

Nathan Salmon*

Cognition and recognition

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Abstract: Expressions are *synonymous* if they have the same semantic content. Complex expressions are *synonymously isomorphic* in Alonzo Church's sense if one is obtainable from the other by a sequence of alphabetic changes of bound variables or replacements of component expressions by syntactically simple synonyms. Synonymous isomorphism provides a very strict criterion for synonymy of sentences. Several eminent philosophers of language hold that synonymous isomorphism is not strict enough. These philosophers hold that 'Greeks prefer Greeks' and 'Greeks prefer Hellenes' express different propositions even if they are synonymously isomorphic. They hold that the very recurrence (multiple occurrence) of 'Greeks' contributes to the proposition expressed something that indicates the very recurrence in question. Kit Fine argues that this thesis, which he labels *semantic relationism* calls for a radically new conception of semantics. I have argued that the relevant phenomenon is wholly pragmatic, entirely non-semantic. Here I supplement the case with a new argument. No cognition without recognition—or almost none. With this observation, standard Millianism has sufficient resources to confront Frege's puzzle and related problems without injecting pragmatic phenomena where they do not belong.

Keywords: Frege's puzzle, kit fine, recurrence, semantic relationism, synonymous isomorphism

1 Relationism and Schmenglish

Millianism is the doctrine that the semantic content of a proper name is simply its designatum, the thing named. Expressions are *synonymous* (in the sense used here) if they have the same semantic content. Thus on Millianism, co-designative proper names are synonyms.

It is useful to have a criterion for synonymy of sentences given an antecedent notion of synonymy for sub-sentential expressions (e.g., given a notion of lexical synonymy). The great logician and philosopher, Alonzo Church, distinguished three theories regarding synonymy among complex expressions

*Corresponding author: Nathan Salmon, Department of philosophy, University of California, Santa Barbara, CA, USA, E-mail: nsalmon@philosophy.ucsb.edu

(including sentences): Alternatives (0), (1), and (2) (Church 1946, 1951, 1973, 1993).¹ He favored the strictest of these alternatives, Alternative (0), according to which complex expressions are synonymous (in the sense of having the same sense) if and only if they are synonymously isomorphic. Church introduced his notion of synonymous isomorphism as an improvement over Rudolf Carnap's notion of intensional isomorphism.² Complex expressions are *synonymously isomorphic* if one is obtainable from the other by a sequence of alphabetic changes of bound variables, replacements of component expressions by syntactically simple synonyms (e.g., the replacement of “unmarried man” by “bachelor”), or replacements of component simple expressions by synonymous expressions (e.g., “unmarried man” for “bachelor”). The basic idea is that complex expressions are synonymous when they have the same basic syntactic structure and synonymous counterpart sub-expressions, as “Jones is not a bachelor” and “Jones is not an unmarried man”. Alternative (0) is a very strict account of synonymy. Even sentences as close in meaning as “Cicero denounced Catiline” and “Catiline was denounced by Cicero” are deemed not exactly synonymous because of their differing structures. Still, some very capable philosophers of language, most of whom are sympathetic to Millianism, hold that even Alternative (0) is, in one respect, not strict enough. The mere recurrence (multiple occurrence) of an expression (used univocally throughout) within a larger expression—as, for example, within a sentence or a piece of discourse—affects the logical form of the larger expression. The philosophers in question maintain that such recurrence thereby affects the semantic content of the larger expression.

To my knowledge, the general view was first put forward by Hilary Putnam (and in his first publication).³ It has been echoed by such eminent philosophers

1 For some subsequent illuminating work on Church's *Logic of Sense and Denotation (LSD)*, see C. Anthony Anderson, “Alternative (I*): A Criterion of Identity for Intensional Entities,” in Anderson and M. Zeleny, eds, *Logic, Meaning and Computation: Essays in Memory of Alonzo Church* (Boston: Kluwer, 2001: 395–427). There is a valuable discussion of *LSD* and Church's three alternative criteria for synonymy in Anderson's “Alonzo Church's Contributions to Philosophy and Intensional Logic,” *The Bulletin of Symbolic Logic*, 4, 2 (June 1988: 129–171). I thank Anderson for bibliographical references.

2 Church makes this proposal in his masterly essay, “Intensional Isomorphism and Identity of Belief,” *Philosophical Studies*, 5 (1954: 65–73); reprinted in N. Salmon and S. Soames, eds., *Propositions and Attitudes* (Oxford University Press, 1988), pp. 159–168.

3 Hilary Putnam, “Synonymy and the Analysis of Belief Sentences,” *Analysis*, 14 (1954: 114–122), reprinted in N. Salmon and S. Soames, eds., *Propositions and Attitudes* (Oxford University Press, 1988), pp. 149–158. Putnam receives insufficient credit for his idea in the existing literature.

as David Kaplan, Mark Richard,⁴ and more recently, Kit Fine (2007), who wrote a book arguing that this observation, which he calls *semantic relationism*, calls for a radically new conception of semantics. Kaplan gave eloquent voice to an instance of the view:

I have come to think that two sentences whose syntax—perhaps here I should say, whose logical syntax—differs as much as “a = a” differs from “a = b” should never be regarded as having the same semantic value (expressing the same proposition), regardless of the semantic values of the individual lexical items “a” and “b”. (“Words,” *Proceedings of the Aristotelian Society*, supplementary volume 64 [1990: 93–119]. Kaplan had also expressed the view for many years in lecture.)

The central idea is that a speaker’s (or an auditor’s) knowledge of the logical form can, and often does, affect the speaker’s cognitive attitude toward the larger expression and its content. Thus, as Frege noted, the speaker (auditor) who does not take the co-designative names “Hesperus” and “Phosphorus” to be two names of Venus might take very different cognitive attitudes toward the sentences “Hesperus is Hesperus” and “Hesperus is Phosphorus”. Likewise, as Putnam noted, the speaker who does not take the synonyms “Greek” and “Hellene” to be synonymous (pretending that these terms are in fact synonymous) might adopt very different cognitive attitudes toward the sentences “All Greeks are Greeks” and “All Greeks are Hellenes”. In general, where each of a pair of distinct synonymous expressions, α and β , occurs (free) in a sentence $\phi_{\alpha\beta}$, and where $\phi_{\alpha\alpha}$ results by substitution of an occurrence of α for at least one occurrence of β in $\phi_{\alpha\beta}$, an otherwise competent speaker who does not take α and β to be synonymous might take very different cognitive attitudes toward $\phi_{\alpha\alpha}$ and $\phi_{\alpha\beta}$. For these and for similar reasons, sentences of the form $\phi_{\alpha\alpha}$ and $\phi_{\alpha\beta}$ appear to express different propositions even when they are synonymously isomorphic.

Putnam and company hold that the very recurrence of an expression α within a sentence $\phi_{\alpha\alpha}$, itself contributes something to the proposition expressed—something absent from the proposition expressed by $\phi_{\alpha\beta}$ (wherein the semantic content of α also recurs), something that indicates the very recurrence in question. The exact nature of this alleged contribution remains excessively unclear, but it does not matter much for present purposes. (Kaplan has suggested that the additional aspect might be represented by strings of connection between/among the separate occurrences of the recurring proposition-component.) Fine introduced a handy terminology. He says that the proposition

⁴ Mark Richard, *Context and the Attitudes: Meaning in Context, Volume 1* (Oxford University Press, 2013). See especially the introduction and chapter 2, “Direct Reference and Ascriptions of Belief” (26–47), originally published in *Journal of Philosophical Logic*, 12 (1983:425–452).

expressed by $\phi_{\alpha\alpha}$ is *coordinated*, and whereas the proposition expressed by $\phi_{\alpha\beta}$ is *uncoordinated* (alternatively, *negatively coordinated*). He also says that the two (or more) occurrences of the proposition-component contributed by α are themselves *coordinated* (*with one another*) in the coordinated proposition expressed by $\phi_{\alpha\alpha}$, and the two occurrences of the single proposition-component contributed by both α and β are *not coordinated* (alternatively, *negatively coordinated*) in the uncoordinated proposition expressed by $\phi_{\alpha\beta}$.⁵

Whereas any competent speaker can properly infer from “Cicero admired Cicero” that Cicero was self-admiring, one who uses each of the names “Cicero” and “Tully” correctly but is unaware that they are co-designative would not be justified in inferring this same conclusion from “Cicero admired Tully” without relying on an additional premise, e.g., “Cicero is Tully”.⁶ This situation is perplexing on Millianism, which holds that co-designative names are *ipso facto* synonymous. According to Millianism, “Cicero is Tully” is analytic and contains no information that the speaker does not know *a priori* by logic alone. Why then is the competent speaker unable to infer directly from “Cicero admired Tully” that Cicero was self-admiring? The Millian who is also a semantic-relationist cites this very phenomenon as an argument supporting semantic relationism. The Millian semantic-relationist solves the mystery by holding that “Cicero admired Tully” expresses something different from “Cicero admired Cicero”—an uncoordinated (alternatively, negatively coordinated) proposition instead of a coordinated one. The coordination built into the latter proposition is precisely what, according to semantic relationism, enables a reasoner to draw the conclusion that Cicero was self-admiring.

Saul Kripke (1976) famously discusses an imaginary speaker, Peter, who erroneously believes that the name “Ignacy Jan Paderewski” is ambiguous, being the name of both a famous pianist and also a famous Polish statesman. Extrapolating from Kripke’s discussion, Peter will erroneously regard the sentence “Paderewski admired Paderewski” as multiply ambiguous, and as having two non-reflexive readings (*the pianist admired the statesman*; and *the statesman*

5 Kit Fine, *Semantic Relationism* (Oxford: Blackwell, 2007: 54–60). Fine’s remarks on the matter (54–56) are unclear, in fact inconsistent. I speculate that negative coordination corresponds to representation of distinct occurrences as occurrences of distinct things, whereas lack of positive and negative coordination (*uncoordination*) corresponds to silence. (Richard says the multiple occurrences of α in $\phi_{\alpha\alpha}$, e.g., the two occurrences of ‘Cicero’ in ‘Cicero admired Cicero’, are *linked*.)

6 Some would argue that ‘admires’ is a non-extensional operator, so that ‘Jones admires Cicero’ and ‘Jones admires Tully’ can differ in truth-value. I respectfully disagree, but the issue is irrelevant to present concerns. The word ‘admired’ can be replaced with any extensional dyadic predicate.

admired the pianist). Taking the sentence on one of the imagined non-reflexive readings, Peter will not infer from it that Paderewski was self-admiring, and he would not be epistemically justified in doing so if he did. The semantic-relationist Millian has a ready explanation for Peter's failure, and may also site Peter's failure as an argument in favor of semantic relationism. The semantic-relationist will say that when Peter takes the sentence non-reflexively, he misunderstands it as expressing the uncoordinated proposition about Paderewski and Paderewski that the former admires the latter. This is just the uncoordinated analog of the coordinated proposition that, according to semantic relationism, the sentence standardly expresses. Although Paderewski himself occurs twice in the uncoordinated proposition, there is nothing in the uncoordinated proposition that indicates the recurrence. According to the semantic-relationist, in taking "Paderewski admired Paderewski" to express an uncoordinated proposition Peter misunderstands the sentence, and it is precisely the absence of any indication of the recurrence that leaves Peter unable to draw the inference.

I believe, contrary to Putnam, *et. al.*, that synonymous isomorphism is a sufficient condition for synonymy (barring aberrant devices like quotation marks or the like), if not also a necessary condition. I have argued at length that coordination is not semantic and is instead purely pragmatic (Salmon 2012: 407–441, 2015). Here I shall present a new argument that coordination is non-semantic. More precisely, I shall present a new application of an older argument strategy, one invented and utilized to significant effect by Kripke (1979, 1980).

We postulate a hypothetical language, Schmenglish. For present purposes we may take Schmenglish to be an identical twin of Standard English, having exactly the same syntax. Putting the matter in neutral terms, the only differences between Schmenglish and English—if any—lie entirely in the semantics. Even the semantics of Schmenglish is nearly identical to that of English, but for one potential departure: The declarative sentences of Schmenglish express exclusively the uncoordinated propositions associated with their Standard English contents. Thus "Cicero admired Tully" expresses exactly the same thing in Schmenglish that it expresses in English—the proposition that Cicero admired Tully—while "Cicero admired Cicero" expresses in Schmenglish the uncoordinated proposition about Cicero that he admired him(self), i.e., the singular proposition about Cicero and himself that the former admires the latter. As a consequence, if Millianism is correct, then even if "Cicero admired Cicero" and "Cicero admired Tully" are not synonymous in English because the proposition expressed by the former is coordinated, by stipulation the two sentences are nevertheless exactly synonymous in Schmenglish, wherein there is no semantic coordination. Imagine now a community of highly trained philosophers of language are taught exactly how Schmenglish works semantically. In particular

they are informed that synonymous isomorphism in Schmenglish is a sufficient condition for Schmenglish-synonymy, so that if “Hesperus” and “the Evening Star” are Schmenglish-synonyms, then “Hesperus is exactly as massive as the Evening Star” is synonymous in Schmenglish with “Hesperus is exactly as massive as Hesperus”. They agree to speak Schmenglish among themselves for the next 24 hours. In particular, they explicitly agree that insofar as Schmenglish differs from English, they will speak Schmenglish instead of English throughout that period.

It should be noted here that their agreement to speak Schmenglish does not eradicate their knowledge or ignorance, as the case may be, concerning whom the names “Cicero” and “Tully” name. Those who knew that the two names are co-designative in English know that they are equally co-designative in Schmenglish. In particular, their agreement to speak Schmenglish does not obliterate their knowledge that every proper name that designates at all in Schmenglish is exactly synonymous with itself, and hence co-designative with itself.

It happens that during the 1960’s all of these experimental subjects attended UCLA basketball games featuring a phenomenal center named “Lew Alcindor”, and in the 80’s all of them also attended Los Angeles Lakers basketball games featuring a phenomenal center named “Kareem Abdul-Jabbar”. However several of the subjects (despite having attended basketball games) have been living under a rock and are unaware that the former UCLA center and the former L.A. Laker center are one and the same. Assuming Millianism, the sentence “Lew Alcindor admires Kareem Abdul-Jabbar” expresses in Schmenglish exactly what it expresses in English: the uncoordinated singular proposition about Abdul-Jabbar that he admires him(self).⁷

By prior agreement, all of the subjects understand “Kareem Abdul-Jabbar admires Kareem Abdul-Jabbar”, and use that sentence, to mean (express) the uncoordinated proposition that Abdul-Jabbar admires Abdul-Jabbar. (Here we assume that both occurrences of the name are used to designate the retired basketball star, rather than as a name of one’s pet Komodo dragon, etc.) This is the very same singular proposition that they express by “Lew Alcindor admires Kareem Abdul-Jabbar” (as a sentence of Schmenglish and likewise as a sentence of English). The reasons given earlier in support of the thesis that the latter sentence expresses a special kind of proposition—a coordinated proposition—obtain here as well. The subjects who are unaware that the names “Kareem Abdul-Jabbar” and “Lew Alcindor” designate the same former basketball star

⁷ Here we assume that the name ‘Lew Alcindor’ continues to name Abdul-Jabbar (perhaps contrary to his intent).

take different cognitive attitudes toward the sentences “Kareem Abdul-Jabbar admires Kareem Abdul-Jabbar” and “Lew Alcindor admires Kareem Abdul-Jabbar”. In particular, whereas the experimental subjects can properly infer from “Abdul-Jabbar admires Abdul-Jabbar”, as a sentence of Schmenglish, that Abdul-Jabbar was self-admiring, those who remain unaware that “Abdul-Jabbar” and “Alcindor” are co-designative would not be justified in inferring this same conclusion from “Alcindor admires Abdul-Jabbar” without an additional premise, e.g., “Alcindor is Abdul-Jabbar”. In particular, the speakers’ ability to infer justifiably from “Abdul-Jabbar admires Abdul-Jabbar”, as a sentence of Schmenglish, that Abdul-Jabbar is self-admiring has nothing to do with the content of the sentence being a coordinated proposition, since, by hypothesis, the content is in fact uncoordinated.

Although the phenomena cited above allegedly supporting the thesis that syntactic recurrence yields coordinated proposition content obtain in the experimental environment, by stipulative hypothesis, that thesis is not true of Schmenglish. In short, the phenomena’s presence is to be expected even where the thesis is false. This shows that the phenomena provide no real support for the thesis.

Suppose that Kripke’s Peter is among the experimental subjects. Peter too has agreed to speak Schmenglish over the 24-hour period. Of course this has not eradicated his mistaken belief that the name “Paderewski” is ambiguous. Peter takes “Paderewski admired Paderewski”, as a sentence of Schmenglish, to be thereby multiply ambiguous. It is important to notice that whether he takes it as exclusively about the pianist, exclusively about the statesman, or instead on one of his two imagined readings about both, he understands the sentence as expressing in Schmenglish the uncoordinated proposition about Paderewski and Paderewski that the former admired the latter. To this extent, even taking it on his imagined non-reflexive readings Peter correctly understands the sentence as a sentence of Schmenglish. Yet since he thinks that the pianist and the statesman are different, taking it as a Schmenglish sentence about both the pianist and the statesman, Peter mistakenly believes that the proposition in question involves no recurrence. Consequently, so taking the sentence, he remains unable to infer that Paderewski was self-admiring. On Peter’s mistaken view, this conclusion simply does not follow. On the other hand, taking the sentence as a Schmenglish sentence exclusively about the pianist, he unhesitatingly infers the consequence that Paderewski was self-admiring, and he is fully justified in doing so. Thus, even when he is speaking Schmenglish, Peter is able to draw the inference under certain specific circumstances and is unable to do so under other specific circumstances. He reasons when speaking Schmenglish exactly as he does when speaking English. The fact that, taking “Paderewski

admired Paderewski” as an English sentence exclusively about the pianist, Peter is able to infer that Paderewski was self-admiring, but taking it instead as an English sentence about both the pianist and the statesman he is unable to draw this conclusion, is thus no argument in favor of the hypothesis that the sentence expresses a coordinated proposition in English. He would reason exactly as he does regardless.

Coordination as a semantic phenomenon plays no role in explaining or justifying either the inference that Abdul-Jabbar is self-admiring from “Abdul-Jabbar admires Abdul-Jabbar” or Peter’s failure to draw the inference that Paderewski was self-admiring from “Paderewski admired Paderewski”. Sentences do not coordinate (positively or negatively) in Fine’s sense. This is not to say that no coordination is taking place. In fact, there is coordination, but it is not semantic. The speakers themselves coordinate the co-occurrences of “Abdul-Jabbar” in the sentence “Abdul-Jabbar admires Abdul-Jabbar”, and thereby the corresponding co-occurrences of Abdul-Jabbar in the sentence’s semantic content. This is to say that speakers recognize the name as well as the athlete when re-encountering either through the sentence. Even the speakers who are unaware that “Abdul-Jabbar” and “Alcindor” designate the same person recognize that “Abdul-Jabbar” is co-designative with itself. Their resolve to understand “Abdul-Jabbar admires Abdul-Jabbar” in strict accordance with the semantic rules governing Schmenglish, even if Schmenglish deviates from English, does not obliterate their recognition of “Abdul-Jabbar” as a recurrent name, or their recognition of the corresponding occurrences of Abdul-Jabbar. It is this recognition—a pragmatic (non-semantic) and epistemic phenomenon—and not an additional feature of the proposition, that explains and justifies the inference.

Even if there are such things as coordinated propositions, the coordination itself would appear in an explanation of such inferences only insofar as it enabled the reasoner to recognize co-occurrences that he/she would otherwise fail to recognize. Recognition by the reasoner is what is crucial.

Of course one must ask whether such a language as Schmenglish is even possible. The question is significant, since one who believes in semantic relationism might insist that coordination is a metaphysically inevitable consequence of a term’s recurrence in a sentence. But a moment’s reflection confirms that Schmenglish is indeed a possible language. There is no relevant issue about the existence of the particular uncoordinated proposition about Abdul-Jabbar and himself that the former admires the latter. Nor is there any issue about this proposition’s being expressible. Both sides agree that (on the assumption that “Alcindor” designates Abdul-Jabbar) “Alcindor admires Abdul-Jabbar” expresses this very proposition in standard English. We can obviously

set up an artificial language or code wherein any given string of symbols is selected to express this proposition. For example, we can set up a code whereby $\neg\alpha$ loathes β is taken to express about the bearers of the names α and β the uncoordinated proposition that the former admires the latter. As Teresa Robertson has pointed out, the doctrine of semantic coordination evidently calls for a non-standard semantics according to which semantic content is assigned to an expression in its first (extensional, referential) occurrence in a larger expression (or in a piece of discourse) in a more-or-less classical manner, while the semantic content assigned to successive occurrences of the same expression is somehow required to lasso occurrences of the content assigned to the immediately preceding occurrence of the same expression.⁸ It is clearly possible to design a semantics that, unlike the semantic-coordination model just mentioned, assigns content to expressions in all occurrences uniformly, without lassos. This is, in fact, the classical model. Surely, if the semantic-coordination model provides a possible semantics, the classical model does as well. There are no semantic gods to forbid such a language, no semantic police who will hit the back of our hands with a ruler if we set up such a language. Aside from lexical ambiguity (irrelevant to the present argument), Schmenglish fits the classical model. Schmenglish was hypothesized in such a way that, entirely by virtue of its stipulated, systematic compositional semantic rules, the particular string “Abdul-Jabbar admires Abdul-Jabbar” expresses the relevant uncoordinated proposition. There is a serious question whether there can be a language that expresses coordinated propositions. There is no similar worry about whether there can be a language that does not, or about whether such a language is learnable. Schmenglish is such a language. It is learnable. Whatever the syntax and semantics of standard English are, the syntax and semantics of Schmenglish are no less legitimate than that. The phenomena cited in support of semantic relationism thus do nothing to cast doubt on the extremely plausible hypothesis that Schmenglish is simply English.

2 No cognition without recognition

Recognition is a crucial component of the standard Millian account of cognition.⁹ I am tempted to coin a slogan: “No cognition without recognition.” This may be an exaggeration, but only slight as far as slogans go. According to

⁸ This is not what Fine actually proposes in *op cite* 55–56 (nor does it constitute a radically new conception of semantics), but I believe it better fits the informal idea he presents earlier (54–55).

⁹ Cf. my *Frege’s Puzzle* (Atascadero, CA.: Ridgeview, 1986a: 103–118).

standard Millianism, if there is cognition without recognition, there is precious little of it. The recognition in question is recognition on the part of the agent. It is not the sentences “London is pretty” and “London is a capital” that coordinate the relevant occurrences of “London” as a matter of their semantics. It is the speaker who coordinates, or fails to coordinate, in processing those and other sentences. Jean Jacques Cousteau, being a typical French-English bilingual, correctly takes occurrences of “*Londres*” and “London” as co-occurrences. He recognizes the city so-named where Pierre does not.

Consider the inference from “Cicero admires Cicero” to “Cicero is a self-admirer”. I call the pattern exhibited by this inference “reflexive λ -expansion”. Fine holds that apparently the only natural hypothesis the standard Millian can offer to accommodate our apparent ability to perform reflexive λ -expansion on a singular proposition p_{xx} is that reflexive λ -expansion is not rationally justified and instead the reasoner employs an additional premise making for a *manifestly valid* argument, i.e., an argument whose validity is independent of any term’s recurrence among the premises. Far more natural than Fine’s proposed hypothesis is the hypothesis that the reasoner performs reflexive λ -expansion while relying on information to the effect that the occurrences of x in p_{xx} are co-occurrences—in effect, the information that in p_{xx} , *those things*, x here and x there, are the same. Even this hypothesis, however, is somewhat unnatural. Consider Pierre’s inability to deduce that London is a pretty capital from the proposition expressed in French by “*Londres est jolie*” together with the proposition expressed in English by “London is a capital”. It may seem initially that all he needs is a further premise concerning both *Londres* and London that they are the same. But if this information is given in English by “London is London”, or in French by “*Londres est Londres*”, it is completely ineffective. What Pierre needs is for the additional information to be given in FrenGLISH by “*Londres is London*”. Once he is given this completely trivial information in this nontrivial way, Pierre is justified in deducing that London is a pretty capital. It is not so much further information in the form of a proposition that Pierre lacks as much as it is a particular way of processing this proposition. But of course, if the original propositions that London is pretty and that London is a capital had been optimally formulated to begin with (for example, by those very words), no additional information would be needed at all. Pierre does not lack logical acumen, but neither does he lack propositional information as such. What he lacks is a revelatory manner of understanding “*Londres est jolie*” together with “London is a capital”. He lacks recognition.

The revelatory manner of understanding might be construed as, in some sense, further information. But if so, it is “information” of a very particular sort, not a proposition, much more like *knowledge which* than *knowledge that*. It is the

non-propositional recognition that is imparted to Pierre by the Frenghish sentence, “London is *Londres*”, but not by either the English “London is London” or the French “*Londres est Londres*”—all three of which semantically express exactly the same proposition. What rationally justifies recurrence-dependent reasoning is not possession of a further premise, but recognition of the relevant recurrence. That is to say, the object of awareness in recognition is, in effect, the very “coordination” that Fine’s theory limns. This is not itself a proposition, not a further premise. Contrary to Fine, neither is it a semantic feature that is built into the proposition that London is pretty and London is a capital. It is the recognition knowledge that Cousteau has and Pierre lacks. It is the trivial proposition that London is London *apprehended in a revelatory manner*, as “*This city [London] is that city [Londres].*”

I have argued that in order to be rationally justified in performing deductions like reflexive λ -expansion from propositions in which a single component recurs, a cognizer needs to recognize the recurring component, taking it as the same thing. More generally, there is a ternary relation, *BEL*, such that a cognizer *A* believes a proposition *p* if and only if there is some third entity *x*, which is perhaps something like a particular *manner of taking* a proposition, such that *A* grasps *p* by means of *x* and *BEL*(*A*, *p*, *x*).¹⁰ I did not characterize exactly what sort of things serve as third relatum of the *BEL* relation, except that (i) they are crucial to reasoning with recurrent proposition components, and (ii) they satisfy the condition that if a rational cognizer *A* takes propositions *p* and *q* as distinct, or even merely withholds taking them as the same, then there are distinct entities *x* and *y* such that *A* grasps *p* by means of *x* and *A* grasps *q* by means of *y*—even if in fact *p* = *q* (Salmon 1986b: 119–121, Salmon 1989a: 243–285). Given Fine’s characterization of his notion of coordination, a coordination scheme (or a web of inter-coordinated propositions, etc.) is a candidate for being the things that serve as third relatum of the *BEL* relation.¹¹

The conclusion that Fine’s version of Millianism is simply a more specific variant of my own is unwarranted. I conceive of coordination decidedly differently from Fine, sufficiently differently that they might be regarded as different

¹⁰ See the preceding note.

¹¹ Fine says that if we suppose that Pierre grasps the proposition that London is pretty by means of different guises, we can hardly think of these guises as coordination schemes because they are not connected. I would have thought that it is essential to the nature of coordination schemes that one coordination scheme *s* might positively coordinate distinct occurrences, *x*-on-occasion-*o* and *y*-on-occasion-*o*’, while another scheme *s*’ negatively coordinates *x*-on-*o* and *y*-on-*o*’. Cousteau might positively coordinate any relevant occurrence (on an occasion) of “London is pretty” with any relevant occurrence of *Londres est jolie*, while Pierre negatively coordinates any occurrence of the first sort with any occurrence of the second.

notions. Foremost, Fine is resolute that coordination between expression occurrences is fundamentally a semantic phenomenon (40). I see coordination, whether within a single sentence or across a web of sentences, as fundamentally pragmatic/epistemic and non-semantic. Coordination of the sort that legitimizes recurrence-dependent reasoning is not something semantically built into a proposition, or a network of propositions, independently of those who apprehend. This difference is reflected in the fact that Fine sees coordination as a binary relation—between expression occurrences, for example, or between proposition-component occurrences—whereas I regard it as involving an additional argument place for a cognizer (and another for an occasion). Occurrences do not semantically indicate that they are represented as co-occurrences; they are silent on the issue. Cognizers on occasions recognize occurrences as co-occurrences (or fail to do so).

Fine writes that typically, when occurrences of the same name represent their objects *as the same*, “it is somehow part of how the names represent their objects that the objects should be the same.” He continues,

... a good test of when an object is represented as the same is in terms of whether one might sensibly raise the question of whether it is the same. An object is represented as the same in a piece of discourse only if no one who understands the discourse can sensibly raise the question of whether it is the same. Suppose you say “Cicero is an orator” and later say “Cicero was honest,” intending to make the very same use of the name “Cicero.” Then anyone who raises the question of whether the reference was the same would thereby betray his lack of understanding of what you meant. (39–40)

A distinction must be drawn between a *generic* expression, which is an expression-form in abstraction from any particular use, and what I call a *specific* expression, which is use-loaded and good to go. The terminology is meant to suggest the distinction between *genus* and *species*.¹² A generic expression may be ambiguous, yielding distinct disambiguated specific expressions, which are homonymous. Karl Marx and Groucho Marx share the same generic surname. The disambiguated use of ‘Marx’ for the iconic political philosopher is a specific name, *Marx*₁; the disambiguated use for the iconic funny man is a different specific name, *Marx*₂. An ambiguous generic expression generally has one meaning on (or with respect to) some occasions of utterance, another meaning on others. In philosophical discussion, where the matter is otherwise underdetermined the presumption is more natural that what is at issue is a specific expression rather than generic. Fine has confirmed (comments on an earlier

¹² Cf. Kaplan, “Words,” *loc. cit.* I believe by ‘common-currency expression’ Kaplan means a specific expression.

draft) that clearly what is at issue in his test is not understanding a string of generic sentences on an utterance-occasion, but understanding a specific piece of discourse.

Formulated more completely, Fine's proposed test (Fine 2007:40) is this:

Where $\phi_{\alpha\beta}$ is a specific piece of discourse (string of specific sentences) that is uttered on a particular occasion o , and in which stands an occurrence x of a term α and an occurrence y of a co-designating term β , if x and y are *coordinated* on o , then any auditor who understands $\phi_{\alpha\beta}$ thereby knows that x and y are co-occurrences on o .

Presumably the rationale is that insofar as coordination—representation as the same—is a semantic feature of pieces of discourse, an auditor who knows what is expressed on an utterance-occasion will thereby know concerning any coordinated expression occurrences that they are co-occurrences. Indeed, Fine's thesis that coordination is a semantic phenomenon rather than pragmatic is virtually committed to the proposed test. Strictly speaking, the proposal is not a *test* in a formal sense. It provides an alleged necessary condition on coordination, not a sufficient condition. If it is correct, then determining that the necessary condition fails to obtain supports a hypothesis of non-coordination, whereas determining that the necessary condition obtains does not support any hypothesis.¹³

The case that Fine offers in support of his "test" provides none. Suppose that the auditor in Fine's example knows of two men each designated by the generic name 'Cicero', generating two specific names—e.g., *Cicero*₁ for the Roman orator, and *Cicero*₂ for the notorious spy, Elyesa Bazna—either of whom, or both, might be under discussion. The auditor's failure to "understand what was meant" has nothing to do with semantics or linguistic competence. It also has very little to do with re-identification; the auditor would be confused in much the same way even if he had not heard the first utterance at all. The auditor's confusion is due simply to the lexical ambiguity of the generic name—the same sort of confusion that one experiences with the utterance of a lexically ambiguous generic sentence like 'There was an odd number of absences' or 'Jones went to the bank'. The failure to which Fine draws attention is not one of correctly identifying which disambiguated (which specific) expression an occurrence is of while not understanding that expression. Rather it is one of not

¹³ Matthew Griffin suggests that Fine's proposal might be expanded to provide a necessary and sufficient condition in cases where the auditor understands the discourse, but not more generally. For example, Fine might be prepared to say that if an auditor understands $\phi_{\alpha\beta}$ on o , then x and y are coordinated on o iff the auditor knows by his/her understanding of $\phi_{\alpha\beta}$ that x and y are co-occurrences on o .

identifying the salient (specific) expression in the first place—or, if one prefers, one of not identifying whether the generic-name occurrences correspond, on the occasion in question, to occurrences of the same disambiguated name or instead of homonyms. The failure to “understand” is not ignorance of the content expressed. It is more like a situation in which an auditor cannot make out which word was uttered because of poor acoustics, an illegible handwriting, or a dropped wireless telephone call. The failure stands in stark contrast to the genuinely semantic ignorance of the entirely separate auditor who knows of no one by the name ‘Cicero’. That two occurrences are of the same expression with the same use is not a matter of semantics proper. What Fine’s auditor does not know is something pre-semantic, something one needs to know in advance in order to apply the semantics. The problem is not that the auditor fails to understand the expressions. The auditor does not yet know what disambiguated expressions are on offer for semantic evaluation. He does not interpret the specific discourse while missing the intended identification. Rather he awaits information that one needs in order to attempt interpretation.¹⁴

Although Fine’s observation does not provide an actual test of coordination, it does provide a test of his contention that coordination is semantic. Let the discourse $\phi_{\alpha\beta}$ consist of the sentences ‘*Londres est jolie*’ and ‘London is a capital’, and suppose it is uttered on occasion o by Jacques Cousteau with the intention that the occurrence x of ‘*Londres*’ and the occurrence y of ‘London’ be

14 Later in *Semantic Relationism*, again discussing the phenomenon of distinct individuals with the same generic name, Fine says that “it will be convenient to think of coordination not as a relation between tokens of a name but between what one might call *individual uses* of a name. Thus Peter, whose use of the name is fractured, will have two individual uses of the name ‘Paderewski,’ while we, whose use is unfractured, will have one individual use of the name.” Furthermore, in cases of intra-idiolect interpretation “any failure of the speaker to see two names that are in fact the same as the same should be attributable to a deficiency in his attempt to apply the semantics of the language [idiolect] rather than to a deficiency in the semantics itself” (108–109). Knowing of two men by the generic name ‘Cicero’ and asking whether the two occurrences of ‘Cicero’ as used co-designate, the auditor is unaware that the occurrences were given the same “individual use.” In that sense, the auditor is ignorant of the pre-semantic fact that, as used, both occurrences are of the same disambiguated name. He does not interpret while missing the intended identification; he wishes to know what specific expressions are to be interpreted.

Fine contrasts ignorance of intra-idiolect coordination, evidently wherein such ignorance is pre-semantic, with ignorance of inter-idiolect coordination. However, both types are in this respect completely on a par: Ignorance concerning an occurrence of a generic expression, of what specific expression it is an occurrence of on a given utterance-occasion, is pre-semantic. (As he sets it up, Fine’s test case is in fact intra-idiolect. It can also be modified into a case in which the two relevant uses of ‘Cicero’ were made by the auditor himself, now not remembering which use he made in one of the two occurrences. “Was it *Cicero*₁? Or *Cicero*₂?”)

co-occurrences of names of London, England (and not, for example, of London, Ontario). Those occurrences are then coordinated on *o*. Pierre does not know that *x* and *y* are co-occurrences on *o*; indeed he believes they are not. Certainly Pierre understands the French sentence. What of the English sentence? Pierre reflectively interprets it as expressing, about the British city that inhabitants call ‘London’, that it is a capital. He knows of London (the city he himself inhabits) that it is the very city said to be a capital. He does not misinterpret the English sentence to mean that Paris, or Rome, is a capital; he correctly processes it as expressing on *o* the very proposition that it does express on *o*. But then by merely putting his understanding of the two sentences together, Pierre knows that the discourse expresses those same propositions on *o*. The verdict that Pierre is ignorant of the semantic content is unjust. He lacks recognition, not understanding. He cannot be convicted of misunderstanding; to do so is incorrect.¹⁵

Understanding a pair of co-designative names is one thing; taking names as co-designative is another. Fine contends that understanding a piece of discourse in which separate occurrences of a single content are coordinated requires coordination on the part of the auditor. Pierre’s case illustrates that it is possible for an auditor to understand a specific piece of discourse in which separate occurrences of a single content are coordinated by the speaker, while remaining completely unaware of the recurrence. In previous work I described the similarly unfortunate case of Sasha, who learns each of the words ‘ketchup’ and ‘catsup’ in a kind of ostensive definition without learning that they are co-designative, let alone that they are synonymous (let alone that they are but different spellings of the same word, if that they are) (Salmon 1989b, 1990). The speakers in such circumstances do not know the truth-values of the specific discourse, but this is due to a lack of information, not to a failure of understanding. The speakers also do not know all the straightforward analytical implications (e.g., that London is a pretty capital), but this also is due to a lack of relevant information and not to a failure to understand. Consider the following analogy. When Pierre le Set Theorist is presented with the ordered pair ⟨London, London⟩ by means of the expression ‘⟨Londres, London⟩’, he mistakenly judges that its elements are

¹⁵ Fine evidently believes that whereas co-designative occurrences of ‘Paderewski’ are positively coordinated in English, not all co-occurrences (on occasions) of ‘Paderewski’ are coordinated in Peter’s idiolect. Presumably he believes likewise that occurrences of ‘London’ are not positively coordinated with occurrences of ‘Londres’ in Pierre’s idiolect of French. I believe this misplaces pragmatic-epistemic phenomena within semantics proper. Co-designative occurrences of ‘Paderewski’ are as much alike purely semantically in Peter’s idiolect as they are in English. Similarly for occurrences of ‘color’, ‘colour’, different pronunciations of ‘tomato’ or ‘either’, etc.

distinct; he negatively coordinates the two co-occurrences. Pierre is indeed ignorant of a relevant fact, but here again, Pierre's ignorance is not a failure of understanding. Pierre understands the notation as well as any set theorist.¹⁶

In fact, the very case that Fine offers in support of his "test" should be regarded instead as a counter-example. The two occurrences of 'Cicero' are coordinated. Fine's auditor does not know that they are co-occurrences on the relevant utterance-occasion, but this is only because he does not know which specific discourse he has just overheard. Not knowing which specific expression one has just witnessed may be a way of failing to understand the generic expression on that particular occasion, but that is irrelevant. It would be a mistake to suppose that one thereby fails to understand the specific expression uttered. The specific discourse the speaker uttered is 'Cicero₁ is an orator. Cicero₁ was honest.'. This specific string of sentences is a piece of discourse that the auditor perfectly understands. He even coordinates its occurrences of Cicero₁ (for whatever that is worth). What he lacks is an awareness that he has just witnessed an utterance of this very string.

Consider the following discourse fragment:

Smith cannot do 20 push-ups. Jones can't do 30 sit-ups.

Lying behind the discourse are semantic rules of English having the immediate consequence that the compound word 'cannot' and the contraction 'can't' are exactly synonymous. The synonymy of 'cannot' and 'can't' is a purely semantic fact about English.¹⁷ Furthermore, unlike Pierre's situation with regard to 'London'

16 A potential case in point is provided (ironically) by Kripke's views on alternate-base notations for natural numbers. Kripke believes that the binary-number two, designated by the binary-notation '10', is composed in a particular way of the binary-number one and the binary-number zero, and is therefore not the very same entity as the decimal-number two, which is not so composed. In short, Kripke does not coordinate binary-notation occurrences of '10' with decimal-notation occurrences of '2'. But even if Kripke's view of alternate-base notations is incorrect (as I believe), he understands bi-notational discourse as well as anyone.

17 That two expressions are synonymous is a purely semantic fact but it is typically not a *basic* (axiomatic) fact of pure semantics. It is instead a *derived* purely semantic fact, a consequence of the purely semantic facts concerning each expression that it means what it does. Fine attempts to get at what is significant about this case by drawing a bewildering array of related, and inter-related, distinctions (43–50): between *semantic in the broad sense* and *semantic in the narrow sense*; between the *domain of semantic facts* and the *domain of semantic information*; between *semantic facts* and the special sub-class of *semantic requirements* (Fine's text does not consistently adhere to this terminology); between facts that are *semantic as to topic* and the special subclass of facts that are *semantic as to status*; between *classical consequences* of semantics and the special sub-class of *manifest consequences*; even Kant's distinction between noumena and phenomena; and more. I believe, perhaps incorrectly, that in the present case these fine

and ‘Londres’, in this case any auditor who is unaware of the synonymy of ‘cannot’ and ‘can’t’ in some obvious sense does not understand the discourse. Presumably the occurrences of ‘cannot’ and ‘can’t’ are coordinated. Indeed, the two words are as close in meaning as any two distinct expressions can be. Yet there is nothing in the discourse itself that explicitly signals the synonymy. There is a particular concept—that of inability—occurring in each of the two propositions expressed, but nothing in the propositions themselves that signals recurrence *per se*, nothing that represents the concept of inability *as* the same thing over again. There is the recurrence itself and nothing in addition that draws attention to the recurrence—no neon lights, no signposts, no sticky notes, no connecting lines. Whereas the recurrence is there in the propositions, the coordination is not coming from within.

Pierre understands ‘Londres’ as a name of London if any French speaker does. Pierre (the same Pierre) understands ‘London’ as a name of London (the same London) if any English speaker does. The names are synonymous in Pierre’s bilingual idiolect. Pierre does not process the names as representing the same thing, but represent the same thing they do. If occurrences—whether of expressions, proposition components, or thought components—may be regarded as jointly representing something *as the same thing*, they jointly represent it as the same thing *to* a cognizer. They are not coordinated *tout court*; they are coordinated *by* or *with respect to* a cognizer. The names ‘Londres’ and ‘London’ are positively coordinated by Jacques Cousteau; not so by Pierre. The two names do not represent London *as* the same thing *to* Pierre. The coordination that is operative when a cognizer is in a position to perform the relevant sort of λ -expansion on a singular proposition that p_{zz} is not something built into that proposition. It is not something internal to a proposition, or even to a complex web of propositions. It is in the nature of the cognizer’s “take” on the proposition. Where Fine says that a sentence $\varphi_{\alpha\alpha}$, or its content, *indicates that z is represented as the same thing*, it would be better to say instead that in apprehending the

distinctions, excluding the last cited, can be reduced to two, with which they are in any case at least very closely related: (i) a Carnapian distinction between *pure* and *applied* semantics, analogous to the distinction between pure and applied mathematics (cf. p. 135n5); and (ii) the distinction between manifest and non-manifest validity. Regarding the former distinction, cf. my “Relative and Absolute Apriority,” *Philosophical Studies*, 69 (1993a: 83–100); and “Analyticity and Apriority,” in J. E. Tomberlin, ed., *Philosophical Perspectives*, 7: *Language and Logic* (Atascadero, Ca.: Ridgeview, 1993b: 125–133). Regarding the latter distinction, cf. my “Reflexivity,” *Notre Dame Journal of Formal Logic*, 27, 3 (1986b: 401–429); “Reflections on Reflexivity,” *Linguistics and Philosophy*, 15, 1 (February 1992: 53–63); and “Lambda in Sentences with Designators,” *The Journal of Philosophy*, vol. CVII, no. 9 (September 2010: 445–468); and “Recurrence Again,” *Philosophical Studies*, 172 (2) (February 2015: 445–457). (Perhaps a third distinction is needed: that between basic and derived semantic facts.)

content the cognizer correctly *takes* distinct occurrences as co-occurrences. Sentences and propositions do not indicate that things are represented as the same (or as distinct), unless they represent *that* those things are the same. Rather cognizers *take* occurrences in sentences and propositions as representing the same thing (or withhold doing so, as the case may be).

This is also true when a cognizer, *A*, encounters a familiar person or object, *B*, on separate occasions. Nothing external to *A* *represents* the familiar object *B* as the same individual (or as distinct), and nothing *indicates* that *B* is represented as the same. Indeed, *B* might even sport a disguise. Even *A* does not represent *B* as the same; instead *A* *takes* *B* as the same (or withholds doing so). What matters is not whether *B* is represented as the same on different occasions. What matters is whether *A* *takes* *B* as the same.

Nothing jointly represents the elements of the ordered pair ⟨London, London⟩ as the same thing, despite their uncanny similarity. Sets and their elements (e.g., cities) are not in the business of indicating that those elements are represented-as-the-same; likewise with regard to propositions and their components. Propositions and sets are indifferent to our success or failure in identification. They are just there. They go on, unhelpful and unconcerned, like so many governmental bureaucrats. It is up to us cognizers to *recognize* components as the same. Sometimes we fail—especially with multi-named or otherwise multi-faceted statesmen, superheroes, cities, and planets. Even if our failure to recognize an individual results in a failure to recognize the proposition we apprehend (or the proposition we comprehend a sentence to mean), it does not result in a failure to apprehend the proposition (or to comprehend the sentence).

On a particular occasion *o* in which the agent *A* is a competent bilingual speaker, *A* correctly takes the two name-occurrences in the Frenglish discourse fragment ‘*Londres est jolie*; London is a capital’ to be co-occurrences. One might infer that the two name-occurrences are semantically coordinated with respect to *o*—not by *A* or anyone else, but by the very semantics of the discourse. The inference is an instance of *the pragmatic fallacy*.¹⁸ Not everything that we do with expressions cashes out into semantic features of those expressions.

Coordination among proposition components is not so much something about the nature of propositions as it is something about how we process propositions. One and the same proposition p_{zz} can be processed as positively coordinated by one speaker and be processed as negatively coordinated by another, or even be processed both ways by a single speaker who mistakes it to be two independent propositions. The relevant sort of coordination is not a matter of semantic representation as co-occurrences; it is a matter of recognition

18 Cf. my “The Pragmatic Fallacy,” *Philosophical Studies*, vol. 63, no. 1 (July 1991: 83–97).

by the cognizer. Propositions and sets do not recognize things as the same; cognizers do. If this seems a minor difference, it is not. It makes all the difference concerning whether coordination is semantic or merely pragmatic.¹⁹

Although Fine insists that coordination is a full-fledged semantic phenomenon and not merely pragmatic, he also makes curiously concessive remarks (59). He writes:

the coordinative aspect of the coordinated content of a sentence, such as ‘Cicero killed Cicero’, is entirely lacking in any descriptive or truth-conditional character and relates entirely to how its truth-conditions (Cicero’s suicide) are to be grasped. ... There is no difference in what it takes for the sentences “Cicero wrote about Cicero” and “Cicero wrote about Tully” to be true, even though there is a difference in their coordinated content.

Anyone who correctly understands the English specific sentence ‘Cicero killed Cicero’, with both occurrences of ‘Cicero’ designating Cicero/Tully, has enough information to work out that the sentence is true if and only if x killed y —where $x = \text{Cicero/Tully}$ and $y = \text{Cicero/Tully}$. Suppose there are two speakers, A and B , both of whom correctly take each of the two occurrences of ‘Cicero’ on an occasion of utterance of ‘Cicero killed Cicero’ to designate Cicero/Tully, but that unlike A , speaker B does not take the two occurrences to be co-occurrences. Instead, like Kripke’s Peter *vis à vis* Paderewski, B takes Cicero/Tully to be two different people with the same generic name. B processes the sentence as expressing of one of these individuals (on the relevant occasion) that he killed the other. A works out from the content that the sentence is true if and only if x killed y while taking these to be the same individual; B works out from the content that the sentence is true if and only if x killed y while not taking these to be the same individual. In this case, both speakers grasp the same truth condition while processing it differently. Fine evidently concedes this. (His notion of a truth condition appears to correspond to his notion of an uncoordinated proposition.) But then A and B both grasp the sentence’s English content, while processing that content differently. A sentence’s truth condition is a semantic attribute; how a speaker takes that condition in working out that the sentence is true exactly on that condition is utterly non-semantic. This issue is not merely terminological.²⁰

Fine’s notion of (positive) coordination between proposition components or expression occurrences is not that of mere co-occurrence. The occurrences of Cicero in the conjunctive singular proposition that Cicero is Roman and Cicero

¹⁹ Cf. Frege’s Puzzle (103–109).

²⁰ Recall also that on Fine’s view, coordination is a binary relation, so that a pair of expression occurrences are either positively coordinated absolutely or negatively coordinated absolutely, not relative to a cognizer on an occasion of use.

is an orator are co-occurrences even if they are not coordinated. It is a fundamental axiom of Fine's "relationism" that coordination between expression occurrences is not reducible to semantic properties of those occurrences other than semantic-relational properties toward other occurrences. He writes, "The relationist understanding of [same-as representation] requires ... that the phenomenon is essentially relational; there are no intrinsic semantic features of the individual expressions in virtue of which they represent the object as the same" (40). Fine regards the analogous condition as analogously fundamental to his notion of coordination between proposition components. In contrast to the spirit of Fine's remark, I submit that positive coordination among expression occurrences is effected by a speaker's recognition of a semantic value common to each of the expressions occurring thusly. The speaker coordinates the expression occurrences in recognizing them as co-occurrences. Occurrences of 'Londres' and 'London' are coordinated by a competent bilingual speaker who, unlike Pierre, takes it that London is represented equally in one language by 'Londres' and in another by 'London'. The relation of positive coordination among proposition component occurrences x and y and a cognizer A might even be reducible to, or definable in terms of, A 's processing x and y as co-occurrences. We may posit the following: A (*positively*) *coordinates* occurrences x and y (on occasion o) iff A takes x and y (on o) as co-occurrences; A *negatively coordinates* occurrences x and y iff A takes x and y as hetero-occurrences (occurrences of non-synonymous expressions or of distinct proposition-components); A *uncoordinates* occurrences x and y iff A neither positively nor negatively coordinates x and y . For the case of expression occurrences in place of proposition components, the predicate 'is an occurrence of ___' may be replaced by 'has ___ as its semantic content'. In these senses, which are not Fine's, the two occurrences of London in the singular proposition that London is every bit as pretty as London are both positively and negatively coordinated (on distinct occasions) by Pierre. Also in these senses, occurrences of 'Londres' and 'London' are negatively coordinated by Pierre, whereas some co-occurrences of 'Paderewski' are positively coordinated (on occasion) by Peter and some negatively. It could also happen that two occurrences of a name are both positively and negatively coordinated on distinct occasions by a single speaker. Whether proposition components or expressions, what is crucial is whether the cognizer takes the occurrences as co-occurrences.²¹

²¹ The defining condition for positive coordination could be modified to require that A recognize x and y as co-occurrences. Other options are possible.

A fourth mode of coordination should be acknowledged. Pierre could come to wonder, "Maybe London and *Londres* are the same city." In that case he positively coordinates the occurrences of London in the proposition that London is no prettier than London ("London

The phenomenon of coordination is not a brute fact, nor is it a purely qualitative phenomenon. (I believe Fine does not disagree.) The propositions that London is pretty and that London is a capital are presented to competent bilingual Frenglish speakers, including Pierre, by the sentences ‘*Londres est jolie*’ and ‘London is a capital’. So presented, those occurrences of London are coordinated by most Frenglish speakers but not by Pierre, who processes the propositions as not only independent but utterly unrelated. In taking the two propositions as coordinated with one another, Frenglish speakers do not merely take them as jointly concerning *some city or other*. Frenglish speakers who are not in Pierre’s predicament take the propositions as jointly concerning London in particular. They process the proposition components as coordinated in virtue of their jointly representing London—albeit representing London as being different ways (pretty vs. a capital). In general, when a cognizer A coordinates proposition components x and y , there is a specific object, a , such that the cognizer coordinates x and y by taking them jointly to be, both of them, occurrences of a . The cognizer takes it that $\exists z(x$ is an occurrence of z & y is an occurrence of z) because the specific object a is such an object z , i.e., because $\lambda z[x$ is an occurrence of z & y is an occurrence of $z]$ a . The things that serve as third relatum for the *BEL* relation are to be found not in the coordination schemes themselves, but in the underlying phenomena that anchor a given speaker’s coordinating of the proposition components, in the phenomena in virtue of which the speaker’s processing of the proposition components is tethered to the specific object that anchors the coordination.

is no prettier than London”)—and consequently he does not uncoordinate them—but he also reserves judgment without negatively coordinating (“*Londres* is no prettier than London”). We may say that in this case Pierre both positively coordinates the relevant occurrences and *withholds coordinating* them, although he neither negatively coordinates nor uncoordinates them.

We may assume that in considering an individual z , A takes z in a certain way, by means of a certain *guise*, where these *ways of taking* individuals or *guises* satisfy the following conditions: A can take a single individual by means of distinct guises; A positively coordinates occurrences x and y iff there is guise g such that A takes the object as occurring in x by means of g and A takes the object as occurring in y also by means of g ; and if A negatively coordinates occurrences x and y , then $\exists g \exists g'(g \neq g' \ \& \ A$ takes the object as occurring in x by means of g & A takes the object as occurring in y by means of g'), but the converse does not obtain. A might wonder instead of negatively coordinate. We may posit that A withholds coordinating x and y iff $\exists g \exists g'(g \neq g' \ \& \ A$ takes the object as occurring in x by means of g & A takes the object as occurring in y by means of g').

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Bionote

Nathan Salmon

Nathan Salmon is Distinguished Professor of Philosophy at the University of California, Santa Barbara, where he has taught since 1984. He graduated from UCLA (B. A. 1973; Ph.D. 1979). Salmon specializes in analytic metaphysics and philosophy of language. In 1984, the Council of Graduate Schools awarded him the Gustave Arlt Award in the Humanities for his book, *Reference and Essence* (1981). His second book, *Frege's Puzzle* (1986), was selected by Five Books as one of the best five books on the philosophy of language.