competent with two co-referring names, and not know that they co-refer? The radical change in perspective I've been encouraging makes even more dramatic the dissolution of the puzzle. . . . If one can refer to something without anything like a substantive cognitive fix on the referent . . . , then why should it be the slightest bit surprising that a speaker might be competent with two co-referring names, but have no inkling that they co-refer? . . .
>   Rejecting [the mental apprehension picture], we can now see that there is no

presumption whatever that co-reference should somehow be apparent to the competent
user . . .

Indeed, if there is any presumption to speak of here, it is . . . that co-reference,
except under unusual circumstances, will not be apparent . . . What is . . . surprising
perhaps — and here we turn the tables on Frege — is that "$a = a$" identities are not, in
general, trivial . . . [The] mere presence of the same name, indeed the same name of the
same party, surely does not make the identity trivial. (*Op. cit.*, pp. 331—332).

That Wettstein's diagnosis of Frege's Puzzle, and his related stance
on the alleged informativeness of $\ulcorner a = a \urcorner$, are based on a misunder-
standing of the import of the puzzle is proved by the fact that the
puzzle arises with equal force even against versions of Millianism (such
as Wettstein's) that explicitly reject the "mental apprehension picture"
of referential competence that Wettstein opposes. (See note 3) More-
over the puzzle, in its usual formulations ('Hesperus'-'Phosphorus',
'Superman'-'Clark Kent', etc.), does not constitute an objection to
orthodox Fregean theory, despite the latter's commitment to the of-
fending picture of referring.[4] Wettstein is correct that competence in
the use of a pair of co-referential names generally neither requires nor
guarantees knowledge of their co-reference. Even without rejecting the
offending picture of referring, however, this observation is not particu-
larly puzzling. Indeed, in the younger days of his *Begriffsschrift*, Frege
invoked the possibility of ignorance of co-reference, in tandem with
something like the offending picture, as an essential part of a *solution*
to Frege's Puzzle.[5] If anyone has ever argued that a competent user's
failure to recognize the co-reference of two names in his or her
repertoire, together with principles like (*i*) and (*ii*), spell serious trouble
for Millian theory, I am unaware of it. Certainly Frege did not.[6]

In missing the puzzle's point, Wettstein fails to appreciate the
puzzle's force. The puzzle arises within Millian theory, and it is a puzzle
for the Millian whether or not he or she rejects the picture of referential
competence that Wettstein criticizes. Either way, Millian theory allows
that the assertion that the names 'Hesperus' and 'Phosphorus' are co-
referential is *a posteriori* and informative (to the competent user who is
unaware of their co-reference). The puzzle arises from the fact that,
evidently, a sentence like 'Hesperus is Phosphorus' (and its Leibniz's-
Law consequences, e.g. 'Hesperus is a planet if Phosphorus is') is
potentially informative, not merely because it may impart the *a posteri-*

ori linguistic information about itself that it is true (and hence that
'Hesperus' and 'Phosphorus' are co-referential) but, in part, because the
information (proposition) semantically *contained* in the sentence — the
nonlinguistic information that Hesperus is Phosphorus — is *a posteriori*.
In the very act of presenting the puzzle, the author of "*Uber Sinn und
Bedeutung*" chastised the author of *Begriffsschrift* for mistaking the
former information for the latter, and (as the Church-Langford transla-
tion argument demonstrates[7]) the later author was right to do so. The
nontrivial character of the information that 'Hesperus' and 'Phosphorus'
are co-referential is irrelevant to Frege's Puzzle.[8]

One might attempt to defend Wettstein's conflation of semantics with
astronomy by pointing out that although the sentence 'Hesperus and
Phosphorus are identical' differs in content from ' 'Hesperus' and 'Phos-
phorus' are co-referential', these two sentences cannot differ in infor-
mativeness for anyone competent in the use of the two names. For such
a user knows that 'Hesperus' refers (in English) to Hesperus and that
'Phosphorus' refers to Phosphorus, and from these the bridge principle
that *'Hesperus' and 'Phosphorus' are co-referential (in English) if and
only if Hesperus is Phosphorus* trivially follows. This sort of considera-
tion raises extremely delicate issues.[9] It is enough for present purposes
to note that the observation that a competent user need not be aware of
the co-reference of 'Hesperus' and 'Phosphorus' cannot be made to
generate a problem for Millianism unless it is relied upon, assuming
background knowledge of something like the bridge principle, to
establish as a separate and further fact that 'Hesperus is Phosphorus' is
informative, in the sense that its semantic content can be new informa-
tion to one who already knows that Hesperus is Hesperus. It is the
latter putative fact, and not the former observation, that generates the
puzzle. It would be odd to attempt to establish the putative fact by
means of the observation; indeed the putative fact seems obvious
enough without supporting evidence, and is generally taken for
granted.[10] Notice also that the same observation could not be used, in
the same way, to establish the putative fact that 'Hesperus is Phos-
phorus' is *a posteriori*. For the bridge principle itself is also *a posteri-
ori*.[11]

The contrasting sentence 'Hesperus is Hesperus', where both occur-

rences of the sequence of letters 'Hesperus' are used in the same way, with the same semantic reference, is *uninformative* in the only sense relevant to Frege's Puzzle: the proposition the sentence (so used) semantically contains is a trivial truism. The fact that it may not be apparent on a given occasion that both occurrences of 'Hesperus' are being so used is irrelevant.[12]

<center>III</center>

Wong's challenge to my claim that 'Hesperus is Phosphorus' is *a priori* correctly focuses on the epistemological status of the semantically contained proposition. That proposition, according to Millianism, is the singular proposition about the planet Venus that it is it. On my account, this proposition consists of Venus taken twice and the binary relation of identity (more accurately, identity at t, where t is the present time). Furthermore, according to my account, when we grasp such a proposition, we take the proposition in some particular *way*, by means of something like a particular mode of familiarity with it. Though I was deliberately vague about what *ways of taking a proposition* are or amount to, it is critical to my attempt to rescue Millianism from puzzles like Frege's that whenever someone grasps a familiar proposition but fails to recognize it (as the one encountered on such-and-such earlier occasion, or as a trivial truism, etc.), he or she takes the proposition in a new and different way. I also said that a true proposition is *a priori* if it is in principle knowable solely on the basis of reflection on its components (conceptual or otherwise), without recourse to sensory experience, and that a true sentence is derivatively *a priori* if its semantically contained proposition is *a priori*.

   Wong agrees, initially for the sake of argument, that my characterization of *a priority* more or less captures (or at least does not conflict with) the traditional notion.[13] His objection is that, given my account of our grasp of propositions in general, and given my account of the singular proposition about Venus that it is it in particular, that proposition does not satisfy my own characterization of *a priority*. For in order to know the proposition it is not sufficient on my account to reflect on its components, if one does not take the proposition in an appropriate

way. In particular, taking this proposition in the way one would were it presented by the very sentence 'Hesperus is Phosphorus', an empirical investigation would be required to establish it as a piece of knowledge. Wong also questions the correctness of my characterization of *a priority*, arguing that, assuming my account of our grasp of propositions, "*a priority*, as an epistemic notion, should be sensitive to the ways in which a proposition is taken or grasped," so that "it may be mistaken to characterize *a priority* as applying *primarily* to propositions, as Salmon does."

My account of the structure of the singular proposition about Venus that it is it may be crucial to the objection. As Wong notes, others such as Ruth Barcan Marcus and Pavel Tichy had urged before me that the proposition semantically contained in 'Hesperus is Phosphorus' is *a priori*.[14] However, in so doing these writers drew no distinction between the singular proposition about Venus that it is it and the singular proposition about Venus that it is selfidentical.[15] The latter proposition, on my account, differs from the former in having only two components: Venus and the property of being selfidentical (at t).[16] One could not object, in the same way, that the singular proposition consisting of Venus and selfidentity is knowable only *a posteriori* if it is taken one way rather than another. Thus Marcus and Tichy may be immune from Wong's objection.

The objection depends on a misinterpretation of my characterization of *a priority*. Wong says that, given a natural understanding of the phrase 'in principle', "to say that [a certain proposition] is in principle knowable solely on the basis of reflection is to say that, provided that one has the modicum of logicality needed and has reflected 'hard enough' on [that proposition], one cannot fail to know [that proposition]." This does not accord with my intent. Indeed, any but the most trivial of mathematical theorems would almost certainly fail such a test. The notion of *a priority* does not demarcate a kind knowledge automatically attained once certain (nonexperiential) sufficient conditions are fulfilled. Instead it characterizes a kind of knowledge in terms of the *necessary* conditions for its attainment. The phrase 'on the basis of' does not mean merely the same as 'by means of'; it pertains to epistemic *justification*. A piece of knowledge is *a priori* if sensory

experience need not play a certain key role in its justification. Exactly what this special role is may be extremely difficult to specify.[17] If sensory experience can play no role at all, beyond merely enabling one to grasp the proposition in question (say, by giving one the requisite concepts), the proposition qualifies as *a priori*. This is what I claim for the singular proposition about Venus that it is it. It is a truth of logic. It may be that in order to know this logical truth without recourse to experience on must not take it a certain way (e.g. the way one might take it were it presented through the sentence 'Hesperus is Phosphorus'). One can know the proposition on the basis of reflection (including the faculty of reason) alone by taking it the way one would if one *stipulated* that one is considering a certain trivial truism — as in "Consider the fact about Venus that it is it." That fact is thus know*able* without recourse to sensory experience.[18]

Wong anticipates a reply along these lines. He responds that it is not clear that such a reply does not risk trivializing the notion of *a priority*, on the grounds that even a sentence like 'Peter is at location *l* at time *t*' might emerge as *a priori*, since its content can be expressible by the arguably logically true sentence 'I am here now'.[19] And indeed, *Frege's Puzzle* allowed (p. 180) that the latter sentence may be *a priori*. More recently, I have come to have doubts about this. In the first place, it would be decidedly mysterious if one could know of one's current location, without the slightest experiential contact with one's surroundings, that one is at that location.[20] There is no like mystery in the fact that one can know without such contact that one is wherever one is, and that the sentence 'I am here' is therefore true with respect to one's context (wherever that may be). In the second place, I have become convinced that the particular sentence 'I am here now', in its normal use, is not logically true, and that this is demonstrated by Gerald Vision's example of the standard telephone answering-machine message: 'I am not here now'. I believe this example is best thought of as a genuine case of *assertion in absentia*, in which the agent of the context is (just as he or she says) not present at the context of his or her speech act (and indeed, is generally not even aware at the time of performing it).[21] One can always invent an artificial sentence that succeeds where the natural-language sentence fails. Thus let 'C_i' indexically refer with

respect to any context to the context itself. Then 'I am the agent of C_i' is perhaps a logical truth, since by semantics alone it is true with respect to every context, no matter what the range of possible contexts.[22] But by the same token, it is by no means clear that the semantically contained proposition is not *a priori*. Let 'Clarence' name a particular context in which Peter is agent. If 'I am the agent of C_i' is *a priori in the sense relevant to Frege's Puzzle*, then so is 'Peter is the agent of Clarence'. There is no problem here. Likewise, suppose I am wrong about 'I am here now'. If it is *a priori*, then so is 'Peter is at *l* at *t*' (provided the latter is true). But then if 'I am here now' is *a priori*, it is not at all obvious that the resulting *a priority* of 'Peter is at *l* at *t*' would trivialize the notion of *a priority*. Such sentences as 'Peter is 5′9″ tall', 'Mary was born in Seattle', 'Water runs downhill' etc. would remain *a posteriori*. If it is supposed to be clear that 'I am here now' is logically true and yet 'Peter is at *l* at *t*' *not a priori* in the relevant sense, the result would be that some logically true sentences are not *a priori in the relevant sense* (and whose contents, with respect to particular contexts, are thus not themselves logical truths), and are only "*a priori*" in some alternative sense (e.g., in the sense that one can know by semantics alone that the sentence in question is true in every context). Such a result does not strike the present writer as untenable.[23]

Having said this much, I must add that I am not unsympathetic to Wong's suggestion that *a priority* and *a posteriority* might be taken as relative statuses, so that a single proposition may be said to be *a priori relative to* one way of taking it and *a posteriori relative to* another. Still, relativization of the notions of *a priority* and *a posteriority* does not replace the absolute notions. A true and knowable proposition is *a priori* in the absolute sense if and only if it is *a priori* relative to some ways of taking it, and *a posteriori* in the absolute sense if and only if it is not *a priori* relative to any way of taking it. It is this absolute notion of *a priority* that corresponds to the traditional notion — which is that of a property of propositions and not that of a binary relation between propositions and ways of taking them (or a property of pairs consisting of a proposition and a way of taking the proposition) — but the relativized notions, being more discriminating, doubtless deserve their own niche in general epistemology. As Wong suggests, the relativized

notions may even form the basis of a justification, of sorts, for the traditional view held by Frege (and once endorsed by Kripke) that 'Hesperus is Phosphorus' is "*a posteriori.*"[24]

All the same, the proposition that Hesperus is Phosphorus is trivial, "given" information that is knowable *a priori* in the traditional (absolute) sense, and the sentence 'Hesperus is Phosphorus' is therefore uninformative and *a priori* in the only sense relevant to Frege's Puzzle.

NOTES

* The present article is a sequel to my previous manual, "How to Become a Millian Heir," *Nous*, XXIII, 2 (April 1989), pp. 211—220. I thank my daughter, Simone Salmon, who provided almost constant discouragement while I worked on the current manual. It was delivered as a talk to the University of Padua conference on Propositions in May 1990. Further manuals are contemplated.

[1] The term 'Millianism' is derived from Saul Kripke, "A Puzzle about Belief," in N. Salmon and S. Soames, (eds.), *Propositions and Attitudes* (Oxford Readings in Philosophy, 1988), pp. 102—148. I have formulated the doctrine in a neutral manner that accommodates various differing theories regarding the nature of propositions (whether they are structured Russellian propositions, sets of possible worlds, characteristic functions of such sets, etc.).

[2] Cambridge, Mass.: MIT Press/Bradford Books, 1986. For relevant background see also my "Reflexivity," *Notre Dame Journal of Formal Logic*, 27, 3 (July 1986), pp. 401—429, also in *Propositions and Attitudes*, pp. 240—274; "How to Measure the Standard Metre," *Proceedings of the Aristotelian Society*, New Series, LXXXVIII (1987/1988), pp. 193—217; "Illogical Belief," in J. Tomberlin, (ed.), *Philosophical Perspectives, 3: Philosophy of Mind and Action Theory, 1989* (Atascadero, Calif.: Ridgeview, 1989), pp. 243—285; and "A Millian Heir Rejects the Wages of *Sinn*," in C. A. Anderson and J. Owens, (eds.), *Propositional Attitudes: The Role of Content in Logic, Language, and Mind* (Stanford: CSLI, 1990), pp. 215—247.

[3] Howard Wettstein, "Turning the Tables on Frege: or How is it That 'Hesperus is Hesperus' is Trivial?" in J. Tomberlin, (ed.), *Philosophical Perspectives*, 3: Philosophy of Mind and Action Theory, 1989, pp. 317—340; Kai-Yee Wong, "*A Priority* and Ways of Grasping a Proposition," *Philosophical Studies*, this issue. A caveat: Wettstein evidently accepts a weakened version of (*iii*). He allows that in some circumstances, which he regards as atypical, $\ulcorner a = a \urcorner$ can be trivial (and presumably *a priori?*) even when $\ulcorner a = b \urcorner$ is both true and informative. Though he does not acknowledge that this, together with (*i*) and (*ii*), is sufficient to generate the puzzle, he presumably joins other Millians in rejecting (*ii*). Wong is also concerned to defend a version of (*iii*) against my analysis. Wong's argument that I should reject the second half of (*iii*) is not put forward as a Millian solution to Frege's Puzzle.

[4] As I have argued elsewhere, a variant of the original puzzle can be mounted against orthodox Fregean theory, using a pair of (not necessarily co-referential) terms with respect to which a competent user associates the same purely qualitative concepts (in a particular way) — perhaps 'elm wood' and 'beech wood'. See my review of L. Linsky's *Reference and Descriptions, Journal of Philosophy*, LXXVI, 8 (August 1979), pp. 436—452, at p. 451, and *Frege's Puzzle*, pp. 73—74; see also Takashi Yagisawa, "The

Reverse Frege Puzzle," in J. Tomberlin, (ed.), *Philosophical Perspectives, 3: Philosophy of Mind and Action Theory, 1989* (Atascadero, Calif.: Ridgeview, 1989), pp. 341—367. The point is echoed in Wettstein's article, though he evidently draws the wrong conclusion concerning the source of the original puzzle, by concentrating on such unusual variants of the original.

[5] In the usual ('Hesperus'-'Phosphorus', 'Superman'-'Clark Kent') cases, the offending picture yields a straightforward explanation of the speaker's failure to recognize the co-reference. It is only in the unusual sorts of cases mentioned in the previous note that a similar explanation may not be available, since these cases purport to refute stronger versions of the offending picture. Weaker versions of the offending picture (which do not require the user's association of fully individuating properties) remain perfectly compatible with the fact that, even in such cases, the user need not be aware of the co-reference, and such weaker versions of the picture do not turn this fact into a philosophical mystery. The offending picture need not purport to explain all cases of the general phenomenon.

[6] One philosopher who may have held that competence in the use of a pair of co-referential names requires or guarantees knowledge of their co-reference is Ruth Barcan Marcus. See her contribution to the "Discussion" of her "Modalities and Intensional Languages" [*Synthese*, 13 (1961), pp. 303—322], in *Synthese*, 14 (1962), pp. 132—143, at p. 142. The seminal article under discussion contains perhaps the earliest incarnation of contemporary Millianism. See also Saul Kripke, *Naming and Necessity* (Harvard University Press, 1972, 1980), at p. 101. It is doubtful, however, that Marcus (who remains a Millian) retains the view about co-referential names that she expressed in the 1962 discussion. (It is unclear even whether she advocated it then.)

[7] Alonzo Church, "On Carnap's Analysis of Statements of Assertion and Belief," *Analysis*, 10, 5 (1950), pp. 97—99; also in L. Linsky, (ed.), *Reference and Modality* (Oxford Readings in Philosophy, 1971), pp. 168—170.

[8] Cf. *Frege's Puzzle*, pp. 48—54, 58—60, 77—79.

[9] It is doubtless true that, in at least many such cases, the competent user of 'Hesperus' and 'Phosphorus' should know this bridge principle, but (as a thoroughgoing Millian) I deny that the competent user can always justifiably infer that the two names are co-referential from his knowledge that Hesperus is Phosphorus. See "Illogical Belief," p. 278, note 19 for a brief discussion.

[10] Cf. *Frege's Puzzle*, pp. 77—78. Moreover, echoing a further point made in *Frege's Puzzle*, at pp. 12, 51, Wettstein says (p. 326) that his analysis of the puzzle focuses on variants that do not involve identity sentences, such as the puzzle that arises from consideration of 'Hesperus appears in the morning' (informative) and 'Phosphorus appears in the morning' (uninformative). I prefer the example: 'Hesperus is a planet if Phosphorus is' vs. 'Hesperus is a planet if Hesperus is'. (This example is due to Keith Donnellan, who used it for a somewhat different purpose. See my *Reference and Essence*, Princeton University Press and Basil Blackwell, 1981, p. 80. Donnellan's use of the example presupposed that the first sentence of the pair is *a posteriori*. See note 24 below.) It would be especially odd to use the fact that a competent user may be ignorant of the names' co-reference, together with the bridge principle, to establish that such pairs of sentences differ in informativeness (in the relevant sense).

[11] A number of writers (e.g., Quine and his followers) are confused that semantic theorems like the bridge principle mentioned here or so-called '*T*'-sentences ("'Snow is white' is true in English iff snow is white") are analytic, *a priori*, or otherwise trivial. That the bridge principle is *a posteriori* can be demonstrated by translating the (meta-English) formulation given here into another (meta-) language, preserving content. The demonstration can be made especially dramatic for the Millian who accepts that the proposition that Hesperus is Phosphorus is (identical with) the proposition that Hesperus is Hesperus, by translating into a language that has only one name for the

planet Venus. Cf. Alonzo Church, "Intensional Isomorphism and Identity of Belief," in N. Salmon and S. Soames, (eds.), *Propositions and Attitudes*, pp. 159—168; and Saul Kripke, "A Puzzle about Belief," *ibid.*, at pp. 133—134.

A related confusion, which is opposite in thrust, lies behind the idea (urged by Joseph Almog at the Padua conference) that a Millian of the sort mentioned in the previous paragraph can (perhaps even *should*) maintain that an English speaker who is competent in the use of the names 'Hesperus' and 'Phosphorus' does not automatically know that 'Hesperus is Phosphorus' means (expresses the proposition) that Venus is Venus. The competent user may be presumed to know the semantic fact that 'Hesperus is Phosphorus' means in English that Hesperus is Phosphorus. For a Millian (of the sort in question), this semantic fact just is the fact that 'Hesperus is Phosphorus' means in English that Venus is Venus. Again, a carefully selected translation into another language should prove to such a Millian that this fact is precisely what the competent user knows; it is not a *further* fact. (It does not follow that such a user can thereby know that 'Hesperus is Phosphorus' is true in English. See note 9 above.)

The confusion common to both cases is essentially that between the content of a sentence *S* and the independent metatheoretic information that *S* is true. (In both cases the *S* in question is itself a sentence of meta-English.) *Frege's Puzzle* emphasizes this distinction as a special case of the general distinction between the information semantically contained in a sentence *S* and information merely pragmatically imparted by utterances of *S*.

[12] Cf. *Frege's Puzzle*, pp. 58—60. It is worth noting also that this same fact does not alter the triviality of the further fact that, however the sequence of letters is used, 'Hesperus' so used and 'Hesperus' so used are co-referential.

[13] Noel Fleming has pointed out to me that the characterization may be less restrictive than a traditional notion of *a priority* on which nonsensory introspective experience is also to be disallowed (thus declaring Descartes' *Cogito a posteriori* rather than *a priori*). This subtle distinction, significant though it is, is unimportant for the present discussion. A more careful characterization is suggested in "How to Measure the Standard Metre," pp. 197—204. A useful catalogue of alternative notions of *a priority* may be found in the various readings collected in Paul K. Moser, (ed.), *A Priori Knowledge* (Oxford Readings in Philosophy, 1987).

[14] Ruth Barcan Marcus, "A Proposed Solution to a Puzzle about Belief," in P. French, T. Uehling, and H. Wettstein, (eds.), *Midwest Studies in Philosophy VI: The Foundations of Analytic Philosophy* (Minneapolis: University of Minnesota Press, 1981), pp. 501—510, at pp. 503—506, and "Rationality and Believing the Impossible," *Journal of Philosophy*, 80, 6 (June 1983), pp. 321—338; Pavel Tichy, "Kripke on Necessary A Posteriori," *Philosophical Studies*, 43 (1983), pp. 225—241.

[15] Marcus: "If I had believed that Tully is not identical with Cicero, I would have been believing that something is not the same as itself and I surely did not believe that, a blatant impossibility, so I was mistaken in claiming to *have* the belief [that Tully is not Cicero]" (*op. cit.*, pp. 505—506); and "[believing that London is different from Londres] would be tantamount to believing that something was not the same as itself, and surely I could never believe *that*. So my belief claim [my claim that I believed that London is not Londres] was mistaken . . . (*op. cit.*, p. 330). Tichy: "All ['Hesperus is Phosophorus'] says is that Venus is selfidentical. . . . When [this sentence] is uttered, . . . [the] utterer merely refers to Venus, then refers to Venus over again and asserts that the former is identical with the latter. In other words, he imputes selfidentity to Venus. . . . Now it seems . . . obvious that this . . . truth is . . . knowable *a priori*. It is a case of the general *a priori* principle (embodied in an axiom of first-order logic) that every single thing is identical with itself. An empirical inquiry into Venus's selfidentity would clearly be a ludicrous exercise in futility" (*op. cit.*, p. 232).

[16] See "Reflexivity." For a penetrating critique of Tichy on independent grounds, see

Curtis Brown, "The Necessary A Posteriori: A Response to Tichy," *Philosophical Studies*, 45 (1984), pp. 379—397.

[17] Experience that may be needed merely to acquire one or more of the concepts involved in a given proposition (and hence to grasp it) does not preclude the proposition from being *a priori*. Even experience that is required in some more direct way in connection with the epistemic justification may be allowable. Cf. "How to Measure the Standard Metre," pp. 201—203, and especially note 11, pp. 203—204.

[18] Although my characterization of *a priority* does not explicitly mention that reflection may include deductive reasoning, *Frege's Puzzle* explicitly argued (p. 137, in a passage quoted by Wong) for the *a priority* of 'Hesperus is Phosphorus' on the grounds that the semantically contained proposition is fully knowable, with complete certainty, by reason alone. Wong evidently allows that, assuming my version of Millianism, the singular proposition about Venus that it is it is indeed knowable without recourse to experience when taking that proposition the way one would were it presented by the logically true sentence 'Hesperus is Hesperus'. See note 3.

[19] Cf. David Kaplan, "On the Logic of Demonstratives," in *Propositions and Attitudes*, pp. 66—82, at pp. 67—68.

[20] This is not to say that one must know where one is or what time it is. Cf. "How to Measure the Standard Metre."

[21] A videotaped Last Will and Testament may provide a similar counterexample to the alleged logical truth of 'I exist now'. (Does one know *a priori* that one's speech act is not performed *in absentia*?)

An interesting exchange on this sort of alleged counterexample to the alleged logical validity of 'I am here now' appeared in the recent pages of *Analysis*. See Gerald Vision, "'I am Here Now'," *Analysis*, 45, 4 (October 1985), pp. 198—199; Julia Colterjohn and Duncan MacIntosh, "Gerald Vision and Indexicals," *Analysis*, 47, 1 (January 1987), pp. 58—60; Paul Simpson, "Here and Now," *Analysis*, 47, 1 (January 1987), pp. 61—62; and Gerald Vision, "Antiphon," *Analysis*, 47, 2 (March 1987), pp. 124—128.

[22] For an example closer to 'I am here now', let 'here-now$_i$' indexically refer with respect to any context to the spacetime location of the context. Consider 'If C_i has a spacetime location, it is here-now$_i$'.

[23] Cf. *Frege's Puzzle*, p. 177, note 1.

[24] Kripke has suggested such a defense. The idea may lie behind an intriguing footnote from Keith Donnellan, "Kripke and Putnam on Natural Kind Terms," in C. Ginet and S. Shoemaker, eds., *Knowledge and Mind* (Oxford University Press, 1983), pp. 84—104: "If we distinguish a sentence from the proposition it expresses then the terms 'truth' and 'necessity' apply to the proposition expressed by a sentence, while the terms '*a priori*' and '*a posteriori*' are sentence relative. Given that it is true that Cicero is Tully (and whatever we need about what the relevant sentences express) 'Cicero is Cicero' and 'Cicero is Tully' express the same proposition. And the *proposition* is necessarily true. But looking at the proposition through the lens of the *sentence* 'Cicero is Circero' the proposition can be seen *a priori* to be true, but through 'Circero is Tully' one may need an *a posteriori* investigation" (p. 88*n*).

Kripke has suggested that Donnellan's position on the epistemological status of 'Hesperus is Phosphorus' may thus be closer to my own than I had recognized in *Frege's Puzzle* (p. 78). However, Donnellan has expressed misgivings about the account of propositional-attitude attributions in *Frege's Puzzle*. (Cf. the preface to *Frege's Puzzle*, at p. x, and Donnellan's "Belief and the Identity of Reference," in P. French, T. Uehling, and H. Wettstein, (eds.), *Midwest Studies in Philosophy XIV: Contemporary Perspectives in the Philosophy of Language II*, University of Notre Dame Press, 1989, pp. 275—288, at 277—278, 287*n*6.) Conversely, I have misgivings about taking *a priority* to be relative to sentences — instead of *ways of taking* propositions — in the light of examples like Kripke's 'Paderewski is Paderewski', with the first occurrence of

the name used by Peter to refer to the musician and the second occurrence to the politician (from "A Puzzle about Belief"). This is not the same as Wettstein's argument that such sentences, in such uses, are not trivial since a competent user like Peter may not know the linguistic fact that the sentence, so used, is true. The sentence, so used, is not only true but logically true, and expresses an *a priori* piece of trivia, even if Peter does not realize it — and even if that trivial proposition is "*a posteriori* relative to" the way Peter takes the proposition when the sentence is so used.

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