

TEMPORAL EXTERNALISM, CONSTITUTIVE NORMS, AND THEORIES OF VAGUENESS

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Introduction

Vagueness has always been a problem for philosophers. This is true in a number of ways. One obvious way is that the vagueness inherent in much philosophical discourse has always lead to problems in the interpretation and criticism of philosophical arguments. This is a way in which the vagueness of language *causes* problems for philosophers. (We can call this “the *practical* problem of vagueness.”) However, in addition to the problems that vagueness causes, there is also the more general problem that the mere existence of vagueness causes philosophical problems of its own. (We can call this “the *theoretical* problem of vagueness.”) These problems were first presented in Aristotle’s time in a form that is typically referred to as the sorites paradox.²⁵⁴ Sorites arguments run roughly as follows.

- 1a. One grain of sand is not a heap.
- 2a. If something is not a heap, adding one grain of sand to it will not make it a heap.
- 3a. 1,000,000 grains of sand are not a heap.

While the paradox takes its name from heaps, it can be constructed for most terms in the language, as in the following example (which strikes some of us a little closer to home):

- 1b. Someone with 0 hairs on his head is bald.
- 2b. If someone is bald, adding one hair to his head won’t make him not bald.
- 3b. Someone with 100,000 hairs on his head is bald.

²⁵⁴ Or the “paradox of the heap” (*sorites* coming from Greek for “heap”). The paradox is originally attributed to the logician Eubulides of Miletus.

Or:

- 1c. Two atoms don't make up a person.
- 2c. Adding one atom to a collection of atoms that isn't a person won't make it a person.
- 3c. No collection of atoms can be a person.

Such arguments seem valid, but while their premises seem true, their conclusions seem manifestly false. Since you can't have a valid argument with true premises and a false conclusion, we seem left with three choices. Namely,

- (a) One of the premises must be false.
- (b) The argument isn't valid.
- (c) The conclusion is true.

None of these options seem especially appealing, and various philosophical responses to vagueness involve trying to minimize the conceptual cost coming from accepting one of these three.

I will discuss here neither the bullet biting attempts to simply accept the conclusions or reject the initial premises of the sorites arguments, nor attempts to argue that, appearances to the contrary, the arguments are not, in fact, valid. While such approaches have been defended,²⁵⁵ the vast majority of responses to the sorites arguments attempt to show that the second premise is, in fact, false.

The second premise seems to rely upon universal quantification, and can thus be expressed as:

- 1b. Someone with 0 hairs on his head is bald.
- 2b*. $(x)[(\text{someone with } x \text{ hairs is bald}) \rightarrow (\text{someone with } x+1 \text{ hairs is bald})]$
- 3b. Someone with 100,000 hairs on his head is bald.

However, if we claim that premise (2) is false, we seem committed to the truth of its negation, in particular,

- 4. $\sim(x)[(\text{someone with } x \text{ hairs is bald}) \rightarrow (\text{someone with } x+1 \text{ hairs is bald})]$

²⁵⁵ For a critical discussion of such approaches, see Williamson (1994) and Keefe (2000).

which can be shown to be logically equivalent to:

5. $(\exists x) [(\text{someone with } x \text{ hairs is bald}) \ \& \ \sim(\text{someone with } x+1 \text{ hairs is bald})]$.

That is to say, we commit ourselves to the claim that there is some number x such that if one has x hairs on one's head, one is bald, but if one has $x+1$ hairs on one's head, one is not bald. This, however, amounts to denying that any of our terms are actually vague. We may not always be able to recognize it, but every term in our language has perfectly precise boundaries, so that there is, say, a single hair the loss of which will make us bald, a single atom the loss of which will make us cease to be a person, a single grain that will make a particular collection of sand a heap, etc.

Epistemicism

A growing number of philosophers, most prominently Timothy Williamson and Roy Sorrensen, accept precisely this conclusion. According to such "epistemicists," all of the terms in our language are perfectly precise, and "vagueness" is just the product of our ignorance of these sharp boundaries. Saying that a term is vague describes our ignorance of its boundaries, not their non-existence.

Most philosophers, however, find the epistemicist position impossible to believe. It is committed, after all, to, claims like the following:

- (i) Our term "rich" is so precise that adding a single penny to one's wealth can be enough to change the truth value of one's claim "I am rich."
- (ii) There are differences of one thousandth of an inch that distinguish who is "tall" and who isn't.
- (iii) There is a fact of the matter as to just who is the shortest tall man in the world.

Such presumed precision seems to be in tension with the natural assumption that our terms can only be as precise as *we* make them. "Tall" gets the meaning it does because of the way we *use* it, and if our use of the term fails to distinguish between people who measure 6.000056 feet and those who measure 6.000055

feet, then it seems impossible that one could “really” be tall while the other wasn’t.²⁵⁶

Further, the epistemicist has a standing obligation to explain why, if there is a fact of the matter as to just where the line between the tall and the not tall lies, we are all *ignorant* of this fact. If there were no fact of the matter to know, there would be nothing to explain, but for the epistemicist, this is not the case.

Supervaluational Accounts

Nevertheless, the intuition that the second premise must be the source of the problem with the sorites is fairly robust, and other responses to the sorites paradox try to give up the second premise without falling into epistemicism. Such accounts typically reject the *Principle of Bivalence* which claims, in effect, that every sentence is either true or false.²⁵⁷ One could block the sorites argument if one claimed that bivalence failed to hold for sentences that contained vague predicates. Furthermore, such an assumption has considerable plausibility, since many have independently claimed that sentences involving “borderline” cases of vague predicates are neither true nor false. For instance, many would seem to have the following set of judgments:

6. “An adult male who measures 7' is tall” is (definitely) true.
7. “An adult male who measures 2' is tall” is (definitely) false.
8. “An adult male who measures 5'10" is tall” is neither (definitely) true nor (definitely) false.

The philosopher who denies bivalence argues that (8) really is neither true nor false.²⁵⁸ There are two main ways of making sense of this assumption. The first relies on there being *degrees of truth* according to which our sentences can be evaluated as true or false, while the other relies on a semantics that can be referred to as *supervaluational*.²⁵⁹

²⁵⁶ A particularly strong (even Platonic) form of metaphysical realism about the properties our predicates correspond to might deal with this problem, but such a view of *all* of our predicates is, I take it, absurd. For further discussion of this problem with epistemicism, see Heck (2004).

²⁵⁷ Or at least every *utterance* of a sentence. (I’ll be quite loose with this distinction here.)

²⁵⁸ By contrast, the epistemicist will claim that we should understand “definitely” as “knowably,” so that they could accept that (8) is true and still insist that “An adult male who measures 5'10" is tall” is either true or false (even if we can’t know which).

²⁵⁹ For instances of the former, see Edgington (1996), and for the latter, Fine (1975).

I won't discuss the degrees of truth approach here,²⁶⁰ and will focus instead on the supervaluational accounts that have, at least for the last 30 years or so, been the most popular response to vagueness. According to the supervaluationist, vague terms are *semantically underdetermined*. The facts about our usage that determine what we mean by our terms fail to settle on determinate extensions for them. One way of thinking about this is to think of their being, for every vague term, a *set* of precise meanings that are compatible with our usage.

For instance, when we interpret someone's use of "tall," we must take into account (among other things),

- i. Those aspects of our usage that settle part of the extension of "tall."
- ii. Those aspects of our usage that settle the anti-extension of "tall."
- iii. "Penumbral" constraints such as "If A is taller than B, then if B is tall, then A is tall."
- iv. Those aspects of our usage that lead to the general commitment that $(x)(Tx \vee \sim Tx)$.²⁶¹

There will, however, be a number of possible interpretations of "tall" that satisfy all of these constraints.

With this idea in play, we can think of a *precissification* of, say, an English sentence, as an interpretation of it that assigns precise extensions to all of the words while remaining compatible with the existing constraints (hereafter an "acceptable" interpretation). Each sentence containing vague terms will thus have a range of precissifications associated with it. We can now introduce the idea of a *supervaluation* of a language as a set of interpretations that assigns truth-values to the sentences in the language according to each of the acceptable interpretations. A given sentence in a language is then understood as *supertrue* in English if it is true on every precissification of English, *superfalse* if it is false on every precissification, and indeterminate on some precissifications and false on others. (The supervaluationist then typically suggests that truth and falsity in ordinary language be understood in terms of supertruth and superfalsity).²⁶²

²⁶⁰ For a discussion of problems with such accounts, see Williamson (1994).

²⁶¹ The importance of this fourth aspect of our usage is easy to overlook. A predicate is "undefined" for those cases that are neither settled to be in its extension nor settled to be its anti-extension, but it does not follow that its application is neither true nor false in those cases. Claiming that a predicate is neither true nor false when applied to an undefined area violates (iv) just as much as claiming that it doesn't apply to something in its settled extension would violate (i).

²⁶² See, for instance, Keefe (2000).

“An adult who measures 7' is tall” is thus supertrue because on any acceptable precisification of “tall” someone who is 7' will count as tall.²⁶³ “An adult who measures 2' is tall” will be superfalse, since on any acceptable precisification of “tall,” someone who is 2' will not count as tall. “An adult male who measures 5'10" is tall,” on the other hand, will have an indeterminate truth-value, since there are some acceptable/admissible precisifications where 5'10" counts as tall, and some where it does not.

One of the major appeals of supervenient accounts is their ability to preserve most of our classical logical principles. For instance, even if “An adult who measures 5'10" is tall” turns out to be neither true nor false, claims like

- (9) An adult male who measures 5'10" is tall or he isn't.
- (10) If an adult who measures 5'10" is tall then an adult male who measures 5'11" is tall.

will still count as supertrue, since they will be true on every admissible valuation.

Supervenient accounts thus block the sorites arguments by pointing out that their second premises are “superfalse.” On every precise model of English there will be *some* sharp line between the bald and the not bald, the tall and the not tall, etc., so premise two will be false on every valuation, and will thus count as superfalse.²⁶⁴

However, all is not well with the supervenientist either. First of all, while they can account for the truth of disjunctions like (9), they also seem committed to claiming that neither of its disjuncts are true (each has the indeterminate value). It's natural to think that a disjunction is true *because* one of its disjuncts is true, but the supervenientist seems unable to endorse this. (Their view of (9) would be like saying that its true that the card is “red or blue” in spite of the fact that it is neither true that it is red, nor true that it is blue.) Much the same problem occurs with existentials. For instance, for the supervenientist it will be true that there is a tallest short person in Canada, but it won't be true of anyone in Canada that *they* are the tallest short person in Canada.

²⁶³ Of course one might argue that language is context sensitive in a way that might lead one to deny that a sentence like (6) must always be true. That may be the case, but issues of vagueness will be here separated from those relating to context-sensitivity. The issue is about whether or not terms have precise extensions, and one could maintain this even if one thought that what these precise extensions were varied from context to context.

²⁶⁴ Or if the argument is set up like a long string of conditional statements, then on each evaluation, at least one of every such string will be false.

In addition to this sort of problem, there are a number of other objections to supervaluational accounts of vagueness. For instance, it has been argued²⁶⁵ that when combined with some very plausible principles about truth, the denial of bivalence leads to the endorsement of explicit contradictions:

- | | |
|---|----------------------|
| (1) $\sim[T(\text{"P"}) \vee T(\text{"}\sim\text{P"})]$ | Denial of Bivalence |
| (2) $T(\text{"P"}) \leftrightarrow P$ | Tarski biconditional |
| (3) $T(\text{"}\sim\text{P"})) \leftrightarrow \sim P$ | Tarski biconditional |
| (4) $\sim[P \vee T(\text{"}\sim\text{P"})]$ | 1, 2 Sub |
| (5) $\sim[P \vee \sim P]$ | 3, 4, Sub |
| (6) $\sim P \ \& \ \sim\sim P$ | Dem |

Further, it seems that supervaluational accounts can't account for "higher order" vagueness, since they seem to posit a sharp line between those who are definitely tall, and those who are borderline cases. Nevertheless, I won't go into such criticisms any further, since my main concern here is to lay out the epistemic and supervaluational positions, not to criticize them.

Two Principles

While the epistemic and supervaluational approach are currently the two main rival accounts of vagueness (one of which does well with our commitment to classical logic, but badly with the relation between meaning and our linguistic practice, the other of which maps well with much of the practice, but less well with classical logic), there have been recent attempts to have things both ways (or at least to split the difference), and perhaps the most promising of these comes from Van McGee and Brian McLaughlin.

McGee and McLaughlin (hereafter "M&M") highlight a tension between two principles that they take to be "integral to our ordinary usage of the word 'true'."²⁶⁶ These are:

(DP) The disquotation principle: Any adequate understanding of truth should give us, for any sentence (say, "Harry is bald") the following (T) and (F) sentences:

- (T) "Harry is bald" is true if and only if Harry is bald.
 (F) "Harry is bald" is false if and only if Harry is not bald.²⁶⁷

²⁶⁵ Most famously in Williamson (1992; 1994).

²⁶⁶ M&M (1995, 217). See Tappenden (1993) for similar tension between the "penumbral" and "truth conditional" intuitions.

(CP) The correspondence principle: The truth conditions of sentences are established by the thoughts and practices of the speakers of the language, and a sentence is true only if the non-linguistic facts determine that these conditions are met.²⁶⁸

The tension between these principles becomes manifest when one considers our earlier discussion of vagueness and the associated sorites paradoxes. If Harry is what we would consider a “borderline” case of a bald man, many would naturally want to say that a claim like the following:

(HB) “Harry is bald.”

would be neither true nor false (or at least neither definitely true nor definitely false). This intuition is strongly supported by the correspondence principle, since nothing in our practice of using “bald” seems as if it could make it the case that such a borderline case was either true or false. However, the disquotation principle tells us that (HB) *must* be either true or false. If HB isn’t true, then by (T) it’s not the case that Harry is bald, but if he isn’t bald, then by (F) HB is false. If HB isn’t false, then by (F) it isn’t the case that Harry is not bald, in which case, by (T), HB is true. Borderline cases thus seem to bring the two principles into conflict. As M&M put it:

Both principles [CP & DP] are natural, even obvious, but they come into conflict. The disquotation principle implies that “Harry is bald” is either true or false, whereas the correspondence principle tells us that it cannot be either. The only way consistently to hold on to both principles would be to deny the phenomena of vagueness (M&M 1995, 215).

The difficulty becomes clear, they argue, by looking at the sorites paradox. We have, once again, our manifestly problematic argument:

- 1b. Someone with 0 hairs on his head is bald.
- 2b*. $(x)[(\text{someone with } x \text{ hairs is bald}) \rightarrow (\text{someone with } x+1 \text{ hairs is bald})]$
- 3b. Someone with 100,000 hairs on his head is bald.

Claim (2) seems to be the one to give up, but giving it up seemed to commit us to:

²⁶⁷ See also M&M (1998, 225–6) for a discussion of Williamson’s use of these.

²⁶⁸ M&M (1995, 214).

5. $(\exists x) [(\text{someone with } x \text{ hairs is bald}) \ \& \ \sim(\text{someone with } x+1 \text{ hairs is bald})]$.

However, in conjunction with the correspondence principle, (5) seems to entail that something about our linguistic practice creates a sharp boundary between those who are bald and those who are not, and such a view is, M&M claim, “preposterous.”²⁶⁹

While M&M admit that “both the disquotation principle and the correspondence principle are integral to our ordinary usage of the word “true,” and neither has any obvious claim to being more fundamental than any other,”²⁷⁰ they propose that we “abandon the correspondence principle,”²⁷¹ even though “one could, with equal justice, relinquish the disquotation principle, since neither principle is more fundamental than the other to our ordinary thinking about truth.”²⁷² The choice is, to a certain extent, arbitrary, but seems to be one we must make. As they put it:

A paradox is, as Tarski tells us, a symptom of a disease. The disease of which the sorites paradox is a symptom is the conflict between the disquotation principle and the correspondence principle. As therapy, we have recommended replacing our old conflicted notion of truth by two consistent notions. Pretherapeutically, we have only the one notion of truth, but within our ordinary inconsistent notion of truth, there is material to permit the construction of two consistent notions. To call both of them “truth” would invite fallacies of equivocation, so we call one “truth” and the other “definite truth” (M&M 1995, 219).

McGee and McLaughlin distinguish “truth” from “definite truth” in the following fashion:

... to say that an object a is definitely F means that the thoughts and practices of speakers of the language determine conditions of application for the word F , and the facts about a determine that these conditions are met ... Once we have the “definitely” operator in place, we have the notion of definite truth: “Harry is bald” is definitely true if Harry is definitely bald, definitely false if Harry is definitely not bald, and unsettled if Harry is a borderline case. When a sentence is definitely true, our thoughts and practices in using the language have established the truth conditions for the sentence, and the nonlinguistic facts have determined that these conditions are met (M&M 1995, 209–11; see also M&M 1998, 228).

²⁶⁹ *Ibid.*, 208.

²⁷⁰ *Ibid.*, 217.

²⁷¹ *Ibid.*, 217.

²⁷² *Ibid.*, 219.

With this distinction between truth and definite truth in place, the sorites reasoning can be disarmed.

For instance, logic and some manifestly obvious premises commit us to (5), or, in English:

(12) There is an n , such that if you have n hairs on your head, then you are bald, while if you have $n+1$ hairs on your head, you are not bald.

From (12) and the disquotational principle we can get:

(13) There is an n , such that **it is true that** if you have n hairs on your head, then you are bald, while if you have $n+1$ hairs on your head, you are not bald.

From 13 and the correspondence principle, however, we get

(14) There is an n , such **that our thoughts and practices, along with the facts about the world have determined that** if you have n hairs on your head, then you are bald, while if you have $n+1$ hairs on your head, you are not bald.

And it is only this final claim, they assert, that is preposterous.²⁷³ However, we can only get to (14) from (12) if we assume that CP and DP are about the same thing, and if truth and definite truth are separated, “we can view the sorites reasoning as committing a fallacy of equivocation.”²⁷⁴

Standard supervaluational theories reject bivalence (and with it the disquotation principle) and hold on to the correspondence principle. Some epistemicists seem more willing to give up the correspondence principle,²⁷⁵ while others (heroically) hold on to both principles by insisting that our current practice (in spite of the manifest appearance to the contrary) will turn out to

²⁷³ Of course, 12 and 13 seem preposterous, but M&M claim that this is only because we so naturally assume that they commit one to 14.

²⁷⁴ *Ibid.*, 217.

²⁷⁵ Something like this line seems to be adopted by Sorensen (2001), Howich (1997; 2000) and possibly Ebbs (2000) (the view is also attributed to Field in Schiffer 1999, 490). As Sorensen put it: “The truthmaker-gap epistemicist preserves the supervaluationist’s intuition that there is no truthmaker for borderline propositions such as ‘*pudding is solid*’. He just rejects the supervaluationist’s assumption that every truth rests on a truthmaker. Truthmakers are sufficient conditions for truth, not a necessary condition” (Sorensen 2001, 177).

determine the sorts of sharp boundaries that the disquotation principle requires.²⁷⁶ M&M attempt to hold on to both principles by splitting our conception of truth, letting “truth” satisfy the disquotation principle, and “definite truth” satisfy the correspondence principle. They can thus give something like an epistemicist account for the *truth* of sentences with vague terms, while offering something closer to a supervenient account when it comes to the question of the *definite truth* of claims involving them.²⁷⁷

Still, is splitting our concept of truth really necessary?²⁷⁸ After all, M&M’s response to vagueness can be understood in light of the following remark of Sorensen’s:

Change in the web of belief should be made at the most peripheral portion available. Beliefs about how language works are far more peripheral than beliefs about logic ... Instead of changing logic, we should change our opinions about how language works (Sorensen 2001, 8).

If we accept Sorensen’s point, and thus try to change our opinions about how language works, it remains an open question just *what* commitments about how language works would follow from our holding on to classical logic (and with it to DP). Sorensen seems in favor of giving up the correspondence principle, while M&M give up on what I will, for short, call the “unity principle,” namely

(UP) The Unity Principle: Truth satisfies *both* DP and CP.

By contrast, I’m still quite sympathetic to both the unity and correspondence principles.²⁷⁹ Giving either principle up seems like a desperate move, and while

²⁷⁶ Williamson (1994; 1996).

²⁷⁷ While M&M clearly think that their view is not an epistemic account, their reasons for thinking so relate almost entirely to Williamson’s assumption that epistemicism requires that we treat current usage as picking out precise meanings for all of our terms (See M&M 1998, 227–8, 231). This assumption, however, while distinctive of Williamson’s position, is not essential to epistemicism, as Sorensen’s “truthmaker gap” epistemicism makes clear.

²⁷⁸ Though one should note that McGee thinks that our notion of truth needs to be split like this already in order to account for the liar paradox (McGee 1991).

²⁷⁹ M&M act as if giving up the unity assumption is a comparatively inexpensive treatment for the sorites paradoxes, but just because we can notionally separate the principles, it doesn’t follow that there would be a workable concept that could be produced by a separation. First of all, CP talks about how the truth conditions are produced by our practices, but a key part of these practices is their guidance by DP. If that guidance were lost, the practice would lose its characteristic structure. Secondly, while a “minimalist” tradition has attempted to get a full blown account of truth out of

the incompatibility of the correspondence and disquotational principles would make for desperate times, I'll argue in what follows that the two principles can, in fact, be consistently maintained.

Temporal Externalism

My argument for the ultimate compatibility for DP and CP comes from endorsing a kind of *externalism* about the contents of our thoughts and utterances. Externalism comes in many varieties. For instance, *causal* externalism maintains that the structure of our *actual* environment affects the contents of what we see and say (so that if the “cats” around me had had an underlying structure radically different from the cats actually around me, then I would have meant something different by “cat.” *Historical* externalism, on the other hand, suggests that the past use of our terms determines what we mean, even if such use is epistemically inaccessible to us (so we would mean someone different by “Thales” if our practice had been historically connected to another person, even if the resulting “Thales” beliefs seemed just the same). *Social* externalism suggests that what we mean is affected by the usage of our society, whether we are aware of it or not, so I can mean *elm* by “elm” even if I can't identify the tree because I rely on experts to do so, and if they had used the term differently, then what I meant by the term would have been different as well. In each case, what we mean seems to be determined by factors beyond what is introspectively available to us.

Now the view that DP and CP are incompatible with UP follows (with the addition of some—*pace* Williamson—manifestly plausible assumptions about what current usage could determine) from what I'll call a “presentist” conception of semantic facts. This “presentist” view can be embodied in the following principle:

(PP) The Presentist Principle: The only elements of our thoughts and practices that are relevant to establishing the truth conditions of what a person says at a time are those which have occurred at or before that time.

Giving up any of CP, DP, UP or PP comes at some conceptual cost, but it seems as if one of them must go. While the presentist principle has some intuitive plausibility (just as the principles incompatible with the other forms of

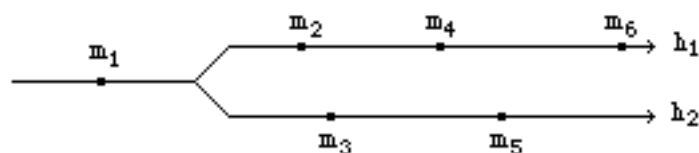
just DP, its hard to see how these “truths without truthmakers” could get a hold of our practice. If truth and definite truth were really different things, then why would we care about truth?

externalism may seem to), it seems much less deeply entrenched in our practice than UP, DP or CP. Consequently, presentism seems like the most reasonable of the four to give up.

But what exactly would the rejection of presentism get us? It leaves us with a position that I have elsewhere referred to as temporal externalism (T-externalism or TE). According to the temporal externalist, the past, current, *and future* usage can affect what we currently mean by a term.²⁸⁰ The truth-value of many of our utterances, most obviously those about the future, depends upon what happens after the moment of utterance, but for the temporal externalist, not only is the truth-*value* of a sentence potentially sensitive to what happens in the future, but truth *conditions* of a sentence will be so as well. By increasing the range of use that contributes to meaning, TE eases the tension between CP & DP, since future usage may be able to underwrite the determinacy of meaning required by DP.

For instance, prior to developments in modern chemistry, all of the “operational” tests for gold (malleability, dissolvability in *aqua regia*, etc.) were satisfied by platinum as well, and all samples of platinum were classified as “gold.” Nevertheless, when tests were developed that could distinguish gold from platinum, platinum made up a tiny proportion of the purported samples of “gold,” and so platinum was considered a substance that was mistaken for gold rather than a variety of it. Large amounts of platinum were later discovered in South Africa, but by this time the distinction between gold and platinum was already in place. However, if the platinum deposits in South Africa had been discovered before the development of modern chemistry, it's quite possible that there would have been enough platinum in the “gold” supply that both platinum and our gold would have been considered to be two different *types* of gold.²⁸¹

Now imagine, for example, that Locke uttered “that ring is gold” in 1650 (while pointing to a platinum ring). Since Locke's utterance took place before both the relevant developments in chemistry and the discovery of platinum in South Africa, a T-externalist could describe the case as follows:



²⁸⁰ Versions of this position are defended in Collins (2006), Ebbs (2000), Jackman (1996; 1999), Lance and O'Leary-Hawthorn (1997), Rouse (1987), and Stoneham (2003).

²⁸¹ For a more extended discussion of this case, see Donnellan (1983), Ebbs (2000), Wilson (2000), Jackman (2005).

Treating m_1 as the point in 1650 where Locke's claim that the ring is "gold," there are, say, two possible histories, h_1 and h_2 , in which the use of the term develops in different ways.²⁸² In *our* actual history, h_1 , modern chemistry developed at m_2 , large platinum deposits were discovered in South Africa at m_4 , and we are discussing Locke's utterance at m_6 . In the alternative unactualized history, h_{12} , the platinum in South Africa is discovered m_3 while the progress in chemistry is made at m_5 . On h_2 , "gold" denotes all of *gold or platinum*, while on h_1 it denotes *gold*. Locke's utterance will thus be true in h_2 , and false in h_1 . In such cases, future usage does not make the initial *claim* uttered true or false. Rather, it makes the utterance the claim that it is. What makes the claim false (in our history) is still the fact that the ring isn't made of gold. Once again, future usage helps to determine an utterance's truth-value by contributing to its truth-conditions.

Of course, some terms and sentences have their meanings and truth-values independently of what may happen in the future. Assertions that have their truth-values established independently of what happens afterwards can be described in terms of "settled truth." Roughly, an assertion is *settled true* at a moment if it is true in *every* history passing through that moment. (For instance, claims like "gold is valuable" or "gold dissolves in *aqua regia*" may be settled true even in 1650.) In much the same way, a term's extension can be said to be "settled" at a moment if the term has the same extension in every history passing through that moment.²⁸³

Within such a framework, much of what the supervenientist will say about supertruth, the Temporal externalist will say about settled truth. Just as there is a range of precisions available for a vague term on the supervenientist account, there is a range of histories available on the T-externalist one. As a result, many of the structural properties of our usage that are captured by the supervenientist account will have analogs in the temporally externalist account as well. (For instance, bivalence does not hold for settled truth, though the law of non-contradiction does.) This should not be surprising since much of the formalism is shared between the temporal externalist and supervenientist account, and it's just the interpretation of it that differs. However, while there is pressure for the supervenientist to identify "real" truth with supertruth, there is

²⁸² For a more detailed development of the framework of moments and histories, see Jackman (1999).

²⁸³ Or at least in those histories where the meaning of the term doesn't change. In general, whatever story the supervenientist will have about which "sharpenings" of a language are not "admissible" will largely translate into an explanation of which changes in usage should count as changes in meaning for the T-externalist. (For a more extended discussion of this, see Jackman 2005.)

no corresponding pressure on the Temporal externalist to identify real truth with settled truth. The T-externalist thus need not worry about the criticism facing supervaluationist accounts that they must treat some sentences of the form “A v B” as true while at the same time asserting that neither A nor B is true. There is nothing similarly unintuitive about saying that “A v B” is *settled* true even though neither “A” or “B” is *settled* true. This is, after all, just what one finds with future tensed statements like “the flipped coin will come up either heads or tails” which may be settled true at a time prior to the flip even though neither disjunct is settled true at the time.²⁸⁴

While in 1650, it may not have been *settled* that this history would become the actual one, relative to *this* history, h_1 , Locke’s term *always* meant *gold*. (It is now (i.e.: at m_0) settled that the term meant *gold* at m_1 , though it was not settled at m_1 that it meant *gold*.) At m_1 the full context of evaluation was not yet in place. We would look back on Locke’s future tensed utterance of “I will never be discussed by philosophers in the 21st century” and say that it was false, even though, at the time of utterance, it was not settled false. In an analogous fashion, we can look back at his utterances involving “gold” and treat them as referring to *gold*, even though, at the time of utterance, that extension was not yet settled.

Temporal Externalism and Vagueness

TE is surprising and somewhat unintuitive, but there are a number of considerations in favor of TE that are independent of the problems related to vagueness,²⁸⁵ and as far as vagueness goes one advantage of the view is that it increases the pool of use relevant to what we mean. Nothing in how we currently use the term “bald” may settle whether or not it applies to borderline cases like Harry, but subsequent developments in the term’s use might settle precisely such cases. The general worry that we have no idea *how* our usage could *possibly* make precise distinctions disappears, since future usage may include explicit (or implicit) conventions relating to them. The Temporal externalist can, then, take on the epistemicist’s commitment to our term’s having precise extensions (and

²⁸⁴ We can thus extend M&M’s point about the analogy between semantic and physical indeterminacy (M&M 1995, 221). M&M recognize the analogy, but take it to be limited by the fact that what is physically determined changes over time, while what is semantically determined does not. Or perhaps better put, while they recognize that how much of a term’s extension is semantically determined can change over time, they assume that such change would have to be understood as the meaning of our terms changing. The T-externalist need not, of course, make this assumption.

²⁸⁵ For a discussion of these, see Jackman (1999; 2005),

with it DP) without having to worry about this violating the assumption that meaning is a function of use (and with it CP).

The T-externalist also seems well placed to provide an interpretation of our use of “definitely” when we say that everyone agrees that Harry is neither “definitely bald” nor “definitely not bald.” Supervaluational accounts (and other approaches that take vagueness as a primarily “semantic” phenomenon) are typically unable to give any clear sense of how being “definitely true” is substantially different from simply being true. Since truth is ultimately identified with “supertruth” by most supervaluationists, (HB) is not only not definitely true, it isn’t *true* either.

M&M can account for a distinction between truth and definite truth, but given that they are willing to admit that their decision to apply the term “true” to what satisfies DP rather than CP is arbitrary, their claim to be capturing our ordinary intuitions behind this case is unclear. Further, while they offer one of the few semantic accounts that make for a robust distinction between truth and definite truth, by making the latter a completely different concept from the former, they lose hold of the intuition that being “definitely true” is not a semantic primitive, but rather a *type* of truth. “Definitely” is intuitively a *modifier* of “true,” and this is something that their account simply denies.²⁸⁶

Epistemic accounts make for a clear distinction between truth and definite truth by understanding “definitely” as “knowably,”²⁸⁷ so that when we say that a claim is not definitely true, we are merely saying that we cannot tell whether or not it is true. (HB) may be true or false, but it is not *definitely* true or false because we can’t know which one it is. Epistemicists thus do well in explaining how being “definitely true” is more than just being true, and how “definitely” can be understood as a modification of “true.” Nevertheless, such epistemic accounts have faced serious problems of their own,²⁸⁸ most notably, they seem to count potentially unverifiable claims such as Goldbach’s conjecture (or the claim such as “the number of electrons in the universe is even”) as failing to be definitely true in just the way that (HB) fails, while intuitively the two types of indefiniteness seem quite different.²⁸⁹ When we claim that, say, the number of atoms in the universe is odd, we are clearly violating an epistemic norm, but when we claim that (HB) is true, it seems more natural to say that the norm violated is a *semantic* one, since part of our semantic competence may be in

²⁸⁶ One should note, however, that M&M’s account still allows that every claim that is definitely true is also true, so they capture some of the behavior that we would expect if definite truth was a type of truth.

²⁸⁷ See Williamson (1992, 269–70).

²⁸⁸ See, for instance, McGee & McLaughlin (1998, 230) and Tye (1995, 18).

²⁸⁹ This might not be an issue for Sorensen, for whom definite truths could be the ones that have truthmakers (and only truths with truthmakers would be knowable).

recognizing that the application of a term to a borderline case is currently unsettled.²⁹⁰ Of course, the epistemicist can simply deny this intuition, but it does seem to be a strong one.

The T-externalist will, by contrast, put a gloss on “definitely” according to which, (HB) is neither “definitely true” nor “definitely false” because, even if it is true or false, it is not *settled* to be true or false. Of course, anything that is not settled true will not be knowably true, so there will be a good deal of overlap between the T-externalist gloss on “definitely” and the straight epistemic one that Williamson proposes. However, it will not follow that everything that is settled true at a moment will be knowably true, so one can claim that, say, Golbach’s conjecture may be definitely true even if we could never prove it.²⁹¹ The temporal externalist can thus admit that there is a distinction between being “true” and being “definitely true,” but rather than reflecting an inconsistency in our pre-theoretical conception of truth, the temporal externalist can understand definite truth as an extension of truth in the way that being “knowably” or “necessarily” true is.

As mentioned earlier, accounting for *why* we are ignorant of the truth value of sentences like (HB) was a persistent problem for epistemicists like Williamson, but the explanation of ignorance that the T-externalist can give is effectively the same as that provided by the majority of philosophers who claim that bivalence doesn’t hold in borderline cases. While such philosophers explain our ignorance in terms of a semantic *indeterminacy* in such cases, the temporal externalist can explain it in terms of semantic *underdetermination*. There can be facts of the matter about borderline cases, and these facts do depend on our use of the term, but no one who is limited to our temporal vantage point will have access to those facts. The sort of ignorance explained is thus much more robust than that posited by Williamson, who allows that a creature with more extensive discriminatory capacities than us might be able to see the precise extensions that arise from our current usage.²⁹² By not completely collapsing indefiniteness with uncertainty, some questions can be understood as merely *epistemically* uncertain (the settled facts are out there, but we simply don’t know them), while others are *semantically* (vagueness) or *metaphysically* (future contingents) uncertain (the relevant facts are not settled at this moment).

²⁹⁰ See also M&M (1998, 228) and McLaughlin (1997, 219–20).

²⁹¹ The position is also close to what M&M gloss as “definitely” (M&M 1995, 212). Indeed, anything that is definitely true in their sense will be settled (and thus definitely) true in mine. The difference is that while definite truth is independent of truth on their account, it is understood in terms of truth on this one.

²⁹² See Williamson (1994), and for a criticism of such a position, Sorensen (2001).

Practical vs. Theoretical Imperatives

Nevertheless, it may seem the gains that TE brings are merely illusory, and that giving up the presentist principle doesn't really allow one to hold on to a combination of both the disquotational and the correspondence principles. After all, while TE allows us to say that future usage *could* make the meanings of our terms more precise, it gives us little reason to think that it *will*. Increases in precision over time are common with natural kind terms such as "gold," but it seems highly unlikely that they will ever occur with paradigmatically vague terms such as "bald." Consequently, the phenomenon of vagueness may still give us reason to give up on the correspondence principle even if we endorse TE. Just as Williamson could be accused of wishful thinking *vis à vis* the determining power of *current* use, I might seem to be engaged in a similar sort of wishful thinking about the future.²⁹³

This worry is, however, misplaced, since temporal externalism allows us to see our commitment to the correspondence and disquotational principles in a different light. In particular, they are not merely *descriptive* principles that are used to characterize our linguistic behavior, but they are also *normative* principles that regulate and govern it. Since our past usage is no longer under our control, as long as the presentist principle is endorsed, the temptation to see the other principles as merely descriptive is a powerful one. However, our future usage is under our control, and so an understanding of these principles as normative/regulative becomes available.

TE allows us to see CP and DP as *practical* commitments that we take on when we understand ourselves as making assertions and judgments, not (merely) *theoretical* commitments that may or may not be true of such acts. We are committed to there being, say a tallest short man, but this commitment is practical and guides what we go on to do, it is not a *theoretical* commitment that is meant to characterize what we have already done.

Such commitments can be understood as partially constitutive of the so called "intentional stance" according to which our utterances are understood as assertions, our brain states as beliefs, and so on. Understanding others from such a stance is often presented as understanding them in terms of some set of constitutive norms which govern the transition from entities in one domain (say noises/utterances) to entities in another (say assertions).²⁹⁴ There is something deeply right about this approach, but deeply wrong about the way that it is typically executed. In particular, it can quickly seem to commit one to a type of "instrumentalism" about our mental life. If our actual behavior doesn't satisfy

²⁹³ This point is discussed in more detail in Jackman (2004).

²⁹⁴ In the case of Dennett (1978; 1987) and Haugeland (1998), "rationality" is the norm chosen, while, say, Davidson (1984) seems to vary between rationality and truth.

the constitutive norms,²⁹⁵ it might look as if the intentional stance is only about the convenience of treating others “as if” they had beliefs. Such instrumentalist and anti-realist conclusions, while fairly applied to many writers who appeal to the intentional stance,²⁹⁶ will not, I hope, be quite as applicable here.

The “instrumentalist” strain most work on the intentional stance adopts can seem inevitable if the intentional stance is understood primarily from the 3rd personal observational perspective that treats intentional attributions as “theoretical” and thus “descriptive.” And one must admit that, from a detached observational perspective, there is little reason to think that our linguistic practices will evolve in a way that produces determinate meanings. However, if we take the intentional stance as primarily 1st personal and participatory/practical, the “as if” nature of intentional attributions isn’t forced on us. If our behavior didn’t live up to a theoretical commitment in describing it, it might seem as if that commitment wasn’t quite accurate. On the other hand, if the commitment is a practical one, then the fact that our behavior doesn’t live up to it only means that the behavior needs to change.²⁹⁷ While, for instance, Dennett recognizes that the intentional stance is, as he puts it, “not purely descriptive,”²⁹⁸ he fails to fully appreciate the *extent* to which it is normative. The 3rd personal perspective can obscure this, and a generally “presentist” outlook can only make this worse. If presentism is true, after all, 1st personal interpretation can seem structurally very much like 3rd personal, since what one’s past-self meant would be completely independent of what happens through the interpretive process.

An observer external to a game of chess may doubt that the rules will always be followed, but the two participants in the game are still, if they are to be

²⁹⁵ Which it may seem not to given that our beliefs are not always true and we are not always rational.

²⁹⁶ Particularly Dennett, and to a lesser extent, Haugeland.

²⁹⁷ One can think of this in light of Anscombe’s (1957) discussion of a pair of lists corresponding to one’s trip to a supermarket: the first which one is using to remind herself what to buy, and a second that a detective puts together to describe what one has bought. The first captures a practical commitment one has to get one’s shopping behavior to match, while the second “descriptive” list of our purchases is only something the detective is “theoretically” committed to. The first may accurately describe what has been purchased, but if there is a lack of fit between the two, one is committed to changing what one purchases, and so even if it doesn’t match now, it may do so later. On the other hand, if there is a mismatch between the second list and the cart, it is the list that needs to be changed. Dennett’s conception of the intentional stance is more like a detective working with a “standard list” and using it to predict and explain the shopper’s behavior. If there is a lack of fit, it is because the shopper isn’t actually using the list, she is just generally acting in accordance with it.

²⁹⁸ Dennett (1987).

playing chess, committed to following all the rules. When playing chess, we move around pieces of wood *as if* they were items that could only move in certain ways, but by doing so, we can complete games where they actually only do move in such a fashion. However, the “chess stance” doesn’t have *just* instrumental value; the fact that chess players adopt it themselves directs their own chess playing behavior so that it satisfies the norms. Participants are committed to “taking back” moves that don’t fit the rules, so the direction of fit is different than what it would be for an external observer.

In much the same way, logical norms govern the practice of assertion and explanation, and a commitment to determinacy can be understood as implicit in such norms, even if they are in conflict with more “pragmatic” norms relating to speed or ease of communication. They are part of a system of rules a commitment to which is constitutive of the distinction between assertion and (mere) verbal behavior. Further, to understand ourselves as making assertions, we are committed to understanding ourselves as presenting our utterances as *true*, and this, in turn, commits us to their satisfying both CP and DP. Since these commitments are jointly satisfiable only if TE is true, our commitment to understanding ourselves as making assertions and having beliefs commits us to TE. We might not always recognize this commitment (indeed, we may actually deny that we have it), but as asserters and believers, we have a constitutive commitment to it nevertheless.

Conclusion

In conclusion, one can respond to the sorites reasoner by insisting that, to the extent that we understand ourselves in intentional terms, we are committed to DP, and thus committed to the denial of premise (2). The sharp boundary may not currently be settled, but we are committed to settling it, and this commitment is expressed in our rejection of (2).²⁹⁹ Of course, our simply being committed to the falsity of the second doesn’t guarantee that it will be false, and it may be that our practice ultimately fails to live up to its commitment to determinacy. However, even if one isn’t optimistic about how determinate our use will become, the second premise is still settled “not-true,” since no acceptable development of our practice could make it true. This alone should be enough to definitively challenge the assertions central to the sorites arguments, since a sentence is arguably justifiably assertable only if we take it to be settled true,

²⁹⁹ Being committed to there being a step where the inductive step in the argument doesn’t hold is not the same as assuming that such a point has already been determined. It is simply a commitment that absolves one from engaging in the inductive sorites step without limit (though one can always apply it locally).

and not only do we not know the second premise to be settled true, we have good reason to believe that it never could be.

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