Modeling Metadisputes

Alexander W. Kocurek¹

Cornell University

Philosophy, as well as life in general, is full of disputes that seem impossible to resolve. Sometimes, these disputes only *seem* impossible to resolve. One would hope that disputes over climate change, or the effectiveness of vaccines, are of this sort: were everyone to have all the facts, there would be no further residual disagreement. But other times, the disagreement would persist even with a consensus over the relevant worldly facts. Disagreements over whether a fetus is a person, or which logic is right, or whether free will is compatible with determinism, might be examples of this sort.

In light of an apparently irresolvable dispute D, we may adopt one of two views. First, there's **factualism**, which holds D is a factual dispute, i.e., there is a "fact of the matter" as to which side (if any) is correct. For factualists about D, the disagreement turns on a "substantive" matter in that the disputants have conflicting factual beliefs. Second, there's **semanticism**, which holds D is a verbal dispute, i.e., which side is correct is a "matter of interpretation". For semanticists about D, the disagreement turns on a verbal matter in that the disputants (whether they realize it or not) are interpreting words differently.

Let's say a **metadispute** is a dispute over whether another dispute is verbal or factual, i.e., a dispute between factualists and semanticists. My goal here is twofold. First, I aim to develop a formal theory of metadisputes that clarifies the differences between the factualist and semanticist positions and what's at stake. Second, I wish to motivate the thesis that metadisputes can themselves be verbal—a view I call **metasemanticism**. I will not present a full defense of this view here. Instead, I use the formal theory of metadisputes developed below to show that metasemanticism is at least a consistent view and briefly explain why one might think it is plausible of at least some prominent philosophical metadisputes.

A classic example of a metadispute comes from metaontology. Many ontological disputes e.g., over whether composite objects exist, or whether objects persist via their temporal parts, or whether persons are physical or psychological entities—seem irresolvable. In light of this fact, some metaphysicians have held that ontological disputes are, in some sense, verbal (Carnap, 1950; Hirsch, 2005, 2009; Sidelle, 2007; Chalmers, 2009; Belleri, 2017; Thomasson, 2017). For example, Carnap (1950) famously claimed that metaphysical disputes turn on a choice of "framework". In a similar fashion, Hirsch (2005, 2009) holds that in many ontological disputes, each side can charitably interpret the other's language so that each side speaks the truth in their own language. More recently, Belleri (2017) and Thomasson (2017) argue ontological disputes are metalinguistic negotiations, i.e., normative metalinguistic disputes over how best to use language. Others have held these disputes are factual (Quine, 1948; Lowe, 1998; van Inwagen, 1998, 2009; Hawthorne, 2009; Sider, 2009, 2011). For example, Quine (1948) famously claimed ontological disputes are no more a linguistic matter than disputes within science. Following Quine, van Inwagen (1998, 2009) insists that being is univocal, not open to multiple interpretations. Sider (2009, 2011) holds that ontological disputes concern the most joint-carving interpretation of the existential quantifier (cf. Dorr 2005).

¹ The label 'semanticism' comes from Bennett (2009), though I will use this label less pejoratively in that, as I will discuss momentarily, a dispute may be "verbal" without being *merely* verbal, i.e., without involving speakers "just talking past each other". The label 'factualism', as far as I know, is my own.

² Factualism and semanticism are distinct, but closely related, to realism and antirealism respectively. How best to understand the relation between these views is a subtle and complex matter. For an overview in the context of metaontology, see Jenkins 2010.

These metaontological disputes turn on whether ontologists mean the same thing by the existential quantifier. Factualists hold that they do: the dispute concerns what exists according to some fixed privileged quantifier meaning. Semanticists hold they do not: each side is simply using 'exist' differently. Yet it has been difficult to settle whether ontologists do mean the same thing by the existential quantifier. Factualists point to the fact that ontologists often take themselves to be using the existential quantifier the same way. Principles of charity would thus seem to demand we take these convictions at face value even if that means one of them is mistaken about the disputed ontological claim. Semanticists, in response, argue principles of charity demand we take their ontological claims at face value even if that means ontologists are mistaken about whether they mean the same thing. Both factualists and semanticists appeal to principles of charity, though in different ways, and both postulate error somewhere in the dispute, though they locate the error in different places. This raises the question: is there a fact of the matter as to which interpretation of ontological disputes is right? Or might these metadisputes themselves be verbal? And if so, how are we to make sense of this claim?

To understand such metadisputes, we must first understand what it means for a first-order dispute to be "verbal". By 'verbal disputes', I refer to **wholly verbal disputes**: disputes that solely arise from differences in interpretation (cf. Plunkett and Sundell 2013; Thomasson 2017). Some use the term to refer to **merely verbal disputes**: disputes where speakers "talk past each other", i.e., misunderstand what the other side is saying (cf. Chalmers 2011; Jenkins 2014). To illustrate, consider the following example (where the bracketed material is not pronounced):

(1) Ann: Hera called. She said she's here [in the city].

Ben: What are you talking about? Hera isn't here [in the house]!

Here, Ann and Ben have a merely verbal dispute. Ann and Ben do not *really* disagree over where Hera is: it simply *appears* that way to them due to a verbal confusion. But the subject matter of their apparent disagreement is a wholly factual one (viz., Hera's location).

By contrast, as I use the term, a "wholly verbal" dispute may involve a genuine disagreement over language. Consider a dispute between two astronomers, Ann and Ben:

(2) Ann: Pluto is clearly a planet. It has the right size, the right shape...

Ben: But what about Haumea? It has very similar properties.

Ann: I agree Haumea isn't a planet. But it's in the Kuiper belt.

Ben: So what? Surely we shouldn't define 'planet' so arbitrarily.

Ann: Why not? \dots (etc.)

Here, Ann and Ben may know all the relevant astronomical facts, and may even know all the relevant facts about how the word 'planet' is used, including that each side is using it differently. Even so, a disagreement between them persists: it is not about how the term 'planet' is defined (whether by them or the relevant linguistic community), but rather about how it should be defined (i.e., a metalinguistic negotiation), or (as I'd prefer to put it) how to define it. They are trying to decide how to classify Pluto, not discover how Pluto is currently classified.

For the sake of space, I will restrict my attention in what follows to genuine disputes, i.e., disputes not based on a verbal confusion. So I will set aside merely verbal disputes and focus on debates over whether some dispute is wholly or partly verbal. Semanticism, then, is not committed to the claim that the dispute in question is pointless, or based on a misunderstanding: it just states that the dispute is over language.

³ This is similar to the "speaker error objection" to metalinguistic negotiations: that interpreting a dispute as a metalinguistic negotiation requires postulating error on the part of the speakers as to what they're talking about. See Plunkett and Sundell 2021 for discussion and responses to this objection.

Elsewhere, I defend an account of wholly verbal first-order disputes as practical disputes over how to interpret words (Kocurek 2022; cf. Vermeulen 2018). I will briefly summarize the account before generalizing it to metadisputes. Following Grice (1968) (cf. Pinder 2021), distinguish speaker meaning, i.e., what a speaker means by an expression ("S means m by e"), from semantic meaning, i.e., what an expression means in a language or linguistic community ("e means m in L"). The former is largely determined by the speaker's intentions, whereas the latter by the collective intentions of a community/external factors (cf. Cappelen 2018). While speakers often intend to align their speaker meaning with semantic meaning, they may sometimes intend not to (e.g., to advocate for a new meaning). Thus, we should separate a speaker's semantic beliefs, i.e., their beliefs about what an expression semantically means, from their semantic plans, i.e., their plans for what speaker meaning to assign to an expression. Wholly verbal disputes arise when the speakers' semantic plans recommend different interpretations of the disputed claim given their beliefs.

To clarify this picture, let's model the meaning of an expression as an **intension**, i.e., a function from worlds to extensions. An **interpretation** is something that, at the very least, determines an assignment of intensions to every expression of the language. Here, we'll focus on the intensions assigned to sentences, i.e., propositions (generalization to subsentential expressions is straightforward). We can model a speaker's mental state S as a set of interpretation-world pairs (cf. Kocurek et al. 2020; Mena 2022). Intuitively, $\langle i, w \rangle$ is in S if w is compatible with the speaker's beliefs and i is compatible with the speaker's semantic plans given that w obtains. We say S accepts a sentence ϕ if ϕ is true at every $\langle i, w \rangle \in S$. We say S rejects ϕ if ϕ is false at every $\langle i, w \rangle \in S$. Two speakers **disagree** over ϕ if one accepts ϕ while the other rejects it. A disagreement is **wholly verbal** if, roughly, they do not disagree over the proposition expressed by ϕ on any interpretation they leave open—or, put differently, their disagreement would dissolve were either side to adopt any interpretation left open by the other. Otherwise, it is **partly factual**. It is **wholly factual** if, roughly, they disagree over the proposition expressed by ϕ on any interpretation they leave open—or, put differently, their disagreement would persist were either side to adopt any interpretation left open by the other. Otherwise, it is **partly verbal**.

On this account, metadisputes ultimately hinge on whether the two sides of the first-order dispute (speaker) mean the same thing by the disputed claim—or at least, whether there is enough of a shared (speaker) meaning that the dispute survives precisification. Yet whether this is so might itself be a matter of interpretation. One way this can happen is if we think beliefs and intentions come in degrees. On a widely held view of belief, belief is just a matter of having sufficiently high credence (see Jackson 2020 for an overview). But one could argue that what counts as "sufficiently high", even in a given context, is a matter of interpretation. Similarly, Goldstein (2016) defends a view of intention on which intention comes in degrees, arguing that full intention is just a matter of having a sufficiently high degree of intention. Thus, if semantic intentions come in degrees, then what a speaker means will depend on the threshold we set for full intention, which may be a matter of interpretation.

There is another, and perhaps more relevant, way to conclude that whether a dispute is verbal or factual can be a matter of interpretation: what a speaker means or believes may be

⁴ Krifka (2012) develops a similar model of common ground in terms of a pair of a set of worlds and a set of interpretations. Here, we instead adopt the more fine-grained model using a set of pairs of interpretations and worlds. This helps capture conditional intentions ("If w obtains, interpretation e like so...").

 $^{^5}$ Since some disputes are partly verbal and partly factual, we should distinguish (strong) factualism about D, i.e., the view that D is wholly factual, from weak factualism about D, i.e., the view that D is at least partly factual—and likewise for semanticism. In principle, metadisputes may be between proponents of weak or strong versions of these views. To simplify, I'll restrict my attention to metadisputes between the strong versions.

underdetermined by the sentences they accept, as in cases of radical interpretation (Davidson, 1974; Dennett, 1987). As Davidson observes, there will likely be multiple ways of carving up a speaker's beliefs and intentions so that they come to accept the very same sentences. While he suggests that we might be able to narrow the interpretations of a speaker if we assume they are part of a community of speakers who all tend to coordinate their usage of language, he says, "it is not likely that only one theory will be found satisfactory." And if we leave open the possibility that the speakers are unknowingly engaged in a verbal dispute, this leaves more room for underdetermination.

Metasemanticism may therefore be plausible in cases where at least one of the speakers' beliefs or semantic plans are themselves open to interpretation. For example, a metasemanticist about ontological disputes would hold that even given all the sentences each side accepts, there are multiple ways to interpret the mental states of ontologists, some of which render their dispute factual and others which render it verbal. To illustrate how this could be, consider two ways to model the mental states of the mereological realist, who holds that composites exist, and the mereological nihilist, who does not. Let's stipulate, for ease of exposition, that both sides take realism and nihilism to be noncontingent: one of them is necessarily true and one of them is necessarily false. On a factualist model, both the realist and the nihilist interpret the existential quantifier in (roughly) the same way, but at least one of them (factually) believes something impossible. So if, say, composites are impossible, the realist's belief state can be modeled as a set of impossible worlds where composites exist. On a semanticist model, by contrast, both the realist and the nihilist have (roughly) the same factual beliefs, but their interpretation of the existential quantifier differs. So both the nihilist's and the universalist's beliefs may leave open the same possible worlds, but one interprets 'There are composite objects' as necessarily false whereas the other interprets it as possibly true (and, arguably, actually true). Put differently: the factualist models these mental states using the same interpretation but different state spaces, whereas the semanticist models them using different interpretations but the same state space.⁶

To be clear, I am not endorsing this line of reasoning. I present it just as a motivation for metasemanticism. There are ways to resist it, of course. For instance, one could insist that there are some objective criteria that rule out one of these models. But for present purposes, it does not matter whether such metadisputes are actually verbal. My goal is, first and foremost, to understand what it would mean to say they are.

We can model the difference between metafactualism and metasemanticism more formally using accessibility relations on interpretation-world pairs. Below, we work with a propositional language and restrict attention to disputes between two speakers over whether some claim ϕ is true. (Generalization to quantificational languages, disputes with more than two agents, and disputes over arbitrary questions is omitted.) Our language is defined as follows:

$$\phi := p \mid \neg \phi \mid (\phi \land \phi) \mid \langle f \rangle \phi \mid \langle v \rangle \phi$$

Here, $\langle f \rangle \phi$ says the speakers at least partly factually disagree over ϕ and $\langle v \rangle \phi$ says the speakers at least partly verbally disagree over ϕ . We can define other notions from these:

$$[f]\phi := \langle f \rangle \phi \land \neg \langle v \rangle \phi$$
$$[v]\phi := \langle v \rangle \phi \land \neg \langle f \rangle \phi$$
$$(d)\phi := \langle f \rangle \phi \lor \langle v \rangle \phi$$

⁶ Notice the metasemanticist is not disputing the meaning of 'verbal dispute' or any other word. Rather, they are claiming it concerns how to interpret the dispute itself, i.e., how to interpret the mental states of the speakers involved. In this respect, the motivations for metasemanticism are not quite like those for first-order semanticism: the former is concerned with the interpretation of mental states, not with words directly.

Here, $[f]\phi$ says the speakers have a wholly factual disagreement over ϕ , $[v]\phi$ they have a wholly verbal disagreement over ϕ , and $(d)\phi$ they have some sort of disagreement over ϕ . Models are tuples of the form $\mathcal{M} = \langle W, I, S_0, S_1, \llbracket \cdot \rrbracket \rangle$ where W is a set of "worlds", I is a set of "interpretations", each $S_k \subseteq (I \times W)^2$ is an accessibility relation, and $\llbracket p \rrbracket \subseteq (I \times W)^{.7}$ The set $S_k(i,w) = \{\langle i',w' \rangle \mid \langle i,w \rangle S_k \langle i',w' \rangle \}$ represents the mental state of speaker k at w as interpreted by i. The set $B_k(i,w) = \{w' \mid \exists i' : \langle i',w' \rangle \in S_k(i,w) \}$ represents speaker k's belief state. The set $I_k(i,w) = \{i' \mid \exists w' : \langle i',w' \rangle \in S_k(i,w) \}$ represents the interpretations speaker k's semantic plans leave open given their beliefs. We define truth for arbitrary formulas as follows (dropping \mathcal{M} for readability). For atomics, $\llbracket p \rrbracket^{i,w} = 1$ iff $\langle i,w \rangle \in \llbracket p \rrbracket$. Booleans are standard. For disagreement operators, where $\llbracket \phi \rrbracket^j = \{w \in W \mid \langle j,w \rangle \in \llbracket \phi \rrbracket \}$:

Roughly, assuming each speaker univocally adopts a single interpretation at the index of evaluation (i.e., their mental state is of the form $\{i\} \times B$), a disagreement over ϕ is at least partly factual iff they still disagree over the proposition expressed by ϕ on at least one of their interpretations. It is at least partly verbal iff they do not disagree over the proposition expressed by ϕ on at least one of their interpretations. More generally, a disagreement over ϕ is partly factual iff one of the speakers leaves open an interpretation of ϕ such that they still disagree even on that interpretation, whereas it is partly verbal iff one of them leaves open an interpretation of ϕ such that they do not disagree on that interpretation.

Figure 1 illustrates models of different kinds of "first-order" disputes in this framework. Each node represents an interpretation-world pair (the interpretations determine the "rows" while the worlds determine the "columns"). The arrows represent the accessibility relations of the two speakers. In each case, the blue speaker (S_1) accepts p at each node while the red speaker (S_0) rejects p—in other words, for each $\langle i,w\rangle$ pair in the model, $S_1(i,w)\subseteq [\![p]\!]$ while $S_0(i,w)\subseteq [\![\neg p]\!]$.8 To check whether the speakers disagree over ϕ (i.e., whether $(\mathsf{d})\phi$ is true) at a given node, simply check that every blue-accessible node, and no red-accessible node, satisfies ϕ . One can determine the status of a disagreement over ϕ as follows. First, vertically move the blue shading on the blue-accessible nodes to each row with a red-accessible node, and check whether ϕ is false on any of those nodes. Next, do the same for the red shading on the red-accessible nodes, checking whether ϕ is true on any of those nodes. If the answer is always no, then the disagreement is wholly factual. If the answer is always yes, then the disagreement is wholly verbal. If the answer is sometimes yes and sometimes no, then it is partly both.

In these cases, no metadispute arises: the speakers involved agree over the status of their dispute. Figure 2 illustrates cases where the speakers also have metadisputes over the status of their dispute. In both cases, the blue speaker accepts their dispute over p is wholly factual while the red speaker accepts it is wholly verbal. In the leftmost model, the speakers agree their metadispute is wholly factual. In the rightmost model, the blue speaker accepts their metadispute is wholly factual while the red speaker accepts it is wholly verbal; and similarly for their metametadispute, etc. This shows that it is not only consistent for one to accept either metasemanticism, but it is even consistent for one to accept semanticism "all the way up".

⁷ Interpretations (i.e., members of I) are treated as arbitrary points. Their associated assignment of intensions is determined by $\llbracket \cdot \rrbracket$.

⁸ Note, this includes the uncolored nodes in the rightmost model, though only vacuously so, since $S_k(i_2, w_1) = S_k(i_1, w_2) = \emptyset$ for each k.

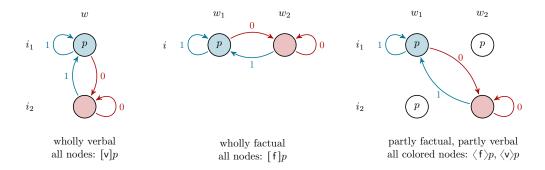


Figure 1: Models of different kinds of disputes. Nodes represent interpretation-world pairs. Arrows represent the accessibility relation. In each case, the dispute has the same status at every colored interpretation-world pair.

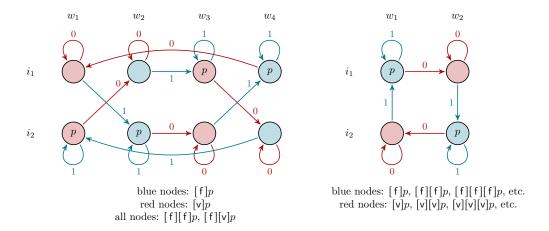


Figure 2: Models of different kinds of metadisputes. In the left model, the speakers disagree over p and disagree over whether their dispute is verbal but agree their metadispute is factual (metafactualism). In the right model, the speakers disagree over p, over whether their dispute is verbal, over whether their metadispute is verbal, etc. The blue speaker accepts factualism at all orders while the red speaker accepts semanticism at all orders.

In closing, return to the metaontology example. As noted earlier, metadisputes over ontological disputes turn on whether ontologists mean the same thing by the existential quantifier. So if we think there is no fact of the matter as to whether we should model the mental states of ontologists in terms of shared beliefs or shared semantic plans, the dispute over whether ontological disputes are verbal may, itself, be verbal. Not only is such a view technically possible, but also there are at least some reasons for thinking in could be true: there are factualist and semanticist models of the mental states of ontologists and it is hard to see what objective fact would settle which is correct. All this suggests that metasemanticism is a viable metametaontological view worth taking seriously. Whether it is, as I suspect, the most promising such view will have to be taken up elsewhere.

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