RESEARCH

Is Reference Essential to Meaning?

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Most linguists and philosophers will tell you that whatever meaning is, it determines the reference of names, the satisfaction conditions of nouns and verbs, the truth conditions of sentences; in linguist speak, meaning determines semantic value. So a change in semantic value implies a change in meaning. So the semantic value a meaning determines is essential to that meaning: holding contributions from context constant, if two words have different semantic values they cannot mean the same thing. If this is correct, then in a fairly straightforward sense reference is essential to meaning. In this paper I argue that reference is not essential to meaning by giving an example in which groups in different circumstances use a phrase with the same meaning but a different reference.

1. Philosophers and linguists tend to conceptualize meaning so that a word's meaning has non-trivial essential properties. Many will tell you that a word couldn't mean what 'rutabaga' means unless it was a term for some sort of vegetable, and that a word can't mean what 'and' means if its meaning doesn't license a version of 'and'-elimination. Why?

I suspect it is because we reason so: Whatever meaning is, meaning determines the reference of names, the satisfaction conditions of nouns and verbs, the truth conditions of sentences; in linguist speak, meaning determines semantic value. So a change in semantic value implies a change in meaning. So the semantic value a meaning determines is essential to that meaning: holding contributions from context constant, if two words have different semantic values they cannot mean the same thing.

In arguing against the usefulness of the notion of analyticity, the Quine of 'Two Dogmas of Empiricism' was arguing against semantic essentialism. Quine thought that talk about a word's meaning was talk grounded in the word's role in inquiry, reasoning, and use broadly conceived. That role is constantly evolving, and in the course of its evolution no inference or pattern of application is sacrosanct: no statement—no **statement**, not simply no *sentence*—is immune from revision. Analyticity requires 'meaning connections' which Quine thought didn't exist.

Does this mean that Quine thought that not even the semantic value a meaning determines is essential to it? I'm inclined to understand him in this way. 'Bachelor' at the moment refers to all and only those who are unmarried and male. But one can certainly imagine people coming to think that unmarried women are just as much bachelors as unmarried men, applying 'bachelor' in an even handed, gender neutral way. Since they would not treat this as a change of subject, this looks to suggest both that 'bachelors are male' is not analytic—its rejection is not a change of meaning—and that therefore (in the example at hand) a word with the meaning of 'bachelor' can have a different reference from that which the meaning of 'bachelor' currently determines.

Myself, I think that Quine was on to something when he said that there are no analyticities and that no *statement* is beyond rational revision. But, as Grice and Strawson observed, this seems to lead to the distressing conclusion that talk about synonymy has no point, and so neither does talk about meaning. So: Can we agree with Quine about analyticity, thereby adopting a pretty anti-essentialist picture of meaning, and still

sensibly theorize about it? In particular, can we—should we—adopt a view of meaning on which things like reference and semantic value are not essential to it?[1]

2. If meaning is not that which (modulo input from a context) determines such things as the reference of nouns and verbs, what is it? Consider how Quine might respond. Quine did not think that talk about meaning was senseless. He thought such talk tracked speakers' dispositions to verbal behavior, so that what content there was in speaking of a phrase's meaning is determined by such dispositions.

   I'm sympathetic with a lot of what Quine says. But, you will be relieved to hear, I think we should just ignore his behaviorism. Our dispositions to verbal behavior are grounded in mental representations we form as a result of our interactions with other speakers. Talk of meaning, I think, is talk that tracks the creation, development, and modification of these sorts of representations, the determinants of our dispositions to verbal behavior. This idea is sorta-Quinean—it is, at least, perfectly consistent with the primary conclusions of 'Two Dogmas.' Going forward, I'll assume that this is indeed what talk of meaning tracks.[2]

   What sorts of representations do I have in mind when I speak of representations which determine inclinations to verbal behavior? Here are some schematic examples.

   E1. You repeatedly hear people use the construction

      C: *Agental Phrase A* be going to *Verbal Phrase V*

   recognizing its use to report

      P: [A] intends [to V].[3]

   You internalize this use of C and register going forward how often C is used to make a P-ish claim, as opposed, for example, to making a prediction. Idealizing a good deal, the likelihood that you interpret an utterance of C as making a P-ish claim is roughly proportional to the percentage of uses of C you encounter that make a P-ish claim.

   E2. You encounter people applying 'bird' to a variety of examples—many fly, but a few do not; many have nests in trees but some carry their eggs around; some sing, others don't, and so on. These encounters bring you to create a representation which charts what is more (and less) typical of birds, one you invoke when you have to interpret or evaluate sentences in which 'bird' is used. As in the last example, your ongoing encounters with uses of 'bird' affect the structure of your representation.

   E3. You note that there are various patterns of presuppositions, intentions, and other attitudes which accompany a particular kind of speech. You notice, for example, that when someone utters a sentence S, follows it with a sentence S', and S and S' describe events e and e', the speaker often expects you to infer that e caused e'. You file this away and make use of it in interpreting speech. Or you notice that when people use the word 'marry' they presuppose that x can marry y only if x and y are not of

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the same gender; you file that bit of information for use in interpreting future speech, again making modifications going forward which record the relative frequency of this use of the word.

The way I've cast these examples echoes what advocates of usage-based grammar, construction grammar, and cognitive grammar have claimed over the last thirty or so years. On these views, the entries in one's lexicon and the patterns one reaches for when one speaks or interprets speech are modified by one's encountering ambient speech; the upshot is that an individual's linguistic knowledge is something which is acquired and modified over the course of a lifetime.[4]

There are differences between these views and the views of mainstream generative grammar, but there are also continuities. Both usage based grammar (UBG) *et al.* and much work in the generative tradition assume that the front line of a speaker's competence in production and interpretation is manned by mental representations which are routinely and automatically mobilized to mediate (using knowledge of conversational context) between intentions to perform speech acts and utterance production, as well as to mediate between an encounter with an utterance and its interpretation. But whereas the generative tradition tends to assume that once linguistic competence is achieved these representations are more or less unchanging save for the addition of new vocabulary, UBG emphasizes the way these representations evolve, not only across generations but within the lifetime of a speaker.[5] And this is of course represented in the examples above. We should expect prototype structures to evolve, sometimes slowly, sometimes saltatively: for example, as more and more communities move to using white or green fire engines (because they are more visible in many circumstances than red ones), the prototypical fire truck will change color.[6]

For both Quine and me, talk about meaning is talk about the states of speakers which make them competent. Given the fairly standard idea that linguistic competence is in large part 'knowledge of meaning,' this is hardly a willful use of 'meaning.'[7] For both Quine and me, language and meaning are social, though, as we differ on the nature of states which constitute linguistic competence, it should be no surprise that we differ on the nature of the social network we come to inhabit as we become competent speakers. Quine takes that network to be one of overlapping dispositions to observable behavior in observable circumstances. I think it obvious that part of being a competent speaker is participating in a network of common knowledge and presuppositions about such things as how speakers in the community expect to be understood. Part of what makes you a competent user of the noun 'fire' is knowing that speakers expect you to (know that they expect you to) recognize that they use it to describe things that are hot to human touch. Your competence as a user of 'truck' is in part constituted by your use and interpretation of the word being informed by the (mutual) presupposition that all expect all to know that trucks have both wheels and engines which make the wheels go 'round.'[8] Speaking (as is my wont) crudely, your competence as a speaker of a group's language—in particular, your 'knowledge of the meanings' of the phrases the community uses—is constituted by your tracking (and your speech and interpretation being informed by) those interpretive strategies which group members mutually take to govern the use and interpretation of the group's language—in a phrase, knowledge of meaning is a matter of participating in 'interpretive common ground.' The use of the substantive 'meaning,' whether used to speak of properties of an idiolect or of a common tongue, involves a reification of the progression of mental representations which constitute speaker competence.

Evolution—biological evolution, at least—is a change which something may undergo without perishing. A species of finch does not go out of existence because selection causes all of its members to carry genes which produce a different kind of beak than the species had at its origin; *Homo Sapiens* did not cease to be, as the

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[4] A useful introduction to this way of thinking about language is Bybee (2010). Example E1 above reflects the view developed in Bybee, Perkins, and Pagliuca (1994.) The idea in example E3—that pragmatic inferences become entrenched in meaning over time—is a theme of the work of Elizabeth Traugott; see, for example, Traugott and Dasher (2002). Goldberg (2006) is an introduction to construction grammar, Langacker (2008) to cognitive grammar. Jackendoff (2002) offers a view allied in some ways to such views.

[5] Those in the generative tradition often complain that the sort of views here discussed ignore the evidence that something innate—sets of principles with parameters, say—helps shape language acquisition. But denying that acquisition is shaped by something innate needn't be part of the agenda of UBG. The idea that there are some innate constraints on grammar is certainly consistent with the idea that the representations used to interpret syntax continually evolve over the life of the speaker.
Here and in what follows I use 'UBG' as short for 'UBG and kindred views'.

[6] See American Psychological Association (2020).
One might well wonder whether on views like UBG the line between semantically conveyed and pragmatically conveyed information is drawn more or less as it currently is. I have argued that it can continue to be drawn pretty much as it has always been in Richard (Forthcoming).

[7] At least if we think of this sort of 'knowledge' as often lacking many earmarks of what philosophers call knowledge.

[8] See Richard (2019), Chapters 3 through 6 for an elaboration of this picture.

average height of its members shifted upwards in the last centuries. I say that the same sort of thing is true of meaning *cum* interpretive common ground: there can be a change *in* a word's meaning—a change in what is common ground about the word's use—without there being a change *of* the word's meaning—without, that is, the word's losing its old meaning and acquiring a new one. Examples are not hard to come by. It is part of the ICG of 'marry' in America now that people of the same sex are able to marry, though of course this is a recent event. This is not, I would say, a change in meaning in any theoretically useful sense of 'meaning.'

Quine would surely agree: that this sort of change in a word's use can occur without anything that deserves to be called the word's losing its meaning is what underlies 'Two Dogma's' skepticism about analyticity.

3. I turn to the metaphysics of meaning and whether reference is essential to it. I am going to understand talk of essence in modal terms: to say a property is essential to something is to say that of necessity, the thing has the property if it exists.[9] I'll operationalize identity of meaning in terms of questions of the form

> Q. Does phrase p, as it is used by group G at time t in possible situation w, mean what phrase p' as used by group G' at time t' in possible situation w' does?[10]

To the extent that an affirmative answer does not require that p and p' agree in reference, reference is not essential to meaning. To keep things manageable, I'll talk only about cases within, as I'll put it, a linguistic lineage—roughly speaking, a sequence of overlapping groups, the members of the groups related synchronically by the ability to communicate by 'speaking the same language,' and related diachronically by the sorts of relations that members of a temporally extended, overlapping sequence of groups have when each group's members consists of either people who were in the preceding group or ones who acquire their language from that group.[11]

There are many things one might mean by the meaning of a phrase, and several one might mean by its reference. I have adopted a notion of meaning on which (public language) meaning is what I called above interpretive common ground. What shall we say is reference?

Start with folk wisdom. What we and the words we use refer to is what we are talking about; it is what our words pick out. Theorized a little, the reference of our words are the objects, properties, and relations we pick out or talk about when we speak. Theorizing a bit more: when we speak declaratively we (do many things but almost always) say something which can be evaluated for truth; since whether what we say is true or false is a function of the how things stand with what we are talking about, the reference of our words are the objects, properties, and relations our words pick out whose configuration determines whether or not we speak truly.

The folk wisdom, even theorized this much, does not tell us what properties and relations (henceforth, properties for short) are. A standard, somewhat generic account goes like this.[12] Properties are things which (relative to a time, world-time, or circumstance of evaluation) have extensions, the extension of P being the collection of things (at that time…) which have P. Perhaps 'have extensions' here should be replaced by 'are extensions'; perhaps, as the possible world semanticist tells us, 'have extensions' is the right phrase, as

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9   A referee reminds me that Fine (1994) influentially argues that while its being necessary that x is F if x exists is a necessary condition for being essential, it is not a sufficient. He argues that while it's essential to the set {Mary Anne Evans} that it has Mary Anne Evans as a member, it is not essential to Mary Anne Evans that she be a member of the set. But of course it is necessary that if Ms. Evans exists, she is a member of her singleton.

According to Fine, the essence of something is 'what makes the thing what it is,' and so for a property to be essential to an object 'the object must have the property to be what it is.' The criterion for whether having F is part of what makes x be x is (put crudely) whether, in giving a real definition of x, we must include that x has F. Even on an intuitive understanding of 'real definition,' it's clear why Fine thinks that being in {Mary Anne Evans} is not essential to the author of *Middlemarch*: a 'real definition' of Ms. Evans would tell us such things as that she is a human and (perhaps) that she is female. But no mention of matters set theoretic will occur in such a definition.

Whatever the merits of Fine's view of essence, it does not speak against what I will try to do below, which is to convince you that reference is not essential to meaning because a meaning m and a reference r are such that while in actuality (a word with) meaning m has r as its reference, it's possible that (a word with) meaning m not have r as its reference. (I suspect that if the argument of this paper is successful, a variant could be used to show that the reference of predicates is not essential in Fine's sense to their meanings. But I won't argue for that here.).

10   Since a group might be a singleton, this sort of question arises for both idiolects and public languages. I assume we have a broadly syntactic way of identifying a phrase, so that saying that x and y are using the same phrase doesn't beg germane semantic questions.

11   This is very roughly stated, of course. Don't begrudge me a pinch of salt.

12   In what follows I concentrate of predicate meaning, in particular on the meanings of lexical common nouns, verbs, and adjectives.

properties are functions from world-times or circumstances to extensions. Perhaps properties are something like Russell's universals.

Assume for the moment that predicate (noun phrase, verb phrase, adjectival phrase) references are properties in one of the above senses. There is a divide amongst theorists about whether there is a notion of meaning which is interestingly distinct from reference. Frege, of course, thought that there is: words have reference (*Bedeutungen*) which is quite different from but determined by their meaning (*Sinne*). Russell on the other hand saw only one level of meaning: meaning (for the early Russell at least) was a matter of objects, properties *cum* universals, and propositions constructed out these and functions which mapped objects, properties, and propositions to propositions. This division between Frege and Russell makes it appropriate to say that for Russell, but not for Frege, the constituents of (the objects of) thoughts and assertions are the things we refer to (and propositional functions which bottom out in them). Many who theorize about semantics in terms of possible worlds intensions can be seen as agreeing with the spirit of Russell's picture, in so far as they take intensions as that from which we are to reconstruct both what we are talking about and what we are saying when we speak. But it is of course consistent with such views of reference to say that there is a sort of meaning besides reference, for instance a kind of meaning that one needs to cognize in order to count as a competent speaker: to take on the view that what is said is constructed from what we talk about is not to decide the question which is this paper's title.

The standard picture of reference, I have been suggesting, is one on which a predicate's reference is closely tied to its extension—it either is the extension, or it is a possible worlds intension, or an extension determining universal. But what exactly are predicates? In particular, are they types or are they tokens? Russell and Frege, who both tended to downplay language's contextual sensitivity, often wrote as if reference was a property of (disambiguated) word types. If I say 'Scott was tired when he finished *Waverly*' I use words—the same words you use if you utter the sentence—which pick out Scott, *Waverly*, the relation of finishing, and the property of being tired—saying that the first had the fourth when he bore the third to the second. The idea that reference is a property of word types is consistent with, perhaps presupposed by, the folk responsible for the folksy picture above. If I say 'The phrase "lamestream media" is quite tired,' meaning tired-in-the-sense-of-overused, what do I do? Well. I'm ascribing the property of being overused. If you utter the sentence, you do the same. If you, I, and anyone else who uses 'tired' in this sense is ascribing *the* property of being tired, isn't that reason to say that we are all using *the* word 'tired,' which refers to the property of being tired?

Trouble lurks here. Your standards for being tired are different from mine, for we have differing ways of drawing a line in the continuum of overuse to determine 'tired' 's extension. In my context it is only super-trite phrases like 'leverage our resources' which count as tired; in yours even phrases like 'just sayin'' count as such. Most theorists think that in cases like this, our ways of drawing such lines affect the extensions of our uses of 'tired.' But then on the views of properties rehearsed above—on which they are extensions, or functions from worlds and times to such, or universals which carve out extensions or intensions—there is no such thing as *the* property which we are talking about when using 'tired.' For if we were talking about the same property, our utterances would not be able to vary in truth value. A great many natural language word types—arguably most nouns, verbs, and adjectives—enjoy context sensitivity kindred to that of 'tired.' That point applies, for example, to 'Scott was tired when he finished *Waverly*', for what it is to be tired-in-the-sense-of needing-a-rest varies across contexts, as does what it is to be finished (was he finished when he completed the final draft, or only after he had proofread it, or only when it left his desk?).

Perhaps things are not all that bad. Suppose you and I both utter 'Scott was tired when he finished *Waverly*.' Even given that we have different standards for being tired and tell different stories about what it is to be finished, do we really want to *deny* that we are saying the same thing about Scott's state at *Waverly*'s completion? And if so, aren't we both talking about the same state of affairs, Scott's completion of *Waverly*? According to the folk wisdom some paragraphs ago, the reference of our words is what we talk about when we use them. And this doesn't seem to change simply because of contextual adjustments of ex- and intension. The noun 'meat' *referred* to food quite generally in early Middle English—people used 'meat' to talk about food. By the time later Middle English was the common tongue the word *referred* only to animal flesh consumed as food—one used 'meat' to talk about meat, not food in general. *This* was a change in reference in some important sense: at first people used 'meat' to talk about food, but then they stopped doing that and used it to talk about meat; food and meat are not the same thing. We are missing something, if we lump this sort of change together with the 'referential change' which occurs when we shift from my strict standards of triteness to your looser ones.

To say this is not to say that we should ignore semantic values, the extensions and intensions which are the inputs to the compositional mechanisms which determine the truth conditions of sentence uses. It

is not to say that it is *completely* inappropriate to call semantic values 'references.' Nor is it to deny that there is considerable context sensitivity—shift of extension and intension—in nouns and verbs: Presumably 'meat' in early Middle English was context sensitive in something like the way that 'food' is in contemporary English.[13] Nor is it to say that our theories can simply assign references to complex phrase types instead of token uses or tokens embedded in contexts: there is no such thing as *the* reference of 'food I bought at a Whole Paycheck grocery store.' But it *is* to say that (after disambiguation), it makes sense to speak of *the* reference of simple predicates in a language within a particular interval in which the language is spoken; likewise for speaking of *the* reference of simple predicates in different languages or epochs. There is a clear sense in which 'food' today and (presumably) 'meat' in 1179 are used to talk about the same thing, so that in some significant sense of 'reference' the words had the same reference in the two epochs.[14]

The upshot seems to be that we took a wrong turn three paragraphs back when we argued: the reference of a noun or verb is what we use it to talk about; what we use it to talk about is a property or relation; properties and relations are individuated in terms of the extensions and intensions they determine. Perhaps the wrong turn was in the second step: what we are talking about with 'tired' is not a property, but something else. Perhaps the wrong turn was in the third step: users of 'trite' are talking about the property of being trite, but properties are not so finely individuated. Frankly, the choice as to which step was false strikes me as simply a choice about how we are to use 'property.' What is of interest are the questions

> Q*: What, exactly *are* these things we are talking about when we use noun and verb phrases? Under what conditions do you and I refer to the same thing, or ascribe the same property, with our words?

Here is the answer I am inclined to give to the first question. We often report people as saying or thinking the same thing even when the extensions and intensions of the words and sentences they use assertively or use to express their thoughts are different, and so the truth conditions of those sentence uses are different. The skeptic says 'Moore doesn't even know he has hands'; the anti-skeptic says 'Does too'; we report them as disagreeing about whether Moore knows he has hands, which implies that the two say the same thing with 'Moore knows he has hands'. We often do the same sort of thing reporting uses of 'Amanda is poor' by June and Karen, even if their respective contexts assign fairly different extensions to 'poor.' In both cases it is natural and widely accepted as correct to say that uses of the relevant sentences say the same thing even though the extensions of the sentences' constituents ('know' and 'poor') vary across the contexts of utterance.

Many of us made much of this some years ago, using these facts to motivate a kind of semantic relativism, on which the proposition expressed by a sentence S, and thus the semantic value of the complement *that S*, is not something true or false absolutely, but only true to relative to something that varies with the context.[15] Different relativists gave different accounts of the nature of the proposition expressed by *S* (of, that is, the semantic value of the complement *that S*). But many of these accounts treated it as being something very much along the lines of the Kaplanian character of the sentence *S*—that is, as being something which maps a possible context c of utterance of *S* to the structured proposition that a use of *S* expresses in c (Kaplan: 1989). On this sort of account, what predicative expressions contribute to the semantic value of a complement clause are not 'full-fledged' properties (which determine extensions or intensions relative to a world and time), but something—*notions*, call them—which, given input from the context about such things

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[13] If you doubt that 'food' is today context sensitive, google 'is candy food?'. You will find amusing debates about whether it is sensible to say that gummi bears are candy but not food while Twizzlers (which contain flour) are both. See, for example, Hadachek (2018).
    Of course the context sensitivity of 'food' does not follow from the existence of such debates. But the existence of the debates does suggest that there is a broad range of ways of using 'food,' with many of those uses being generally recognized as possible though contested ways of using the term. And this suggests that so long as we want to ascribe univocality to 'food'—to say that we share a word in a stronger sense than is provided for by syntax, morphology, and phonetics—the word 'food' is context sensitive in ways reflected in these debates.

[14] Some might say that at least within public language 'food' (or ME 'meat') is not context sensitive but ambiguous or polysemous— 'food', for example, has one sense in which it excludes all candy, another in which it excludes gummi bears but not Twizzlers, another which uses some different way of counting some but not all candy as food, yet another on which all candy (and probably slurpees and other things sold in 7–11s) is food.
    This proposal involves considerable distortion of many, perhaps most standard views of ambiguity and polysemy, on which ambiguity and polysemy are marked mentally by something corresponding roughly to different 'dictionary entries.' In the case of 'food,' one thinks, one has something like a representation which roughly delineates the range of what might reasonably be counted as food, along with some facility in picking up when a use of the word is meant to narrow or broaden the range of foodstuffs.

[15] One introduction to this way of thinking is found in Richard (2004) and Richard (2008). A different account of the significance of the facts about reports of saying and cross contextual variation of extension is given in Cappelen and Lepore (2005).

as a speaker's standards for poverty or knowledge, contextual common ground, etc., provide 'full-fledged,' extension-determining properties. On a view like this, it will be correct to say, for example, that Karen and June both say that Amanda is poor; what makes this correct is that Karen and June predicate the same *notion* of Amanda.

Note that one can say this *and* say that Karen and June say different things when they utter 'Amanda is poor.' June ascribes to Amanda the notion of poverty she and Karen expresses using 'is poor.' She *also* ascribes whatever property that notion determines in June's context. So June also says that Amanda is poor-by-the-June's-standards.[16] Indeed there are cases in which we might want to insist that only Karen is right, because Amanda is only poor relative to Karen's standards of poverty, not according to June's.[17]

It is notions, I suggest, which are the most apt candidates for predicate references—at least of the references of 'atomic' predicates like 'tired', 'finish', and 'novel'.[18] This suggestion will be immediately met with an objection. Notions are creatures much like David Kaplan's characters. But Kaplan identified character with *meaning*, not (content or) reference. His surely correct idea was that while the references of your and my uses of 'I' are different, the meaning of the word as I use it is identical with its meaning as you use it. On this view, the character of a phrase, being what determines the reference of the phrase ('s use), stands to the word's reference somewhat as does sense stands to reference on Frege's view. So, the objection goes, to identify (anything) character (-like) with reference is to obliterate the distinction between meaning and reference.

In response: First off, far be it from me to deny that our uses of 'I' refer to different things while having the same meaning. But note that it is consistent with this claim, about the meaning and reference of the paradigmatically *indexical singular term* 'I', that the references of paradigmatically *non-indexical lexical predicates* are constant across speakers, even while their extensions vary across contexts: if each of us utters 'I am tired' (in the sense of needing a rest), we say the same thing about different objects. Note furthermore that humble principles like ' 'I' refers to the speaker' are ones that sit comfortably in the description of meaning as interpretive common ground—that principle is one that everyone knows (that everyone expects) that everyone presupposes. In this case we can endorse the idea that the commonality of meaning between your 'I' and mine is very much a matter of our both understanding the word as governed by something like its Kaplanian character.

Secondly, Kaplan is very much the sort of theorist, invoked at the beginning of this section, who sees little or no difference between the referents of our phrases and the contributions those phrases make to what is said.[19] In suggesting that the references of 'poor' and 'meat' are character-like notions, I am theorizing much as Kaplan did about the relation between reference and propositional constituency: since Karen and June say the same thing with 'Amanda is poor,' they must be 'talking about the same property' with 'is poor' and ascribing it to her. Thus, (one of) the proposition(s) expressed by their uses of the sentence has Amanda and the notion of poverty as constituents.[20]

There is of course a distinction between (what deserves to be called) meaning and (what deserves to be called) reference. *Demonstratives* has many virtues; suggesting that the divide between meaning and

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[16] This is a benign version of the 'speech act pluralism' which Cappelen and Lepore advocate in Cappelen and Lepore (2005), though (as I understand them) they would have no patience with the idea that there is such a thing as the relativist proposition whose constituents are Amanda and the *notion* of poverty. I wish the idea in the text had occurred to me when I wrote Richard (2004).

There are similarities and differences between the view sketched in this section and both the view of Cappelen and Lepore (2005) and the later view of Cappelen (2018); I hope to discuss the relations between these views elsewhere.

[17] That allowed, it seems most people would find this a bizarre thing to say, since it seems obvious that both June and Karen both said that Amanda is poor.

One wants an account of how it can be correct to say either that June and Karen said the same thing or that they said different things. I think the account of attitude ascription in the introduction to Richard (2012) does the job nicely, but I don't propose to pursue that here.

[18] As noted above we cannot speak in general of *the* reference of complex phrases like 'novel that I finished last year,' but only of its uses or embeddings within a context. A use of this phrase, on the story I am telling, has a notion as a reference, but only relative to a context which supplies the contextually varying reference of 'I' and 'last year'; the phrase as whole has in a context a reference cobbled together from these and the context independent reference (i.e., notions) of 'novel' and 'finish.' There is some discussion of how this might go in Richard (2004), though that discussion falls short of supplying a compositional formalism for assigning notions to complex phrases.

[19] This fact makes apt the way I pitched things in two paragraphs back, when I said that for Kaplan character determines (content and) reference.

[20] I henceforth disavow using scare quotes on 'property' when using it to talk about notions. It is *obvious* that even when June and Karen have standards which contextually fix different standards for being poor, they are *saying the same thing about/ascribing the same property* to Amanda. They just disagree about what having this property comes to.

reference is the divide between content and character does not seem to me to be one of them. Better, I think, to group 'semantic values'—those things which directly determine truth conditions—along with the rules which map use to semantic value on the side of reference broadly construed, and that which speakers must cognize in order to be competent speakers (which I identified above with interpretive common ground, or ICG) on the side of meaning. That, at any rate, is what I propose to do in discussing the question of whether change of reference requires change of meaning, to which I now return.

I argued in the last section that meanings can evolve in a population without going out of existence: there can be a change *in* meaning without their being a change *of* meaning. The same looks to be true of reference.[21] We can represent notions as functions from contexts to intensions, but what they are are *rules* for getting from a use to an extension.[22] It is a familiar idea that rules are things which, like rituals and biological species, can evolve without going out of existence—certainly legal rules, aka laws—certainly evolve. Interpretive judicial decisions may not change the law's letter (the law remains the same) but the upshot of a law—what it permits, what it rules out—is changed. Social or juridical changes in the understanding of such things as the nature of negligence may change a law's upshot without changing the law itself.[23]

Both the meaning *cum* ICG of a predicative term and the notion it picks out are things which may evolve over time. Such evolutions often appear to occur in tandem. It looks, for example, like both the common ground surrounding 'marry' in America and the notion it picks out have changed in the last quarter century, arguably in ways which have marked changes *in* the meaning and the notion but not changes there *of*. Changes in either meaning expressed or notion picked out may contribute to changes in the other; changes in meaning *cum* ICG need not produce or be accompanied by changes in reference. We need, I think, no argument for these claims. But when there is a change of predicate reference—when it is no longer the case that we are using the word to talk about what we were previously using it to talk about—does that require that there is a change of meaning as well? This is what the question Q posed at the beginning of this section comes to.

I recognize that even if you are sympathetic to the story of meaning and reference I have been sketching, you may feel that this question is not one we are in a position to answer. After all, I have given you no account of what has to happen in order for there to be a change of, as opposed to in, a word's meaning.[24] If you feel that the observation, that there was a shift in what 'meat' was used to talk about in the late Middle Ages, does not give us much of a handle on what's necessary or sufficient for change of reference *cum* notion in a term—well, that's how you *should* feel. This acknowledged, I think we can make a little progress here, for I think it's possible to show—at least modulo some reasonable and fairly common assumptions about reference—that a word's reference is *not* essential to its meaning.

4. The use of 'marry,' broadly construed, shifted between 1919 and 2019, though on some ways of thinking about matters, the shift wasn't all *that* momentous. For instance, in 1919 it was common knowledge that speakers accepted all of the following claims and expected others to accept them too:

> (M) Marriage is a contract between a man and a woman; one can't marry more than one person at a time; it is permissible for married people to have sex; it is widely thought to be wrong to have sex with a married person to whom one is not married; married people generally live together and share their property; married people mostly sleep in the same room; people rarely marry before the age of sixteen; it is widely thought that people who have children should be married; ….

Except for the first conjunct, it is still common knowledge that speakers who use 'marry' presuppose all of (M) and expect others to know that they do. It's hard to count noses when counting presuppositions, but I suspect the number of presuppositions about (and bits of common ground concerning) marriage dropped or taken up by English speakers between 1919 and 2019 just isn't that large. If so, there's good reason to think that while there was a change *in* the meaning of 'marriage' over that century, there was not a change *of* the term's meaning.

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[21] Thanks to a referee for pestering me to acknowledge this.
[22] Or better, rules of thumb which can be (fairly) reliably used to get from a context of speech and a take on the intentions of the speaker and her expectations about the audience to a (range of) reasonable candidate(s) for the ex-/intension of a word's use.
[23] A discussion of examples can be found in Watson (1987).
[24] There is discussion of this chapters 4 and 6 of Richard (2019), but it hardly amounts to a theory.

Note now that we talk in a way that strongly suggests that (the contributions of tense ignored) what uses of sentences in (M) say today is what they said in 1919. Everyone accepts things like

(N) In both 1919 and 2019, Canadians thought that married people mostly sleep in the same room.

We accept (N) because (a) we believe that at both times Canadians would have immediately assented to

(O) Married people mostly sleep in the same room;

but assent reliably implies belief. In so reasoning, we take it as a given that uses of (O) at the two times said the same thing—that married people mostly sleep in the same room. Furthermore (b) we take it to be the case that in 1919 and 2019 Canadians used 'married people' (and 'sleep in the same room') to talk about the same sort of people (predicate the same property). So we have reason to think that they were saying the same thing of the same sort of people when they uttered (O). And this again implies that (O) said the same thing in 1919 and 2019.

Consider now an alternative way history might have gone. Presumably there is a world W which is just like the actual word up to the end of 1929 but which then diverges from it: In W, a series of missteps by world leaders and financers makes the Depression far worse than it actually was. As a result, societies everywhere become wildly conservative, Catholicism enjoys a remarkable resurgence, and fascist regimes sprout up like Trump towers across the globe. As a result, gay people are persecuted, those who are gay spend their lifetimes in the closet, and no one ever as much as suggests or even thinks to themselves that same sex marriage is possible. And this is never corrected, since terrestrial life ends in 2029 when Earth loses an argument with a very large comet.

What are the relations between what the word 'marry' means at various times in W and in the actual world, aka @? A plausible supervenience principle is that

(S) Meaning at a time supervenes on physical and social facts up to that time: If the histories—that is, the physical and social facts—of two worlds are identical up to and including time t, then at t an expression used in those worlds has the same meaning therein.[25]

(S) and the details of our story imply

(1) What 'marry' means in @ in 1919 is what it means in W at 1919.

Now W is very undescribed. But there's no reason to think that the way 'marry' was used in W in 2019 need be different in any relevant way from the way it was used there in 1919, since the presuppositions that governed the word's use would have remained more or less constant in W in that interval. What was common ground amongst English speakers about marriage is even more static in W in that interval than it is in @. So, given that talk about meaning tracks (the representations which determine) the verbal behavior which is use

(2) What 'marry' means in W in 1919 is what it means in W in 2019.

Common sense as reflected by our judgments about sentences (N) and (O) above, as well as the uncommon sense of W.V. Quine, does not take the actual shift in use from 1919 to 2019 to change what is actually said by sentences in which 'marry' is used. This in turn strongly suggests

(3) What 'marry' means in @ in 1919 is what it means in @ in 2019.

From (1) through (3) we conclude

(4) What 'marry' means in @ in 2019 is what it means in W in 2019.

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[25] Something like this principle seems to be widely assumed, though it is of course a delicate matter to explain what it means for the facts at w and w' to be identical up to, but perhaps not past, a time t. For a fairly clear example of someone who presupposes this see Wilson (1982).

But one thinks that the word 'marry' does not have the same reference in @ and W in 2019. In @ in 2019 'marry' is a word which is used to pick out a relation that can unite people of the same sex. But it is hard to see how the word could pick out such a relation in W, for nothing that occurs in W even so much as nudges the word towards picking out such a relation. If we were to fill out the details of the history of W from 1929 onwards in appropriate detail—saying, for example, that populations everywhere are indoctrinated in such a way that no amount of unconstrained public deliberation would lead them to conclude it was so much as possible for men to marry one another—it would be plausible that while the relation people are talking about with 'marry' in W is one that it is impossible for men to bear to one another. And this makes it seem that people in @ and W just aren't talking about the same thing with the word. But then it is not essential to (a word with) the meaning of 'marry' that it pick out either the relation it picks out in @ in 2019 or the relation it picks out then in W. So, I conclude, determining the reference the word 'marry' actually has is not essential to its meaning.

Let's discuss objections.

Objection. The conclusion has been smuggled into the premises. Obviously 'marry' in @ shifts reference from 1919 to 2019: it refers in 1919 to a relation which cannot hold between those of one sex; in 2019 to a relation which can. Given this, what reason do we have for thinking that the meaning of the word stays constant in @? None. To accept (3) is to have already decided that meaning does not determine reference. The argument has no probative heft.

Response. First of all, the conclusion is *not* built into the argument's premises. Suppose we are convinced of the quite reasonable principle

> (R) Reference is determined by diachronic, not merely synchronic, physical and social facts. In assigning reference to an expression as used at a time t, one needs to consider not just the physical and social facts about the expression's use at and before t; one needs to consider how the expression will come to be used in the future.

Something like this principle lies behind the reasonable view that B's contribution to the following diachronic dialogue in the actual world is correct

> A (in 1919): It is impossible for men to marry one another.
> B (in 2019): When A uttered 'it is impossible for men to marry one another' in 1919, he was talking about marriage, saying that it was impossible for men to marry one another. And what he said was false.

If we accept a principle like (R), we can say that in @ 'marry' refers—always refers—to a relation which men can bear to each other, in W it always refers to one which they can't. And if we say this, we are *not* building into the argument's premises that 'marry' shifts reference in either @ or W. What the argument shows on this understanding of it is simply this: determining the reference of 'marry' in @ is not essential to the meaning which the word has in @. Yes, the argument I've given is supposed to incline you towards the view that shifts in reference with preservation of meaning occur. But the argument's set-up does not presuppose that conclusion.[26]

Objection. The argument depends on the idea that the reference of 'marry' in @ in 2019 is not its reference in W. But why think that? The view of meaning being defended has it that a meaning, like a species, can evolve without going out of existence: there can be change *in* a word's meaning without a change *of* the word's meaning. Can't the same thing be true of reference?[27] If so, one could say that there is evolution in the reference of 'marry' in @ but not (or at least not very much) in W and no change of reference in either world.

Response. This is implausible, given that we have identified a verb's reference with the function which maps a world time wt to the verb's extension at wt. For what exactly does the objector have in mind? Is the idea that for each world w* in {@,W} this function evolves so that at a time t* it delivers a function which

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[26] A principle like (R) has been endorsed by many theorists; Jackman (1999) and (2006) is an example. Theorists about reference who follow Tyler Burge's suggestion that it is determined in one way or another via what we would conclude in (idealized) deliberation accept principles kindred to (R) which (I think but will not argue here) can be used to make the same point as made in the text. See Burge (1986) and Schroeter and Schroeter (2015).

[27] Thanks to referee for counseling me to consider this sort of objection.

maps an arbitrary wt to the set which would be the extension at wt of 'marry' as 'marry' is used at w*t*? Since 'marry' as used in @ at 2019 applies to certain (actual and counterfactual) male-male pairs while this is not true of the word as used in W at 2019, 'that into which the reference of 'marry' evolves' in @ is distinct from what it evolves into in W. But this means that the reference of the word varies across worlds while its meaning stays constant.

The objector may mean to reject the identification of reference with (something) character (-like). One way one might do this is to propose that the noun 'marriage' has as its reference an institution, a practice, or a ritual. Obviously, institutions and such can evolve by changing their 'rules' without going out of existence, so a change in what counts as a marriage does not mean that the institution of marriage ceases to be. One might say the same sort of thing about the relation picked out by 'marry': it is (something along the lines of) the relation R such that x bears R to y in wt iff x and y are, at t in w, married according to the rules of the institution of marriage at t in w.[28]

I agree that an institution labelled 'marriage' evolves in each of @ and W: there is a process in each world in which an institution (*cum* social practice which assigns rights and obligations) changes over time. And the institutions which undergo evolution in each the worlds 'look the same' at the beginning, as well as for a good temporal stretch, of these processes. But it does not follow from this that the institutions undergoing the processes are the same institutions.[29] And in fact, it seems quite implausible to think that they are. The identity of an institution *cum* social practice is in good part a matter of how the institution's rules are understood by those who are part of or otherwise governed by the institution, a matter of how the participants mutually understand what the rules allow and forbid.[30] But while the institutions labelled 'marriage' in @ and in W are related in various ways, the 'rules of marriage' are understood in quite different ways in the two worlds. Participants in @ eventually understand the institution as allowing same-sex pairings; those in W never do and do not look like they even could be persuaded to. So it looks like it is essential to the institution labelled 'marriage' in W that it excludes same sex unions; not so for the institution so-labelled in @.

Objection. Doesn't a principle like (R) undermine a principle like (S)? If we need to look at the future, in W and in @, to figure out what 'marry' *refers to*, don't we also need to look to the future, in both W and in @, to figure out what 'marry' *means*? Supposing that we do, it looks like the sorts of differences we see in diachronic use in each world are enough to undermine the claim that 'marry' starts out meaning the same thing in each.

Response. Forget meanings for the moment, and think about biological entities like species and taxa. Many of the properties which species and taxa have they have only because of the contingencies of history. Penguins could originally fly; it appears that adaptations involved in their developing the ability to hunt by diving eventually caused them to become non-volant. But surely penguins—the biological family *Spheniscidae* whose cuteness infects countless Disney films—could have come into existence and then have been subjected to contingencies different from the actual ones, so that they remained volant. If penguins had not had so much competition for food sources, adaptations for diving would not have occurred; those adaptations (biologists speculate) made flight too energy-costly and sent the penguin down an evolutionary road without flight.

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[28] As far as I can see, this does not work if the judgments used in the original argument about @ and W are accepted. One of those judgments was that B speaks truly in this trans temporal dialogue in @

> A (in 1919): It is impossible for men to marry one another.
> B (in 2019): When A uttered 'it is impossible for men to marry one another' in 1919, he was talking about marriage, saying that it was impossible for men to marry one another. And what he said was false.

But in the actual world in 1919, according to the institution of marriage, men couldn't marry one another, so, on the present suggestion and contrary to the idea that B is correct, what A said was true.

I suppose one could respond that it was always possible according to the institution of marriage in @ for men to marry. Saying that seems to undermine the claim that the institution evolved, at least on the way I have framed the objection. Since I think there are other worries about the objection, I won't pursue this.

[29] It should be clear that the fact that the institutions are in some sense indiscernible at the beginning of their beginnings does not make it plausible that they are ever the same. Football more or less evolved from rugby, and so the games looked pretty much the same at the outset, but they are not the same game.

[30] As effectively suggested in note 27, the relevant notion of understanding here probably needs to be explicated in terms of something like the understandings people could be persuaded to accept as reasonable in the course of debate and deliberation.

The upshot is that if penguins had not had so much competition for food, they (likely) would not have lost the ability to fly.[31] This counterfactual is about *penguins*, the actual biological family *Spheniscidae*. That family, and the various species it contains, are these days standardly thought of in (philosophy of) biology as historical individuals, individuals who come into existence at a particular place and time and enjoy a particular historical trajectory. Like other individuals they have—at least both science and common sense take them to have—modal properties to which counterfactuals like the above are responsible.

Return now to meanings. Suppose we think of meanings—in both idiolects and public languages—as also being historical entities. Then it is perfectly coherent to think that what reference a meaning is paired with is a matter of historical and physical contingencies. (R) does not undermines (S) on this way of thinking.

You may acknowledge the coherence of this view but still ask why we should prefer it to the standard view that thinks reference is so closely related to meaning that change of reference entails change of meaning. Here I will say just this. That we should prefer a less standard picture of meaning and reference is an upshot of taking talk about meaning to be talk which tracks those representations which determine our dispositions to verbal behavior. Talk of **the** *meaning* of the word 'lollipop' in my idiolect is talk which reifies the history of the creation and modification of the mental index of my encounters with use of the form 'lollipop.' Talk about **the** *meaning* of 'lollipop' in one or another group is talk that reifies the creation and modification of the mental indices of the group members' encounters with uses of the word, those indices indexing such things as the presuppositions users generally make and assume are recognized as made. It's simply not sensible to identify the meaning of 'lollipop' with the momentary state of my representation, or with what is common to all speakers' representations on Saturday, December 14th 2020—at least not if we want a notion of meaning on which meaning usually endures over the course of a week. Surely the sensible thing is to identify meanings with the enduring but diachronically varying stream of representations users associate with their phrases. And while that is something which, in concert with the social and physical environment, determines reference, it does so in a way that makes its relation to reference highly contingent.

Competing Interests
The author has no competing interests to declare.

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[31] For a breezy discussion see Handwerk, B. (2013).

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