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## MEANINGLESS BELIEFS AND MATES' PROBLEM

Did Martin Heidegger believe that the nothing nothings? Did George Santayana believe that ideas have an independent subsistence? A philosophy student who answers yes is marked correct by his professor. But most philosophy professors are ambivalent about whether meaningless statements can be believed.

On the one hand, the professors think that the object of belief must be a proposition or at least something that plays some of the roles associated with propositions. Propositions are the bearers of truth-values. They are the premises and conclusions of arguments. In a faithful translation, the sentence in the foreign language expresses the same proposition as the sentence in the home language. Furthermore, propositions are also used to explain behavior. The point of attributing beliefs is to make the subject's actions understandable. Meaningless objects of beliefs are ill suited to this interpretive task. Since they cannot be true (or false), meaningless sentences do not entail anything and cannot be entailed by anything. Hence, meaningless beliefs never figure in valid or invalid reasoning.

On the other hand, it seems high-handed to conclude that meaningless beliefs are *impossible*. This is reminiscent of the excessive thesis that it is impossible to believe necessary falsehoods (Sorensen 1996). True, almost all the promising models of belief

preclude belief in the impossible. But so much the worse for them. Better to stick with appearances and find some way to model belief in the impossible. Ditto for belief in meaningless utterances.

I shall argue that the mere possibility of meaningless beliefs is enough for an illuminating generalization of Mates' problem. The basic idea is that meaningless words resemble synonyms in that there is no difference in meaning between the words. I shall argue that it is this absence of meaning differences rather than a shared meaning that animates Mates' problem. With the broader conception of the problem comes a broader, more linguistic conception of the object of belief.

### 1. Mates' problem

Rudolf Carnap (1947, 56-64) proposed that statements S and S' are synonymous and express the same belief if, and only if they are intensionally isomorphic. More generally, the principle of exchangeability says that a statement retains its truth-value if synonyms are substituted for synonyms. Substitutions can alter truth-values only if they alter meaning. If 'lawyer' and 'attorney' are synonyms, then 'Lawyers are wealthy' must have the same truth-value as 'Attorneys are wealthy'. Benson Mates (1950, 125) found it plausible that exchangeability works for simple belief attributions:

(A1) Whoever believes lawyers are wealthy believes that lawyers are wealthy.

(A2) Whoever believes lawyers are wealthy believes that attorneys are wealthy.

However, iterating the propositional attitudes generates an apparent counterexample to exchangeability:

(A1.1) Nobody doubts that whoever believes lawyers are wealthy believes that lawyers are wealthy.

(A2.1) Nobody doubts that whoever believes lawyers are wealthy believes that attorneys are wealthy.

Consider Bates, an individual who doubts (A2). Bates believes that there is an individual who believes that lawyers are wealthy and yet who fails to believe that attorneys are wealthy. Perhaps Bates believes this individual does not realize that 'lawyer' and 'attorney' are synonyms. Bates' belief, even if false and confused, is enough to make (A2.1) false even though (A1.1) is true.

Bates is a basis for a counterexample to exchangeability even if he is a figment of Mates' imagination. If Mates believes that Bates exist (or just someone like Bates), then Mates himself falsifies (A2.11):

(A1.11) Nobody doubts that nobody doubts that whoever believes lawyers are wealthy believes that lawyers are wealthy.

(A2.11) Nobody doubts that nobody doubts that whoever believes lawyers are wealthy believes that attorneys are wealthy.

This higher order counterexample to exchangeability cannot be avoided by stipulating that all the subjects are linguistically perfect.

Mates' counterexamples work subjectively by virtue of the belief that another person might miss a synonymy. Therefore, it is wrong-headed to stipulate that all the subjects are linguistically perfect. There might not even be other subjects. An individual who was (unwittingly) the only person in the universe could follow the line of reasoning specified by Mates. One should instead make a stipulation about what the subjects believe about the other subjects. In particular, one can ensure the truth of (A2.1) by stipulating that each subject believes that the others are linguistically perfect. This succeeds regardless of whether the belief is correct.

But, as illustrated by the pair (A1.11) and (A2.11), another iteration of belief creates a higher level counterexample to the principle that synonyms can always be exchanged without affecting truth-value. The only way to shut down the counterexamples is to make it common knowledge that everybody is linguistically perfect. (Bear in mind that 'common knowledge' does not entail knowledge. It used to be common knowledge that the earth is flat.)

## **2. The extension to meaningless words**

Spelling 'lawyer' and 'attorney' backward yield the meaningless pair 'reywal' and 'yenrotta'. Substituting these degenerate synonyms yields:

(B1) Whoever believes reywals are wealthy believes that reywals are wealthy.

(B2) Whoever believes reywals are wealthy believes that yenrottas are wealthy.

Those who believe that attributions of meaningless beliefs are always false (Stroll 1953) will count both of these statements as vacuously true. Those who think there are meaningless beliefs (Mellor 1954) will also accept the sentences because there is no difference in the meaning of (B1) and (B2).

Iterating the propositional attitudes for 'reywal' and 'yenrotta' generates an apparent counterexample to exchangeability:

(B1.1) Nobody doubts that whoever believes reywals are wealthy believes that reywals are wealthy.

(B2.1) Nobody doubts that whoever believes reywals are wealthy believes that yenrottas are wealthy.

Cates doubts (B2). He believes that there is someone who believes reywals are wealthy and yet fails to believe that yenrottas are wealthy. Cates' belief, even if false and confused, is enough to refute (B2.1).

Like Bates, Cates does his damage even if he is a figment of Mates' imagination. The mere belief that someone believes reywals are wealthy without believing yenrottas are wealthy is enough to show that the truth value of a sentence can be changed by exchanging one meaningless word for another meaningless word. There need not be any actual meaningless beliefs to show that there are meaningless objects of belief.

Richard Willis (1956) argues that it is meaningless (rather than false) to attribute a meaningless belief to someone. If so, the (B) statements are uniformly meaningless and there is no asymmetry in

truth-value when 'yenrotta' is substituted for 'reywal'. The meaningless variation of Mates' problem would fail at the first step.

But Willis' position is self-defeating. Since Willis believes

(M) No one can believe that reywals are wealthy,

he must believe that (M) is itself meaningful. But if (M) is meaningful, then so is its negation:

(N) Someone can believe that reywals are wealthy.

And if (N) is meaningful, then it must be meaningful to attribute a meaningless belief.

Since (N) is a meaningful attribution of a meaningless belief, there are meaningless objects of belief. My argument:

1. I believe that someone can believe that reywals are wealthy.
2. If I believe that someone believes something, then I attribute an object of belief to him.
3. If I believe that someone believes that reywals are wealthy, then if I attribute any object of belief to him, it is that reywals are wealthy.
4. Any object of belief can be believed.
5. Someone can believe that reywals are wealthy.

It is not generally valid to infer that something is possible from the fact that it might, for all I know, be the case. However, the transition from epistemic possibility to alethic possibility is valid for the case at

hand. "For all I know" is a propositional attitude. If someone can, for all I know, believe S, then I thereby show (by my attitude toward S) that S is the kind of thing that can be believed. All epistemic possibilities are objects of belief.

There is an infectious character to attributions of meaningless thoughts. I can think you are thinking about an apple only if I can think about an apple. Ditto for thoughts about unicorns and round squares . . . and reyvals. That is, I can think you are thinking about a reyval only if I can think of a reyval. Therefore, I can think you have a meaningless thought only if I think I have the same meaningless thought.

### 3. Sellars' charge of equivocation

Wilfred Sellars (1955) suggests that Mates' problem involves a confusion between Bates' usage and Mates' usage: although `lawyer' and `attorney' are synonyms for Mates, they are not synonyms for Bates. Bates' refusal to use the words interchangeably guarantees that they are not synonyms in Bates' idiolect.

If Bates gives different definitions of `lawyer' and `attorney', then it is indeed tempting to say that he means something different by `lawyer' and `attorney'. Tyler Burge (1978, 121) makes a strong but intricate case that this temptation should be resisted. I shall focus on Burge's second, quicker reply.

The synonymy of two terms can be missed commissively or omissively. If Bates falsely believes that `lawyer' and `attorney' are non-synonymous, then he is apt to reject (A2) as false. If Bates merely suspends judgment about whether `lawyer' and `attorney' are

synonymous, then he will merely fail to accept (A2). Reading 'doubt' as 'absence of belief' ensures that (A2.1) comes out false even in the omissive scenario.

The error about synonymy could be based on considerations independent of the particular pair of words (Rieber 1992a). Bates might be an analytic philosopher who has acquired the theoretical belief that synonyms are too rare to be reliably identified. Bates fails to find any divergence in meaning between 'lawyer' and 'attorney' and yet cautiously refuses to draw a conclusion. He worries that there might be a hidden difference in meaning. We may further suppose that the cautious Bates always speaks perfectly. He is meta-linguistically deficient without being linguistically deficient. (This distinction also applies to commissive errors about synonymy but that involves the attribution of a superfluously stronger meta-linguistic mistake.)

What holds for Bates, holds for Cates. A person who knows all the words of English need not know that he knows all the words of English. When confronted with 'yenrotta' and 'reywal', Cates may suspend judgment as to whether they are meaningful words.

As before, the counterexample operates on the belief that another person might make a commissive or omissive error about the meaningfulness of 'reywal' and 'yenrotta'. There need not be any actual meaningless beliefs. The uncertainty about whether others are in error is enough to prompt doubt about (B2), thereby falsifying (B2.1).

In the omissive scenario, Bates lacks any special beliefs about 'lawyer' and 'attorney'. He just has a general caution about inferring that words are synonymous. Bates is a fully conforming member of

the linguistic community. Therefore, there is no equivocation between 'lawyer-as-Bates-uses-it' and 'lawyer-as-Mates-uses-it'. The same point holds for 'reywal-as-Cates-uses-it' and 'reywal-as-Mates-uses-it'.

#### 4. Putnam's appeal to logical form

Hilary Putnam (1954) conceded that (A1.1) and (A1.2) have different truth-values but denied they have the same content. Sameness of content depends on logical structure. The words in 'John loves Mary' and 'Mary loves John' have the same content but not the sentences as a whole. Does 'All Greeks are Greeks' have the same structure as 'All Greeks are Hellenes'? In a logical sense they do not because only the first has repeating constituents. Repetition ensures that all instances of 'All Fs are Fs' are logical truths. According to Putnam, synonyms are exchangeable as long as the substitution also preserves logical form.

Scott Soames (1987a, 112-117) has shown that Putnam's proposal fails to exclude a variety of other problematic substitutions. For instance, 'Lois Lane believes Superman is stronger than Clark Kent' appears to have a different truth value than 'Lois Lane believes Clark Kent is stronger than Superman'. William Taschek (1995) fortifies Putnam's proposal with a stronger conception of logical structure. But the meaningless version of Mates' problem cannot be handled by adopting an enriched notion of logical structure. Since meaningless sentences lack content, their problem cannot be that the substitutions are altering the content. Granted, 'All reyvals are

rewards' has the appearance of a logical form and the appearance of content. But appearances of content do not suffice for content.

### 5. Church's appeal to translation

Alonzo Church (1954) denies any asymmetry between (A1.1) and (A1.2). He appeals to Langford's translation test:

There is a simple test which helps us to determine whether a word is being used or talked about, namely, that of translation. A word that is being used is to be translated, while a word that is being talked about must not be (subject matter must remain unchanged under translation). (Langford 1937, 53-4)

Consider a language that has just one word for attorneys and lawyers. A translation of (A2) into this language would yield a sentence equivalent to (A1). Therefore, (A2) and (A1) express the same proposition and must have the same truth-value. Ditto for any higher order sentences such (A1.1) and (A1.2).

The principle of exchangeability validates the inference from (A1) to (A2), but it does not validate the inference from (A1') to (A2'):

(A1') Whoever satisfies in English the sentential matrix 'x believes that lawyers are wealthy' satisfies in English the sentential matrix 'x believes that lawyers are wealthy'.

(A2') Whoever satisfies in English the sentential matrix 'x believes that lawyers are wealthy' satisfies in English the sentential matrix 'x believes that attorneys are wealthy'.

The principle of exchangeability no more licenses the substitution of the second occurrence of 'lawyer' by 'attorney' in (A1') than it licenses that substitution in the following sentence: 'Lawyer' is six letters long. In both cases, quotation marks block the applicability of the principle of exchangeability.

Church's solution fails to generalize to the meaningless variation of Mates' problem. Meaningless sentences lack translations. English is the set of sentences that can be constructed from English vocabulary via English syntax. 'Reywals are wealthy' contains the meaningful phrase 'are wealthy'. However, it is not a sentence of English and so not a partially meaningful sentence of English.

This article can be translated into another language even though it contains the untranslatable 'Reywals are wealthy'. Translators preserve the point made with English nonsense by constructing analogous nonsense. 'Avocat' and 'procureur' are French words for lawyers. Hence, a translator could render 'Reywals are wealthy' as 'Les tacovas sont riches'. His point would be to supply an analogue of my meaningless sentence, not to preserve the meaning of the sentence. For sake of analogy, the translator preserves the meanings of whatever meaningful words and phrases constitute the meaningless sentences. But this does not mean that the meaningless sentence has a partial meaning. 'Reywals are wealthy' is a near miss of a meaningful statement but is not at all meaningful. A near miss of

being meaningful is like a near miss of being bumped, boiled, or baptized. Ingredients of a meaningful sentences are present in 'Reywals are wealthy'. But the sentence must be completely meaningful to be meaningful at all. All the words of a meaningless sentence can be meaningful as in Noam Chomsky's famous example of a syntactically meaningless sentence "Green ideas sleep furiously". Chomsky's sentence is not partially meaningful; it is wholly meaningless. "Translations" of Chomsky's sentence scrupulously render the sentence so that it constitutes a parallel violation of the grammar of the foreign language. The expertly (mis)constructed sentence is like a reconstruction of a faulty gun. The point is to make the two sentences misfire in the same way.

According to Church, Mates is confusing the true (A2) with the false (A2').

(A2) Whoever believes lawyers are wealthy believes that attorneys are wealthy.

(A2') Whoever satisfies in English the sentential matrix 'x believes that lawyers are wealthy' satisfies in English the sentential matrix 'x believes that attorneys are wealthy'.

Instead of reading (A2) as a statement about beliefs in propositions, Mates is reading (A2) as a statement about the words 'lawyer' and 'attorney'. That is, he is misconstruing (A2) as the claim that any English speaker who applies 'lawyer' will also apply 'attorney'.

Tyler Burge (1978) has objected to the attribution of a use-mention confusion in the meaningful version of Mates' problem. He

contends that the meta-linguistic belief (A2') would lead Bates to infer the object level belief (A2) with the help of only trivial background assumptions. Takashi Yagisawa (1984, 414) has objected that the reasoning behind this inference is not so trivial. Indeed, Yagisawa argues that one of the assumptions begs the question against Church.

The meaningless variation of the Mates' problem side-steps Yagisawa's challenge. For meaningless sentences do not give the use-mention distinction the kind of foothold Church requires. To see why, consider the difficulty lexically meaningless sentences pose for tests of quotation. Here is Steven Rieber's "meaning test":

An expression E occurs quotationally in a sentence if and only if E cannot be replaced by any possible expression which does not contain E (while replacing no other expression in the statement) without changing the content of the sentence. (Rieber 1997, 276)

Rieber uses this test to argue (contrary to Church) that (A2) is genuinely quotational. So Rieber is hoping to solve Mates' problem by attributing a different kind of use-mention confusion. But like Church, Rieber's solution cannot generalize to the (B) statements. Meaningless statements lack content. Therefore his meaning test implies that there is no difference in meaning between 'Reywals are wealthy' and 'Yenrottas are wealthy'. Consequently, the meaning test implies that there is no quotation in 'Reywals are wealthy'.

Rieber also has a translatability test which he considers a corollary of the meaning test:

An expression E occurs quotationally in a sentence if and only if, in every possible translation of the sentence, E cannot be translated. (Rieber 1992b, 88)

Since 'Reywals are wealthy' is untranslatable, it vacuously satisfies this test. Thus, Rieber's two tests give conflicting results.

Rieber cannot escape the conflict by denying that meaningless sentences are genuine sentences. Although some meaningless sentences are ad hoc, others are members of formal languages. These languages have played an historic role in proof theory. David Hilbert promoted syntactically precise but meaningless languages as important tools in the program of making mathematical proofs rigorous. By disinterpreting a proof, one avoids the fallacies invited by our intuitive grasp of the non-logical words. One can focus on whether the proof has the syntactic patterns correlated with formal validity.

The use-mention distinction is not exhaustive. When you say "Cheese!" as I snap your picture, you are neither mentioning nor using the word (Moore 1986, 173). One can mention 'reywal' in the sense that one can comment on its syntactic features, note its meaninglessness, expound the myths about 'reywal', and so forth. One can also attempt to use 'reywal' or pretend to use it. But since 'reywal' is meaningless, it only has pseudo-use. Consequently, Church cannot say that someone is confusing the proposition in which 'reywal' is being used with the proposition in which it is being

mentioned. For 'Reywals are wealthy' is not (successfully) used to express a proposition in 'Reywals are wealthy'.

### 6. Quine's trivial falsehoods

Well, someone might say that 'Reywals are wealthy' expresses a special kind of proposition. In Word and Object, Quine considers category mistakes such as "This stone is thinking about Vienna" and "Quadruplicity drinks procrastination". Many philosophers wish to count these statements as meaningless rather than trivially false.

But since the philosophers who would build such categorial fences are not generally resolved to banish from language all falsehoods of mathematics and like absurdities, I fail to see much benefit in the partial exclusions that they do undertake; for the forms concerned would remain still quite under control if admitted rather, like self-contradictions, as false (and false by meaning, if one likes). Tolerance of the don't-cares is a major source of simplicity of theory; and in the present instance it counts double, sparing us as it does both the settling of categories and the respecting of them. (Quine 1960, 229)

If all meaningless statements are self-contradictions, then we can save the doctrine that propositions are the only objects of beliefs. If inclined to save the principle of exchangeability, we could emulate Church and attribute beliefs to subjects over their sincere protests. We could make the attributions more plausible by borrowing the

pragmatic apparatus developed by doxastic paternalists like Nathan Salmon (1986) and Scott Soames (1987b).

However, Quine does care about the distinctions between closed sentences and open sentences, statements and terms, sentences and sentence schemas, well-formed formulas and ill formed formulas. In particular, Quine's Methods of Logic is peppered with stern warnings to the effect that the following items cannot have a truth-value:  $x$  is a man, the president, All  $F$ s are  $G$ s,  $p \ \&\& \ q \ \vee$ . But if Heidegger can believe that the nothing nothings, there is no limit on what logical monsters can win his assent -- or at least no limit on what monsters we can attribute to him! Quine needs the distinction between meaningless sentences and meaningful sentences for logic even if he does need it for categorial metaphysics. More generally, logic needs the distinction between the meaningful and meaningless. And we all need logic.

### **7. A problem for Goodman's dissolution**

The ruthless resolution to the problems of synonymy is to deny that there are any synonyms. This would render Carnap's principle that all synonyms are exchangeable vacuously true.

Nelson Goodman (1949) makes his case against synonymy by distinguishing the extension of a term from its "secondary extension". The secondary extension of  $F$  arises from combining  $F$  with other predicates. For instance, 'centaur-picture' and 'unicorn-picture' have different extensions even though 'centaur' and 'unicorn' are co-extensional. There will always be a difference in the secondary extension of distinct predicates  $F$  and  $G$ . For the phrase 'an  $F$  that is

not G' is an F-description but not a G-description. Hence, the inscriptions that constitute the extension of 'F-description' will differ from the inscriptions forming the extension of 'G-description'. Accordingly, Goodman concludes that there are no synonyms.

Since meaningless words are not predicates, the meaningless variation of Mates' problem side-steps Goodman's skepticism about synonymy.

Goodman could reinstate his solution by denying that there are any meaningless words. The strategy would be to treat 'reywal' and 'yenrotta' like 'centaur' and 'unicorn'. Since 'reywal' and 'yenrotta' lack the currency of 'centaur' and 'unicorn', there are no reywal-pictures and yenrotta-pictures. Nor need there be any reywal-beliefs or yenrotta-beliefs. The only difference will be in 'higher order belief about reywals' and 'higher order belief about yenrottas'. All words (even apparently meaningless strings such as \*\$%\*@%&)) would have distinct secondary extensions and hence have distinct meanings.

The denial of meaningless words is even more implausible than the denial of synonyms. However, we need not rest on our bruised intuitions. We have already reviewed Quine's logical motives for admitting the existence of meaningless sentences. Goodman has the same motives and thus must concede the existence of meaningless sentences.

## **8. An historical observation**

The early proposals of Church and Putnam have been elaborated by subsequent commentators. None of these elaborations extend to

meaningless beliefs. Indeed, the only literature I have found on the topic is a three year spate of four Analysis notes initiated by Avrum Stroll's 1953 "A Problem Concerning the Analysis of Belief Sentences". This exchange takes place in the same volumes containing the early debate about Mates' counterexample. Yet, none of the discussants draw a connection between Mates' problem and meaningless belief.

Benson Mates originally targeted Rudolf Carnap's principle that intensionally isomorphic expressions are inter-changeable. He generalized this result by noting that "the validity of the argument is not affected if we replace the words `intensionally isomorphic' by the word `synonymous' throughout" (Mates 1950, 125). My point is that Mates' argument further generalizes to degenerate synonymy. As a corollary, we obtain evidence in favor of meaningless beliefs from an unexpected quarter.

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