Semantically Empty Gestures

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Abstract Frege held that the bare demonstrative 'that' is incomplete, and that it is the word together with a gesture that serves as the designating expression, and likewise that it is the word 'yesterday' together with the time of utterance that designates the relevant day. David Kaplan's original theory of indexicals holds that Frege's supplementation thesis is correct about demonstratives but incorrect about 'yesterday'. Kaplan's account of demonstratives deviates from Frege's in treating supplemented demonstratives as directly referential, hence rigid. It is argued here that the gesture or other demonstration that accompanies an utterance of 'that' is not part of the designating expression but instead part of the utterance context.

Keywords Context · Demonstrative · Demonstratum · *Dthat* · Gesture · Indexical · Singular proposition · *Zat*

1 Two Theories of Demonstratives

Pointing to a copy of *Naming and Necessity* amid several books I say, "That is a great monograph." My pointing evidently plays a role in securing the fact that the occurrence of the demonstrative 'that' designates what it does rather than something else, or nothing at all. What especially semantic role, if any, does my hand gesture play? More specifically, how shall something like a finger-pointing figure in a semantic analysis of sentences like 'That is a great monograph'? Where do such things as hand gestures belong in a correct semantic theory?

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In his classic essay "*Der Gedanke*" Frege offers an answer: Finger-pointings and other hand gestures may be "part of the expression of the thought." He wrote:

> ... [in some cases} the mere wording, which can be made permanent by writing or the gramophone, does not suffice for the expression of the thought. ... If a time indication is made in present tense, one must know when the sentence was uttered to grasp the thought correctly. Thus the time of utterance is part of the expression of the thought. If someone wants to say today what he expressed yesterday using the word 'today', he will replace this word with 'yesterday'. Although the thought is the same, the verbal expression must be different to compensate for the change of sense which would otherwise be brought about by the different time of utterance. The case is the same with words like 'here' and 'there'. In all such cases, the mere wording, as it can be written down, is not the complete expression of the thought; one further needs for its correct apprehension the knowledge of certain conditions accompanying the utterance, which are used as means of expressing the thought. Pointing the finger, gestures, and glances may belong here too. The same utterance containing the word 'I' will express different thoughts in the mouths of different people, of which some may be true and others false.[1]

All indications are that Frege means that a finger-pointing may act as a kind of expression, in something like the manner of the descriptive phrase 'object having such-and-such visual appearance'. A gesture is not exactly a sentence component—it is not a syntactic entity—but Frege evidently suggests that a gesture may nevertheless be a component of the full entity that semantically contains the proposition that I assert. What semantically expresses the proposition that *Naming and Necessity* is a great monograph, according to Frege, is not merely the sentence I utter but a composite entity consisting of the sentence together with my hand gesture. The gesture is a non-syntactic component of the full "expression"; it is what might be termed *quasi-syntactic*. (If expressions are syntactic entities, so that hand gestures are not expressions, Frege appears to accord them the status of *honorary expression*.) In an utterance of a sentence involving an indexical, Frege observes, what expresses a proposition (a "thought") is not the sentence itself—the "mere wording" which might be written down or recorded by audio-recording device—but the wording taken together with certain accompanying elements, like the time of utterance or an ostension, things that cannot be "made permanent" by writing them down or by recording the spoken word. In such cases, the mere wording itself is, in an important sense, essentially incomplete. What express the proposition is neither the uttered words nor the conditions accompanying the utterance, but the words and the conditions working in tandem. Indeed, Frege says that the conditions form part of the expression of the proposition, as if what plays the role of a sentence—what actually expresses the proposition—is a hybrid entity made up of syntactic material (words) together with such supplementary non-syntactic material as a time of utterance or a gesture of the hand. According to Frege, the union of mere expression and environ-

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[1] "*Der Gedanke*," *Beiträge zur Philosophie des deutschen Idealismus* (1918), translated by P. Geach and R. H. Stoothoff as "Thoughts," in Frege's Logical Investigations (New Haven: Yale University Press, 1977). An alternative translation of the quoted passage occurs there, at p. 10.

ment accomplishes what neither can do without the other. A bare demonstrative 'that' would then service as a term for the function that assigns to a gesture, the object that is before the speaker.[2]

Let us dub Frege's view that such things as the time of an utterance or an accompanying hand gesture combine with mere expressions to form hybrid entities with semantic content, *the supplementation account*. Following Frege let us call the expression that on the supplementation account requires supplementation, a *mere* expression (a mere demonstrative, a mere sentence etc.). Let us call the mere expression together with its accompanying supplement a *supplemented* expression (e.g., a supplemented demonstrative, etc.) Supplemented words are hybrid entities—part syntactic (the mere word), part non-syntactic (e.g., an action-type).

Frege's account of indexicals may be fruitfully compared with David Kaplan's theory of demonstratives. The latter, as set out in Kaplan's landmark study "Demonstratives",[3] is justly famous. However, one central aspect appears to be little appreciated or understood. In effect, Kaplan's theory accepts Frege's supplementation account of demonstratives but does not extend it to indexicals like 'you', 'here', and 'tomorrow'. This arises in connection with the distinction Kaplan draws between *pure indexicals* and *demonstratives*. The former are complete expressions that are not supplemented by non-syntactic material and instead take on differing semantic contents with respect to different contexts. By contrast, according to Kaplan, demonstratives are of themselves incomplete. They are said to stand in need of supplementation by a demonstration (e.g., a hand gesture) on the part of the speaker. Together the demonstrative and its accompanying demonstration then form the analog of a pure indexical. Kaplan's special theory of demonstratives includes Frege's supplementation theory of demonstratives generally: the mere word does not have semantic content appropriate to a singular term; it requires supplementation, which produces something that takes on an appropriate semantic content. According to Kaplan's theory it is the supplemented demonstrative, and not the mere word, that takes on content with respect to a context.

Furthermore according to Kaplan, gestures and other demonstrations function like context-dependent definite descriptions: when performed ("mounted") in a particular context, a demonstration takes on a representational content that determines an object with respect to a possible circumstance. Which content is taken on depends on the context; which object is determined then depends on the circumstance. In this respect too Kaplan's theory of demonstratives echoes Frege's. Kaplan calls the person, place, or thing demonstrated the *demonstratum* of the demonstration (in the relevant circumstance).

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[2] If so, the mere word 'that' would function as a synonym for the definite-description operator 'the' except that the latter is always supplemented by verbiage (e.g., 'author of *Waverley*') whereas the former is be supplemented by such non-syntactic elements as a finger-pointing or a hand gesture (perhaps in addition to verbiage).

[3] In J. Almog, J. Perry, and H. Wettstein, *eds*, *Themes from Kaplan* (Oxford University Press, 1989), pp. 481–614.

Kaplan's account of demonstratives, as contrasted with "pure" indexicals, can be summed up in a pair of succinct theses:

KT1: Although incorrect about pure indexicals, Frege's supplementation account is correct with respect to demonstratives; but

KT2: As with all indexical words, the propositions expressed by sentences invoking supplemented demonstratives are singular rather than general.[4]

The corresponding content rule governing supplemented demonstratives is the following:

(T_K) With respect to any context c the (English) content of the supplemented English demonstrative 'that'$\frown\delta$, where δ is a demonstration, is the demonstratum of δ with respect to c, if there is one, and is nothing otherwise.[5]

The fact that two of the greatest philosophers of semantics of the past 100 years subscribe to the supplementation account of demonstratives is ample proof of that account's appeal. Nevertheless that account is counterintuitive. The peculiarity is perhaps clearer in Frege's account, which extends to such indexicals as 'here' and 'tomorrow'. Intuitively, it is not a hybrid consisting of the word 'tomorrow' and the time of its utterance that designates the day following that of the utterance, as on Frege's account; rather it is the word alone that does so, in the context of its utterance—precisely as in Kaplan's account of temporal indexicals. But for the very same reason, it is intuitively not a hybrid entity consisting of the word 'that' and my hand gesture that designates *Naming and Necessity*, as in Kaplan's account. Rather it is the word 'that' alone that does so—although it does so, of course, in the context of my providing a gesture as guide to the book I intend.

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[4] Kaplan sometimes uses the term 'utterance' for the supplemented expression, reserving the term 'sentence' for the mere sentence. On Kaplan's view, as on Frege's, it is the supplemented sentence that expresses a proposition when occurring in a context. (See note 10 below.)

Kaplan overstates *KT2* by saying that "indexicals, pure and demonstrative alike, are directly referential" (ibid., p. 492). This statement gives the misleading impression that the fact that indexical words are directly referential (in Russell's terminology, logically proper names; in Kripke's, Millian) obtains somehow in virtue of their context-sensitivity. Both the statement and the misleading suggestion are refuted by the context-dependence of such non-rigid phrases as 'my hometown'.

[5] This rule is stated slightly differently in "Demonstratives," p. 527, where Kaplan says that it "gives the character" of a supplemented ("complete") demonstrative. The latter assertion conflicts with my exposition, on which the instantiation of the variable 'δ' in (T_K) to a particular demonstration yields a content rule that is not character-building. A character-building rule would specify the content with respect to c as the *such-and-such* in c, where the demonstration's content is: *the such-and-such*. As I see it, the rule (T_K) itself is instead Kaplan's contextual definition of the mere word 'that'. Have I misinterpreted Kaplan? Or is his claim that (T_K) gives the character of a supplemented demonstrative an oversimplification of his view? (It does fix the character, specifying the character by description.)

While Kaplan's account of indexicals owes much to Frege, it differs from Frege's in important respects. First and foremost, Kaplan contends that a supplemented demonstrative is *directly referential*, i.e., its semantic content is just the demonstratum itself rather than a concept (in Alonzo Church's sense) of the demonstratum. Furthermore, a mere pure-indexical word like 'yesterday' is said by Kaplan to designate the relevant object—in this case, the day before that of the time of utterance (and not a function from times to days, as in Frege's theory[6]). The word takes on, relative to a context of use, a content that determines the designated object with respect to the context. The time of the context serves to determine the content. Though Frege assigns a different designatum to the mere word, he allows that the supplemented word designates the relevant day. One may wonder whether there is any non-arbitrary way to choose between saying with Frege that 'yesterday'-supplemented-by-the-time-of-utterance designates the day before that of the supplementing time, and saying instead with Kaplan that 'yesterday' designates with respect to a context the day before that of the context. Can it make any difference whether we say that a word-*cum*-context designates a given object, or instead that the word designates the object "relative to" or "with respect to" the context?

From a purely formal perspective the different ways of speaking amount to the same thing. Either way we assert a ternary relation among a mere word, a context, and an object. But from a broader philosophical perspective, Kaplan's manner of speaking better captures the underlying facts. There are linguistic intuitions governing the situation, and on that basis it must be said that 'yesterday' (the mere word) designates a particular day—which day depending on the context of utterance. It is decidedly counterintuitive that the word instead designates a function from times to days, as on Frege's account. The intuition is unshaken even among sophisticates who, through proper training, have acquired the intuition that, for example, the exponentiation in the numerical term '7^2' (and likewise the word 'squared' in 'seven squared') designates a particular mathematical function.[7]

It is preferable, both theoretically and conceptually, to see the ternary relation among mere word, context, and object as the relativization to context of the binary relation of designation between word and object, rather than as assigning a semantic value to a cross-bred mereological fusion of word + context. One unwelcome consequence of Frege's supplementation account is the damage it inflicts on the syntax of an indexical language. The material that accompanies the mere word to form the

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[6] For some details see my "Demonstrating and Necessity," *Philosophical Review*, 111, 4, (October 2002), pp. 497–537; reprinted in my *Content, Cognition, and Communication: Philosophical Papers II* (Oxford University Press, 2007), chapter 4; also in M. Davidson, *ed*., *On Sense and Direct Reference* (McGraw-Hill, 2007), pp. 838–871.

[7] Frege maintained that it is not the exponentiation itself (and not the word 'squared') that designates the relevant function, but the incomplete expression '$\_\_^2$' (likewise, '____ squared'). On the interpretation suggested here, Frege saw the mere word 'yesterday' as also being incomplete, its argument place to be filled with the time of utterance (qua self-designating "expression").

supplemented expression does not itself have a genuine syntax as such. It is not that such entities as times and gestures could not have their own syntax. In "*Über Sinn und Bedeutung*" Frege observes that "it is not forbidden to take any arbitrarily produced event or object as a sign for anything." A highly systematic mode of composition of such signs, and with it a generative grammar, could be cleverly devised, or might somehow evolve through usage. Although the expressions that make up a sign language, for example, cannot be "made permanent" by writing them down or by audio-recording, still sign language has a syntax. But as a matter of sociological linguistics, such aids to communication as times of utterance and finger-pointings do not have an obvious and recognizable syntax. On Frege's account, a language with indexicals enlists the aid of elements from beyond conventional syntax in order to express propositions. What manages to express a proposition in such a language is not something that can be recorded by writing or the gramophone, at least not in its entirety. It is partly syntactic and partly contextual. Natural-language syntax becomes a fine theoretical mess.

In sharp contrast, one welcome consequence of relativizing the semantic relations of designation, and of expressing a content, to context is the recognition of a third kind of semantic value—Kaplan's character—which at least approximates the semantic notion of linguistic meaning. Frege's account avoids the claim that utterances on different days of the word 'yesterday' are of a single univocal expression with different designata, but only at a serious cost: the cost of misinterpretation. Frege imputes univocality by interpreting the word in such a manner that it allegedly designates the same thing on each occasion of use—that designated thing being a function in Frege's sense. Though the word's meaning intuitively remains constant from one use to the next, that same word (not some other expression) also does in fact have different designata, and therefore also different contents, on different occasions of use.[8]

[8] There is a closely related reason why Kaplan contends that an indexical is monogamous in meaning while promiscuous in designation, a reason pertaining to Frege's puzzle in connection with indexicals. Frege recognizes that 'Today is Smith's birthday', uttered one day, expresses the same proposition as 'Yesterday was Smith's birthday' uttered the next. Yet, as Kaplan notes, Frege apparently overlooks that the two sentences can differ in informativeness or "cognitive value" (*Erkenntniswerte*). Contrary to Frege's assertion, the information conveyed in an utterance at 11:59:59 pm of the former sentence is different from that conveyed in an utterance of the latter only seconds later. An auditor who does not keep a close eye on an accurate clock is apt to find the two assertions incompatible. But how can the two utterances differ in cognitive value when the very same proposition is asserted in each? Kaplan's explanation proceeds in terms of the characters of the two sentences. There is an important yet generally overlooked aspect of character, one that I believe Kaplan invokes in his solution to Frege's puzzle in connection with indexicals, even if only implicitly. (He does not articulate it in precisely the way I shall here.) The character has a contextual perspective on content. More elaborately, the character specifies the content with respect to a given context by describing it in terms of its special relation to the context.

2 An Alternative Theory

Kaplan intends his '*dthat*'-operator, which requires supplementation by singular terms, as a kind of idealized, thoroughly syntactic model of natural-language demonstratives, which require supplementation instead by actual demonstrations. Kaplan sees in a single deictic utterance of 'that' a pair of components: the mere word and the supplemental demonstration. Although the demonstration has a content, that content forms no part of the content of the supplemented sentences in which it figures.

Kaplan briefly considers an alternative account that does away with Frege's supplementation account even for demonstratives, and treats all indexical words on a par (*op. cit*., pp. 528–529). I call this alternative *the Bare Bones theory*. On this theory, a context of use is regarded as including alongside such features as an agent (to provide content for 'I'), a time ('now'), and a place ('here'), an assignment of demonstrata to occurrences of demonstatives, in case a single demonstrative is repeated in a single context with different designata, as in 'That$_1$ [pointing to a carton] is heavier than that$_2$ [a different carton]'. Demonstratives on the Bare Bones theory function according to a very simple substitute for (T_K):

(T_n) With respect to any context c, the content of an occurrence of 'that' is the demonstratum that c assigns to that occurrence.

This semantic rule imputes different characters to the demonstrative occurrences in 'That is that', since there are contexts in which the first demonstratum is one thing, the second demonstratum another. According to the Bare Bones theory, a sentence like 'That is heavier than that' semantically presents its content with respect to a context as *the singular proposition about the first and second demonstrata, respectively, that the former is heavier than the latter*. This contrasts with Kaplan's theory, on which the content is presented instead by means of the contents of the supplemental demonstration, as *the singular proposition about the such-and-such in this context and about the so-and-so in this context, that the former is heavier than the latter*. The Bare Bones theory assigns no semantic role to the demonstration that accompanies a use of a demonstrative, and thereby disregards the epistemologically significant content-demonstratum distinction as semantically irrelevant. Kaplan favors this distinction as providing a more satisfying solution to Frege's puzzle with regard to demonstratives: How can an utterance of 'That$_1$ is that$_2$', if true, differ at all in content from an utterance of 'That$_1$ is that$_1$'?

There are good grounds favoring an account of indexicals on which contextual features are regarded as indices to which the semantic relations of designation and content are relativized over Frege's idea that such features instead form part of the expression. These grounds extend straightforwardly to demonstratives. There is first the damage inflicted upon English syntax. This is the main reason, or at least one very important reason, for the retreat from 'that' to '*dthat*', with the resulting well-behaved syntax of a sort that we students of language have come to treasure. But foremost, linguistic intuition demands that a demonstrative has a single context-sensitive

meaning which assigns different designata, and hence also different contents, on different occasions of use. On Kaplan's theory, in sharp contrast, each utterance of 'that' with a different designatum is an utterance of a different term with a different character or meaning. In fact, as with Frege, each utterance of 'that' accompanied by a different demonstration with a different content is an utterance of a different term with a different meaning—even if the demonstrata in that context are exactly the same. (The character is represented by the function that assigns to any context the demonstratum in that context of the particular accompanying demonstration.)

One feature of '*dthat*' which is easy to overlook but which makes it a highly implausible model for natural-language demonstratives like 'that' is that the former is, by stipulation, a syncategorematic "incomplete symbol." On Kaplan's account the mere demonstrative—the word itself—is meaningless in isolation. The content and designatum of the compound term ⌜*dthat*[α]⌝ is a function of the content of its operand α (viz., the designatum thereby determined), but the '*dthat*'-operator itself has no character or content.

This is one respect in which Kaplan's account is inferior to Frege's. Natural-language demonstratives, in sharp contrast with '*dthat*', have a meaning, one that remains fixed for each use and determines the word's content in that use. Frege easily accommodates the fact that a demonstrative has a fixed yet context-sensitive meaning by taking the mere demonstrative to designate a function from features of gestures to appropriate designata. By contrast, semantically '*dthat*' is not a functor, as its syntax would have us expect. It might appear that Kaplan could improve his account significantly by following Frege's lead and taking '*dthat*' to be a functor for the identity function, and by analogy, taking 'that' to designate the identity function on demonstrata. For numerous reasons such a modification is not open to Kaplan. One immediate problem—in fact, an immediate *reductio* of Frege's account—is that in the typical case a supplemented demonstrative is, according to that account, a non-rigid designator. Its designatum with respect to a possible world *w* is simply the demonstratum in *w* of the supplementing demonstration, and thus varies from one world to the next. This contradicts Kaplan's theory.

It might be thought that although Kaplan cannot follow Frege in taking a demonstrative to designate the identity function on demonstrata, this only goes to show that he must seek a different sort of function. The '*dthat*'-operator is an intensional operator; an appropriate designatum for '*dthat*' does not operate on the mere designatum of its operand. Analogously, an appropriate designatum for a natural-language demonstrative cannot be a function on the mere demonstratum of the supplementing demonstration. Instead, for any context *c* there is the aptly suited function $@^{i}_{c}$ that assigns to any individual concept (any content suitable for either a definite description or a demonstration) the object determined by that concept in the particular circumstance c_{W}-at-c_{T} of *c* (and assigns to any non-concept itself). An account of '*dthat*' as designating $@^{i}_{c}$ with respect to *c* could be made to yield the right intension (function from circumstances to designata) for supplemented '*dthat*'-terms. Doing so would make '*dthat*' an indexical modal functor analogous to the sentential operator 'actually',

whose extension with respect to a context c is the function $@^{p}_{c}$ that assigns to any proposition its truth-value in the particular possible world c_{W} of c.[9]

Yet Kaplan is barred from taking '*dthat*' and natural-language demonstratives to be functors. The problem is that the propositions expressed by sentences invoking '*dthat*' could not then be singular propositions—any more than the contents of sentences beginning with 'actually' are truth-values rather than propositions (although this could be made to yield the right intension). If '*dthat*' were semantically a functor, the proposition expressed by '*dthat* [the suspicious-looking guy I saw yesterday wearing a brown hat] is a spy' would include among its constituents not Ortcutt himself, but instead the content of the operand description 'the suspicious-looking guy I saw yesterday wearing a brown hat' as well as the content of the functor itself. This violates *KT2*, and therewith tarnishes the spirit of Kaplan's general account. The cost of mediation between *KT1* and *KT2* is not cheap: a demonstrative is regarded as a syncategorematic incomplete symbol, as mere punctuation.[10]

Another problem with Frege's account, inherited by the envisaged account of demonstratives as designating $@^{i}_{c}$, is that the mere demonstrative is "context-sensitive" on Frege's account only in the sense that its sense and designatum are functions from contextually-variant elements. The central insight of Kaplan's account is that indexicality is not a matter of expressing functions from contextually-variant elements, but a matter of taking on different contents altogether in different contexts. This observation goes significantly beyond Hans Kamp's original insight that indexicality requires multiple indexing of extension to contexts and to circumstances which may vary independently of context. An indexical's extension does indeed depend upon, and vary with, a context of use, but its content does as well. On Frege's account, the content of 'that' is the same in every context: the identity function on demonstration contents. Although "context-sensitive" in one obvious sense—the function in question is a function on a contextually-variant element—a mere demonstrative on Frege's account is not indexical in Kaplan's sense. Likewise,

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[9] The character of a demonstrative might be represented on this proposal by the function that assigns to each context c the corresponding function $@^{i}_{c}$. Alternatively, the character might be identified with the appropriate function from singular-term characters to directly-referential-singular-term characters (e.g., from the character of 'the suspicious-looking guy I saw yesterday wearing a brown hat' to that of the corresponding '*dthat*'-term).

[10] Kaplan explicitly acknowledges some of these points in "Afterthoughts," pp. 579–582. Discomfort over the cost of mediation seems to have prompted a retreat from *KT1*. Kaplan says that, precisely because the singular term is meant to be directly referential, he had intended the designating term to be simply the word '*dthat*', rather than the compound expression ⌜*dthat*[the φ]⌝, and that the supplemental description ⌜the φ⌝ was to be merely a "whispered aside" which was "off the record" (p. 581; Kaplan adopted these latter phrases from suggestions by Kripke and me, respectively). Since the supplemental term is no part of the term '*dthat*', he says, as originally intended '*dthat*' is not a rigidifier of something else but a term unto itself. I believe that Kaplan, on reflection, has misjudged his own original intent for '*dthat*' above (and his own theory of demonstratives!) and that the theory is the one explicitly proffered in "Demonstratives" (at pp. 521–527 and *passim*): that the complete term is the supplemented term comprised by the union of the mere demonstrative with a supplemental demonstration. See "Demonstrating and Necessity," note 24 for details.

although on Frege's account a supplemented demonstrative, 'that'$^\frown\delta$, is "context-dependent" in one obvious sense—the argument to the function designated by 'that' is given by the demonstration δ—it is not indexical in Kaplan's sense. It is crucial to Kaplan's account that the supplemented demonstrative be indexical. The content of 'that'$^\frown\delta$ in any context is the demonstratum of δ in that context, and consequently varies with the context. For these reasons (and more), Kaplan is barred from taking the mere demonstrative—the word itself—to have a meaning in isolation.

The demonstrative 'that' has a definite meaning, which remains unchanged from one utterance to the next and which is shared by demonstratives of other languages. As with any indexical, the meaning of a demonstrative looks to the context to secure a content, and thence, a designatum. Far from being an "incomplete symbol," a demonstrative—the word itself—is a designating singular term if anything is. When Ralph points to Ortcutt and declares, "He is a spy!" the word 'he' designates Ortcutt. Furthermore, even if the pointing itself is regarded as somehow designating Ortcutt, intuitively it is the word 'he' rather than some hybrid consisting of the word and the pointing that semantically designates Ortcutt. Again, Kaplan's account of demonstratives as syncategorematic punctuation, rather than as fully designating singular terms, is not merely somewhat counter-intuitive. It is incorrect.

Kaplan forcefully argues that Frege's puzzle provides grounds to segregate demonstratives from indexical words like 'I' and 'yesterday' in that the former require Frege's supplementation account. Contrary to the Bare Bones theory, the mere fact that separate occurrences of a demonstrative within a single context typically differ in their demonstrata does not adequately explain the apparent informativeness of 'That = that', any more than the apparent informativeness of 'Hesperus is Phosphorus' is adequately explained by noting that a single object typically has one name rather than two. Even sophisticated speakers aware of the co-designation of two occurrences of 'that' in a particular context deem it possible to believe that that_1 [pointing to something x] is the same as itself without believing that it is that_2 [pointing again to x]. Frege's puzzle is concerned with the contents of such sentences as 'Hesperus is Phosphorus' and 'That is that' and not merely with their syntax: How can the expressed propositions differ in the ways that they do from those expressed by 'Hesperus is Hesperus' or by an utterance of 'That = that' while pointing simultaneously with both hands?[11] Kaplan's explanation in the case of demonstratives is that the complete sentence is supplemented by distinct gestures ("demonstrations") with distinct contents, and though the two supplemented demonstratives have the same content in the relevant context, they differ in the manner in which they semantically present their common content as a function of context.

The Bare Bones theory assigns a single character to 'That is that', and a single content to all utterances of it while pointing twice to the planet Venus. Yet the theory

[11] Cf. my *Frege's Puzzle* (Atascadero, Ca.: Ridgeview, 1986, 199), especially pp. 57–60, 87–92. Performing the very same demonstration of the same object twice over in a single utterance of 'That is that' is in fact very difficult to accomplish. For convenience, I assume throughout that pointing simultaneously with both hands is a way of accomplishing this feat (though this assumption is strictly false).

also postulates one meaning for the first 'that' and another meaning for the second, as if there were two expressions instead of one. At bottom, the latter is the general strategy employed in both Frege's and Kaplan's solutions to Frege's puzzle. It is a strategy forced on any attempt at a semantic solution to the puzzle. The strategy violates a linguistic variation on Occam's Razor: Thou shalt not multiply meanings beyond necessity. It comes close to violating a further, particularly imposing variation of Occam's Razor: Thou shalt not multiply expressions beyond plausibility. Kaplan laments the fact that his preferred solution to the puzzle about 'That$_1$ = that$_2$' does not extend to 'Hesperus is Phosphorus', since the two names, unlike the supplemented demonstratives, share the same character (ibid, pp. 562–563). Rather than contort our linguistic intuitions in order to accommodate an explanation which does not in any event work in the general case, it is wiser to extract from the case of proper names an important lesson concerning Frege's puzzle and devices of direct reference generally: The epistemologically significant ways in which the same proposition is differently presented, or differently taken, are not invariably a matter of linguistic meaning.

The Bare Bones theory ignores demonstrations altogether, and consequently ignores whatever semantic role they play in the proper use of a demonstrative. One potential problem with the Bare Bones theory is that a demonstration's demonstratum need not be active or even present in the context. This point is illustrated by one of Kaplan's examples (used for a slightly different purpose). I may demonstrate the late Alonzo Church by pointing to a photograph while uttering 'He was one of the greatest thinkers of the 20th century'. Church himself is not present in the context, since he no longer exists. But the demonstratum is no mere photograph; it is Church himself. At most, Church is present by proxy, his photograph standing in for him. The demonstratum of a particular demonstration may be neither present in the context nor an active participant, nor even present by proxy.[12] Consider the following discourse fragment:

(*i*) You recall the suspicious-looking guy we saw yesterday wearing a brown hat.
(*ii*) I suspect he's a spy.

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[12] I am thinking here of a context as a potential setting or environment in which an utterance occurs, rather than as the proposition, or set of propositions, assumed by all conversational participants. The case of the answering machine demonstrates that a contextual parameter need not be at the location of the context at the time of the context, since the agent of the utterance of 'I am not here now' is typically asserting a truth. Though the agent of the context of such an utterance is, in some sense, absent from the context, he or she is nevertheless playing an active role in the context—there is an assertion *in absentia* by the agent—and I conjecture that it is this fact that warrants including the absent agent as a contextual parameter. By contrast, the demonstratum of a particular demonstration may be entirely passive, utterly inert, a mere demonstratum. (See note 14 below.)

The pronouns 'he', 'she', and 'that' may differ in this respect from the special demonstrative 'this', for which the designatum is arguably always present in the context of use (or present by proxy?). If something closely resembling the Bare Bones theory is applicable to 'this', it is so because of some such special restriction governing its appropriateness. (In effect, the Bare Bones theory may mistake 'that' for 'this'. Or is it the other way around?)

Although the 'he' in (*ii*) is anaphoric on the direct object in (*i*), it is a syntactically free term designating Ortcutt, not a bound variable. Of course, the 'he' does not designate Ortcutt no matter what the context. The anaphora here is of a peculiar variety. In effect, the 'he' in (*ii*) is a demonstrative and the definite description in (*i*) plays the role of accompanying demonstration.[13] The demonstratum is entirely absent from, and inactive in, the context; the demonstrative 'he' succeeds all the same. In general, the demonstratum of a particular demonstration need not be present by proxy nor connected to the context in any significant ("real") manner, e.g., causally. The demonstratum may be merely that which is demonstrated—witness Kaplan's '*dthat*'-operator, which may be supplemented by material that designates merely "by description" an object from long, long ago and far, far away.

As mentioned, Church's photograph may be employed as a stand-in for Church himself. Another feature of the context which is no less relevant to understanding my use of 'he' is my demonstration of Church *via* the photograph. The supplementation account puts the demonstration directly into the expression to form a peculiar hybrid: 'he'$^\frown$pointing-at-the-photograph. But the demonstration does not belong in the expression. My alternative proposal is that we put the demonstration in the context. Intuitively, the speaker's hand gestures, finger-pointings, and glances of the eye are features of the context of use, every bit as much as the identity of the speaker and the time and place of the utterance. Consider again Frege's insightful observations: "Thus the time of utterance is part of the expression of the thought. ... The case is the same with words like 'here' and 'there'. In all such cases, the mere wording, as it can be written down, is not the complete expression of the thought; one further needs for its correct apprehension the knowledge of certain conditions accompanying the utterance, which are used as means of expressing the thought. Pointing the finger, gestures, and glances may belong here too." I agree with Frege, as against Kaplan, that gestures and finger-pointings belong together with the time and place of an utterance; I disagree with Frege, and Kaplan, that they are part of the expression uttered. Rather, they are features of the conditions of an utterance that fix the contents of uttered indexicals. My proposal is that a context of use be regarded as sometimes including among its features, along with an agent, a time, a place, and a possible world, a demonstration.[14]

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[13] Contrary to Kaplan's claim (echoing Peter Geach) that anaphoric pronouns may be seen as bound variables (*ibid*., p. 572). If it is insisted that the 'he' is a bound variable, then what is the variable-binding operator that binds it? The 'his' in 'No author inscribed his book' is not a designating occurrence; it is genuinely a bound variable. By contrast, the 'he' in (*ii*) designates Ortcutt. The 'he' is not a "pronoun of laziness," not an abbreviation for the description in (*i*). The speaker's suspicion is not merely a *de dicto* thought to the effect that whoever is a uniquely suspicious-looking guy seen the day before wearing the relevant brown hat is a spy. It is *de re* concerning Ortcutt: that he is a spy.

[14] Kaplan objected that the demonstration should not go into the context rather than the expression, for otherwise a possible context can include a demonstration completely different from the one performed by the context's agent in the context location at the context time in the context world. This prospect can be avoided by restricting the admissible ("proper") contexts to those *n*-tuples $<c_A, c_T, c_W, ..., c_D>$such that the demonstration c_D is mounted at time c_T in possible world c_W (etc.). It is far from obvious, however, that such a restriction is desirable. Is the sentence 'That object

Better yet, since the same demonstrative may recur within a single sentence or stretch of discourse, each time accompanied by a different demonstration ('That one goes between that one and that one'), the context should include an assignment of a demonstration for each syntactic occurrence of a demonstrative in a sentence—the first occurrence, the second, and so on.[15] This fuller notion of a context provides a different explanation from that of Frege-Kaplan of the sense in which demonstratives without accompanying demonstrations are incomplete. The demonstrative itself is a complete expression, fully assembled and good to go. Strictly speaking, it is the context that is incomplete. Or if one prefers, it is the occurrence of the demonstrative in the defective context that is incomplete, because of a contextual deficiency. It is like the use of 'now' in a timeless universe ("before" the Big Bang?).

The demonstration included in a context need not be an actual gesture, or any action or event in the usual sense. The demonstration can be entirely verbalized—witness the discourse fragment displayed above. Kaplan should formalize this by putting the description from (*i*) directly into (*ii*) thus:

(*ii′*) I think that *dthat* [the male *x*: *x* is a suspicious-looking guy & we saw *x* yesterday wearing a brown hat] is a spy.

If the description in (*i*) is replaced by 'the present Secretary of State', Kaplan would need to make a corresponding adjustment to (*ii′*). But there is no intuitive justification for this dramatic departure from surface syntax. The description in (*i*) does not occur in (*ii*), which is a complete sentence by itself. Instead, (*i*) is part of the context in which (*ii*) occurs ((*i*) is the verbal context for the occurrence of (*ii*)),

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(assuming it exists) is now being demonstrated', for example, to be regarded as true solely by the logic of 'demonstrate'?

Ben Caplan, "Putting Things in Contexts," *Philosophical Review*, 112, 2 (April 2003), pp. 191–214 is a defense of the Bare Bones theory. Caplan contends that a context is not a "setting or environment in which an utterance occurs" (note 12 above), and is instead simply a sequence of contextually indicated designata, since *inter alia* there are legitimate contexts that are *improper*, i.e., the context agent is not present at the context location at the context time in the context world—as witnessed, for example, by the truthful answering-machine message 'I am not here now'. (It is agreed on all sides that there are legitimate contexts in which the agent is not speaking.) Whereas so-called improper contexts are indeed legitimate, this merely acknowledges that, thanks to modern technology (e.g., hand-written notes), it is possible for the agent of a potential utterance setting to be not present *in* that setting. Caplan evidently concedes that a potential utterance setting can include a demonstration whose demonstratum is absent. It might be held that, just as the agent of an utterance setting may be absent, so may be the demonstratum. But it seems that something in (or at least extractable from) the utterance setting must assign demonstrata to distinct demonstrative-occurrences. Arguably, demonstrations typically accomplish this task.

[15] One might wish to let the context assign demonstrations to each demonstrative occurrence in a piece of discourse. The particular argument 'He is taller than him; hence, he is shorter than him' can be uttered with accompanying demonstrations that ensure the truth of the conclusion given the truth of the premise. ('He_1 is taller than him_2; hence, he_2 is shorter than him_1'.) Still, the form of words evidently yields an invalid argument. Compare: 'He is taller than him; hence, he is neither shorter than nor the same height as him'.

and the description in (*i*) is associated with the 'he' in (*ii*), playing the role of accompanying demonstration. As already mentioned, the description in (*i*) is a verbalized demonstration. If the description is replaced by another, the context for (*ii*) is changed, and hence so too its content. But (*ii*) itself remains the same complete sentence with the same English meaning.[16]

Importantly, the distinction between so-called pure indexicals and demonstratives is a matter of incompleteness not in the expressions, but in their contexts. Demonstratives and "pure" indexicals alike are full-fledged indexicals, complete expressions unto themselves. The demonstratives 'this' and 'that' are every bit as complete and purely indexical as 'you' and 'I', as pure as freshly fallen snow. The negative side effects of the supplementation account are avoided. The strictures of the linguistic variations of Occam's Razor are respected. Here is an Indexical theory of demonstratives worthy of the epithet.[17]

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[16] It is for similar reasons that substitution of 'Barbarelli' for 'Giorgione' fails in 'Giorgione was so-called because of his size'. Substitution alters the context for the demonstrative 'so'.

The construction in the text raises particularly perplexing issues. Consider the following variant:

(*i″*) Consider whoever is the world's shortest spy.

(*ii″*) He or she is under six feet in height.

It seems that the speaker has asserted of the world's shortest spy, *de re*, that he or she is under six feet, since the semantic content of (*ii″*) is evidently that very singular proposition. Kaplan concludes (contradicting his earlier arguments in "Quantifying In") that a mastery of the semantics of such directly designating devices as demonstratives enables speakers to form beliefs of singular propositions, and even to gain singular-propositional knowledge *a priori* (e.g., about the shortest spy that he or she is under six feet, or about the first child to be born in the 22nd century that he or she will be born on a Pacific island), in the absence of any "real" connection to the object in question ("Dthat," p. 241; "Demonstratives," p. 560*n*; "Afterthoughts," p. 605). This conclusion leads almost directly to a form of the controversial doctrine of unrestricted exportation with regard to *de re* belief. But even if *de re* assertion (assertion of the singular proposition) is in fact accomplished through such means, it by no means follows that *de re* belief, let alone *de re* knowledge, follows suit. On the contrary, firm intuitions derived from ordinary language show otherwise. Cf. my "The Good, the Bad, and the Ugly," in M. Reimer and A. Bezuidenhout, *eds*, *Descriptions and Beyond* (Oxford University Press, 2004), pp. 230–260.

[17] Kaplan observes that there is "a kind of standard form for demonstrations" accompanying a typical utterance of a demonstrative: such demonstrations have a character like that of a definite description of the form: the individual that has appearance *A* from here now, where the mentioned appearance is "something like a picture with a little arrow pointing to the relevant subject" (pp. 525–526). Although this is plausible, building excess material into the linguistic meaning of the demonstrative Kaplan inevitably misclassifies some utterances of synthetic sentences as being utterances of analytic sentences, e.g., 'He (assuming there is such a thing) has appearance *A* from here now'. Though this sentence is true, a full mastery of its meaning does not by itself give one the knowledge that it is inevitably true, as Kaplan's account evidently implies. Its truth crucially depends on non-linguistic, empirical information: that the demonstrated male appears a particular way from the speaker's perspective at the time of the utterance. This information is supplied with the demonstration. It is part of the context of the utterance, not built into the expression uttered. (Cf. note 13 above.)

3 Frege's Puzzle

How does Frege's puzzle with regard to demonstratives fare on this Indexical theory? The sentence 'That is that' has a single meaning. The sentence is univocal but indexical, expressing different identity propositions in different contexts—some necessarily true, others necessarily false. The invariant meaning presents the content expressed in a given context with its contextual perspective, (roughly) as the singular proposition about the demonstrata of the separate demonstrations assigned by this very context to the first and second syntactic occurrences of 'that', that they one and the very same. One might regard this as a lean and mean way of presenting content as compared with the riches of Kaplan's theory with its multiplicity of demonstration contents. But to see matters thus is to draw a hasty conclusion on the basis of a serious oversight concerning the communicative situation.

One may still appeal to the contents of accompanying demonstrations on the Indexical theory in an account of *Erkenntniswerte*. The addressee understands the sentence merely by knowing the relevant character-building content rule. But in witnessing the utterance, the attentive addressee observes not only the sentence uttered but also the demonstrations that are assigned to distinct utterances of demonstratives. Indeed, the addressee must observe the demonstrations to grasp the speech act adequately, since knowing which proposition was asserted—knowing what is said—requires knowing which object was demonstrated. Awareness of the context provides the addressee with a special handle on the demonstrations assigned to each utterance. This ancillary empirical knowledge about which demonstrations are performed in the particular context allows the addressee to make substitutions into the character-building content rule's mode of presentation of the content, plugging in particular demonstrations, with their particular contents, for the meta-level concept the demonstration assigned by this very context. Instead of taking the proposition in terms of its relation to the context, the addressee now takes the proposition in terms of its relation to the particular demonstrations observably included in the context. In effect, the addressee converts knowledge by description of the proposition in terms of the context into knowledge by description in terms of the demonstration, exchanging knowledge by context-specific description for knowledge by demonstration-specific description. The latter, in turn, provides acquaintance with the proposition itself. The epistemic situation is not unlike learning the color of Alonzo Church's hair by being told that Church's hair was the color of snow while simultaneously being shown what snow looks like.

When the speaker utters 'That is that' pointing to the same object with both hands simultaneously, the context assigns the very same demonstration to both syntactic occurrences of 'that'. In such contexts, the proposition expressed is taken by the attentive addressee as a trivial self-identity—in effect, as the singular proposition about the demonstratum that it is itself. This special way of taking the proposition is given not by the character itself, which presents the proposition in terms of

its relation to the context, but by the character in tandem with the context which includes the observable demonstration. There are other contexts that assign distinct demonstrations that happen to converge on the same demonstratum. In such contexts, the proposition is taken by the attentive addressee as an identification between objects differently demonstrated—as the singular proposition about both the demonstratum of δ_1 and the demonstratum of δ_2, that they are one and the very same. Pairs of contexts, one of each sort, may yield exactly the same singular proposition—resulting in Frege's puzzle. With regard to such context pairs, the uttered sentence 'That is that' not only expresses the same content but retains the same meaning. The relevant character-building content rule presents the proposition in terms of the same relations to the respective contexts—as a singular proposition about the demonstrata of whatever demonstrations are assigned to utterances of 'that' by the relevant context. In observing those demonstrations, the attentive addressee is enabled to take the proposition in the distinct contexts in terms of its relation to those very demonstrations. The different ways in which the same proposition is taken—what I have elsewhere called *proposition guises*[18]—are provided not by the character-building content rule itself, but in the contents of the demonstrations assigned by the particular context of use. In short, the difference lies not in the semantics but in the contexts, which assign distinct demonstrations to the syntactic occurrences of 'that' and thereby provide the attentive addressee with contrasting perceptual perspectives on what is in fact the same proposition presented via the same meaning in the distinct contexts.

This contrasts with Kaplan's account, on which the same mere words are uttered, yet different sentences with different meanings (the different characters resulting from different demonstrations with different contents). While proposition guises can be a matter of linguistic meaning, they are not always so. Where demonstratives are used, they are a matter of ancillary knowledge, of non-linguistic perceptual perspective. The semantics of demonstratives on the proposed Indexical theory makes essential reference to demonstrations, which are assigned to syntactic occurrences of demonstratives by the context. But that reference is exclusively by description. The semantics makes no essential reference to the contents of those demonstrations, even if they are crucial to the communicative and epistemic situation. The Indexical theory provides no semantic distinction on which to hang the different ways in which the same proposition might be taken differently in different utterances of 'That is that'. The various proposition guises are not given in the semantics. They are given in the context—or more accurately, in the union of meaning and context.

In "Afterthoughts," Kaplan says that he accepted the Fregean theory of demonstrations in "Demonstratives" in part because "the Fregean idea that that very demonstration might have picked out a different demonstratum, an idea that depended on the separability of a demonstration from a particular context, seemed to track very closely the cognitive uncertainties of 'that_1 is that_2'. This cognitive value appears in character, and thus as an aspect of meaning" (p. 588). The Indexical

[18] *Frege's Puzzle*, especially chapters 8-9.

theory I propose demonstrates that the Fregean idea does not require the detachment of the demonstration from context. Nor must the relevant "cognitive uncertainties" be an aspect of meaning. Meaning has a role to play, and an important role it is. But the epistemologically crucial ways of taking things are given in the context rather than the character-building content rule. Direct-reference theorists who share my skepticism regarding Frege's solution to Frege's puzzle with regard to 'Hesperus' and 'Phosphorus'—including Kaplan (*ibid*., pp. 562–563, 598)—should not be troubled by this aspect of my proposal. On the contrary, in respecting the strictures of the linguistic variations of Occam's Razor while locating the proposition guises provided through the use of demonstratives in non-semantic, contextual aspects of their use, the account points the way to a similarly non-semantic account of the cognitive role played by proper names, natural-kind terms, and other devices of direct reference.[19]

4 Further Considerations

I have not argued that Kaplan's operator '*dthat*' could not be added to a natural language like English, or that it would be undesirable to do so. Quite the contrary, it has proved itself a very useful addition to philosophical English. Though useful, the operator provides an inaccurate and misleading model of standard uses of the English demonstrative 'that'. Unlike '*dthat*', which is syncategorematic, the English demonstrative 'that' is standardly used as a complete singular term that semantically designates the relevant demonstratum with respect to a context. In other standard uses, the English word 'that' is not itself a singular term but part of a so-called complex demonstrative, 'that F', which is a complete, fully designating singular term. It might be better to view the bare demonstrative 'that' as a diminution or abbreviation of the demonstrative phrase 'that object' or 'that thing', making space for the complex phrase 'that F' as the underlying general case.[20]

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[19] A name whose designation is fixed by description has a character of a rather special form. In the case of a typical name, the character-building content rule specifies the content for (every context) by name rather than by description.

[20] There are other uses of phrases of the same surface form as complex demonstratives on which those phrases seem to be instead stylistically altered definite descriptions. ("David is still hoping to encounter that pupil who will surpass him.") Such uses deviate from the standard case.

A frequently heard objection to the hypothesis that compound expressions of a given category (e.g., definite descriptions) are singular terms is that expressions of the given category can be coherently quantified into while genuine singular terms cannot. The objection evidently originated with Benson Mates, "Descriptions and Reference," *Foundations of Language*, 10, 3 (September 1973), pp. 409–418, at p. 415, but has been endorsed or echoed by others (e.g., Stephen Neale, *Descriptions*, Cambridge, Mass.: MIT Press, 1990, at p. 56n28). The objection typically relies on a λ-abstraction theorem, to the effect that any sentence φ_β containing a genuine singular term β in extensional position, and which is the result of uniformly substituting β for the free occurrences of a variable α in the open formula φ_α, is true only if the designatum of β satisfies φ_α. (The assumed abstraction theorem is not generally stated this precisely, if it is stated at all.) The objection has

Following Kaplan's lead, I here introduce an artificial operator, '*zat*'. The '*zat*'-operator does not have the logical form of a functor. But like '*dthat*', neither is it a singular term. Like the logician's inverted iota, it is a variable-binding operator that forms singular terms from open formulas: '(*zat x*)(*x* is a man & *x* looks suspicious)'. It is not required, however, that the open-formula matrix, '*x* is a man & *x* looks suspicious', be uniquely satisfied for the '*zat*'-term to be a "proper" demonstrative, i.e., to designate. The meaning of a '*zat*'-term is determined by the following:

(*Z*) With respect to any assignment of values to variables *s* and any context *c*, the content of an occurrence of the demonstrative term ⌜(*zat* α)φ_α⌝ is the demonstratum of the demonstration assigned to that occurrence in *c*, provided there is such a demonstratum and it satisfies φ_α with respect to *c* (i.e., provided φ_α is true under the modified version of *s* that assigns the demonstratum to α and is otherwise the

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been applied to complex demonstratives—for example, by Ernest Lepore and Kirk Ludwig in "The Semantics and Pragmatics of Complex Demonstratives," *Mind*, 109, 433 (April 2000), pp. 200–241, at pp. 205–206, 210–222, and *passim* (where something like the assumed abstraction theorem is explicitly applied): "It is difficult to see how to make sense of quantification into complex demonstratives on the assumption that they are referring terms. ... [The abstraction theorem] renders mysterious how the material in the nominal could interact semantically with the rest of the [quantified] sentence" (pp. 205–206). ... "Examples of apparently coherent quantification into the nominals of complex demonstratives supply some of the most important evidence for denying that they are referring terms" (p. 219). Cf. Jeffrey King, *Complex Demonstratives* (Cambridge, Mass.: MIT Press, forthcoming), at pp. 8–9, 20–22.

It should be noted in response that complex demonstratives seem especially immune to this objection, since quantification into them is, at best, odd. *Cf.* Barry Taylor, "Truth-theory for Indexical Languages," in M. Platts, ed., *Reference, Truth, and Reality* (London: Routledge & Kegan Paul, 1980), pp. 182–198, at pp. 195–196; and Neale, "Term Limits," in J. Tomberlin, ed., *Philosophical Perspectives, 7: Language and Logic* (Atascadero, CA.: Ridgeview, 1993), pp. 89–123, at p. 107. More importantly, if it were sound, the assumed abstraction principle would establish more generally that the very notion of an open designator (a designating expression containing a free variable) is semantically incoherent. Despite the objection's popularity, ordinary mathematical notation is rife with counter-examples to the abstraction "theorem": '$x + 3$', 'x^2', etc. The most glaring counter-example is the paradigm of an open designator: the individual variable. The objection is in fact based on an elementary confusion. Designation for an open term (whether compound or a variable) is relative to an assignment of values to its free variables. The variable '*y*' is a genuine singular term if anything is. Its designatum (under the assignment of a value) may fail to satisfy the particular open formula '~$\forall y$(*y* is a person $\supset$ *x* is ingenious)' (let this be φ_α, with α = '*x*') even though the sentence that results by substituting '*y*' for '*x*' is true—precisely because the newly introduced occurrence of '*y*' is captured by the quantifier, making its value irrelevant. The mistaken abstraction "theorem" can be corrected, and even generalized: An assignment *s* of values to variables satisfies a formula φ_β [of the restricted class C] containing a free occurrence of a singular term β in extensional position, and which is the result of uniformly substituting free occurrences of β for the free occurrences of a variable α in φ_α, if and only if the modified value-assignment s' that assigns to α the designatum of β under *s*, and is otherwise the same as *s*, satisfies φ_α. This corrected version effectively blocks the objection. *Cf.* my "Being of Two Minds: Belief with Doubt," *Noûs*, 29, 1 (1995), pp. 1–20, at 18n26.

same as s, with respect to both c and the particular circumstance c_W-at-c_T of c). Otherwise $\ulcorner(zat\ \alpha)\varphi_\alpha\urcorner$ has no content.[21]

The '*zat*' operator is a content operator, in that the designatum of $\ulcorner(zat\ \alpha)\varphi_\alpha\urcorner$ with respect to a circumstance w-at-t must satisfy the matrix formula φ_α with respect to a different circumstance, *viz.*, that of the context. Also like '*dthat*'-terms, '*zat*'-terms are not compositional with regard to content. Though $\ulcorner(zat\ \alpha)\varphi_\alpha\urcorner$ is a compound term, the content of its matrix formula φ_α (under the assignment of values to its free variables) generally forms no part of the content of the '*zat*'-term itself (under that same value assignment). Rather, the content is simply the demonstratum assigned to the term by the context, provided the demonstratum satisfies the operand. The semantic rule (*Z*) yields the following corollaries:

(*Z*1) The complex demonstrative $\ulcorner(zat\ \alpha)\varphi_\alpha\urcorner$ is indexical.
(*Z*2) With respect to any context $\ulcorner(zat\ \alpha)\varphi_\alpha\urcorner$ is directly referential.
(*Z*3) With respect to any context an occurrence of $\ulcorner(zat\ \alpha)\varphi_\alpha\urcorner$ rigidly designates the demonstratum of the demonstration assigned to it in that context, provided such a demonstratum satisfies φ_α with respect to c. Otherwise it is a rigid non-designator.

Accordingly, I propose that Kaplan's content rule (T_K) be replaced with the following as governing standard uses of demonstratives:

(*T*) With respect to any context c, the (English) content of an occurrence of the complex demonstrative 'that'$^\frown$N is the demonstratum of the demonstration assigned to that occurrence in c, provided: (*i*) there is such a demonstratum; and (*ii*) N applies to it with respect to c. Otherwise 'that'$^\frown$N has no content. (N may be deleted to form a bare demonstrative, in which case condition (*ii*) is regarded as vacuously fulfilled, or simply deleted.)

This rule yields the same corollaries for natural-language complex demonstratives: 'that' is a content operator; complex demonstratives are not compositional with regard to content; they are indexical, directly referential, rigid.[22] It is presum-

[21] By stipulation, 'zat'-terms are genuine singular terms. Their stipulated content rule (*Z*) allows for the possibility of quantification in. (See the previous note.)

[22] Stefano Predelli, in "Complex Demonstratives and Anaphora," *Analysis*, 61, 1 (January 2001), pp. 53–59, challenges those who deny that complex demonstratives are compositional with regard to content to explain how the anaphoric pronoun 'her' in 'That man talking to Mary admires her' (uttered while pointing to one of several men talking to Mary) obtains its content. It is tempting to suppose that any anaphoric pronoun occurrence whose antecedent is a singular term simply inherits as its content the very content contributed by its antecedent to the content of the sentence in which the antecedent occurs. But according to (*T*), the antecedent term in this case contributes no component to the content of the complex demonstrative in which it occurs.

ably Kaplan's intent that his alternative content rule (T_K) is to be extended to cover supplemented complex demonstratives, 'that'⌢N ⌢δ, by including (*T*)'s condition (*ii*).[23] This natural extension makes the mere (unsupplemented) complex demonstrative 'that'⌢N syncategorematic, i.e., a contextually defined incomplete symbol.[24] Utterances of the same mere complex demonstrative accompanied by demonstrations of differing content are depicted as utterances of strictly different expressions with different meanings. On my proposal, a complex demonstrative is a complete singular term each use of which is an utterance of a single expression with a single meaning—though its content varies with context and its use is felicitous only when accompanied by a demonstration.

We have already seen numerous philosophically significant consequences of regarding natural-language complex demonstratives in accordance with (*T*), i.e., on the model of '*zat*'-terms: Frege's supplementation account is rejected; the purity of natural-language syntax is not threatened; complex demonstratives are not syncategorematic; they are both meaningful and univocal; they designate the right object. A treatment of complex demonstratives on the model of '*zat*'-terms yields further philosophically significant consequences. The semantic corollary (*Z*3) in particular

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In response I note that the naive rule of content inheritance is falsified in cases in which the antecedent is a singular term that is not directly referential, as perhaps in 'The number of planets is such that, necessarily, it is odd' and 'Ralph believes of the man seen at the beach that he is a spy'. If the naive rule were correct (and if, contrary to Russell, the definite-description antecedents are singular terms), these sentences would be *de dicto* rather than *de re*. A more promising rule of anaphora—applicable even to anaphoric pronouns whose antecedents are singular terms that are not directly referential—is that a simple (non-reflexive) anaphoric pronoun occurrence whose antecedent is a singular term, if it is not itself a bound variable, typically takes as its content the object customarily designated by its antecedent. There is no requirement that the antecedent contribute its customary content to the content of the sentence in which the antecedent occurs. Although this rule is also subject to counter-examples, it is applicable to a significantly wider range of cases than the naive rule of content inheritance and it seems likely that some restricted variant is correct. Consider: 'That man talking to the actress honored here tonight admires her'. Although I hold the description 'the actress honored here tonight' does not contribute its customary content to that of the sentence in question, and instead merely contributes toward a restriction on admissible contents for the complex demonstrative, the description itself has a customary designatum (assuming it is a singular term), and it is that customary designatum, though she makes no appearance in the content of the demonstrative itself, that the anaphoric pronoun takes as its content.

[23] He says that "obvious adjustments are to be made to take into account any common noun phrase which accompanies or is built-in to the demonstrative" (*ibid*., p. 527). Emma Borg, "Complex Demonstratives," *Philosophical Studies*, 97 (2000), pp. 229–249, at 242, interprets Kaplan as incorporating condition (*ii*). Borg defends a designation rule entailed by my content rule (*T*). A similar designation rule, though couched within the Bare Bones theory, is proffered by David Braun, "Structured Characters and Complex Demonstratives," *Philosophical Studies*, 74 (1994), pp. 193–219, at p. 209.

[24] Whereas the mere complex demonstrative 'that'⌢NP is devoid of character, content, and designatum, the content of the completed expression 'that'⌢NP⌢δ is defined to be the demonstratum of δ (in the context), if there is a unique such demonstratum and NP applies to it (with respect to the context), and to be nothing otherwise.

imposes three conditions worthy of special note. Not surprisingly, complex demonstratives are rigid designators.[25] More interesting, a complex demonstrative 'that F' cannot literally (semantically) designate anything that is not an F. The phrase might be used by a speaker to designate something that is not an F, but this is a matter of "speaker reference" as opposed to "semantic reference." Such a "referential" use is, from the point of view of English semantics, a misuse.[26] More interesting yet, a complex demonstrative 'that F' may designate something with respect to a possible world *w* even though the designated object is not an F in *w*, as long as it is actually an F—for example, 'If we had not lowered admission standards, then that graduate student would not be in graduate school today'.[27] No component of the content of an atomic sentence of the form "That F is G" expresses about the demonstratum that it is F. Yet this is logically entailed. In fact, the sentence presupposes of the demonstratum that it is F, in that unless this is a fact the sentential subject is vacuous and the sentence is without truth value.[28]

There is another noteworthy consequence. The following English sentence is analytic, in the sense that it is true by virtue of pure semantics alone:

S: That drunken sailor (if there is any such thing) is a drunken sailor.[29]

The analyticity of *S* lies behind the logical validity of the argument, 'Every drunken sailor is an alcoholic; therefore that drunken sailor (assuming it exists) is an alcoholic'.[30] Although analytic, the content of *S* in any context is no necessary

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[25] In the sentence 'If there had been an atheist elected to the U.S. Senate, then that Senator's atheism would have been concealed during the political campaign' (on its most natural reading) the phrase 'that Senator' is a rigid designator but it is not correctly formalized using 'zat'. Its function is more that of a bound variable. The sentence seems to have a form something like that of 'For every possible individual *i*, if *i* had been an atheist who was elected to the U.S. Senate, then *i*'s atheism would have concealed during the political campaign'. Simple individual variables like '*i*' are rigid designators *par excellence*. (By contrast, see note 13 above.) The same remark applies to analogous bound-variable uses of pronouns ('..., then he would have concealed his atheism ...'). *Cf.* "Pronouns as Variables," in my *Metaphysics, Mathematics, and Meaning* (Oxford University Press, 2005), pp. 399–406.

[26] *Cf.* "The Good, the Bad, and the Ugly."

[27] Contrary to Lepore and Ludwig (*op. cit*., pp. 222–226), this is not a matter of demonstrative phrases always, or typically, taking wide scope: 'Consider: That drunken sailor is not in graduate school today. The proposition is, of course, false. But its falsity is quite accidental. Indeed, it would have obtained if we had not lowered our admission standards'.

[28] If the demonstratum is not F, the sentence 'That F does not exist' is an authentic true negative existential. Such things are more rare than commonly believed. *Cf.* "Nonexistence," in my *Metaphysics, Mathematics, and Meaning*, pp. 50–90.

[29] I assume here that the parenthetical antecedent is false if the demonstrative 'that drunken sailor' lacks a designatum.

[30] Cf. Borg, op. cit., p. 239–241. Any theory that assigns logical attributes to propositions rather than to sentences or their meanings (such as is defended by Kripke) is unable to accommodate the validity of this inference, assuming (*T*), without *S* as an additional premise. Such theories miss the important distinctions illustrated by *S*.

truth.[31] More surprisingly, *S*, although analytic, expresses an *a posteriori* truth. For consider a typical context in which the demonstratum is a particular drunken sailor. How does one come to know the following *de re* fact about him: that he—that very individual (if he exists at all)—is a sailor? In any number of ways. One might observe his lifestyle, follow him around, hack his email. Not, however, by *a priori* reflection on the issue.[32]

[31] Again, contrary to Lepore and Ludwig (*ibid*., pp. 213, 222–226). In any context in which the demonstratum is a drunken sailor, the fact or state of affairs described by *S* could have been otherwise. (Philosophers indoctrinated in the Quinean tradition may have a tendency to misconstrue 'necessary' as a term for analyticity—a semantic notion—rather than for the peculiarly metaphysical notion of a fact or state of affairs that could not have been otherwise.)

[32] Kaplan mentions similarly analytic though typically contingent sentences of the form ⌜*dthat*[α] = α⌝—he specifically mentions 'He is the male at whom I am now pointing' (see note 14 above)—claiming that all such sentences are *a priori* (*ibid*., pp. 518, 538–539). (Braun, *op. cit*., pp. 211–212, 215–216, considers an example exactly like *S*, correctly deeming it logically valid. Braun does not discuss its epistemological status.) Kaplan offers as an explanation of the existence of such contingent yet (allegedly) *a priori* truths that alethic modal attributes (metaphysical necessity, possibility, contingency, etc.) are attributes of propositions whereas apriority and aposteriority are attributes of proposition-characters (i.e., of characters that, given a context of use, yield a proposition) or of sentences, but not of propositions. I believe this confuses epistemological matters (apriority) with properly logico-semantic matters (analyticity), and thus misses one of the important philosophical lessons of demonstratives. Though the sentence '*dthat* [the only member of the UCSB Philosophy Department born in Los Angeles] is the only member of the UCSB Philosophy Department born in Los Angeles' is analytic-in-Kaplish—and hence, known to be true solely on the basis of pure Kaplish semantics—there is no learning the contingent fact described thereby (to wit, that I am the only UCSB philosopher born in Los Angeles) except through epistemic appeal to experience.

The same considerations apply against Kripke's contention in *Naming and Necessity* (pp. 54–56, 63) that 'The Standard Meter is exactly one meter long at t_0' is contingent *a priori*. See note 16 above. Such sentences should be deemed analytic even though the facts described are neither necessary nor (*pace* Kaplan and Kripke) *a priori*. Although the existence of analytic truths that are both contingent and *a posteriori* is a straightforward consequence of direct-reference theory—*S* is as good an example as any—the aforementioned confusion between epistemological and properly logico-semantic matters has obscured the fact. *Cf.* my "How to Measure the Standard Metre," *Proceedings of the Aristotelian Society*, 88 (1987/1988), pp. 193–217; "Naming and Necessity," in a festschrift for Michael Devitt, edited by Andrea Bianchi (forthcoming); and especially "Analyticity and Apriority," in J. Tomberlin, ed., *Philosophical Perspectives, 7: Language and Logic* (Atascadero, CA.: Ridgeview, 1993), pp. 125–133.