

# Chalmers on Analyticity and A Priority\*

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W. V. O. Quine (1951, p. 43) famously argued that there are no analytic sentences, since any sentence can be rejected in the face of some suitable experience. H. P. Grice and Sir Peter Strawson (1956, pp. 156–8) replied that an analytic sentence should be characterized as one that cannot be rejected without changing the meaning of that sentence, then insisted that the burden was on Quine to show that there is no suitable notion of change of meaning. But it has long been appreciated that the problem Quine is raising is precisely how we might explain the notion of meaning-change.<sup>1</sup> And so Rudolf Carnap (1955), who was always Quine’s primary target, offered an operational definition of meaning-change, but that was about as successful as most other operational definitions (Chisholm, 1955). Nonetheless, Carnap’s approach has inspired a new attempt by David Chalmers to answer Quine. I argue here that Chalmers’s discussion does not significantly advance the debate.

## 1 Chalmers’s Account of Change of Meaning

Carnap’s proposal was roughly as follows. Suppose we want to characterize the meaning of the term “bachelor” for some subject  $N$ . We may do so by presenting  $N$  with descriptions of various objects and asking  $N$  whether they would apply the term “bachelor” to those objects or withhold it. The meaning that the word “bachelor” has for  $N$  is then supposed, to first approximation, to be fixed by the dispositions so uncovered, and the meaning of a predicate will change for  $N$  when their dispositions to apply and withhold it change. *Mutatis mutandis* for other types of

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<sup>1</sup> This is more explicit in Putnam’s closely related discussions, where the central issue is framed in terms of the need for conceptual constancy across wholesale changes of theory (e.g. Putnam, 1975a, pp. 153ff).

expressions. But in what language are these ‘descriptions’ to be given? What if they are misleading? What if  $N$  makes mistakes? Chalmers proposes, in §5.5 of *Constructing the World*, that we may answer such questions by making use of claims for which he argues earlier in the book.<sup>2</sup>

In Chapter 4 of *Constructing the World*, Chalmers argues for a thesis he calls ‘A Priori Scrutability’.<sup>3</sup> Let  $PQTI$  be the infinite conjunction of all the Physical, Qualitative, and Indexical truths about our world, plus a ‘That’s All’ statement to the effect that nothing relevant has been left out. Then A Priori Scrutability states that, for any truth  $S$ , the conditional  $PQTI \rightarrow S$  is knowable a priori by a sufficiently idealized reasoner. The thesis of Generalized A Priori Scrutability makes a similar claim about all epistemically possible worlds: All the truths about any such world are knowable a priori on the basis of the  $PQTI$ -like truths about that world (Chalmers, 2012, §4.5). We may thus take ‘possible cases’ to be epistemically possible worlds and descriptions of them to be given in the terms permitted by  $PQTI$ . Misleading (because partial) descriptions are then impossible. Mistakes are excluded by idealizing the subject.

Now let  $S$  be some sentence. Then we may take the meaning of  $S$  for  $N$  to be a function epistemically possible worlds, given in terms of their  $PQTI$ -like descriptions, to truth-values: the truth-value that a suitably idealized version of  $N$  would assign to  $S$  in a world so characterized. This is what Chalmers calls the ‘primary intension’ (or epistemic intension) of the sentence. *Mutatis mutandis* for other sorts of expressions. The meaning of an expression is thus again determined by (idealized) dispositions to apply or withhold it, and meaning changes when those dispositions do:

Conceptual change... will occur precisely when an expression’s primary intension changes across time. This will happen precisely when the subject’s dispositions to judge the expression’s extension in a possible case (given ideal reasoning) changes [*sic*]. (Chalmers, 2012, p. 210)

An analytic sentence will then be, just as Grice and Strawson suggested,

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<sup>2</sup> The arguments I’ll be discussing here first appeared in a paper (Chalmers, 2011). I’ll focus on the later presentation since it is more substantial.

<sup>3</sup> Chalmers (2012, pp. 210–1) ultimately argues that it is enough, in this context, to appeal to the weaker thesis of Conditional Scrutability. This issue will not matter here, however, so I shall ignore it. I shall also ignore the question whether analyticity or apriority is what is at issue.

one that cannot be rejected without change of meaning, that is, without some change in the subject's dispositions to accept or reject the sentence.

Chalmers expresses some concern about the fact that this account of meaning-change depends upon Generalized A Priori Scrutability, a thesis that is bound to be controversial.<sup>4</sup> He therefore offers a different account in the same spirit that is supposed to depend *only* upon “standard Bayesian considerations about evidence and updating” (Chalmers, 2012, p. 211). We assume that for each sentence  $S$ , for all collections of possible evidence  $E$ , and for each time  $t_i$ , our subject  $N$  assigns some absolute credence to  $S$ ,  $cr_i(S)$ , and some conditional credence to  $S$  given  $E$ ,  $cr_i(S|E)$ .<sup>5</sup> We also assume a diachronic form of conditionalization:

[I]f a subject has credence  $cr_1(S|E)$  at  $t_1$ , and acquires total evidence specified by the evidence sentence  $E$  at between [*sic*]  $t_1$  and  $t_2$ , then the subject's credence  $cr_2(S)$  at  $t_2$  should be equal to  $cr_1(S|E)$ . (Chalmers, 2012, p. 212)

This assumes, of course, that the meaning of  $S$  has not changed between  $t_1$  and  $t_2$ . Thus, the correct principle is really:

If a subject is fully rational, and if the subject acquires total evidence specified by  $E$  between  $t_1$  and  $t_2$ , and if the content of sentence  $S$  does not change between  $t_1$  and  $t_2$ , then  $cr_2(S) = cr_1(S|E)$ . (Chalmers, 2012, p. 213)

Contraposing: If  $cr_2(S) \neq cr_1(S|E)$ , then  $N$  has updated rationally only if the meaning of  $S$  has changed.

To illustrate, consider the following sort of example.<sup>6</sup> Let  $S$  be the sentence “All bachelors are unmarried”, and suppose that  $N$  accepts  $S$  as true at  $t_1$ , so that  $cr_1(S) \approx 1$ . Suppose that  $N$  acquires new total evidence  $E$  at  $t_2$  and so comes to reject  $S$ , so that  $cr_2(S) \approx 0$ . Then the question Chalmers would have us ask is: What was  $N$ 's conditional credence in  $S$  given  $E$  before they acquired this new evidence? That is, what was

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<sup>4</sup> I have discussed Chalmers's arguments for this claim elsewhere (Heck, 2018).

<sup>5</sup> Somewhat non-standardsly,  $S$  here is a *sentence*, not a proposition. For the reason it must be, see the remarks at the end of section 2.

<sup>6</sup> Much of Chalmers's discussion is focused on the converse issue: whether, as Quine (1951, p. 40) famously put it, “Any statement can be held true come what may, if there are drastic enough adjustments elsewhere in the system”. It seems to me that Chalmers misunderstands the point of this claim, which issues from Quine's holism (see Topey, 2018). But, however that may be, the crucial issue about analyticity is whether “no statement is immune from revision” (Quine, 1951, p. 40), so that will be my focus here.

$cr_1(S|E)$ ? If  $cr_1(S|E) \approx 0$ , then the new credence “reflects a conditional credence that  $[N]$  already had at  $t_1$ ”, and there has been no change of meaning. If, however,  $cr_1(S|E) \approx 1$ , then the new judgement “fails to reflect the conditional credence that  $[N]$  already had at  $t_1$ ”, and there has been a change of meaning (Chalmers, 2012, p. 212). All this assumes, of course, that  $N$  has updated rationally. But, as Chalmers (2012, p. 213) emphasizes, it is not obviously relevant what an irrational subject might do.

That, then, is the promised account of change of meaning, and it is very much in the same spirit as the first one that Chalmers considers. Dispositions to accept or reject a sentence under certain circumstances are being modeled by conditional probabilities with respect to those circumstances. So there has been a change of meaning when one’s actual acceptance or rejection of a sentence, after acquiring certain evidence, does not match one’s antecedent dispositions to accept or reject it, conditionally upon that same evidence. This is the whole of the account: Change of meaning is being characterized *entirely* in terms of principles of diachronic rationality which, Chalmers (2012, p. 218) claims, have a “constitutive link” to principles of conceptual constancy.

What Chalmers is claiming is thus that Quine’s arguments against analyticity “lead[] naturally to skepticism about diachronic rational principles...” (Chalmers, 2012, p. 222). That would be a significant conclusion if Chalmers had established it.

## 2 An Objection

Although Chalmers emphasizes the importance of principles of *diachronic* rationality to his second account, his criterion for analyticity can be stated *synchronically*. A sentence is supposed to be analytic if it cannot be rejected without change of meaning. That is:<sup>7</sup>

A sentence  $S$  is analytic for  $N$  at  $t_1$  iff  $cr_1(S) \approx 1$  and there is no evidence  $E$  such that, assuming that  $N$  has acquired  $E$  at  $t_2$ ,  $cr_2(S) \approx 0$ , and the meaning of  $S$  has not changed.

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<sup>7</sup> One might think we should regard  $S$  as analytic only if it must be assigned a credence close to 1 rather than only if it cannot be assigned a credence close to 0. But nothing here hinges upon that choice, so I’ll ignore the issue. Similar remarks apply to the other account, in terms of primary intensions. (Indeed, Chalmers states everything in terms of ‘high’ and ‘low’ probabilities, so there is no serious use of probability in these arguments.)

But what is required for there not to be a change of meaning is just that  $cr_1(S|E) = cr_2(S)$ . So the criterion simplifies to:<sup>8</sup>

A sentence  $S$  is analytic for  $N$  at  $t_1$  iff  $cr_1(S) \approx 1$  and there is no evidence  $E$  such that  $cr_1(S|E) \approx 0$ .

But Quine's claim all along was that, for any given sentence, there is some possible evidence on the basis of which we might rationally reject it. It may clarify the matter slightly to put the point in terms of conditional probability, but that does not affect the substance of the issue. Indeed, Chalmers (2012, p. 215) himself seems to recognize this point, writing that the crucial question is whether "for all rational subjects and for all sentences  $S$ , there exists an evidence sentence  $E$  such that  $cr(S|E)$  is low". (Note that lack of any relativization to a time.) But, if so, then of what relevance are principles of diachronic rationality?

Similar remarks apply to Chalmers's first account in terms of primary intensions. If a speaker's dispositions are assumed constant—i.e., if we assume there has been no change of meaning—then we can just focus on what those dispositions are at some fixed time. So, on that account:<sup>9</sup>

A sentence is analytic for  $N$  at  $t_1$  iff there is no *PQTI*-like description  $E$  such that  $E \rightarrow \neg S$  is knowable a priori at  $t_1$  by  $N$  (suitably idealized).

But, if we suppose for a moment that Quine would have been willing to talk in these sorts of terms, then what he was claiming all along was just: For any given sentence, there is some possible evidence of the sort required.

Chalmers (2012, p. 215) complains that "it is not clear what the grounds are for accepting" that sort of claim. But let  $S$  again be the sentence "All bachelors are unmarried" and imagine having the following experiences. Much to one's surprise, one learns that most other people reject this sentence. Inquiring why, one learns that they take a 'bachelor'

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<sup>8</sup> Brett Topey has suggested to me that Chalmers might be committed only to the right-to-left direction of this conditional, in which case the arguments that follow do not show that Chalmers must accept that "All bachelors are unmarried" is not analytic. I doubt that such a weak principle would serve Chalmers's purposes. But what I am going to argue implies that the second conjunct of the right-hand side of the biconditional is never true, so Chalmers would be without any argument that there are any analytic truths.

<sup>9</sup> Given the completeness of the description  $E$ , it's reasonable to suppose that either  $E \rightarrow S$  or  $E \rightarrow \neg S$ . Perhaps that explains Chalmers's use of 'low' probability (probability  $\approx 0$ ) on the other account.

to be a man who is not in a relationship that is mutually agreed to be sexually exclusive, whether or not that relationship has been solemnized as a marriage. And, when one looks in various dictionaries, one finds a definition along those same lines, perhaps with some variation.<sup>10</sup> At that point, it would be entirely rational to reject the sentence  $S$  as false.<sup>11</sup>

The crucial point is that this is not just an observation about what it would be rational to do *after* one acquired such evidence, call it  $E$ . It is equally an observation about the conditional probability that it is *now* rational to assign the sentence  $S$  given  $E$ . That is,  $cr(S|E) \approx 0$  *now*. So, by Chalmers's own lights,  $S$  is not analytic.

A similar counterexample can be given to Chalmers's other account. There are epistemically possible worlds in which the facts are as just described: Most other people reject "All bachelors are unmarried", etc. Assuming Generalized A Priori Scrutability, such a world could be described in *PQTI*-like terms. And, in such a world, the sentence "All bachelors are unmarried" should be rejected as false.

I know that this counterexample seems trivial. I will respond to that worry (and others) in a moment. First, however, let me emphasize that I am not claiming that the *proposition* that all bachelors are unmarried would be false in the circumstances described, nor that this proposition should have near-zero credence relative to the mentioned evidence. It is the *sentence* "All bachelors are unmarried" that is under consideration. As it must be. What we are discussing is how to characterize the notion of a *sentence's changing its meaning*. Chalmers's suggestion is that this notion can be characterized in terms of our dispositions to accept or reject that *sentence*, or in terms of the conditional probabilities of that *sentence* given various evidence. What I am claiming is that, in the circumstances described, the *sentence* "All bachelors are unmarried" would be false—i.e., utterances of it would be false. That should be uncontroversial.

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<sup>10</sup> There is variation even in actual dictionaries. The Oxford Living Dictionary of English insists that a bachelor is a man who has *never* been married (<https://en.oxforddictionaries.com/definition/bachelor>, accessed 6 July 2019). If so, then some unmarried men are not bachelors. Philosophers sometimes include a clause to the effect that the man must be eligible for marriage (so that Catholic priests, e.g., are not bachelors). But no dictionary I have seen does so.

<sup>11</sup> This example bears some similarity to one discussed by Stalnaker (2001, p. 151) in a similar connection.

### 3 Some Replies

One might worry that the objection just given ignores a point famously made by Saul Kripke (1980): When we describe a possible world, we do so using *our* language, even if the world is stipulated to be one in which the meanings of our words have changed. So what we should say about a world in which “bachelor” is used in the way described above is that, in it, all bachelors are unmarried, even though utterances of “All bachelors are unmarried”, in that world, would not be true. Chalmers is explicit, however, that, in his account of meaning, he is concerned with what it would be true to say *in* a world that was, in various respects, different from ours, not what it is true to say *about* it from our current standpoint. This is what Chalmers calls ‘considering a world as actual’ (see e.g. Chalmers, 2002, §4).

To illustrate, Kripke famously argued that true identity-statements, such as “Hesperus is Phosphorous”, are necessarily true. Chalmers agrees but wants to give an account of meaning that allows us to explain why true identities need not be a priori. Imagine, then, that we were to discover, shockingly enough, that there isn’t a single celestial body that *actually* appears where Hesperus and Phosphorous appear. If that is how things *actually* are, then we should reject the sentence “Hesperus is Phosphorous” as false. And, even though that is not how things actually are, we can consider a possible but non-actual world in which things are that way and ask questions about that world ‘considered as actual’. For example, we can ask whether we should accept or reject the sentence “Hesperus is Phosphorous” *in* that world (considered as actual), and the answer is supposed to be that we should reject it as false. That, according to Chalmers, is why “Hesperus is Phosphorous” is not a priori (Chalmers, 2012, p. 246; see also Chalmers, 2002, pp. 151-2).<sup>12</sup>

Now imagine that one were to discover, shockingly enough, not only that

What appear where Phosphorous and Hesperus appear are distinct celestial bodies that appear *only* in the morning and evening, respectively.

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<sup>12</sup> Though Chalmers does not discuss the matter, I take it that something similar is supposed to be true of our conditional credences: Conditional upon the possibility that different bodies *actually* appear where Hesperus and Phosphorous do, we assign “Hesperus is Phosphorous” a low credence. Otherwise, it will turn out that “Hesperus is Phosphorous” is analytic, which it is supposed not to be.

but also that<sup>13</sup>

Other people use “Hesperus” to refer not to the evening star but to the morning star and use “Phosphorous” to refer not to the morning star but to the evening star.

In such a world, considered as actual, one should reject “Hesperus is sometimes visible in the evening” as false. But isn’t that the sort of sentence that was supposed to be analytic?

The obvious response is that this is a case of change of meaning: “Hesperus”, in the imagined world, means something other than what it means now. More precisely, when we vary facts of type 3, we are varying some of the facts that fix meaning, whereas when we vary facts of type 3, we are varying only facts that fix truth-value. To secure the analyticity of “Hesperus is sometimes visible in the evening”, then, we need only to prevent facts of type 3 from being altered (and similarly for other cases). But on what ground?<sup>14</sup> It will not do to say that we are not allowed to change meta-linguistic facts. When we change facts of type 3, we thereby change several meta-linguistic facts, such as that “Hesperus” and “Phosphorous” co-refer and that “Hesperus” refers to Venus (or else that “Phosphorous” does). Nor can one simply say that we are not allowed to manipulate facts of type 3 because they are among the facts that fix meaning. If we knew which facts fixed meaning, then we would already know how to tell when meaning had changed and would not need Chalmers’s account.

The more important point is that, by design, Chalmers’s account does not employ any resources that would allow this sort of distinction to be drawn. On the contrary, what Chalmers is trying to do is to finesse the question what facts fix meaning by giving an account of meaning-change that depends *only* upon “standard Bayesian considerations about evidence and updating” (Chalmers, 2012, p. 211).

All these points apply equally to the counter-example given in the last section. The obvious worry about it is that the circumstances described are ones in which I’ve discovered that I’ve been mistaken about what others speakers mean by the word “bachelor” and, as a result, have

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<sup>13</sup> For many years, I could not remember whether it was “Hesperus” or “Phosphorous” that referred, by definition, to the first celestial body visible in the evening. So, from my point of view, 3 is far more plausible than 3.

<sup>14</sup> Note that it would be disastrous to say that we cannot change facts we know, or of which we are certain, or anything of that sort. Then all such facts would be counted analytic.



changed what I mean by it. If so, then the fact that I would reject “All bachelors are unmarried” in these circumstances is irrelevant to whether that sentence is analytic for me now. But the counterexample is directed only at Chalmers’s attempt to provide a principled account of meaning-change. Since there is no change in my dispositions to accept or reject “All bachelors are unmarried”, nor any violation of diachronic conditionalization, Chalmers’s account characterizes the case described as one of meaning *constancy*; so the case *is* relevant to the question whether that sentence is analytic as Chalmers characterizes that notion. What the counterexample is intended to show is not that “All bachelors are unmarried” is not analytic but only that Chalmers’s account fails to secure its analyticity (and, relatedly, fails as an account of change of meaning).<sup>15</sup>

Facts about our dispositions to accept or reject sentences simply cannot carry all the weight here. Really, that should have been obvious all along. Grice, Strawson, Carnap, and Chalmers all mean to concede that there is some possible evidence *E* that, should we acquire it, would rationally require us to reject the *sentence* “All bachelors are unmarried”. That is where the present dialectic began. Chalmers’s suggestion, following and elaborating on Carnap, is that we are not *now* disposed to reject that sentence should we acquire *E*. But that response is not available. What was conceded was precisely that we *are* disposed, *now*, to reject “All bachelors are unmarried” should we acquire evidence *E* (assuming we are being rational). *Mutatis mutandis* for conditional probabilities.

#### 4 Analyticity and Anti-Individualism

Another response, which surely will have occurred to many readers, is that Chalmers should restrict attention to cases in which a thinker has a ‘full understanding’ of a concept. It will be easier to address that response after I explain the relationship between the examples we’ve been discussing and the ones that Tyler Burge uses to argue for anti-individualism. So let’s do that.

What is perhaps Burge’s most famous example features a character Bert who believes that it is possible to have arthritis in one’s thigh.<sup>16</sup> In fact, that is not possible, since “arthritis” just means, by definition,

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<sup>15</sup> As it happens, I’m pretty skeptical about analyticity, but that’s beside the point.

<sup>16</sup> Few of my students now get Burge’s joke. There are examples about Alfred and Bert: Whitehead and Russell.

*inflammation of the joints*. (See any decent dictionary.) But Bert does not know that. Nonetheless, Bert’s belief that he has arthritis in his thigh must be false, since his word “arthritis” must refer to the same thing that his doctor’s word does if their conversation is not to be one long and unfortunate misunderstanding (see Putnam, 1975a, esp. pp. 153ff).<sup>17</sup> Moreover, Burge (1979, pp. 77ff) argues—and this is his central claim, the one that distinguishes his view from that of Hilary Putnam (1975a)—Bert’s *concept* of arthritis is the same as his doctor’s not just extensionally but also intensionally, despite Bert’s ignorance about how “arthritis” is defined. Chalmers, by contrast, though he agrees that Bert’s belief is false, and that Bert’s word “arthritis” refers to inflammation of the joints, nonetheless insists that the *concept* that Bert associates with the word “arthritis” is different from the one that the doctor associates with that word.<sup>18</sup> In Bert’s mouth, Chalmers (2012, pp. 280–2) claims, “arthritis” expresses a ‘deferential’ concept. When we ask what the ‘primary intension’ of “arthritis” is for Bert, we need to consider worlds in which experts use it to mean *inflammation caused by rheumatoid disease*. In such worlds, Bert should reject the sentence “It is impossible to have arthritis in the thigh” as false, so that sentence is not analytic for Bert, even though it is for the doctor. The primary intension of “arthritis”, for Bert, is thus “roughly the same as the intension of ‘What others in my community call “arthritis”’” (Chalmers, 2012, p. 253).

As Burge (1979, p. 84) has emphasized, however, Bert’s ignorance about what “arthritis” means is inessential. I know—or, at least, *think* I know—that “arthritis” means *inflammation of the joints*. Nonetheless, as surprising as it would be, I can still imagine acquiring evidence that doctors actually use “arthritis” to refer to some broader class of ailments, some of which can occur in the thigh. If I were to acquire such evidence, then it would be as rational for me to reject “It is impossible to have arthritis in the thigh” as it is supposed to be for Bert to do so, and, once again, the crucial point is that this is a disposition that I have *now*: The

<sup>17</sup> The section of “The Meaning of ‘Meaning’” to which I’ve just referred, titled “Let’s Be Realistic”, does not get nearly enough attention.

<sup>18</sup> Putnam seems to vacillate on whether Bert has the same ‘concept’ as the doctor. Indeed, at times, he seems to agree with Chalmers: His claim that kind terms are ‘indexical’ (Putnam, 1975a, pp. 151ff) presages Chalmers’s view. My own view is that these parts of Putnam’s discussion are seriously confused—especially the discussion of rigidity—and that, ultimately, the right thing to say is that Putnam just isn’t terribly clear what he wants to say and is pulled in different directions: not an unusual situation when one is inaugurating a conceptual revolution. (Not to mention the fact that Putnam’s views seem always to have been in flux, almost as much as Russell’s.)

probability of that sentence, conditional upon that evidence, is close to zero for me *now*. Hence, “It is impossible to have arthritis in the thigh” is, according to Chalmers’s account, not analytic for me, even though I know what the word “arthritis” means.<sup>19</sup>

Chalmers regards this as a sort of ‘mixed case’ in which one “has mastered a concept” (in the sense that one knows its definition, say) “but still defers to the community” as the ultimate arbiter of what the correct definition is (Chalmers, 2012, p. 253). Moreover, Chalmers suggests that “bachelor” could be just such a case, at least for people who use the word in this mixed way:

... [I]f it had turned out that the community used “bachelor” for married men (say), [such a speaker’s] utterances of “bachelors are unmarried men” would have been false, and she would have deemed them false on idealized reflection. On the current framework, the corresponding [primary] intension will have a metalinguistic element. . . , [and its] referent in a scenario depends upon how people use “bachelor” in that scenario. (Chalmers, 2012, p. 253; see also p. 282)

The sort of counter-example I gave to Chalmers’s account of analyticity is just a slightly more plausible version of the one Chalmers mentions in this passage. So Chalmers actually seems prepared to concede it.

How, then, can Chalmers claim to be answering Quine? He contrasts such ‘mixed’ cases with ones in which one would not defer to the community, mentioning his own use of “and” as an example (Chalmers, 2012, p. 253). It is not obvious to me that it would ever be rational utterly to ignore how one’s conversational partners use a given term, but waive that.<sup>20</sup> Even if there are such cases, however, they would seem to be rare, and that makes analyticity as Chalmers understands it equally rare. Granted, that might mean that there is at least *some* analyticity, contrary to what Quine seems to claim (Chalmers, 2012, p. 216). But such a victory is Pyrrhic.

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<sup>19</sup> To emphasize, then: The notion of epistemic possibility relevant to Chalmers’s account of change of meaning is *not* the familiar one of consistency with what one knows. If it were, then everything one knows would count as analytic.

<sup>20</sup> One might propose that Chalmers should focus on the language of thought and our dispositions to accept and reject sentences in it. Then there will no issue of deference, since my language of thought may be supposed ‘private’. But that is just a mistake, since some Mentalese expressions will be linked to expressions of public language. And the sorts of issues to be mentioned in section 6 will still arise, as well.

Although Quine presents himself as arguing that there are no analytic truths, I doubt that he would have cared very much if it turned out that there were a handful of them.<sup>21</sup> Quine (1986, pp. 80–3) argues himself, in *Philosophy of Logic*, that the truths of classical logic cannot be denied without change of meaning, so perhaps he would have been happy enough to regard them as ‘analytic’. I doubt Quine cared much, either, about old friends like “All bachelors are unmarried”. What matters to Quine is whether there is a notion of analyticity that can do the work that Carnap wanted it to do: either (i) to guarantee that there are definitions of the sort required by the reductive project of the *Aufbau* (Carnap, 1928) or (ii) to underwrite the distinction between internal and external questions that is central to “Empiricism, Semantics, and Ontology” (Carnap, 1950). Quine (1951, pp. 36–8, 43) explicitly mentions both of these applications in “Two Dogmas” and directs his criticisms of the analytic–synthetic distinction at them.

Surely that is what ought to matter to us, too: Not whether there are any analytic truths, but whether there is a notion of analyticity that can do serious philosophical work.<sup>22</sup> Quine’s point, I take it, was that, if there are serious obstacles *even* to securing the analyticity of “All bachelors are unmarried”, then there are *really* serious obstacles to securing the sorts of analytic (or a priori) connections that Carnap (and Chalmers) need there to be between “water”, “know”, “chair”, “ought”, etc., and allegedly more fundamental sorts of concepts. It certainly is not enough for such purposes if the best that can be delivered by conceptual analysis is: Knowledge is what others in my community call ‘knowledge’.

## 5 ‘Full’ Understanding

As mentioned at the beginning of section 4, many people will have been tempted by the thought that Chalmers should respond to the sorts of counter-examples on which I’ve been relying by restricting his account to cases of ‘full understanding’. The discussion in the previous section can be recast to address this objection.

It is not entirely clear how ‘full understanding’ should be explained.

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<sup>21</sup> This was drilled into my head by George Boolos when I was a graduate student and then reinforced by my colleagues at Harvard (especially Warren Goldfarb and Charles Parsons), but really emphasized by Burt Dreben.

<sup>22</sup> If logical truths are indeed analytic, then that claim might be made to do *some* work. But the issue here, ultimately, is how much that concession would actually help Carnap and Chalmers.

One idea would be to say that someone has a full understanding of a concept if they know enough to determine its extension without deferring to anyone else. But the original counter-example is itself a case of this kind. I know—or at least *think* I know—that “bachelor” means *unmarried man*. Since (we may suppose) that is what “bachelor” means, surely I know enough to determine the extension of the term on my own. Nonetheless, there are things I could learn that would lead me to revise my views about what “bachelor” means and so to reject the sentence “All bachelors are unmarried” as false.<sup>23</sup> Requiring full understanding in this sense thus does not secure the analyticity of such sentences.

Alternatively, one might strengthen the condition on full understanding so that, not only must I be able to determine the extension without deferring to anyone else, but my own judgements about what is in the extension must be independent of what other people might say. In this case, then, I would need not only to know that “bachelor” means *unmarried man* but be prepared to stick to that opinion come what may. A variant of Burge’s arthritis example illustrates what that would involve. We can imagine that Bert, when the doctor tells him that it is not possible to have arthritis in one’s thigh, decides to play Humpty Dumpty: “When I use the word ‘arthritis’”, he says, “what *I* mean is a rheumatoid ailment of any sort”. It is at best unclear whether such a response would be rational. But we need not decide that question. If the analyticity of “All bachelors are unmarried”, for Bert, can be secured that way, then hard-headed epistemologists could secure the analyticity of “All justified true beliefs are knowledge”, for them, the same way. It’s at best unclear what interest such a notion of analyticity might have.

It seems doubtful, then, that a concept of analyticity explained in terms of full understanding can do the kind of work that Carnap and Chalmers need it to do.

## 6 Closing Remarks

Although the questions we have been discussing are in many ways technical and ‘academic’, the question whether a word has changed its meaning is sometimes of practical and even political significance. Consider, for example, the sentence “Marriage is the union of one man and one woman”. A century ago, I doubt that sentence would have

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<sup>23</sup> The fact that I *know* that “bachelor” means *unmarried man* cannot be crucial since, as said earlier, that would threaten to make everything known analytic.

seemed to most people very different from “All bachelors are unmarried”. Indeed, the original 1828 edition of *Noah Webster’s Dictionary* defines “marriage” as “the legal union of a man and woman for life”,<sup>24</sup> and that would hardly have been an unusual definition until not very long ago. The Oxford English Dictionary only updated its entry in 2013, after the legalization of same-sex marriage in England and Wales. Was it true in 1828, then, by definition of the word “marriage”, that a marriage had to be between a man and a woman? Have proponents of same-sex ‘marriage’ simply been ignoring the plain meaning that the word “marriage” has always had and been seeking to change it?<sup>25</sup>

Others have addressed philosophical arguments for this claim already (Mercier, 2007; Brake, 2012, Ch. 6).<sup>26</sup> I mention it here only to illustrate how inadequate are the terms in which Chalmers would have us discuss it. What Chalmers would have us ask is whether Noah Webster and his contemporaries would, if they knew all that has happened since, agree that marriages need not be between a man and a woman. Suppose not. Are we sure that would have been because of what the word “marriage” meant for Webster? Might it instead have been because he was hard-headed? Of course, it is an ideally rational version of Webster whose appropriate response we need to determine, and hard-headedness is not rational. But that only highlights the impossibility of deciding what an ideally rational Webster should have said without first deciding what seem to be substantive moral, political, and even religious questions. As the current edition of the Merriam-Webster dictionary puts it:<sup>27</sup>

The definition of the word *marriage*—or, more accurately, the understanding of what the institution of marriage properly consists of—continues to be highly controversial. This is not an issue to be resolved by dictionaries. Ultimately, the controversy involves cultural traditions, religious beliefs, legal rulings, and ideas about fairness and basic human rights.

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<sup>24</sup> See <http://webstersdictionary1828.com/Dictionary/marriage>, accessed 6 July 2019.

<sup>25</sup> Similar questions might be asked about the claim, defended by Alex Byrne (2020), on similar grounds, that women are ‘adult human females’.

<sup>26</sup> It is of course open to a fan of analyticity to insist in response that conceptual change can sometimes be rational, even rationally required. But I myself would not be satisfied with that response in this case, and that is not the response that the cited authors develop.

<sup>27</sup> See <https://www.merriam-webster.com/dictionary/marriage>, accessed 6 July 2019.

The crucial point is the one made parenthetically: The controversy concerns not what “marriage” means—the word “marriage” denotes the institution of marriage, period—but *what marriage is*, something on which opinions have varied across time and culture.<sup>28</sup> Whether utterances of “Marriage is the union of one man and one woman” are true thus depends upon difficult questions about culture, religion, etc., and there is no clear sense in which it is now or ever was analytic. But, as said earlier, this sentence would, not very long ago, have been no worse an example of analyticity than “All bachelors are unmarried”.

If such changes can occur in our understanding of marriage, then why not in our understanding of bachelorhood, too (see Haslanger, 2012, §VII)? Are gay men who are in relationships every bit as committed as the most solemn of marriages, but who are legally excluded from participating in that institution, rightly described as ‘bachelors’? Were they *ever* rightly so described? Surely ‘standard Bayesian considerations about evidence and updating’ are not going to decide this sort of question. If not, however, then they are not going to decide, either, whether “All unmarried men are bachelors” is, or ever was, analytic.

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<sup>28</sup> That is: It’s not the meaning of “marriage” that has changed, but the institution of marriage itself—which does not mean that it is not still the same institution.

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