

Representation and Explanation

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1. Introduction

Many agree that propositions are necessary existents that represent things as being a certain way. While there are detractors, it is relatively uncontroversial that propositions have these features. They are thus able to play important theoretical roles, such as being the objects of beliefs or being the fundamental bearers of truth or falsity. A theory of propositions should make sense of why propositions have these features. In *Propositions*, Trenton Merricks masterfully takes on the following central question: how do propositions manage to represent things as being a certain way?¹

Merricks argues against the two leading views of propositions and proposes a bold alternative. The overall narrative is an argument by elimination. According to the first view (call it ‘WV’ for ‘Worlds View’), propositions are sets of possible worlds. Each proposition carves out the region of possibility space according to which it is true. Hence, the proposition *that dogs bark* is the set of worlds in which dogs bark. The second view (call it ‘SV’ for ‘Structured View’) holds that propositions are structured entities whose constituents are united in a certain way. For example, *that dogs bark* is a structured entity whose constituents may be the property of being a dog and the property of barking.

But, Merricks argues, neither WV nor SV can explain how propositions manage to represent in the first place. Merricks’s own view is that there simply is no explanation. Propositions just are necessary existents that represent the world as being a certain way: We cannot say anything more about how they manage to represent what they do. I will call his view ‘primitivism’.

I think that many of Merricks’s arguments against rival views succeed. However, I am skeptical about primitivism for two reasons, which I will elaborate on in the following sections. First, distinguish modal validities—arguments whose premises necessitate their conclusion—from logical validities—arguments that are truth-preserving in virtue of logical form. Merricks’s view, unlike those of his opponents, cannot explain something that cries out for explanation: why any logical validity guarantees the existence of a corresponding modal validity. Second, contra Merricks’s claims, there is a version of SV that

¹ Oxford University Press (2015).

does better than primitivism at explaining how propositions manage to represent things as being a certain way. While this view also requires primitive representation, its propositions are better suited to playing the theoretical role propositions are thought to play.

2. Explaining Logical Validity

It is relatively uncontroversial that sentences have truth-values in virtue of their relations to the propositions that they express in a context. (In what follows, the claim that sentences express propositions should be tacitly understood as relativized to a context.) Propositions themselves are the fundamental bearers of truth and falsity. Merricks argues for a controversial further claim: the premises and conclusions of logically valid arguments are sentences while the premises and conclusions of modally valid arguments are propositions (Ch.1 §V). Let's grant this.

Logical validities and modal validities are nonetheless connected in an intimate way. There can be modal validities without logical validities; while sentences exist contingently, propositions exist necessarily (Ch.1 §4, Ch.3 §VII, Ch.V §II). However, all logical validities correspond to modal validities in the sense that the premises of a logical validity express propositions that necessitate the proposition expressed by the conclusion (Ch.2 §IV). There are invalid arguments that correspond to modal validities as well. Merricks endorses the following as an example of an invalid argument that nonetheless expresses a modally valid argument (Ch.2 §II):

‘Cicero is an orator.’
Therefore,
‘Tully is an orator.’

Here is another example, which is introduced in order to sidestep issues concerning Fregeanism about names (Ch.2 §III):

‘Smith is a doctor.’
Therefore,
‘Smith is a physician.’

In both cases, Merricks claims that the propositions expressed by the premise and the conclusion represent things as being exactly the same way. Nonetheless, an ideal reasoner may understand both sentences without knowing that ‘Cicero’ and ‘Tully’ co-refer, or knowing that ‘physician’ and ‘doctor’ are synonyms.

Given all of this, it is plausible that modal validities are explanatorily prior to logical validities. However, it is hard to see how the explanatory work can be done on Merricks's view. In particular, it is hard to see how primitivism can explain why logical validity guarantees the existence of a corresponding modally valid argument.

Consider the following logically valid argument L and corresponding modally valid argument M:

(L) ‘Dogs bark and cats meow.’
Therefore,
‘Dogs bark.’

(M) *That dogs bark and cats meow*
Therefore,
That dogs bark

The existence of L guarantees the existence of M. My worry about Merricks's primitivism is that it cannot explain this fact. According to primitivism, propositions primitively represent things as being a certain way; there is no further explanation of how propositions manage to represent what they do. All there is to say is that they do manage to represent things as being a certain way, and that this explains their truth conditions (Ch.1 §IV). We may then say that a proposition is true iff (i) it represents things as being a certain way, and (ii) things really are that way. Likewise, a proposition is false iff (i) it represents things as being a certain way, and (ii) things are not that way. These are all the facts that can possibly figure in an explanation of why one proposition necessitates another. But then, what is it about truth-preservation in virtue of form that guarantees modal validity?

To be clear, my objection is not that Merricks cannot explain why there are necessitation relations between propositions. Consider the premise of M: *that dogs bark and cats meow*. This proposition represents dogs as barking and cats as meowing. Clearly, if things are this way, the proposition that represents dogs as barking is true. That is, it is necessarily the case that if dogs bark and cats meow, then dogs bark. This is a modal connection between things being certain ways. But Merricks is free to endorse any number of views on modality that may (or may not) explain modal connections of this kind.

So it is not that Merricks cannot explain necessitation relations between propositions. Rather, it is that he cannot explain why truth-preservation in virtue of form tracks necessitation relations between propositions. For all we have said, it is a huge coincidence that the argument that is the result of replacing the sentences in L with the propositions expressed by those sentences is a modally valid argument. And it seems to me that on Merricks's view, that's where we must leave things.

Merricks does not think that there is a distinction between complex and atomic propositions (Ch.6 §II). If he did, he might say that the atomic propositions explain how the complex ones represent things as being a certain way, and that this plays a role in explaining why the premises of M necessitate its conclusion. This in turn could be used to explain why truth-preservation in virtue of form guarantees modal validity. But one of Merricks's main claims is that one may not appeal to constituents of propositions to explain how propositions manage to represent things as being a certain way. He does not think that propositions have constituents, so he denies that there is a distinction between complex and atomic propositions.

In contrast, Merricks's opponents are at least trying to fill in this story. Consider WV, the view that propositions are sets of worlds. The defender of WV holds that the propositions *that dogs bark* and *that cats meow* are sets of worlds—intuitively, those in which dogs bark and those in which cats meow. 'And' indicates set intersection, so the proposition *that dogs bark and cats meow* is the intersection of these two sets. Thus, logical connectives in language correspond to set-theoretic operations over propositions. This helps explain why the logically valid argument L corresponds to the modally valid M. Arguments with the same form as L are truth-preserving just in case the proposition expressed by its premise contains the proposition expressed by its conclusion, as in M.

And in general, an argument is logically valid just in case the intersection of the propositions expressed by its premises contains as a subset the proposition expressed by its conclusion.

The defender of SV (the Structured View) also attempts to fill in this story by assuming that the structure of sentences more or less mirrors the structure of propositions. Merricks would object to the invocation of connective-like structure in this story (p.198, FN 4):

You might object that the explanatory slack will be picked up by the non-propositional constituents of complex propositions, non-propositional constituents that—somehow—play roles correlated with ‘not’ and ‘or’ and ‘and’ and ‘sheffer stroke’ and so on; let these alleged constituents be: *negation* and *disjunction* and *conjunction* and *sheffer stroke* and so on. I have two responses.

First, the sentences that express propositions have logical form. So too do the that-clauses that name (so-called) complex propositions. But propositions themselves do not have logical form (Ch.2 §VIII). And if propositions do not have logical form, it seems like *negation* and *disjunction* and *conjunction* and *sheffer stroke* are not even candidates to be constituents of propositions.

Second, suppose for the sake of argument that complex propositions have atomic propositions as constituents and also constituents such as *negation*, *disjunction*, and so on. Then it seems that the proposition *that if p then q* and the proposition *that if q then p* have all the same constituents. But those propositions differ in how they represent things as being. So the explanation of how each of those propositions manages to represent things as being a certain way cannot be solely in terms of its constituents. So, presumably, that explanation must also involve each proposition’s structure.

I do not have a full account of how the structure of sentences mirrors the structure of propositions. But even if Merricks is correct that propositions cannot have logical form, he has not shown that propositions have something relevantly *like* logical form. After all, his argument against propositions having logical form is merely that propositions are not the premises or conclusions of logically valid arguments (Ch.2 §VIII).

3. The Structured View and Zipping

Merricks’s main argument against SV is that it cannot explain how propositions manage to represent things as being a certain way (Ch.4 §V–X). Given that one of the alleged benefits of SV is precisely that it can explain how propositions represent things as being a certain way (Ch.4 §V), this result would undermine SV. Furthermore, it would undermine another main motivation for SV: an explanation of the compositionality of language, that is, of how the meaning of a sentence is derived from the combination of its grammar and the meaning of its sentential parts (Ch.4 §IV). In semantics, it is important to give a compositional account of the association between sentences and propositions. Indeed, this may be the whole point of semantics.

On SV, propositions are structured entities with constituents that are united in some way. Different ways of specifying constituents and of accounting for their unity result in different versions of SV. For example, on what Merricks calls ‘neo-Russellianism’, the constituents are objects and properties, whereas on what Merricks calls ‘neo-Fregeanism’,

the constituents are senses of names and predicates. In arguing against SV, Merricks focuses on accounts of the unity of the proposition. For our purposes, it does not matter whether neo-Russellianism or neo-Fregeanism is adopted in the resulting views, so I will assume neo-Russellianism for ease of presentation.

The first suggestion is that a proposition is a set containing its constituents (Ch.4 §VI). This view shares with WV the idea that propositions are sets, although they differ in what they take to be members of those sets. One of Merricks's objections is that too many different sets are equally qualified to represent things being a certain way, and we have no way to choose between them. This is a Benacerraf-style worry, although Merricks does not explore in detail parallels with what has been said in that literature (though see p.96, FN 12).² In any case, I agree with another of his objections. A set cannot represent things as being a certain way all on its own; sets just aren't the right sorts of entities to do this. It may be that sets may be *interpreted* to represent things as being a certain way. However, I will grant that Merricks is correct that the cognitive activity of agents cannot be an essential feature of propositions. The basic reasoning is that cognitive agents only exist contingently, but propositions exist necessarily (Ch.3 §V, Ch.4 §IX). The view that I think escapes Merricks's objections does not require the cognitive activity of agents.

Merricks considers a version of this first view on which a proposition has an extra member, called *Zip*, which imbues it with "unexplained powers relevant to representation" (p.141). Merricks's reply to this suggestion is that it requires primitive representation. This is unacceptable to the defender of SV, who seeks a *full* explanation of how a proposition manages to represent things as being a certain way in virtue of its structure and constituents. I will reject this assumption below in the context of a different view. However, I do think that the addition of *Zip* to a set is objectionably *ad hoc*, for it is hard to see why adding another member to a set would imbue it with representational power.

The second view is that a proposition is a mere sum of its constituents (Ch.4 §VII). One of the above objections also applies to this view; mere sums cannot represent things as being a certain way. They just aren't the right sorts of entities to do this work, at least not on their own. Merricks considers a version of this second view on which a proposition has an extra part, called *Zip*, which imbues the proposition with unexplained powers relevant to representation. For similar reasons as above, I agree that this view does not work.

On the third view, a proposition is a certain state of affairs (Ch.4 §IX). To illustrate, consider the English sentence 'Dogs bark.' On this view, there is a certain relation that binds together the linguistic entities that constitute this sentence—namely, 'dogs' and 'bark'—and the things in the world by these linguistic entities—namely, the property of being a dog and the property of barking. The representational power of the proposition comes from the meaning imbued in these sentences as a result of the cognitive activity of agents. As I am granting that this cannot be correct, I will set this view aside.

The fourth view is the one that I wish to defend (Ch.4 §IX). Here is how Merricks describes it (p.154):

² Paul Benacerraf, 'What Numbers Could Not Be' *Philosophical Review* 74: 47–73 (1965).

[W]henver there is the state of affairs of an object's being related by *Zipping* to a property, then that state of affairs essentially represents that object as having that property. Nothing explains why *Zipping* works this way. That is just how *Zipping* works. And neither *Zipping*'s existence nor its holding between O and F depends on anything that agents do. This reply concludes that the proposition *that O is F* is the state of affairs of O's being related by *Zipping* to F.

This view is a version of primitivism, for it requires a primitive representational component, the representational power that the *Zipping* relation confers upon the proposition. Let's call it 'Zippism'.

Merricks finds the primitive representation of Zippism to be objectionable. As mentioned above, this is because defenders of SV desire a full explanation of how a proposition manages to represent things as being a certain way (p.200–1):

The main motivation for structured propositions is the claim that there must be an explanation of how each proposition manages to represent things being a certain way, and that each proposition's constituents and structure yield just such an explanation (Ch.4 §V). Obviously, this motivation is undermined if a structured proposition is supposed to primitively represent things as being a certain way. So defenders of structured propositions should not claim that structured propositions primitively represent things as being a certain way.

Zippism may at first seem no better off than the views based on *Zip* considered above, which I rejected as being unacceptably *ad hoc*. But I think it fares better than those views. The *Zipping* relation is not added on to a proposition as a member of a set or an additional mereological part. It is a relation between the constituents of the proposition. In contrast, in the above views, *Zip* was a special abstract object rather than a relation.

Furthermore, I hold that Zippism fares better than Merricks's primitivism with respect to explanatory power, despite having a primitive representational component. I think it is too quick to say that a defender of SV must reject any view that introduces extra-structural elements in its explanation of how a proposition manages to represent things as being a certain way, even if actual defenders of SV do make this claim. The defender of Zippism should say that a proposition represents some object having some property in virtue of being the state of affairs of that object being *Zipped* to that property. Whereas Merricks's view is that propositions primitively represent the world as being a certain way, Zippism holds that propositions represent the world as being a certain way in virtue of a primitive relation between its constituents. To illustrate, consider the following propositions:

- (1) *That Rory loves Oliver*
- (2) *That Oliver loves Rory*

On Merricks's primitivism, 1 primitively represents Rory as loving Oliver, while 2 primitively represents Oliver as loving Rory. That is all there is to the representational story. In contrast, on Zippism, 1 represents Rory as loving Oliver in virtue of Rory's being *Zipped* to the first node of the loving relation and Oliver's being *Zipped* to the second. 2 represents Oliver as loving Rory in virtue of Oliver's being *Zipped* to the first node of the loving relation and Oliver's being *Zipped* to the second. Zippism ties difference in representation to worldly difference, whereas Merricks's primitivism does not.

Furthermore, because the constituents of propositions play an explanatory role in representation, Zippism provides part of an explanation for why language is compositional, whereas Merricks's primitivism cannot. On Zippism, the logical form of sentences more or less mirrors the structure of propositions. For example, we might say that a simple sentence consisting of a proper name followed by a verb (e.g. 'Sarah swims' or 'Dev walks') expresses the proposition formed by zipping the referent of the name to the property expressed by the verb. In contrast, on Merricks's primitivism, there is no such story. Each proposition primitively represents the world as being a certain way, rather in virtue of some relation that its constituents stand in. I should note that I am not claiming that a complete account of how propositions explain the compositionality of language is possible. However, it certainly seems more promising on Zippism than on Merricks's primitivism.

Merricks has another argument for why Zippism fails, which he later introduces in order to object to all versions of SV. On any version of SV, it is a mere coincidence that a proposition happens to have the things that it is about as its constituents (Ch.6 §III). As I understand it, this is a charge of irrelevance. If there is primitive representation, then the constituents of propositions do not play a role in the representation. But I have explained above how the constituents of propositions do play a role in representation on Zippism.

4. Conclusion

In this book, Merricks has contributed many forceful arguments against extant views to the propositions literature. Taken together, they show that primitivism is a serious contender. I have argued that a version of the Structured View that adopts an element of primitivism can resist his arguments, and in fact comes out ahead with respect to explanatory roles propositions are thought to play.³

³ Many thanks to Rachael Briggs, Tom Donaldson, and Trenton Merricks for discussion of this book.