

# A DEFENSE OF PROPOSITIONALISM

ABSTRACT. This paper clarifies and defends the thesis that all fundamental intentional attitudes are propositional attitudes. Propositional Attitudes and Intentional Objects

## 1. INTRODUCTION

Paradigmatic intentional attitudes include believing that something is so, knowing that something is so, desiring that something is so, fearing that something is so, and hoping that something is so. All such attitudes are *propositional attitudes*.<sup>1</sup> To believe that something is so is to bear some relation, the belief relation, to the proposition that it is so. To desire that something is so is to bear a different relation, the desire relation, to the proposition that it is so. Not all attitudes are propositional attitudes. The attitudes on the following list are no less paradigmatic of the intentional attitudes: fearing something, seeing something, hearing something, loving something, desiring something, and being acquainted with something. To see something is to bear some relation, the seeing relation, to that thing. But the sorts of things one is able to see are the sorts of things that absorb, reflect and transmit electromagnetic radiation—propositions don't do that. So there are some attitudes that one bears to *individuals* rather than abstracta. Call these attitudes *objectual attitudes*.<sup>2</sup>

What is the relationship between propositional and objectual attitudes? According to *propositionalism*, objectual attitudes are *definable from* propositional attitudes (perhaps together with some other ingredients).<sup>3</sup> Say that an intentional attitude is *fundamental* if it is not definable from other intentional attitudes. Then propositionalism entails that all

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<sup>1</sup>This claim is not without controversy. ? argues that fearing that something is so is not propositional. My own view is closer to ?, but I will have more to say on this below.

<sup>2</sup>See ? for a defense of the thesis that there are objectual attitudes. Further work on objectual attitudes can be found in ? and ?.

<sup>3</sup>? is often cited as advocating propositionalism though there are some delicate interpretative issues. See also ? for a recent defense.

fundamental intentional attitudes are propositional attitudes.<sup>4</sup> This paper is a defense of propositionalism.

There has been a recent wave of criticisms of propositionalism.<sup>5</sup> The growing consensus in the literature appears to be that the behavior of the objectual attitudes cannot be pinned down by the behavior of the propositional attitudes. There are *irreducibly* non-propositional attitudes. My view is that many of the objections to propositionalism have plausible responses and that the force of the evidence that supports propositionalism has not been appreciated. I begin by setting out my preferred framework for theorizing about intentional attitudes and metaphysical definability. I then turn to an evaluation of the evidence supporting propositionalism. I argue that there are two key pieces of evidence supporting the position. The first is that it offers an excellent explanation of the widespread modal connections between objectual attitudes and propositional attitudes. And the second is that it offers a more economical theory of the mind. The rest of the paper will then be concerned with defending the view, and these arguments, against objections.

## 2. FORMULATING PROPOSITIONALISM

Attitudes, both propositional and objectual, are relations between thinkers and reality. Belief is a paradigmatic example of a propositional attitude. The attitude of belief is that relation such that to bear it to the proposition that all dogs go to heaven is to believe that all dogs go to heaven. All and only those who believe that all dogs go to heaven bear the attitude of belief to the proposition that all dogs go to heaven. Other propositional attitudes can be introduced analogously.<sup>6</sup>

In addition to propositional attitudes there are objectual attitudes such as seeing, wanting, thinking about, and being acquainted with. Take the attitude of seeing; to bear it to

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<sup>4</sup>I'm assuming here that all attitudes are either objectual or propositional.

<sup>5</sup>See in particular ?, ? and ?.

<sup>6</sup>On this way of introducing the category of propositional attitudes, both hope and fear should count as propositional attitudes. There is some relation such that to fear that  $p$  is to bear that relation to the proposition that  $p$ . This does not entail that one fears that  $p$  iff one fears the proposition that  $p$ . Thus, contra ?, that fear is a propositional attitude does not have the implausible consequence that anyone who fears that something is so fears a proposition.

something is just to see that thing. All and only those who see the dog bear the attitude of seeing to the dog. Other objectual attitudes can be introduced analogously.

Some authors use the term ‘propositionalism’ to refer to the thesis that *all* attitudes are propositional attitudes.<sup>7</sup> That thesis is not particularly plausible. An attitude is not a propositional attitude if one cannot bear it to a proposition. And some attitudes cannot relate individuals to propositions. For instance, seeing requires some sort of causal interaction. I cannot right now see the Eiffel tower since I do not stand in the requisite causal relations. I cannot see the proposition that the Eiffel tower is large since I do not stand in *any* causal relations to this proposition let alone the requisite ones.<sup>8</sup> This is not to say that no one can see *that* the Eiffel Tower is tall. There is some relation such that to bear it to the proposition that the Eiffel Tower is tall is just to see that the Eiffel Tower is tall. We might call it the ‘seeing-that relation’ insofar as we are comfortable saying that one can bear the seeing-that relation to things that one does not see.

Let’s say that a binary relation is *metaphysically definable* from some other entities if we can fully specify what it is for one thing to bear that relation to another in terms of those entities. A slightly more interesting thesis that serves as a first pass formulation of propositionalism is the following:

The objectual attitudes are metaphysically definable from the propositional attitudes.

The supplied account of metaphysical definability is admittedly vague. But there are several ways that it can be made precise provided we are willing to reason about propositions, properties and relations using higher-order languages.<sup>9</sup> For now, it should suffice to look at a few examples of metaphysical definability that we can use as a guide in evaluating various propositionalist proposals.

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<sup>7</sup>See for instance ?. It is unclear whether this is Montague’s preferred formulation of the thesis.

<sup>8</sup>If this argument fails to convince here is another that is adapted from ?. If one sees something that that thing looks some way to them. Thus if we can see propositions they must look some way. But propositions don’t *look* any way. So we don’t see propositions.

<sup>9</sup>For examples of what I have in mind see ?.

Consider the binary relation relation that  $x$  bears to  $y$  if and only if Chicago is between  $x$  and  $y$ . This relation is definable from the triadic betweenness relation and the city Chicago since it results from *applying* this relation to Chicago.<sup>10</sup> Any Boolean combination of relations is definable from the Boolean operations and the relations they are operating on. Thus the negation of the loving relation is definable from the loving relation together with the operation of negation. For any relation  $r$  to bear the negation of  $r$  to something is to not bear  $r$  to that thing.<sup>11</sup> The conjunction of any two relations is definable from those relations and the operation of conjunction. For any relations  $r$  and  $s$  to bear the conjunction of  $r$  and  $s$  to something is to bear  $r$  to that thing and  $s$  to that thing.<sup>12</sup> Here is one last example. Any relation is definable from its converse. For any relation  $r$ , to bear the converse of  $r$  to something is for that thing to bear  $r$  to you. Thus we can fully specify what it is for the converse of  $r$  to hold of some things in terms of  $r$ . More generally, whenever some relation results from applying some operation to some other entities, the former entity is definable from that relation or operation and the latter entities.

Leaving definability at an intuitive level, we can still see that the first pass formulation of propositionalism is not plausible. Consider the following example. There is a certain obvious analysis of the relation of *thinking about* according to which one thinks about something if and only if there is some proposition about that thing which one thinks. To think about one's childhood, for instance, is just to think something about one's childhood. In other words, thinking-about is the *product* of thinking and aboutness.<sup>13</sup> Clearly, we can't fully specify what it is to think about something in terms of propositional attitudes: the analysis of thinking about makes ineliminable reference to both the relation of *aboutness* and the product operation, neither of which is a propositional attitude. But the above analysis of thinking-about *confirms* rather than refutes the propositionalist project. Our formulation

<sup>10</sup>Where  $b$  is the betweenness relation so that  $b(x, y, z)$  stands for  $x$  is between  $y$  and  $z$  we can use  $\lambda$ -terms to make this more precise. The relevant binary relation is simply  $\lambda xy.b(c, x, y)$  where  $c$  is a constant naming Chicago.

<sup>11</sup>Where  $l$  is the loving relation the negation is  $\lambda xy.\neg l(x, y)$ .

<sup>12</sup>E.g.  $\lambda xy.r(x, y) \wedge s(x, y)$  is definable from  $r, s$  and  $\wedge$ .

<sup>13</sup>In general the product of two binary relations  $r$  and  $s$  is that relation  $s \circ r$  such that for  $x$  to bear  $s \circ r$  to  $y$  is for  $x$  to bear  $r$  to something that bears  $s$  to  $y$ .

of propositionalism ought not be refuted by what look to be paradigmatic analyses of the objectual in terms of the propositional.

The objectual attitudes are likely not definable *solely* from the propositional attitudes. Part of the reason is that since propositional attitudes relate thinkers to “higher type” things like propositions, and objectual attitudes do not, we need to also include in the putative definiens relations that connect the higher type things back to the objects that the objectual attitudes are about.

We might try to reformulate the thesis in light of this as follows:

The objectual attitudes are definable from the propositional attitudes together with some other things.

The problem with this formulation is that it risks triviality. For instance, if the construction ‘To be F is to be G’ is reflexive, as many have argued, then for any objectual attitude, to bear that attitude towards something is to bear that attitude towards that thing.<sup>14</sup> Thus we can fully specify what it is to bear any attitude towards a thing in terms of itself and so everything is metaphysically definable from itself. But if the objectual attitudes are definable from the objectual attitudes they are definable from the propositional attitudes together with the objectual attitudes. Even if we add the restriction that the other things not be objectual attitudes, we still risk triviality. Intentional attitudes are not absolutely fundamental. So the opponent of propositionalism will likely grant that the objectual attitudes are definable from something. But if the objectual attitudes are definable, then they are definable from the propositional attitudes together with whatever defines them.

We’ve seen that the objectual attitudes are not definable from the propositional attitudes on their own. But they are trivially definable from some superset containing the propositional attitudes. What we want is some sort of restriction on the superset containing the propositional attitudes so that the thesis is interesting and has some shot of being true. The needed fix I suggest is the thesis that propositional attitudes be nontrivial ingredients in some class of entities from which the propositional attitudes are definable:

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<sup>14</sup>See ? and ?.

There are some entities, *the parameters*, such that the objectual attitudes are definable from the propositional attitudes together with the parameters, but the objectual attitudes are not definable from the parameters alone.<sup>15</sup>

Consider the above definition of thinking about in terms of thinking and aboutness. One way to read that analysis is that the objectual attitude of thinking-about results from applying the product operation to the relations of thinking and aboutness. Thus the objectual attitude of thinking about can be fully specified in terms of thinking, aboutness and the product operation. But it cannot be fully specified in terms of thinking and aboutness alone, or in terms of aboutness and the product operation alone. Here the parameters are aboutness and product. Thus the proposed analysis provides some confirmation of the intended propositionalist proposal.

I will take the above formulation of propositionalism as my working account. As mentioned above, the formulation of propositionalism as the thesis that all intentional attitudes are propositional is not plausible. But our new formulation of the thesis allows us to recapture this formulation with a slight adjustment: all *fundamental* intentional attitudes are propositional. The objectual attitudes are not fundamental in the following sense: for each objectual attitude, there are some propositional attitudes and parameters, such that the objectual attitude is definable from them but not definable from any subset of them.

I have not at this point said much about the *scope* of the category of propositional attitudes. We can all agree that it contains the paradigm cases: belief, knowledge, desire. But what else does it contain? This is a crucial question for both the proponent and opponent of propositionalism. The success of propositionalism is largely dependent on how broad a class of relations are included in the putative definiens. It would be undesirable to hold that the category of propositional attitudes was limited to attitudes expressible by syntactically simple terms in English. The propositional attitudes constitute a natural kind within the

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<sup>15</sup>More precisely, what I want to defend is the following: for any objectual attitude  $o$  there is some nonempty set of propositional attitudes  $P$  and some set of parameters  $A$  such that  $o$  is definable from  $P \cup A$ , but for any nonempty proper subset  $X \subseteq P \cup A$ ,  $o$  is not definable from  $X$  (I'm inclined to say that only purely logical notions are definable from the empty set, but since I haven't said much by way of formally specifying definability it seems fine to exclude that case in the definition).

philosophy of mind; it is not in general plausible to suppose that the entities making up a natural kind in the world are in correspondence with the entities making up some natural kind in language.

When considering the thesis propositionalism, we shouldn't begin by putting arbitrary restrictions on what is to count as a propositional attitude. For instance, suppose that there are two conceptions of propositional attitudes: a restricted sense and an expansive sense. Even if one showed that propositionalism was false when the propositional attitudes are taken in the restrictive sense, the argument would not be especially interesting if the thesis was true in the expansive sense. The objections to propositionalism should be viewed from the perspective of the best possible formulation of the view.

Here is one way in which we can come to a more expansive understanding of propositional attitudes - a conception that is more likely to validate propositionalism. Start with any collection of attitudes that has some good ground for being *the* propositional attitudes. And then close that collection under various sorts of "combinations" of attitudes. For example, both belief and desire are to be included in any plausible candidate complete collection of propositional attitudes. Thus the relation that one bears to the proposition that grass is green when one believes that grass is green is an attitude. But what about the relation that one bears to the proposition that grass is green when one believes that one believes that grass is green, or when one believes that one desires that grass is green? I suggest that we work with a conception of propositional attitudes according to which they are closed under such iterations. If believing and desiring are counted among the propositional attitudes, so too are believing that one desires and believing that one believes and desiring that one believes and so on.

There are other putative closure conditions we might want to consider. For instance, any two propositional attitudes have both a conjunction and a disjunction that we ought to count as attitudes in the more expansive sense (the negation of an attitude is not an attitude in any sense since any thing that bears a propositional attitude to something is a thinker, but not anything that bears the negation of a propositional attitude to something is a thinker).

Of course, we could just stick with the restrictive sense of attitudes and add the closure operations in the parameters part of the definiens. The important point is that we *either* work with a rather expansive conception of propositional attitudes or make sure to include all the relevant closure operations in the parameters when evaluating propositionalism. We should start by giving the propositionalist a broad range of resources with which to carry out the project. If it fails with these resources then it fails with more restricted resources.

There is one closure condition that will play an important role in my defense of propositionalism. Some attitudes are dispositional while others are not; but for any attitude there is the relation of being disposed to take up that attitude. Consider, for instance, the attitude of being disposed to fear that something is so. This relation is probably not normally thought of as an attitude. It is, however, a relation between thinkers and propositions. Moreover, if some objectual attitude *were* definable from the disposition to fear that something is so, but not definable merely from the fact that one fears something to be so, this should be good enough for the propositionalist. Consider the following analogy. Suppose that one objected to behaviorism on the grounds that some people had mental states that were not currently behaving in any way. This would be true but since the most plausible behaviorist analyses of mental state are those that attempt to analyze them in dispositional terms it would fall short of a refutation of behaviorism. By analogy, if one objected to propositionalism on the grounds that some people had objectual attitudes that cannot be captured by their non-dispositional propositional attitudes, this would fall short of a refutation of propositionalism. It is the dispositional analyses of objectual attitudes that deserve our attention when evaluating the propositionalist project. I will thus suppose that the parameters include some sort of “dispositional” operation that maps, for instance, the fearing relation to the relation of being disposed to fear and the desiring relation with the relation of being disposed to desire. With all this in place, we can now move to motivations for the view.

### 3. MOTIVATING PROPOSITIONALISM

Here is a description of a scenario that seems to me metaphysically impossible:



A subject likes vanilla ice cream and hates chocolate ice cream and another subject likes chocolate ice cream and hates vanilla ice cream. Suppose moreover that despite this difference in their objectual attitudes, they largely overlap in their propositional attitudes concerning vanilla ice cream. They both believe that vanilla ice cream tastes better than chocolate ice cream; they would both prefer that vanilla ice cream is served to chocolate ice cream; they are both disposed to desire that vanilla ice cream be in the freezer etc. How they take vanilla and chocolate ice cream to be is largely the same; and how they want their lives to be with respect to chocolate and vanilla ice cream is also largely the same.

The case is slightly under described. I've said the two subjects "largely overlap" in their propositional attitudes. Why not say that they completely overlap in their propositional attitudes? My worry is that this would slightly change the intuition I am trying to elicit. Under that description, the case may be judged impossible on the grounds that the subjects would differ in their factive propositional attitudes. For instance maybe one knows that they hate chocolate ice cream whereas the other falsely believes this. That's not why the case strikes me as impossible. Rather if there really is a difference between the two subjects concerning which one likes which flavor of ice cream, it seems to me that there must be some propositions other than those specifying who likes what that they disagree on, either in some desire like attitude or in some belief like attitude. In the described case, there is supposed to be no such further disagreement. Just a brute difference in what each likes and hates.

To be somewhat more specific, we might stipulate that the two subjects completely overlap in their qualitative, non-factive attitudes in the following sense: for any non-factive attitude  $a$  and any qualitative proposition  $p$ , one bears  $a$  to  $p$  if and only if the other bears  $a$  to  $p$ . Under this description, the case seems to me clearly impossible. But here is a further argument that any theory that *allows* for this possibility should be rejected. If two subjects completely overlap in their non-factive propositional attitudes towards qualitative propositions, we should expect their immediate behavior to coincide (in the sense that any qualitative

proposition the one makes true the other also makes true). So if our two subjects were put in front of ice cream, they would both reach for vanilla or both reach for chocolate. Were we to ask which flavor they preferred, they would both say chocolate or both say vanilla. They are both disposed to desire that they have vanilla or both disposed to desire that they have chocolate. The putative difference in what each likes will not show up in their behavior at all. The objectual attitudes if not supervenient on propositional attitudes would be *epiphenomenal*. Moreover, if we cannot appeal to any difference in propositional attitudes between the subjects (not even in which propositional attitudes they are disposed to take up), it is unclear what *does* explain the difference. In virtue of what do the two subjects disagree?

One response is to appeal to a phenomenal difference between them. Perhaps thoughts of chocolate elicit a different phenomenal experience for the one than the other and this is what explains the fact that one likes vanilla and the other chocolate. The problem with this reply is that according to the orthodox theory of conscious experience, conscious experience *is* a propositional attitude (or at least supervenes on propositional attitudes).<sup>16</sup> Or weaker: there can be no difference in the phenomenal character of an experience without a difference in the representational content. If that is correct, then phenomenal character cannot do the needed explanatory work since any difference in phenomenal character will induce a disagreement between the two subjects in a “belief-like” attitude (namely experience).

Another response is to appeal to some neurological difference between them. One likes chocolate because they are in a relevantly similar neurological state to the paradigmatic chocolate lovers. Still, the idea that we might be in a psychological state that is *completely* cut off from interaction with our system of propositional attitudes does not seem credible to me. Imagine that you spend most of your time eating vanilla ice cream because you believe that it tastes good. Suppose moreover that you consciously believe that chocolate ice cream tastes awful. The idea that a brain scan might reveal that *actually* you like chocolate ice cream is absurd.

I take this to support the following thesis, which we might call *weak propositionalism*:

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<sup>16</sup>See ? , ? and ?.

There are some entities, the *non-operational parameters* and some operations, the *operational parameters*, such that the result of closing the propositional attitudes and the non-operational parameters under the operational parameters provides a minimal supervenience base for the objectual attitudes.

The basic idea is that the propositional attitudes, in some suitably more expansive sense of propositional attitudes, provide a supervenience base for the objectual attitudes. For instance, this minimal supervenience base will include relations like *being disposed to desire* since this relation results from applying the disposition operation to the attitude of desire. I do not want to rule out the idea that some relations that are not propositional attitudes will be needed in this minimal supervenience base. For this reason it is important that we also included a clause for non-operational parameters.

Weak propositionalism strikes me as a plausible hypothesis on its own. It also serves as a premise in a strong argument for propositionalism. If weak propositionalism holds, then there is a strong modal connection between objectual attitudes and propositional attitudes. As has often been noted, supervenience theses call out for explanation. A supervenience thesis tells us that the behavior of entities in one class fixes the behavior or entities in another class. But it is natural to wonder why this should be so. Propositionalism offers an excellent explanation of weak propositionalism. If each objectual attitude were definable from this minimal supervenience base, then the supervenience thesis falls out immediately. Take for instance the relation of thinking about. There can be no change in what one is thinking about without a change in what one is thinking. Why? Well to think about, say, Chicago, *just is* to think something that is about Chicago. And if to  $\varphi$  just is to  $\psi$  then it is metaphysically necessary that  $\varphi$  if and only if  $\psi$ ; moreover, it is metaphysically necessary that  $\varphi$  if and only if  $\psi$  *because* to  $\varphi$  just it to  $\psi$ . Metaphysical definability entails and explains necessary coextensiveness and so suffices to explain supervenience.

This completes my main argument for propositionalism. It is worth mentioning one further motivation for the view. According to antipositionalists, the class of attitudes can be partitioned into (at least) two disjoint classes: the objectual attitudes and the propositional

attitudes. On their view, a complete understanding of our relationship to propositions will leave us completely in the dark about our objectual attitudes. Propositionalism restores the homogeneity of the class of attitudes: given a complete picture of one's propositional attitudes, one can recover a complete picture of their objectual attitudes. What is odd about the antipropositionalist view is that it is unclear why creatures would develop minds that partitioned in this way. Couldn't we get by with a system of desires about chocolate ice cream? What need is there for this further mental state *liking chocolate ice cream*?

Of course, this last motivation is more of a motivation to carry out the propositionalist project than a stand alone motivation for the thesis itself. Perhaps our minds *are* needlessly complicated. Or perhaps there are some tasks that require non-propositional attitudes. We'll look in more detail at these questions while addressing objections.

#### 4. LEWIS ON THE ATTITUDES

? is often cited as a paradigmatic propositionalist.<sup>17</sup> Since many of the objections in the literature have been directed towards a Lewisian version of propositionalism it is important to briefly compare how Lewis' formulation matches up with my own. As we will see, there are important differences.

Lewis begins his paper by noting the apparent variety of the objects of expectation; we can expect to win, expect that it will rain, expect the changing of the seasons and so on. One might conclude from this that the expectation relation is one that can hold between objects of a variety of different ontological categories: activities, propositions, events and so on. But this is certainly not a desirable state of affairs if we are attempting to give a systematic theory of the attitudes. As noted above, it is better to have fewer kinds of things as part of one's theory if one can get away with it. Lewis agrees:

If we let surface grammar be our guide, the objects of expectation seem quite a mescellany... But the seeming diversity of objects might be an illusion.

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<sup>17</sup>Of course his considered view is that *properties* rather than propositions are the objects of all attitudes. Nevertheless his introductory remarks in ? serve as a clear articulation of one version of propositionism. For simplicity I will treat Lewis as advocating for this view.

Perhaps the objects of attitudes are uniform in category, and it is our ways of speaking elliptically about these uniform objects that are diverse. (1979, p. 513)

Here it seems to me that Lewis is suggesting that we accept the conjunction of the following two hypotheses:

**Metaphysical Hypothesis:** For any intentional attitude  $a$ , necessarily whatever one bears  $a$  to is a proposition.

**Semantic Hypothesis:** When we appear to ascribe non-propositional attitudes, there relevant attitude verb picks out a propositional attitude and we are actually just speaking elliptically.

In brief, all intentional attitudes are propositional attitudes and apparent counterexamples are to be explained away as cases of elliptical speech.

As should be obvious, this is not the thesis that I am advocating. On my view, there really are non-propositional attitudes even if there are no fundamental objectual attitudes. I think this is the theory we should accept and not Lewis'. The main reason is that, as ? has pointed out, there are many apparent ascriptions of non-propositional attitudes where it is not at all clear what the extra information is that the speakers could be eliding. Take cases of direct perception that occur during total illusions.<sup>18</sup> A subject can see that [the plate behind them] in the mirror. It appears to be be frisbee, of a different color and directly in front of them. All of the appearances are misleading. For no  $P$  about the plate can they see that  $P$ . The plate is such that they can see it nonetheless. Thus the ascription of objectual perception to the subject cannot be understood as elliptical for propositional perception. On my view, it is nevertheless definable from some propositional attitudes. In particular, I suspect it is definable from the attitude of consciously experiencing that something is so. But as many have noted, this attitude is not one that we ever ascribe in English, and so ascriptions of

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<sup>18</sup>For cases of this kind see ? and ?.

non-propositional seeing are not plausibly understood as elliptical for ascriptions of conscious experience.<sup>19</sup>

It is important to keep in mind the distinction between the Lewisian version of propositionalism and propositionalism as I have formulated it. Some objections to propositionalism as I have formulated really turn out to only be objections to the Lewisian version.

## 5. MONTAGUE ON PROPOSITIONALISM

Michelle Montague (2007) argues for the the thesis that

there are *irreducibly* objectual attitudes, attitudes to objects that do not involve propositional attitudes in any way at all. (p. 504)

On my formulation of propositionalism, each objectual attitude is definable from some propositional attitudes together with parameters. I think it is plausible enough to say that if each objectual attitude were so definable, objectual attitudes would involve propositional attitudes in some way. Thus if Montague's thesis is true, propositionalism, as I have formulated it, is false.

Montague's begins her defense thus:

Mary loves Nancy. She seeks the fountain of youth. She has you in mind. She contemplates the sky. And she wants Nancy's car. These intentional attitudes appear to be relations that hold simply between thinkers and non-propositional objects, rather than thinkers and propositions, and we need to be given some reason to think otherwise. The burden is plainly on the propositionalist. (Montague 2007, p. 507)

The propositionalist can resist this charge. Consider the attitude of loving. Montague claims that this attitude appears to "simply relate" thinkers and non-propositional objects. If by "simply relate" one means "relate" then the propositionalist should *agree* with appearances. There is some attitude, loving, such that to bear it to Nancy is to love Nancy. This does not conflict with propositionalism. If instead "simply relate" means something closer

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<sup>19</sup>See ? and ? and Speaks (2015, p. 15) in particular.

to “relates and in no way involves propositional attitudes” (to use Montague’s phrase) the propositionalist should deny that there is any such appearance. Objectual attitudes do not *appear* to be metaphysically primitive. Of course they may appear and actually be *conceptually* primitive in some sense of that not so useful phrase. But again this in no way conflicts with propositionalism.

Montague’s remarks are more charitably taken to apply only to Lewis style proposition-  
alists who do accept that all attitudes are propositional attitudes. But it is important to  
note that even if Montague successfully refuted Lewis style propositionalism, it would not  
establish her intended thesis.

Later in the paper she reiterates the charge against the propositionalist in way that more  
clearly interacts with the thesis as I have formulated it:

What [the propositionalist] need[s]—what we need from them—is a principled  
way of analyzing all seemingly objectual, non-propositional attitudes into  
propositional attitudes. (p. 510)

She then goes on to convincingly argue that many of the simple analyses of various ob-  
jectual attitudes can be refuted. This is no doubt some evidence against propositionalism.  
But it strikes me as weak evidence overall. Consider the following analogy. Many people are  
physicalists. They think the mental can ultimately be defined in terms of the physical in the  
sense that we can say what it is to have this or that mental property in terms that do not  
presuppose or employ mental notions. Of course, we don’t really have any idea how to do  
this for a wide variety of mental properties. But this fact alone is not a huge strike against  
physicalism. There are lots of reasons to think that these accounts could be given even if we  
do not know yet how to give them. For instance, just as I have suggested we should believe  
the objectual is definable from the propositional on the basis of supervenience theses, so too  
the physicalist can appeal to the supervenience of the mental on the physical as suggesting  
the definability of the former in terms of the latter.

This is not to say that physicalism is not without its problems. But it is interesting to note that many of these problems do not have analogues for the propositionalist. For instance, the physicalist faces the problem of the conceivability of zombies—creatures physically like us that lack mentality. The analogy does not arise for the propositionalist since it is not remotely plausible that creatures could have all the propositional attitudes that we have without having any objectual attitudes. If in the good case I experience that the cup is blue, then I see the cup. If I think that the cup is blue, I think about the cup. Clearly some propositional attitudes suffice for objectual attitudes. The physicalist also faces the problem of the brilliant scientist Mary who knows all the physical facts but cannot figure out the phenomenal facts. The analogy is not also not convincing in the present case. If Mary knew all of a persons propositional attitudes, I see no reason why she wouldn't thereby be in a position to know what their objectual attitudes were (perhaps she needs to know the distribution of the parameters as well).

We can nevertheless make some headway in responding to Montague's challenge by providing a template for how to define some harder cases of objectual attitudes in terms of propositional attitudes. Consider the attitude of love—one that Montague spends a good deal of time on. To love something is not to love that it is some way or other, nor is it to love that it is some *specific* way. So what is it to love something? I of course do not have a complete account. But one thing to note is that on at least some accounts of love, loving something is essentially a certain kind of *emotion* directed at that thing. This gives us a clue as to how to go about capturing it in propositional terms. On one plausible theory of the emotions, emotions are basically conjunctions of certain sorts of perceptual experiences that have been caused in the appropriate way; they involve experience of bodily changes and have a certain valence.<sup>20</sup> Supposing that is right, then the problem of providing a propositionalist account of love reduces to providing a propositionalist account of perceptual experience, for the emotions can be defined in terms of experience together with the appropriate causal relations. But the propositionalist account of perceptual experience is widely held to be one

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<sup>20</sup>See for instance ?.



of the more promising accounts available.<sup>21</sup> Similar points hold for other objectual attitudes that are “directed emotions” such as fear and anger. Given a perceptual theory of emotions together with an intentionalist theory of perception, propositionalism has a plausible path to defining a large swath of objectual attitudes.

Invoking intentionalism also provide a path to propositionalist account of objectual imagination. As ? has noted, imagination is strangely *like* visual perception while at the same time being obviously different. What accounts for this? Byrne’s answer is that

The palpable similarity between perception, recollection and imagination consists in a distinctive kind of representational content. The content of recollection and the content of imagination are degraded and transformed versions of the content of perception. (21)

This provides a natural solution for the propositionalist: objectual imagination stands to propositional imagination as objectual perception stands to conscious experience. If to see something is, roughly, to have an experience whose content is about that thing (perhaps caused in the appropriate way) then to imagine something is to have an imaginative experience whose content is about that thing. Objectual imagination derives from contentful imagination in exactly the same way that objectual perception derives from contentful experience.

Of course these remarks fall short of anything like a full account. And for some objectual attitudes, it may still appear a bit mysterious how to go about providing the propositionalist account. One attitude that opponents of propositionalism focus on is the attitude of liking. If there is some propositional attitude such that *all* one had to do to like something was to bear it to any proposition about that thing, then what the propositions “says” about the thing that one bears it to would be irrelevant. If all propositional attitude ultimately boil down to belief-like and desire-like attitudes, we might put the problem thus: liking someone is not merely a matter of desiring and believing that they are some way or other; rather, there are some specific ways one must believe and desire them to be in order to like them.

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<sup>21</sup>See ?, ? and ?.

It's not even clear whether this is quite right: liking something might be a matter of being disposed to believe and desire that they are certain ways and being disposed to *not* believe and desire that they be certain ways.

While I have no specific proposal in mind, I do think that we can at least offer a format for how one might carry out analyses of objectual attitudes like this. Intuitively, there are many ways to like a thing; these different ways involve taking some attitudes towards some propositions about that thing and failing to take other attitudes towards propositions about that thing. One proposal is then to identifying liking with the relation of liking *in some way* and to identify liking in some way with some specific collection of propositional attitudes that suffice for liking that thing.

To state the proposal more precisely let's introduce some abbreviations. We'll abbreviate ' $x$  bears  $r$  to  $y$ ' as ' $xy\Delta r$ '. For a given property  $f$  and object  $a$  we'll let  $fa$  refer to the proposition that results from *applying*  $f$  to  $a$ . Let  $v$  be an attitude. Suppose there are two collections of attitudes  $\{v_i\}_{i \in I}$  and  $\{a_j\}_{j \in J}$  and a corresponding collection  $\{X_k\}_{k \in K}$  of collections of pairs of properties  $X_k = \{\langle f_{k_i}, f_{k_j} \rangle \mid i \in I, j \in J\}$  such that for  $x$  to bear  $v$  to  $y$  is for there to be some  $k \in K$  such that for all  $i \in I$ ,  $x$  bears  $v_i$  to  $f_{k_i}y$  and for no  $j \in J$  does  $x$  bear  $a_j$  to  $f_{k_j}y$ .<sup>22</sup> Then we'll say that  $v$  is *generated* by the collections  $\{v_i\}, \{a_j\}$  and  $\{X_k\}$ . Using the  $\lambda$ -notation we might explicitly state this as the following identity:

$$v = \lambda xy \bigvee_k \left( \bigwedge_i x f_{k_i} y \Delta v_i \wedge \bigwedge_j \neg x f_{k_j} \Delta a_j \right)$$

Then one proposal is that the attitude of liking is generated by some by some appropriately chosen collections of attitudes and pairs of properties. Since the relevant collections needn't be finite, it may be that there is no way to *state* the definition. But we can attempt to provide evidence for it by looking for certain combinations of propositional attitudes that constitute ways of liking. If liking supervenes on the some collection of propositional

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<sup>22</sup>We do not require that the maps  $i \mapsto v_i : I \rightarrow \{v_i\}$ ,  $j \mapsto a_j : J \rightarrow \{a_j\}$  or  $k \mapsto X_k : K \rightarrow \{X_k\}$  be injective. We also do not put any constraints on the cardinalities of  $I, J$  or  $K$ .

attitudes, we should expect such combinations to exist (that is, there should be combinations of propositional attitudes which suffice for liking the thing in question).

One benefit of this proposal is that it is designed to get around an objection of ?. After noting that the simple account of liking  $y$  as there being some  $f$  such that you like  $fy$ , he argues that:

the propositionalist faces pressures on both ends. Anything with much specificity is bound to miss some cases, but anything broad is bound to overextend.

(p. 382)

On the proposed account no “cases” will be missed because for any such case there is a corresponding combination of propositional attitudes. Nor will the analysis overextend since we are taking *disjunction* of all cases of liking. Thus the proposed analysis cannot be ruled out on any sort of general grounds like those appealed to by Grzankowski (this is not to say that it cannot be ruled out on other grounds).

My goal in this section was to show that while Montague’s arguments do put some pressure on the propositionalist, they are much more of a problem for Lewisian propositionalism than the propositionalist thesis that I have set out to defend. In the next section I’ll look at some arguments that more directly challenge the version of propositionalism that I favor.

## 6. GRZANKOWSKI AND PROPOSITIONALISM

? offers two separate formulations of propositionalism that he calls “Propositioanlism A” and “Propositionalism B”:

*Propositionalism A:*

For every attitudinal relation between a subject and a non-propositional object, there is a propositional attitude or attitudes (of that subject’s) in terms of which it can be analyzed.

*Propositionalism B:*

For every attitude relation between a subject and a non-propositional object, there are propositional attitudes (of that subjects) upon which it supervenes. (p. 380)

Propositionalism A is close to the thesis that I have been defending under the label ‘propositionalism’. And Propositionalism B is close to one of the theses I have supposed to be evidence for propositionalism. Grzankowski sets out to refute both Propositionalism A and B. Some of what he says might be thought to challenge my formulations of these theses.

I’ll start with Grzankowski’s objections to Propositionalism A:

[T]here are reasons for thinking that Propositionalism A is wrong-headed on the grounds of systematic misprediction. By aiming to capture, for example, liking in terms of liking-that we predict that what is liked is a state of affairs rather than, say, and individual. (2012, p. 382)

Depending on what is meant by ‘analyze’, this may be an apt criticism of Propositionalism A. But I don’t think it works as an objection to propositionalism as I have formulated it. The definability of the relation of liking does not entail that what one likes is a proposition when one likes coffee. What one likes is coffee. Any putative analysis or definition must be at least extensionally adequate. For instance, if liking is generated by some collections of propositional attitudes and properties, this is consistent with it still being a relation that holds between persons and, for instance, coffee. But as far as I can tell, if it were so generated it would be analyzable in terms of a person’s propositional attitudes.

This point is worth emphasizing. Suppose for instance that for  $x$  to like  $y$  is for there to be some property  $f$  such that  $x$  likes that  $fy$ . Then the relation expressed by the occurrence of ‘likes’ on the left hand side of the analysis is the relation corresponding to ‘there is some  $f$  such that  $x$  likes that  $fy$ ’. This relation is *not* a propositional attitude. If Jim likes that Pam is a prankster, then for some  $f$  Jim likes that  $f$ Pam. In this hypothetical scenario, the pair  $\langle \text{Jim}, \text{Pam} \rangle$  is in the extension of this relation; since Pam is not a proposition plausibly this relation is not a propositional attitude. (One consequence of this is that the occurrence

of ‘likes’ on the right hand side of the analysis must be understood to express a different relation than the occurrence of ‘likes’ on the left hand side of the analysis).

Grzankowski also objects to Propositionalism B by considering a putative case in which two subjects agree on their propositional attitudes but disagree on their objectual attitudes. I will quote his case in full:

Imagine we remove a set of identical twins from each population and that they are raised from birth in identical environments. Let us call the twins from population A ‘Aaron’ and ‘Adam’ and the twins from population B ‘Benson’ and ‘Barry’. All four of the creatures learn the same language and have qualitatively identical lives... All four sincerely report the same desires, beliefs, intentions, wishes, hopes, and so on and all four behave in ways that suggest they want the same things, believe the same things, and so on. But suppose that one day we present Aaron and Benson with the type of snake that is known to threaten tribe A and find that Aaron, but not Benson, reacts fearfully...

Intuitively, there is something it is like for Aaron in that situation and something that it is like for Benson in that situation. According to many theorists, their experiences involve propositional attitudes, so there are very likely a lot of propositional differences between Aaron and Benson during the time the snake is present...

Turn now to Adam and Barry, neither of whom are presented with a snake at any time... It seems reasonable to conclude that... Adam fears snakes but Barry does not... [But] Adam and Barry seem to be propositionally identical - they appear to want the same things and believe the same things, they have seen and heard the same things, and so on. *All of our best evidence for the presence of propositional attitudes suggests that the creatures are propositionally the same.*

Is this a counterexample to supervenience? I don't think so. Or at least, it is not an objection to supervenience provided an appropriately broad conception of propositional attitudes is appealed to. The fact that Aaron, but not Benson, bears certain propositional attitudes towards things upon seeing the snake is good evidence that Adam, but not Barry, has certain dispositions to bear those propositional attitudes to things. As argued before, such a disposition to bear propositional attitudes to things would itself constitute a difference in propositional attitudes between Adam and Barry (or at least it would given a suitably enriched category of propositional attitudes appropriate for the propositionalist project). Hence no violation of supervenience (this is especially clear when supervenience is formulated as it is in section 3). Since a lot of the set up for the case seems to be an argument that Adam and Barry are disposed to differ in their experiences, I think that Grzankowski would grant that Adam and Barry do differ in their dispositions to bear certain propositional attitudes towards things. But what nonarbitrary reason is there for not including these relations as propositional attitudes? Knowing about such dispositions will certainly help us predict their behavior in certain situations, for instance. Of course, such dispositions will not manifest themselves in their explicit assertions before hand. But I don't think there is any reason to think that one's propositional attitudes need be reportable by them.

## 7. CONCLUSION

In this paper I argued that the objectual attitudes are definable from the propositional attitudes. Historically this was the orthodox view. Recently several authors have argued that orthodoxy must be abandoned. If my defense is successful the orthodox approach can thus be maintained.

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