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USE, MENTION, AND TANGLES AROUND TRUTH

ABSTRACT: I extend Azzouni's discussion of use/mention errors, highlighting three examples with a common theme: the systematic over-inflation of the concept of truth.

INTRODUCTION

In "Use and Mention with Respect to 'know', 'believe', 'evidence', 'justification', 'hypothesis', and so on: A Hot Mess," Jody Azzouni argues for the surprising and radical thesis that much of the last century of philosophy suffers from confusing the linguistic vehicles that represent the world with the worldly affairs that they represent. Borrowing from Quine, Azzouni calls these "use/mention errors," which only adds to the surprise: how can it be that so many of us—Azzouni (2025, 30, fn. 30) includes himself here—have committed an error that we were warned about by the most prominent Anglophone philosopher of his generation? Despite the shocking nature of Azzouni's claim, I am broadly-speaking convinced. I think Azzouni is right both that this slippage can be found in contemporary arguments in both epistemology and philosophy of science (see Azzouni forthcoming) and that it (often) serves to undermine those arguments.

As such, my comments here are mostly sympathetic. After briefly reviewing some key points from Azzouni's article, I'll run through three

examples that I think exhibit use/mention errors in Azzouni's sense: one from Pierre Duhem (1914 [1951]), one from Hasok Chang (2022), and one that Azzouni (2017) pins on the opponents of quantifier neutralism. In the first, the error leads Duhem to insist that we rely on the truth of propositions when what we really rely on are worldly affairs. In the second, the error leads Chang to require that truth has properties that are only had by the worldly signs of it. In the third, the error leads opponents of neutralism to treat as incoherent the idea of a representation being true without corresponding to the world. I end by suggesting a tentative lesson: use/mention errors in Azzouni's sense have led us to systematically over-inflate the concept of truth.

1. AZZOUNI ON USE AND MENTION

First, allow me to briefly reformulate Azzouni's position to make it clear which elements I'm drawing on in what follows. Azzouni draws our attention to flexibility in everyday speech with respect to talking about the world and with talking about (quasi-)linguisitic representations of/about the world. Crucially, this flexibility is part of our ordinary speech practices. For instance: someone who says "that's beautiful" after reading a poem or attending a eulogy might mean (a) the sentiment or idea expressed is beautiful; (b) the language used to express it is beautiful; or (c) both. These first two options do not hang together: plenty of beautiful poetry has been written about things that are not beautiful and plenty of execrable poetry has been written about beautiful things. Nevertheless, "that's beautiful" is potentially ambiguous between the different possibilities, and it is not uncommon for speakers to have to clarify similar claims when context leaves the different options too open.

For present purposes, what's important about this flexibility is that it can lead to shifts, where we (unwittingly) switch between and/or confuse talking about the world and talking about the words or thoughts that represent it. Take one of the running examples from Azzouni (2025):

> That John is running again is a wonderful thing.

As Azzouni stresses, what's wonderful here are the worldly affairs: John

is running again. Yet when we attach the word "know" or "believe" to same that-clause, as in

> Sam believes that John is running again.

we tend to assume that the thing that Sam believes is a proposition—that is, a representation of the worldly affairs.[1] Mistakenly so: "What Sam believes isn't a proposition or that a proposition is true, but rather, that some purported worldly conglomeration of relations and objects is the case—a conglomeration composed of John, the running-again property, etc." (Azzouni 2025, 25). What's gone wrong, according to Azzouni, is a kind of use/mention error. We've allowed the fact that we use a quasi-linguistic representation to describe what Sam knows to trick us into thinking that said representation is the thing that she knows—that it is, in other words, the thing mentioned rather than the thing used.[2]

On Azzouni's view, such errors are common in contemporary epistemology. One particular target are contemporary discussions of "evidence," including the arguments that Timothy Williamson (2000) offers for the claim that evidence is propositional. Since his concerns about Williamson's arguments overlap, I'll focus on one example—namely, Williamson's argument that evidence must be propositional because evidence (paradigmatically) stands in logical relationships:

> More straightforward uses of evidence also require it to be propositional. In particular, our evidence sometimes rules out some hypotheses by being inconsistent with them. For example, the hypothesis that only males have varicose veins is inconsistent with much medical evidence. But only propositions can be inconsistent in the relevant sense. If evidence e is inconsistent with an hypothesis h in that sense, it must be possible to deduce $\neg h$ from e; the premises of a deduction are propositions.
>
> (Williamson 2000, 196; quoted in Azzouni 2025, 44)

This much is uncontestable: if I derive a contradiction (or any other conclusion) from some evidence, what I am *using* to carry out that derivation is a linguistic representation: a sentence in some language. I certainly do not use the bloody glove, or the data set, or the pictures, or any of the other things that normally count as evidence. As Azzouni

suggests, however, the conclusion that evidence itself is propositional is unwarranted. When we say "That John is running again is a wonderful thing," the thing we attach "is a wonderful thing" to is a series of words. Clearly, however, what we are describing as wonderful are the worldly affairs that those words describe, not the words themselves. We *represent* and *establish* inconsistencies using sentences in the same way that we describe things as wonderful using sentences. The former no more suggests that inconsistencies are inherently propositional than the latter suggests that wonder is.

2. DUHEM ON HOLISM

Let us push further. Imagine a scenario like the one described by Williamson. We have some evidence—a videotape showing that Dave was 1000 miles away at the time of the murder—which rules out the hypothesis that Dave committed the murder because *being a thousand miles away* is inconsistent with *committing the murder*. Really, as philosophers of science since Pierre Duhem (1914 [1951]) have stressed, it rules out the conjunction of that hypothesis and various auxiliary hypotheses: we can only derive a contradiction from a hypothesis in the presence of additional propositions. The evidence has the same logical relationship to all of the propositions involved in the derivation, so if there is an inconsistency, they are all ruled out together. There's no fault to be found with the argument so far: if there is a contradiction between our evidence and our assumptions, then our assumptions cannot *all* be true.

Duhem and others have taken too much from this argument, however, and for reasons that seem to me to derive from the same use/mention errors identified by Azzouni. I have in mind specifically Duhem's extreme form of holism, exemplified by passages such as

> I say the *system* of emission and not the *hypothesis* of emission: in fact, what the experiment declares stained with error is the whole group of propositions . . . the whole theory from which we deduce the relation between the index of refraction and the velocity of light in various media. . . .
>
> Physics is not a machine which lets itself be taken apart: we cannot try each piece in isolation and . . . wait until its

> solidity has been carefully checked. Physical science is a system that must be taken as a whole. (Duhem 1914 [1951], 187)

The mistake, on my analysis, is the same as that in Williamson's argument: Duhem is imparting the propositionality of the theorems or hypotheses that we use to represent the world onto the worldly system, when what we want to take apart, try in isolation, and check for solidity is the worldly system that those theorems or hypotheses represent.

Here's an example. As Eran Tal (2017) stresses, thermometers have theoretical propositions about the relationship between expansion (of, e.g., a column of fluid) and temperature built into them: the scale on the side of a thermometer is designed in accordance with the theory. Naturally, if we are interested in *deriving* an inconsistency between a hypothesis and some observation made using a thermometer, we would assume that the relevant theoretical propositions are true. But propositional truth is not what we actually rely on in carrying out an experiment. For one thing, truth is not necessary. As Chang's extraordinary history of thermometers in Chang 2004 makes clear, hypotheses that are merely good approximations within the relevant domain will do the job. For another, truth is not sufficient. The truth of the theoretical propositions about the relationship between expansion and temperature is irrelevant if temperatures are so hot or so cold that the casing of the thermometer breaks.

I previously (Dethier 2021) put the positive point in terms of reliability: what we require is that our theoretical propositions are reliable within the relevant context, where reliability is to be cashed out in terms of performing the relevant task—here, translating expansion into temperature—with sufficient accuracy and precision. I suggested that, where propositions are concerned, truth is sufficient for reliability and thus that we can maintain the unproblematic observation that a contradiction implies that our assumptions cannot all be true. While this is broadly right, I think that there is a way in which this description misses the point. Because in many of these cases we are not relying on the theoretical propositions—at least not qua (quasi-)linguistic representations—at all when we carry out an experiment.[3] Instead, what we are relying on are the systems that the propositions represent: we rely on the thermometer itself to be reliable as a tool for (among

other things) translating expansion into temperature. Of course, we could in principle describe all of these reliances using language, as I just did. But it is a use/mention error to then say that what we rely on is the proposition or its truth rather than the worldly affairs that the proposition is about.

Back to Duhem; supposing I'm right, how does the mistake affect his argument? To be sure, if we can derive a contradiction, then something that has gone into the derivation is false. Insofar as we should understand refutation as involving the formal derivation of a contradiction, it is unaffected. But verification is not in the same boat. For when we conduct an experiment or measurement that agrees with what would expect given some hypothesis, the confirmation that said hypothesis is "solid" depends on the reliability of the systems employed in the experiment, not on the truth the propositions that represent those systems. Which means that it's possible for our theoretical descriptions to seriously misrepresent the system—because, for example, we've misunderstood how bodies operate in high-energy environments—without that impugning our ability to check the solidity of hypotheses about (for example) the mass of celestial objects (cf. Smith 2014). Pulling apart the machine may be hard, but it is not a logical impossibility.

3. CHANG ON OPERATIONAL COHERENCE

What we've just seen is that use/mention errors can lead us to expect or demand *truth* in places where it is inappropriate, because truth applies to linguistic representations, not to the world. Azzouni (2025, 47) makes this same point in a different context, and there are many further examples. For instance, the idea that "positive test-outcomes are *caused* by the theory's truth" (Chang 2022, 182) would fall under the same umbrella—though, so far as I can tell, Chang is the first to imagine such a view, which is distinctly different from the standard scientific realist claim that a theory's predictions are accurate because its central claims are. Predictions are linguistic objects; test-outcomes are items in the world. The problem here is real, but the view that has it is a strawman.

Notably, Chang's own position turns on what looks like the same use/mention error. For Chang, truth is a matter of "operational coherence," of a proposition being coherently relied on within a system of practice. As he clarifies:

> The sense of 'reliance' incorporates a practical and empirical need, a sense that the activity in question cannot, as a matter of fact, be performed without making use of the proposition in question. For example, most problem-solving in classical electrodynamics cannot be done without relying on Maxwell's equations. The notion of 'reliance' is meant to capture the sense in which the employment of a proposition is productive and meaningful. (Chang 2022, 183)

What we've just seen, however, is that our scientific activities do not in general rely on propositions in this way; much like positive test-outcomes, the empirical success or practical coherence of an activity is not *caused* by a proposition. To be sure: we rely on descriptions of the world to guide our actions, thinking, and decisions. Our activities exhibit a real sense of reliance in that respect. But Chang is clear that this kind of "psychological reliance" (Chang 2022, 184) is not what he has in mind; so far as I can tell, at least, he has in mind precisely the kind of reliance that he mocks his imaginary opponent for assuming.

There's another, deeper, use/mention error here that's worth teasing out. A crucial feature of Chang's account is that truth in his sense is *luminous* (though he doesn't use this term, which is Williamson's): we can always tell when we have it. It is "achievable and verifiable in practice" (Chang 2022, 200); it "can actually be tracked" (Chang 2022, 250). We cannot discover that we are wrong about it (Chang 2022, 187, 190). This feature is crucial because it provides the grounds for preferring his pragmatic account of truth to alternatives: since we can tell when we have pragmatic truth, pragmatic truth is thus pursuable (Chang 2022, 217). If positive test-outcomes are a mere indication of truth—or if we can always be wrong about whether we've found the truth—then the argument for preferring Chang's account to alternatives falls apart.

Notably, the everyday practices and activities that go into operational coherence are themselves fallible. I mean here not just that measurements and experiments can go wrong, but that a huge part of these practices and activities are designed to ward off and/or detect everyday errors. But all of these additional elements are just more fallible practices. They too can misfire; they're valuable because they decrease the chance of errors sneaking through, not because they eliminate it. So there's nothing that we do in establishing operational coherence that is not

ultimately fallible. Which means that if truth-as-operational-coherence is luminous, it must be because truth itself makes a difference—there's some sort infallible signal that activates once we pass a particular coherence threshold that is not constituted or generated by our fallible everyday practices. I take this idea to be implausible, to say the least.

I do not mean to claim that the mistake here is a use/mention error as Azzouni understands them. In demanding that truth is luminous, Chang requires of true propositions something that they cannot provide—at least cannot provide to those of us who lack direct access to the Platonic forms. But the worldly objects that we describe cannot provide luminosity either. What I see as the use/mention error here is to be found in the motivation for demanding luminosity. It is because Chang attributes powers to our representations that are only held by the objects that they represent that he thinks we need a pragmatic account of truth. Operational coherence—as Chang understands it—is at least one of the things pursued in science. But operational coherence is "reliant" on our activities and practices, not—except by way of psychology—on our representations. It is only when we commit the use/mention error that luminosity becomes something we need to ensure if our everyday practices are to be successful.

4. AZZOUNI ON QUANTIFIER NEUTRALISM

A different topic. "Quantifier neutralism" is the view that the singular or existential quantifier is not ontologically committing: sentences like "There are several hobbits more famous than Fred Astaire" can be true—literally true—without any hobbits existing at all. Azzouni himself is a neutralist in this sense—see, e.g, footnote 11 of the target paper. Many philosophers find neutralism unintuitive; some go so far as to claim that it is paradoxical or incoherent.[4] It seems to me that this is too far: whether or not neutralism is true, we can make perfectly good sense of it. The reason—or at least one reason—why it seems that we cannot is a use/mention error.

Azzouni (2017, xxix) makes the point in precisely these terms. Addressing those who find neutralism incoherent because quantifiers must range over domains, and domains must contain objects, Azzouni writes:

> talk of "domains" is metaphorical, and when the metaphor is unpacked in terms of what objectual semantics really does,

> it reduces to the claim that the opponent can't make sense of a certain set of metalanguage sentences unless they are interpreted as ontologically committing. Invoking domains is rhetorically effective but not a genuine observation about *objectual semantics*. To say, for example, that the objects themselves "are there to be used in reasoning in the metalanguage" is to commit a use/mention error.
>
> (Azzouni 2017, xxix)

The insight here is the same one that drives the target paper and (even moreso) Azzouni forthcoming. The domain of a language is not something we interact with directly—it is not "given" to us, as Azzouni puts it—but is instead something that is described using metalanguage sentences when we're setting up the language. So it's fair to point out that the neutralist requires the quantifiers of the relevant metalanguage sentences to be neutral, and we can debate whether (e.g.) English language quantifiers like "there are" or "many" are in fact ontologically committing. But to go further and take ourselves to be doing something with the objects themselves when we stipulate the domain for a language is to confuse the words we are using for the things that they mention.

I agree that there is something like a use/mention error here. I am not happy with the argument itself, however. Azzouni's claim is that the sentences that we use to set up and describe our *model theory* are themselves neutral. Straightforwardly, though, what's being mentioned in the relevant sentences are *sets*, not worldly objects. So a use/mention confusion would be thinking that we are actually interacting with the sets when we engage in objectual semantics. At first pass, at least, that's not the mistake—or at least not the only mistake—that the anti-neutralist is making here.

Allow me to spell the point out. Here's an example of the kind of elementary model theory that I take it Azzouni has in mind:

Let $\mathscr{L}$ be a language. A *model* for $\mathscr{L}$ is a pair $\langle M, i\rangle$ such that

(1) M is a non-empty set.

(2) $i : \mathscr{L} \to M \cup \mathscr{P}(M) \cup \mathscr{P}(M^2) \cup \mathscr{P}(M^3) \cup \ldots$ such that
   a. for all $c \in \mathscr{L}, i(c) \in M$.
   b. for all $R^n_m \in \mathscr{L}, i(R^n_m) \in \mathscr{P}(M^n)$

What I am describing—using the metalanguage, as Azzouni argues—is a set-theoretic construction. So if we assume that there is such a model for some language, then we are assuming that *there are* sets such as M and $i(c)$. Which means that if the metalanguage quantifiers are themselves neutral, M and $i(c)$ may not exist. The objects—the things *represented* by M and $i(c)$ and when we do objectual semantics—are another question entirely.

It thus seems to me that the feeling that neutralism is incoherent doesn't actually turn on conflating the objects mentioned with the description of them. Instead, it turns on conflating the sets M and $i(c)$ with the objects that those sets represent. Neutralism seems incoherent only insofar as we assume that (all) of the set-theoretic elements in the model of a true sentence correspond to objects in the world. My use of "correspond" is intentional. For the assumption here essentially involves a theory of *truths*, a theory of "what it is about the world that makes various propositions (or sentences) true" (Azzouni 2025, 17 fn 13). That is: to claim that there cannot be any gap between M and $i(c)$ and the objects that they represent is essentially to claim that there can be no grounds for truth other than correspondence. By contrast, to claim that there can be such gaps is essentially to claim that alternative grounds are possible. And, while there may well be good arguments for both positions here, the only reason I can see for thinking that the latter position is genuinely incoherent is a conflation of the model's sets with the worldly objects.

Contra Azzouni, then, the error here is not in confusing the world with the metalanguage that we use to describe our model theory. What's really going on is that we use the metalanguage to describe a set-theoretic construction, and then that set-theoretic construction is confused with the world that it is a model of. Or, in other words, we're using the metalanguage to describe a set-theoretic construction and then (indirectly) using that set-theoretic construction—by way of our "grip" on the metalanguage—to represent the word-world relation, and it's what's used indirectly that is confused with what is mentioned.

The complication just introduced strikes me as important, though not (so far as I can see) in serious tension with anything Azzouni says in the target article.[5] It's not in tension because when we indirectly use a set-theoretic construction, Azzouni is right that what we are directly

interfacing with is the description of that construction. But it's important because the use that we put those descriptions to often depend on features of the models so-described and it's possible—as we've seen—to conflate what's merely mentioned with what is indirectly used just as much as it is to conflate it with the words themselves. Indeed, I think that the layered nature of our relationships of use accounts for much of why these errors are so subtle and hard to spot (cf. Azzouni 2025, 8): the distinctions between use and mention are not just cognitively and linguistically slippery, they are often *messy*. We frequently (usually?) mention things not for their own sake but because we want to then (indirectly) use them to do something else. And that makes it hard—genuinely hard—to keep track of exactly what work everything is doing.

5. CONCLUSION

These are three largely disconnected examples. What unifies them is truth: at each stage, truth has been over-inflated. In the first example, the use/mention error led Duhem to require that we rely on truth, when what we really rely on are the worldly affairs that our (purported) truths describe. In the second, the use/mention error led Chang to require that truth was pursuable and thus luminous, when what we really need is only that the worldly signs of truth are pursuable. In the third, the use/mention error led the anti-neutralist to think that rejecting a correspondence theory of truths was incoherent; perhaps the correspondence theory of truths is correct, but it is not a tautology.

On reflection, this is unsurprising. Truth is a matter of the relationship between our representations and the world. When we systematically mistake representations for the world or vice-versa, these relationships appear messier than they in fact are and our account of truth must become more complicated to compensate. Tentatively, then, we should expect that systematically cleaning up these mistakes will yield an account of truth that is, if not necessarily deflationist in a technical sense, at least more in that direction. This is a result that I suspect Azzouni will welcome. Whether it turns out to be right—well, we will have to see.

Notes

[1] Azzouni (2025, 25 fn. 22) "sidelines" Millian approaches to propositions here to focus on the main point regarding use/mention; I'll do the same, though I am far less comfortable doing so than he seems to be.

[2] To be clear: this is a diagnosis. I've largely skipped over Azzouni's justification for both the diagnosis and the claim itself.

[3] There are caveats to be made here, as when "mere" manipulation of notation plays an important role. I don't have the space to explore these exceptions further here.

[4] For a systematic articulation of this objection whose subtleties I don't have the space to explore here, see van Inwagen 2003.

[5] It *is* in tension with the details of Azzouni 2017, but not, I think, the overall lesson.

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