

## Logical Realism and the Metaphysics of Logic

*Abstract:* ‘Logical Realism’ is taken to mean many different things. I argue that if reality has a privileged structure, then a view I call *metaphysical logical realism* is true. The view says that, first, there is ‘One True Logic’; second, that the One True Logic is made true by the mind-and-language-independent world; and third, that the mind-and-language-independent world makes it the case that the One True Logic is better than any other logic at capturing the structure of reality. Along the way, I discuss a few alternatives, and clarify two distinct kinds of metaphysical logical realism.

Many philosophers think that there is ‘One True Logic’ (hereafter ‘OTL’): there is a single logic (or, perhaps, a small plurality of logics) that is objectively correct.<sup>1</sup> But beyond the claim that certain general logical principles (e.g., many think, the Law of Non-Contradiction) are true, it is unclear what this really *means*, and in particular, what *makes* the OTL true.

The first aim of this paper is to make explicit one view about what makes the OTL true: *metaphysical logical realism*, hereafter ‘MLR’. This view takes the OTL to either directly correspond to the structure of mind-and-language-independent reality or to be located in mind-and-language-independent reality. The second aim is to argue that if reality has a privileged structure, then MLR is true.

Why should we care whether MLR is true? One reason is that it may conflict with various assumptions that are often made about logic; e.g. that logic is topic neutral (or, relatedly, that it is perfectly general); that it is ontologically neutral (it doesn’t commit us to any particular ontology); that inquiry into logic is special and distinct from other kind of theoretical inquiry; that logic is not *revisable*; and that logic is wholly *a priori*, whereas other kinds of inquiry are not. All of these assumptions might be motivated by thinking that logic has nothing to do with the world. As we will see, MLR locates logic, or at least, *structure* that logic reflects, in the world, and hence, if MLR is true, there is no immediate reason to think that inquiry into logic is special and distinct from other inquiry into reality. Further, for the metaphysical logical realist, logic is certainly not ontologically neutral (our logical commitments either *are* ontological commitments, or are shaped by our ontological commitments). Neo-Quinean and other “anti-exceptionalist” philosophers of logic (e.g. Hjortland (2017), Maddy (2002, 2007, 2014), (Priest (2006a, 2014), Russell (2014), Williamson (2013, 2017)) reject some or all of these assumptions, but not, typically, for the same reasons that the metaphysical logical realist does.

More importantly, my sense is that many metaphysicians take some subset of these assumptions for granted. Hence my second aim: if the views of many metaphysicians *entail* MLR, then they

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<sup>1</sup> E.g. Read (2006), Priest (2006a), Williamson (2013, 2017); my sense is that many metaphysicians implicitly endorse something in the ballpark.

must cease treating logic as a neutral background to their arguments; they must cease appealing to logical principles uncritically in arguing for metaphysical conclusions; and they should be more interested in the logical commitments of their views.

This paper is modest: I aim to uncover metaphysicians' implicit commitments to MLR. There are other bodies of literature that contain implicit acceptance and rejection of MLR, for example, the discussion of pluralism vs. monism in philosophy of logic. For an overview of pluralism, see Cook (2010).

## 1. Metaphysical Logical Realism and the “One True Logic”

‘Logical realism’ is sometimes used to just refer to the claim that there *is* OTL. But what does this claim mean? As a first pass, something like: there is a unique collection of logical principles, each of which is true, that together constitute the uniquely correct logic, and that no other collection of principles can do the job. However, in order to clarify this, we need to clarify what logic’s job *is*. We use all sorts of logics in specific arenas (e.g. we use fuzzy logic to program rice cookers), but we don’t think that fuzzy logic is the OTL, even if it is right to think of it as *true of rice cooker programming*. So, we really need the “OTL” to be the logic that correctly captures whatever it is that we think logic is *for*. In order for it to make sense to think that there is OTL, we need to think that logic has a unique purpose or goal.

One way of thinking about this question of what it really means to say that there is OTL is this: what is it that makes the OTL the “special” true logic? We clearly aren’t trying to only get at the nature and function of rice cookers with our logic, and that is why fuzzy logic is not the OTL. But what are we trying to do? Different answers generate very different theoretical commitments about what it is to be committed to there being OTL.<sup>2</sup> The metaphysical logical realist thinks: logic is for capturing the structure of mind-and-language-independent reality.

Some have distinguished something like MLR from other forms of logical realism by appealing to the question of whether logic is “in the world” or is representational. (E.g. Rush (2014) Tahko (2014).) I don’t put things this way in order to accommodate the view that (i) it is a category mistake to think that logic is in the mind-and-language independent world (if one thinks that logic has to do with linguistic entities and the relations between them, and that linguistic entities are not *in* the mind-and-language independent world), but (ii) the reason that it is correct to use a certain logic to describe the world is that the logic conforms to the structure of the world.

Resnik (1999) and Lapointe (2014) each discuss the merits of a principle of *independence*: that the logical truths are true independent of our minds/language. Rush (2014) explores a conception of logical realism on which logic is about *independently existing structures*. This view, in part, helps motivate the idea that logical realism can do work for us in the same way that mathematical realism does. This idea of independence is close to the way I will define MLR; but in section two I will tie one kind of MLR to appearance in descriptions of reality, which complicates taking realism to require language-independence.

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<sup>2</sup> I use the machinery of truthmakers to talk about this issue throughout the paper; it would be easy enough to reconstruct the discussion, and my argument, without them.

I will take *MLR* be the conjunction of the following claims:

- (a) There is OTL.
- (b) What makes the OTL true is the mind-and-language-independent world.
- (c) The OTL is *metaphysically privileged*: better than any other logic at capturing the nature of reality.

Without (c), my definition is weak and uninteresting. First, it seems to allow for views on which the OTL is relative to something. (Rice cookers are arguably part of the mind-and-language-independent world, but that doesn't mean that fuzzy logic is the OTL.) I don't think such views should count as realist views. For example, the truth of a logic might be relative to a language, a frame of reference, or a mathematical structure (Shapiro 2014), or a notion of validity (e.g. Beall and Restall (2006)). The problem is that the truthmaking relation invoked in (b) is not fine-grained enough. (c) ensures that the OTL is not relative to the language that we happen to be speaking, or to the particular mathematical structure we happen to be focusing on, or to the particular notion of validity we are using.

Without (c), *MLR* is consistent with what many take to be metaphysical *anti*-realism: the world is something like a blob of dough, and we can correctly carve it up pretty much any way we want. The metaphysical logical realist thinks that either logic is in the mind-and-language-independent world, or it correctly captures the structure of that world. Suppose the latter is true. Without (c), there is nothing to guarantee that the OTL is the logic that *does the best job* capturing that structure. The easiest way to see this is by thinking about *quantifier variance*. The quantifier variantist (e.g. Hirsch (2009), (2010)) thinks that there are multiple, equally good existential quantifiers, none of which is a mere restriction on another. For example, he might think that the compositional nihilist, who thinks that no composite objects exist, simply means something different by "exist" than the universalist, who thinks that any objects form a new object. Neither of these ways of talking about the world is better or worse, according to the quantifier variantist; and both are made true by the world itself. Notice that if we think about logic this way, (a) and (b) together do not do enough to establish *MLR*. For we might claim that "any logic is made true by the world", and then disjoin all of these logics to create a "single" logic that satisfies (a). But a massively disjunctive, pluralistic logic (each disjunct of which corresponds to a different way of carving up reality) is not what the metaphysical logical realist is after.

To help clarify *MLR*, consider some other views about logic. We might take truthmakers for the true logical principles to lie somewhere in *our psychology*, *our concepts*, *our minds*, or *our language*. On this view—call it *broad psychologism*--the OTL is true in virtue of correctly describing something about us or the way we represent things: the way we actually reason, the way our concepts are actually divided up, or the way our languages are actually structured. What distinguishes the OTL from false logics is that false logics do not correctly describe any of these things. Broad psychologism is a kind of realism; its proponents think that there is a single logic (or a small plurality) that correctly captures something objective about reality; and that the logical principles of that one logic are actually true, whereas the logical principles of other logics are (perhaps) false. But broad psychologism is not *MLR*, because it locates the truthmakers for

true logical principles in us, and makes no further attempt to connect us up to mind-and-language-independent reality.

There is a version of broad psychologism—call it ‘logical rationalism’—which might count as MLR, but it involves controversial assumptions. Logical rationalism says that it is indeed the structure of our minds, concepts, or language that make the OTL true; but that, in turn, our minds, concepts, and language *correspond accurately* to mind-and-language-independent reality; and so ultimately, the OTL is made true by mind-and-language-independent reality, while somehow being *mediated* by facts about us. If logical rationalism counts as MLR, it involves a commitment to a certain epistemology and explanatory structure that are outside the scope of this paper, so I won’t discuss it further here.<sup>3</sup>

Another view about the OTL is that its truthmakers are the correct norms of reasoning. This could count as MLR, depending on how it is cashed out. Neo-Kantians (like Leech (2015)) might believe that the OTL captures the correct norms of reasoning, and are perfectly objective, but think that those norms do not come directly from mind-and-language-independent reality. This view does *not* count as MLR, because those norms are not connected up with mind-and-language-independent reality in a straightforward fashion. But someone who thinks that logic is about norms of rationality, and those norms of rationality immediately *come from* mind-and-language-independent reality, might count as a metaphysical logical realist.

## 2. MLR and Metaphysical Structure

The remainder of the paper focuses on views on which the OTL is true in virtue of correctly capturing the structure of reality. Elsewhere, I distinguish between two forms of MLR: *ontological logical realism* and *ideological logical realism* (McSweeney 2017).

Ontological (metaphysical) logical realists—hereafter ‘ontological realists’—think that the OTL is true in virtue of directly reflecting something about items in our ontology. There are multiple ways ontological realism could be true. For example, one might think that ‘&’ refers to some kind of conjunctive function that is an important part of reality. One view on which this might be true says that reality is made up of facts. A fact, for these purposes, is a state of affairs (an object instantiating a property, for example), rather than simply a true statement or proposition. So facts, on the relevant view, are what *make* statements true, rather than being themselves bearers of truth.<sup>4</sup> If this view includes the claim that among those facts are *conjunctive* facts which have constituents that are something like functions that “hold” two conjuncts of a fact together, then those functions may be the “worldly” correlates of our logical constants. Another view says that some kind of abstract logical entities (functions, law-like things, truth values, propositions, etc.) live in a “third realm” and make the logical truths true (e.g. on some readings (e.g. Burge (1992)), Frege’s (1918) view belongs here, as perhaps does Husserl’s (1900).).

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<sup>3</sup> I am not sure whether anyone holds this view, exactly. The closest views I know of are Evnine’s (ms) interpretation of Frege, Jenkins (2014), and Maddy (2002, 2014), though I construe Maddy’s views as even more realist than this. It has also been suggested to me that this is Kant’s view.

<sup>4</sup> This kind of ontology is advocated by Armstrong (1997). For further discussion of fact-based ontology, see Mulligan and Correia (2017).

Ideological (metaphysical) logical realists—hereafter ‘ideological realists’—think that the OTL is the OTL in virtue of being a part of the language (ideology) that best captures the structure of reality. The most obvious example of a contemporary ideological realist is Sider (2011), who argues that logical notions are in the most fundamental language—the language that perfectly captures reality’s structure—but that there are not bits of fundamental ontology to which logical terms refer.

Maddy, who argues that “logical truths are true because the world is made up of objects enjoying various interrelations with dependencies between them” (2002, 501), also counts as an ideological realist. According to Maddy (2014), the world consists of objects that are related to/dependent on one another in certain ways; the structure of these relations and dependencies is the very structure of (basic) logic; and classical logic is something like an abstraction or idealization from this basic logical structure. Thus, just as is the case with any abstraction or idealization, classical logical principles will not perfectly mirror this basic logical structure. But this does not mean that it is not our best theory, just as physical theories that involve abstraction or idealization may be our best physical theories despite not perfectly mirroring physical reality. Maddy argues (more tentatively) that of the options we have available, classical logic is, indeed, our best logical theory.

Not all ways of being a metaphysical logical realist neatly divide into ontological or ideological realism. For example, Tahko (2009) argues that the Law of Non-Contradiction might be a metaphysical, rather than merely logical, law or principle. (Tahko (2014) also develops a related distinctively metaphysical account of logical truth.) Whether this view counts as ontological or ideological realism will depend on the status of these metaphysical laws: if the laws are roughly Humean—that is, if they are merely descriptive of reality’s structure, and are not additional items in our ontology, then it may be a version of ideological realism. If the laws are roughly anti-Humean—that is, if they are primitive items in our ontology, or if they are “oomphy” and *constrain* or *determine* reality--then it may be a version of ontological realism. But in what follows, I will focus on more straightforward versions of ideological realism.

There are not many direct statements of, or arguments for, MLR. But it seems to be lurking beneath the surface of many metaphysical views. In the remainder of this section, I will argue that anyone who thinks that reality has a privileged metaphysical structure should be an ideological realist.

Metaphysicians often focus on the question of what fundamental reality is like. Those who give a positive answer to this question typically attribute a *structure* to reality. What is it to think that reality has a privileged structure? Rather than define the notion, I will just say that all of the following sorts of views are committed to reality having a privileged structure:

- Fundamentally, the world consists only in objects.
- Fundamentally, the world consists only in properties (e.g. Paul (2002), Cover and O’Leary-Hawthorne (1998)).
- Fundamentally, the world consists only in a single, purely general fact (e.g. Dasgupta (2009)).
- Fundamentally, the world consists in only states of affairs (e.g. Armstrong (1997)).

- Fundamentally, the world consists in a single structured object (e.g. Schaffer (2010)).
- I'm not sure what the world fundamentally consists in, but it has some structure and science is going to help figure out what that is.

The only kinds of views that *don't* count as views on which reality has a privileged structure are those like the following:

- The world consists in a single unstructured (or completely indeterminately structured) object.
- Insofar as there is an "external" question about what reality is *really* like, it can only be answered pragmatically; all we can do is give true descriptions of it in whatever language we happen to be speaking. (e.g. Carnap 1950, Thomasson 2015.)
- All of these descriptions of reality are equivalent, and there is nothing more to say (e.g. about some issues, Rayo (2013) and Hirsch (2009), (2010)).

Note that while I used the word 'fundamentally' to prefix the views above according to which reality has a privileged structure, one needn't think it makes sense to talk of fundamentality at all in order to endorse the claim. It is enough to simply think there is an objective fact of the matter about *what reality's structure is like*.

In the final section of the paper, I will argue that all of the views of the first type are committed to MLR.

### 3. If Reality Has A Privileged Structure, Then MLR Is True.

I first want to introduce some useful distinctions, adapted from Rayo (2013). Rayo first introduces *Metaphysicalism*, the combination of two claims:

- (1) Reality has a metaphysical structure--there is a single "metaphysically privileged way of carving up reality into its constituent parts". (6),
- (2) "In order for an atomic sentence to be true, there needs to be a certain kind of correspondence between the logical form of a sentence... and the metaphysical structure of reality". (6).

*Moderate metaphysicalism* is (roughly speaking) the combination of (a) and:

- (3) Fundamentally speaking, or when we are explicitly trying to capture the correct metaphysics of reality, (b) holds; but it doesn't hold generally—we can say all sorts of true things about reality that don't perfectly capture the metaphysical structure of reality. (Adapted from Rayo (2013, 9)).

With these views on the table, I will argue that anyone who thinks that reality has a privileged structure is committed to MLR. The argument goes like this:

**P1:** Anyone who thinks that reality has a privileged structure must be either a metaphysicalist or a moderate metaphysicalist.

**P2:** Metaphysicalists and moderate metaphysicalists are committed to MLR (typically ideological, rather than ontological).

**Conclusion:** Anyone who thinks that reality has a privileged structure is committed to MLR.

Many philosophers seem to already embrace this conclusion. For example, Priest (2006b, 302) says that “metaphysical dialetheism is simply a consequence of semantic dialetheism plus the appropriate form of metaphysical realism”. Semantic dialetheism is the view that dialetheism lives at the level of semantics, and that any true contradiction could be re-described in another possible language in a consistent way; metaphysical dialetheism, translated into my framework, is something like the view that there are “contradictionmakers” in the world, and the only (or perhaps best) way to capture them linguistically is via true contradictions. “The appropriate form of metaphysical realism” is, for Priest, something like the claim that reality has a privileged structure. (He doesn’t put it this way, but what matters is that there is something about objective reality constraining us from engaging in these re-descriptions of true contradictions. And this precisely fits with the way I am thinking about reality having a privileged structure.)

Wyatt (2004) argues that logical pluralism (of the form that says that what logic is true is relative to the notion of validity we are working with) is incompatible with monism about metaphysical modality. One might see the above argument as a generalization of her argument (that is, that logical pluralism is incompatible with *many* metaphysical commitments). Sider (2009) argues for moderate metaphysicalism (though he doesn’t use this term), and also argues that logical expressions will appear in the most fundamental description of reality. Sider argues only that *particular* logical expressions, e.g., the existential quantifier, will appear in most fundamental theory (2011, ch. 10), not that moderate metaphysicalism entails a commitment to MLR. But this claim is, I think, implicit in his (2011). Something like my argument appears to be in the background of Putnam’s early work on quantum logic, which seems to assume that science—because it tells us something about reality’s structure—tells us something about the correct logic (1975). This is just a version of the assumption that my argument fleshes out (with the additional claim that we learn about reality’s structure from physics). And, as we’ll see, Dasgupta (2009) makes a similar assumption.

Since moderate metaphysicalism is weaker than metaphysicalism, I will only argue for the claims about moderate metaphysicalism in what follows.

One way of interpreting (3) is that, in the language of the ontology room (“Ontologese”), the following holds:

In order for an atomic sentence to be true, there needs to be a certain kind of correspondence between the logical form of a sentence... and the metaphysical structure of reality.

The idea here is that true sentences are much harder to come by in Ontologese than they are in English. For example, one way to state mereological nihilism (the view that there are no composite physical objects) is this: “there are tables” is true in English. But “there are tables” isn’t true in Ontologese, because fundamentally, there really are no tables. For something to be true in Ontologese, there must be a direct correspondence between the logical form of a sentence and the metaphysical structure of reality. But as there are no tables (that are singular objects) in reality, it cannot be true (in Ontologese) that there are tables.

Given this interpretation of (3), P1 will simply follow from (1) and (3) together with the claim that there are contexts in which we must speak Ontologese rather than English. If I think that reality has a particular privileged structure, then presumably there are at least some contexts in which I want to communicate what it is like to others. I should want to communicate the facts about various regions of reality in a way that best captures what I actually think that those regions of reality are like. For example, if I am a strict generalist (roughly: I think that there are not really individuals, not even non-fundamental ones, but rather that there are is just one big fact), I will think that there are no such thing as tables or coffee cups. I might maintain that in the day-to-day, it is okay for us to say, in English, that the coffee cup is on the table. But sometimes, I need to say that I don’t really believe there are tables or coffee cups.

You might object by claiming that reality has a particular privileged structure, but it is simply unimportant what reality is *really* like, because (e.g.) there are practical matters that we must instead attend to. But note that merely successfully *forming the belief* that within reality’s privileged structure, there are no tables or coffee cups requires that we need to think in a context in which we can distinguish this view from the view that there are tables and coffee cups. So even if we think our views don’t matter, in order to hold them in the first place, we need a context in which we can distinguish them from one another.

Suppose again that I am a generalist, and you are an individualist (you think there are fundamental individuals). We must find ways to state how we think about comparable chunks of reality which showcase the *differences* in our commitments. You need to be able to say that there is a brown table; I need to be able to state my claim about that chunk of reality, (something like “brownness and tableness (here)”). We don’t agree about what reality is like in the table-y region of reality in front of us; and we need a way to state our views such that (a) it is clear what each of us thinks is going on in the table-y region in front of us and (b) it is clear exactly how we disagree. You might say ‘ $(\exists x)(Bx \& Tx)$ ’. As Dasgupta (2009, 50) points out, I might say something superficially similar, using what looks like predicate logic with identity but without individual constants: ‘ $(\exists x)(Bx \& Tx)$ ’. But if I did this, we would mean different things by our existential quantifier and bound variables. This is non-ideal: it transforms our disagreement about the metaphysical question of what reality is really like to one about what our logical terms *mean*; and, at best, results in us having to do something like subscript our expressions to distinguish them from one another.

Our two sentences make wildly different *logical commitments*, even if they have superficially similar logical forms. We might both be able to use something that looks like this: ‘ $(\exists x)(Bx \& Tx)$ ’ to express our views, but this is not because there is some logically neutral way that we can communicate our views. It is because the logical commitments of our respective

sentences correspond to the metaphysical structure we posit. To see this, note the following: if I decide to use ‘&’ to express conjunction, and you use it to express neither/nor, then when I write down ‘A&B’ and you write down ‘A&B’, these are distinct sentences which have distinct logical commitments.

The same is true with respect to what the generalist and the individualist use ‘ $\exists$ ’ and ‘x’ to symbolize. The generalist’s quantifier will clearly have (a) a distinct semantics, (b) a distinct inferential role, and (c) *if* it refers to anything, its referent will be distinct. (a)-(c) exhaust the standard accounts of logical constants. So the sentences contain distinct logical constants. So, if logical form is individuated by what logical constants actually appear in a sentence, these sentences have distinct logical forms. (If it isn’t, no matter: we can define a notion of logical form\*, and replace “logical form” with “logical form\*”.)

The best reason for the generalist to use an alternative logic (one which contains neither quantifiers nor what we would normally understand to be individual constants) is that the sentence ‘ $(\exists x)(Bx \& Tx)$ ’, even re-interpreted so as not to quantify over individuals, *obscures* the metaphysical commitments of generalism; it would be better to communicate using a sentence the grammar of which corresponds to the structure of reality, so we can easily see the commitments of the sentence (hence, the generalist’s alternative logic, which is not even superficially committed to individuals). But either way of going demonstrates that the generalist has distinct logical commitments from the individualist; what matters is that the generalist and the individualist are using distinct logical *concepts* to state their views, and that they each understand that they are using distinct logical concepts.

More simply: if one thinks that the world has a privileged metaphysical structure, then one needs a way to express that structure that distinguishes it from other possible structures the world could have. If we grant that all of the descriptions are *true*, regardless of which one we think is privileged, then we need some other way to express the differences between what we are committed to. The best way to do this is to state things with distinct logical forms that wear their grammar on their face—logical forms that correspond to the structure of what it is that we are actually committed to, metaphysically speaking. So long as it is clear that we have different logical *commitments*—that we require different logical concepts to state our views in a way that differentiate them from one another—that is enough to recover what is important about moderate metaphysicalism here.

Once we are clear on what ideological logical realism is committed to, it is hard to resist P2. Ideological realism says that the OTL is true in virtue of being a part of the language that best captures the structure of reality. Moderate metaphysicalists think that there is a language that best captures the structure of reality. The only real question is whether that language *has* a logic. There is room to resist the claim that any adequate metaphysically privileged theory requires a language with a logic. But doing so severely limits our options about what reality is fundamentally like.

Suppose that you think the world only consists in unstructured atomistic facts, as defended by Turner (2016). On the one hand, you still need an ideology—a theory—that is going to explain how those atomistic facts relate to one another. On the other hand, you might claim that your

theory of how those facts relate to one another is not itself a theory of fundamental reality, but rather a meta-theory *about* the theory of fundamental reality. Regardless of whether you think this move is plausible, this case is exceptional: almost every view about what there is, fundamentally, and how it all relates, requires a logic.

If reality is structured, its privileged description has some kind of logical structure (e.g. object-predicate structure if one thinks that fundamentally, there are objects instantiating properties). Here, I've just argued that commitment to metaphysical structure entails some minimal commitments to logical structure. These minimal commitments are, strictly speaking, consistent with different logics being the OTL (for example, standardly, even classical logic and dialetheist logics both commit to the same object-predicate structure).<sup>5</sup> However, once we start invoking logical constants in our privileged descriptions of reality, which it is hard to see how we can avoid, we will be committed to ideological realism about those constants. Why think we need any logical constants in our privileged description of reality? I haven't shown that we do; but it seems obviously hard, perhaps impossible, to give the best description of reality without *some* logical constants or other.<sup>6</sup>

A different worry is whether ideological realism should really count as MLR. It is importantly different from ontological realism; but it is committed to important metaphysical claims about the relationship between logic and the world: even if there are no ontological correlates of logical constants that are strictly speaking, a *part* of the world, the world is still the truthmaker for the OTL, and the world still makes the OTL *metaphysically better* than any other logic.

This argument has been quick, and there are various places it could be resisted, but I think it shows that anyone who thinks that reality has a privileged metaphysical structure is committed to MLR. (If one thinks that there are logical *items*—e.g. laws, functions, abstract objects—in fundamental reality, then one is already committed to ontological realism—I don't discuss this issue here.)

What about the claim that reality has multiple privileged structures? So long as some structures are *not* privileged, the spirit of MLR persists, but we might need to replace (a) with something like:

(a\*): There are Some True Logics.

This means that there are multiple logics that best capture the structure of reality; the structure of reality makes Some True Logics true; but not just anything goes. There are at least two other ways we might understand this: first, perhaps, there *is* an OTL: perhaps the right way to understand reality having multiple privileged structures is that we need to construct a “super logic” that allows for all of the distinct structures there are. Suppose that reality has both generalist structure and individualist structure. Perhaps the OTL is one that treats whether *the table is brown* or *tableness, brownness (here)* is the right description of reality as ontically vague; in which case it might be that there is still a single OTL, it is just a logic that allows for

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<sup>5</sup> There is also an issue here with connecting the discussion of logical *constants* with the perhaps more standard way of thinking about differences between logic as differences in *consequence relations*.

<sup>6</sup> And see Sider (2011) for an argument along these lines.

vagueness between two different descriptions of reality. (See Barnes (2010) and Barnes and Williams (2011) for related discussion.) Even those who think that reality has multiple privileged structures count as (perhaps modified) metaphysical logical realists.

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