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Non-Propositional Intentionality

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Non-Propositional Intentionality

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For my mother

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Non-Propositional Intentionality

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The University of Texas at Austin, 2010

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We often want to explain and predict behavior, both our own and that of others. For various reasons we want to know not only why (in the sense of etiology) someone is doing what he is, but we also have interests in understanding the agent's reasons for which he is acting as he is. Though not uncontroversial, it is common to cite intentional states when offering such explanations. Most philosophers take certain intentional states to be the causes of our actions and to play a role in accounting for the reasons for which one acts. Additionally, most theorists who adopt such a line take the relevant intentional states to be *propositional* attitudes, most commonly beliefs and desires (or other pro attitudes which relate one to a proposition). In many of our explanations, we do indeed cite beliefs and desires, but we also cite many other psychological states that aren't obviously beliefs or desires. In fact, some of the relevant psychological states don't even appear to be propositional attitudes. In this paper I pursue two lines of questioning, one about the explanations of action and one about intentionality. First, what role is played

by these apparently non-propositional attitudes? Such attitudes turn up in Davidson's locus classicus and can be found in the most recent work on action as well, but explications are sparse. Second, are these attitudes in fact non-propositional? Despite appearances to the contrary, one might argue that such states are to be, in some way or other, assimilated to the more familiar propositional attitudes. I resist this line in the second chapter.

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Chapter 1

Explaining Behavior

1.1 Chapter Introduction

We often want to explain and predict behavior, both our own and that of others. For various reasons we want to know not only why (in the sense of etiology) someone is doing what he is, but we also have interests in understanding the agent's "reasons for which" he is acting as he is. Though not uncontroversial, it is common to cite intentional states when offering such explanations. Most philosophers take certain intentional states to be the causes of our actions and to play a role in accounting for the reasons for which one acts. Additionally, most theorists who adopt such a line take the relevant intentional states to be propositional attitudes, most commonly beliefs and desires (or other pro attitudes which relate one to a proposition). In many of our explanations, we do indeed cite beliefs and desires, but we also cite many other psychological states that aren't obviously relations to propositions, let alone beliefs or desires. What role is played by these apparently non-propositional attitudes? Such attitudes turn up in Davidson's locus classicus¹ and can be found in the most recent work on action as well, but explications

¹Davidson (1963).

are sparse. This chapter aims to fill part of the gap while paving the way for a discussion about the intentionality of these states.

1.2 Seemingly Non-Propositional Attitudes

Let us begin by considering why we might think there are *propositional* attitudes. Two quotes are helpful here:

The assumption that propositional attitudes are relations that relate their possessor to a semantically evaluable particular that is the ‘object’ of the attitude ... is ... grounded in the conviction that the relational nature of propositional attitudes can simply be read off the logical form of the sentences by which we report propositional attitudes. For relationalists, the relational logical form of sentences used to report propositional attitudes reveals the relational form of the attitudes themselves. ... Because this reading off can seemingly be accomplished a priori, the Received View of propositional attitudes has for its proponents the status of something approaching an a priori necessary truth. *The Measure of Mind*; Matthews (2007), (6-7).

Propositional attitudes should be analyzed as relations. ... It’s intuitively plausible. ‘Believes’ looks like a two-place relation, and it would be nice if our theory of belief permitted us to save the appearances. *Propositional Attitudes*; Fodor (1986), (178).

And to what do they relate one? To the semantic value of a that-clause, *i.e.* a proposition. The logical form of propositional attitudes is taken as a reason

(if not *the* reason) for thinking that beliefs and other attitudes are relations between individuals and propositions. And since many ascriptions of the form just mentioned are true and are featured in our best explanations of action, we have reason (good reason, I think) to be propositional attitude realists. In the next section, I will say a bit more about the role such attitudes play in our explanations of behavior, but for a moment let us leave that to one side.

Suppose we adopt the methodology of Fodor and other proponents of the so-called “received view”. In fact, throughout this work I accept this methodology and I take our attitude ascriptions to be a good guide to the metaphysics of mind. But given this methodology, what are we to make of ascriptions like the following:

- (1) John fears cats.
- (2) Sally loves Bill.
- (3) Some students hate the color red.
- (4) Everyone likes chocolate.

Fearing, liking, loving, hating, and so on certainly seem to be psychological states, and if we take the surface form of the above ascriptions to be (plus or minus a bit) their logical form, then by the same methodology to which we appealed in the case of belief, we should conclude that there are states that relate us to a range of non-propositional objects. In fact, as I argue in chapter two, these states relate us to non-propositional objects *without* relating us to

propositions. Now, much like propositional attitudes, ascriptions of these non-propositional states seem to turn up in our explanations of behavior. Let us turn to that feature now.

1.3 Non-Propositional Attitudes in Explanation

As noted, it is common to cite beliefs and desires in our explanations of behavior. Suppose we see John running across the street. We might wonder why he is doing what he is. In explaining his action, it is natural to cite intentional states as the *causes* of his action – John’s belief that Sally is over there and his desire to talk to her caused John to move the way he did. And if we are interested in understanding the reasons for which John moved as he did, we once again cite beliefs and desires – John wants to talk to Sally and he believes that by running across the street he will be in a better position to get what he wants. To quote Davidson:

Whenever someone does something for a reason ... he can be characterized as (a) having some sort of pro attitude towards actions of a certain kind, and (b) believing (or knowing, perceiving, noticing, remembering) that his action is of that kind. ... Giving the reason why an agent did something is often a matter of naming the pro attitude (a) or the related belief (b) or both; let me call this pair the *primary reason* why the agent performed the action.

But we don’t always cite beliefs and desires, at least not directly. Ascriptions of the form (1) - (4) also turn up in both our causal and teleological expla-

nations, but none of them are obviously ascriptions of belief, desire, or some combination thereof. Suppose we see Sam running from the barn. In order to help you understand why he is running and screaming, I might tell you that he fears snakes and that there are snakes in the barn – his fear in part caused him to run and scream. And suppose we want to know why (in the sense of reasons for which) Ronnie is going to the dance. We might cite that he likes dancing. Mark Schroeder (2007), for instance, begins his recent book *Slaves of the Passions* with the following example (which I paraphrase for the sake of space):

Ronnie likes dancing and Bradley hates it. This psychological difference explains why the fact that there is dancing at the party is a reason for Ronnie to go to the party and for Bradley to stay away
(1).

But what are we to do with these ascriptions? They are not, at least on the surface, ascriptions of belief or desire. Besides not involving the words ‘belief’ or ‘desire’, they don’t appear to ascribe relations to propositions. Nevertheless, liking and fearing ascriptions seem to allow us to (in part) explain (in both senses) the actions of agents. And given the standard way of offering explanations in terms of beliefs and desires, one might think there is a tension here with the common way of doing things. In fact, consider Mark Schroeder’s claim:

For R to be a reason for X to do A is for there to be some p such

that X has a desire whose object is p, and the truth of R is part of what explains why X's doing A promotes p (193).

This quote can be made compatible with the earlier quote from Schroeder, but there are options and it is clear that more needs to be said about liking, fearing, and so on.² Davidson seems to be in a similar position:

Fortunately, it is not necessary to classify and analyze the many varieties of emotion, sentiments, moods, motives, passions, and hungers whose mention may answer the question 'Why did you do it?' in order to see how, when such mention rationalizes the action, a primary reason is involved. Claustrophobia gives a man's reason for leaving a cocktail party because we know people want to avoid, escape from, be safe from, put distance between themselves, and what they fear. ... When we learn a man cheated his son out of greed, we do not necessarily know what the primary reason was, but we know there was one, and it's general nature (689).

²In fact, given Shroeder's own interests he pushes the issue to the side:

[W]e should be interested in any version of the Humean Theory of Reasons, and not simply ones which hold that the psychological state needed to distinguish Ronnie and Bradley is a desire. ... Nevertheless, I'm going to adopt a bit of stipulative terminology, and introduce the term 'desire' as a stipulative abbreviation for 'the kind of psychological state, whatever it is, that ultimately explains the difference between Ronnie and Bradley' (9).

Once again, there appear to be options. Are likings, fearing, wantings and so forth a species of desire? Are they perhaps causes of desires? How are we able to know the general nature of the primary reasons? A full understanding of the mind and of action demands that we explore these questions. In the next section I want to try to get clear on the role played by ascriptions like (1) - (4), ascriptions of the form 'S V's y'. We will see that there isn't in fact any tension with the views of Schroeder and Davidson, but it is worth seeing how all of this works, for the story isn't the same in each case. As noted, I'll later argue that such states really aren't relations to propositions, but for the time being I'll remain silent on this.

1.4 Constituting and Causing

Let us start with ascriptions of the form 'S wants y', where 'S' stands in for the subject and 'y' for a (non-that-clause) noun phrase. Davidson himself considered such ascriptions:

Wants and desires often are trained on physical objects. However, 'I want that gold watch in the window' is not a primary reason, and explains why I went into the store only because it suggests a primary reason – for example, that I wanted to buy the watch (688).

So how do such ascriptions "suggest" a primary reason – that is, put us in a position to know something about a propositional pro attitude?

First note that there are good reasons for thinking that wanting, despite appearances, *is* a propositional attitude. Suppose we simply take desires to be the things that, in appropriate conjunction with appropriate beliefs, move us to act. If some of our desires had as their objects things like the semantic value of ‘a cat’ or ‘Sally’, then it doesn’t seem that desire could play its proper role. Suppose, as I observe Jones, that I say, “Jones wants Sally, and he believes that by going into that store he will get what he wants.” As Jones actually walks into the store, I think my description of Jones’s mental life is informative in some respects, but it is certainly lacking. Once Jones gets into the store, it’s unclear to us what he will do. Perhaps he will try to get close to Sally, but perhaps not. If what I have said about Jones is all that *could* be said, if Jones simply wanted Sally full stop, Jones himself wouldn’t act in any particular way. Such desires, if they existed, wouldn’t seem to play any useful role at all. I suspect considerations like these are what drive Davidson in the above quote.³

We quite regularly use ascriptions of the form ‘S wants y’, but given what’s just been said, we might wonder *why* we use them. It seems that they might be deployed either out of laziness or when a speaker lacks detailed information – ascriptions of the form ‘S wants y’ seem to abstract away from some of the more specific details. Though there is a loss of information if we use an ascription of the form ‘S wants y’ rather than ‘S wants that p’, there

³For distinct reasons for thinking that one cannot simply want y, see Anscombe (1963), especially page 70.

might be practical reasons for making this move.

Suppose that what Jones wants is to propose to Sally, but let's suppose I don't know this and neither do you. We are on a stakeout on Sally's behalf – Jones has been acting a bit fishy and we have been hired to learn more. We monitor Jones's calls for the day and we see that he keeps trying to get a hold of Sally. He stops by her place of work and by her mother's house. Finally, I spot Jones going into the store and you ask what he is up to. I might say, "We know that Jones wants Sally and he probably thinks she is in there." I think we would have gone some way towards better understanding Jones's behavior. If I had thought he wanted a new shirt, his going into the store would have perhaps been a lot less interesting from the point of view of a private eye. Of course, I don't know what he wants with Sally, but the information I gave is somewhat informative. When we have no more to go on, we might simply say 'S wants y'. When true, it's better than nothing.

As noted, we might also deploy such ascriptions out of laziness. In order to get across everything we want to express, so long as context sufficiently fills in the gaps, we can leave some of the bits out. If we are all at a dance and our friend Jones says, "Bill wants to dance with Betty, Steve wants to dance with Sarah, and Chris wants to dance with Christine," I might add, "and look over there, Ben wants Bess." It might be clear enough that I meant that Ben wants to dance with Bess.

We might suggest that a relation such as the following holds:

'S wants y' is true iff there is some proposition p_y such that S wants that p_y , where ' p_y ' indicates that the proposition that p concerns y – for simplicity I will understand this as constitution, *i.e.* instances in which y itself is a constituent of p , but possible worlds theorists or Fregeans about propositions may adjust accordingly.

Straight away problems arise, for if S wants Betty to leave the country and get far away from S, then it doesn't seem to follow that S wants Betty. Plausibly, however, and especially in light of our discussion of Jones, it must be a necessary condition for the truth of 'S wants y' that there be some propositional object involving y to which S is wants-related. For the time being, let's leave things at this.

Even though a complete reduction of S wants y in terms of propositional wanting will take some finesse, we ought to expect one. It seems impossible to simply want y , and once we consider the purpose of ascriptions of the form 'S wants y' we can see that they serve to abstract away from the details that we know are present. Wanting y and wanting that p_y seem to stand in a constitutive relation – it is in virtue of wanting that p_y that one wants y .

Now, we might claim that there is a perfectly good mental state picked out by ascriptions of the form 'S wants y', but on closer inspection it is plain that that state *adds* nothing of substance to a psychological theory that already involves propositional wanting. When we posit a new mental state, we expect it to play some role, often a causal role, in our psychological theory. I'll leave

it to the reader to decide how ontologically profligate he wishes to be on this front, but one must note that there is a sense in which non-propositional wanting plays no interesting psychological role, or does so only in a mediated or indirect way. At the end of the day, propositional wanting is doing the heavy psychological lifting. Non-propositional wanting is something that shows up in our ascriptions for pragmatic reasons, but it isn't a crucial element of our best theory of mind. Nevertheless, the relationship between wanting *y* and wanting-that allows one to infer certain propositional pro-attitudes (or at least a range of possible candidates) from true ascriptions of wanting *y* – in terms more similar to Davidson's, wanting *y* suggests wanting-that.

I don't think wanting *y* is alone in this respect. Many other states that are reported in the form 'S *V*'s *y*' seem to fit this profile as well, and if one generalizes too quickly, one is likely to question the import of non-propositional attitudes. Let us consider each of the following: 'S needs *y*', 'S expects *y*', 'S seeks *y*', 'S hunts *y*', 'S looks for *y*', and 'S thinks about *y*'. Of course the list goes on, but ascriptions of these forms share an interesting commonality with wanting. For present purposes this handful will be enough.

We may consider needing and expecting together. Much like wanting, it seems impossible to simply need *y*, full stop. When one needs *y*, one needs to have *y* or needs to ingest *y*, or whatever. And as far as I can tell, things are the same with expecting. One cannot simply expect *y*, full stop. One expects *y* to arrive or expects *y* to appear, or whatever. As with wanting, when we offer ascriptions of the form 'S needs *y*' or 'S expects *y*', we seem to be offering

reports that merely abstract away from the details that we know must be present. As with wanting, we might say that non-propositional needing and expecting don't do any of the heavy psychological lifting, at least not directly. To the extent that needing y causes one to behave in some way or other, it is in virtue of needing that p_y (for some appropriate p_y).

Thinking about also seems to line up with wanting in important respects. When one offers an ascription of the form 'S is thinking about y ', one seems to, once again, abstract away from details that must be present, though with this case the abstraction is more flexible than in the previous cases. Tim Crane has offered the following:

S thinks about $X =_{df}$ S is in some conscious state of mind which represents X .⁴

Upon reflection, this seems exactly right. Believing that Sally is home is one way to think about her, wanting her to be home is another. Fearing that she won't make it to the summit is yet another. Unlike wanting y , thinking about is flexible with respect to both attitude and content, but the general point is the same – ascriptions of the form 'S thinks about y ' serve to abstract away from certain details. Like the other cases, it seems senseless to say that one is thinking about y and that no more can be said. It seems one could always ask, "What are you thinking about y ?" and expect an answer: "I was just

⁴This proposal is reported in Sainsbury (2008).

thinking about you,” “Oh yeah, what were you thinking about me,” “I was wondering whether you were in town or not this week.”

Seeking *y*, hunting *y*, and looking for *y* are a bit more complicated still, but all bear certain important similarities to wanting *y*. Consider the following by Mark Sainsbury (2009):

Ponce de Leon has summoned his men and told them that there is a fountain of youth (he heard it from a reliable source), that finding it would enable each of them to attain immortality, and wealth beyond imagination, that therefore they would be starting at dawn the next day, using a rough map drawn by the local informant. Next day at dawn, true to his word, Ponce de Leon led the expedition up river. Nothing more is required to ensure that he was looking for the fountain of youth (82).

It is necessary for the truth of ‘*S* looks for *y*’ that *S* have some beliefs, desires, and intentions, and that he do certain things out in the world, like rummage about, flip over couch cushions, and so on. Furthermore, for every true instance of ‘*S* looks for *y*’, there will be some story similar to Sainsbury’s that is sufficient. And if this sort of approach works for ‘*S* looks for *y*’, I don’t see any reason to think that it won’t work for other ascriptions involving search verbs like ‘to hunt’ or ‘to seek’. Of course each verb might have some of its own unique constraints (perhaps hunting must involve an intent to kill, for example).

Like the above cases, search verbs allow one to abstract away from the details, perhaps quite complicated details. But notice that (once again) it is belief, desire, and intention (familiar propositional attitudes indeed) that are doing all of the psychological work, at least in Sainsbury's case. When Ponce starts acting in various ways, its because he has certain beliefs and desires, beliefs and desires that are partially *constitutive* of looking for. Upon reflection, any case involving a search verb seems to fit this profile.

This point seems to mark a common thread. In each of the above cases, a propositional attitude (wholly or partially) constitutes the alleged non-propositional attitude. One wants y in virtue of wanting that p_y (for some or other appropriate p_y), one thinks about y in virtue of A-ing that p_y (for some or other attitude A and some or other appropriate p_y), one seeks y (in part) in virtue of believing that p_y and desiring that q_y (for some or other appropriate p_y and q_y), and so on. Clearly the details need filling, but I think such a picture is very plausible and it allows us to see how these ascriptions interact with our belief/desire explanations of behavior and how they "suggest" primary reasons.

Tying all of this together, there are indeed true ascriptions of the form 'S V's y ' where the relevant mental state that is picked out by the verb seems to play no direct explanatory role, at least not in our folk psychological explanations. The reason, it seems to me, is that all of the intentionality of the states picked out by the above ascription types can be captured in terms of propositional states such as belief and desire that either wholly or partially

constitute the state in question. Because of this, such ascriptions may feature in our folk psychological explanations, but upon closer inspection, we will find propositional attitudes like belief and desire carrying the psychological weight. Constructions of the form 'S V's y', as we have seen, abstract away from more specific details. Sometimes those details are to be found in the content of an attitude, in others they are to be found not only in the content but also in certain facts external to the agent in question (as with seeking). In each case, familiar propositional attitudes are lurking.

Now, I don't think that all non-propositional attitudes fit into this category, but this isn't obvious. Let us turn now to liking. On the face of things, liking y looks similar to wanting y, seeking y, and all the rest. (Since non-propositional wanting is one of the more straightforward cases, let us take it as the representative of the group mentioned above.) Much like ascriptions of the form 'S wants y', when it comes to explaining and predicting behavior, ascriptions of the form 'S likes y' seem to leave one short of certain details: 'Jones likes Sally and he believes that she is in the store; that's why he went in there.' As above, we can't, based on this information, say with much precision what Jones will do. In addition, such ascriptions are syntactically similar to ascriptions of the form 'S wants y'. One might have thought that all of this indicated that liking and wanting are to be treated along similar lines. But I think that if we consider more closely the role of ascriptions of the form 'S likes y' we will see that they are importantly distinct from the ascriptions considered just above. We will also see in what sense liking y

ascriptions abstract from some of the details that we know must be present. As I'll argue, our ability to utilize liking ascriptions in the explanation and prediction of behavior is underwritten by a certain sort of relation that holds between liking *y* and propositional wanting; wanting *y* stands in a different type of relation to propositional wanting (as noted, the relation appears to be one of constitution).

Let's now shift to a slightly different case in order to show that ascriptions of the form 'S likes *y*' don't merely abstract from the details. You find me peeking around the corner. I'm observing Jones who appears to be tidying up. At one point, Jones takes a very odd step, lifting his legs high into the air. You ask me why Jones stepped in that way and I tell you that he must have seen the trip wire I set for him. Presumably, the full story also involves Jones's belief that there was a trip wire in his path and a desire not to get hung up, leading to his stepping over. If it's true that he saw the wire, then he very likely formed the belief that there is a wire in his path (or something to that effect). Since very often people form beliefs based on what they see, I can simply note what Jones saw and you can infer that he has a corresponding belief. But why didn't I just say that he believed that there was a trip wire in his way – saying that would have explained Jones's action and it might have even taken a little guess work out of the picture on your end. Well, one reason for saying that he saw the line rather than that he believed there was a line in his way is that I can actually convey more to you this way. (Perhaps this is obvious, but notice that this just isn't so with wanting *y* ascriptions.) Suppose

Jones had taken the same step and you had asked me the same question, but in the new scenario Jones is blind and uses a cane for navigation. I might then have told you that he *heard* the trip wire – as he knocks his cane about the taut wire vibrates. Once again, Jones has formed the belief that there is a wire in his way (or something to that effect), the same belief as before let us suppose. But what I've told you carries potentially interesting information not carried by the belief ascription I might have used. If we were to try to get Jones next time, depending on whether he saw or heard the wire, we would alter our plans accordingly. If Jones saw the wire, we will be sure to use fishing line next time. If Jones heard the wire, next time we will be sure to leave a little slack so it won't vibrate.

It's true that when I told you Jones saw the wire or heard the wire certain details were left out. Perhaps Jones formed the belief that there is a wire in the way or that there is something in the way or... . Even if we could be sure about those details, there might be contexts in which we do not care. Much like the discussion of wanting above, the ascription of seeing seems to leave out some details, details about exactly what Jones believes. But in the case of wanting, there seems to be *only* a loss of information when we compare true ascriptions of the form 'S wants that p_y ' to true, corresponding ascriptions of the form 'S wants y '. It is in virtue of the truth of 'S wants that p_y ' that 'S wants y ' is ever true. In the present case however, although there might be a loss of information on one dimension (perhaps I really could have told you exactly what Jones believed), there is also a gain of information.

If I had simply told you what Jones believed I would have left out certain counterfactual facts. Where 'S wants y' is an utterance form designed to abstract away from more detailed propositional ascriptions, 'S sees/hears y' is not so designed, but because such perceptions very commonly *cause* beliefs (and beliefs of a certain sort), we can utilize such ascriptions in such a way that our interlocutors can infer information about what someone believes. Intuitively, the primary job of such ascriptions is to refer to certain relational states of individuals, not merely to abstract away from some details of other states. Based on the role of the ascriptions, one might make a good case for reducing non-propositional wanting to a propositional pro attitude, but such a case looks unattractive for seeing/hearing and believing.

It seems to me that liking is more similar to seeing and hearing than it is to wanting. Suppose Jones really likes sunflower seeds and that he thinks there are some in the market across the way. Similarly to non-propositional wanting ascriptions, if I were to offer a "belief/likes" ascription in order to explain why Jones is rushing across the street, certain details would be left out. When I tell you that Jones likes sunflower seeds, given what most people do with the foods they like, we can pretty safely conclude that he wants to buy some seeds (probably in order to eat them), but for all I've said he might want to just have a look at them or smell them. Let's just suppose I simply don't know exactly what Jones wants. I just know what he told me – that he likes sunflower seeds. I might have told you that Jones wants some seeds and thinks there are some in the market – this is all likely true and something

I could figure out given the way Jones is behaving. But by telling you that he likes seeds, I in fact tell you more. Like seeing and hearing, and unlike wanting, such ascriptions also *add* information, there are (as with seeing and hearing) counterfactual gains. Suppose I know that Jones wants to stay away from the arts quad, but the two of us want to get him there. Knowing *why* he wants to stay away is important information for us. If he wants to stay away because he likes Sally, we might try to explain to him that he needn't be nervous around the girls he likes. If he wants to stay away because he dislikes Sally, we might try to convince him that he hasn't given her a chance. In either case, Jones wants the same thing, but just knowing what he wants and believes isn't always enough.

Liking ascriptions also allow us to narrow down seemingly unspecific desires, desire reported by wanting y ascriptions. Return to Jones and the seeds. If Jones likes seeds, chances are that what he (specifically) wants to do with them is eat them or smell them or look at some or whatever. But if he dislikes them, he might want to rip open all the bags and ruin the seeds. Knowing what Jones likes and doesn't like helps us narrow down exactly what he might want, even if we won't be able to figure out the specific details of his desire. I think this point can be made more vivid by varying the example. Suppose an angry dictator exclaims, "I want my jester!" If he likes the jester, chances are that what he wants is that the jester perform for him, or advise him on some decision, or whatever. But if the dictator dislikes his jester, he may well want to hit him or to humiliate him. When I'm explaining the

dictator's actions, by telling you he likes the jester, we can better narrow down the sort of specific desire that the dictator surely has. If you were the jester and you had just heard that the dictator wants you, you'd probably be quite interested to hear that he likes you.

I think it is clear that ascriptions of the form 'S wants y' play a distinct type of role from ascriptions of the form 'S likes/hears/sees y'. Seeing and hearing both seem to stand in a causal relation to belief – one's seeing a red round thing (all else equal) causes him to believe that there exists a red round thing. Similarly, liking seems to stand in a causal relation to wanting. If I tell you that I want our host to put out the chocolates soon, although a bit contrived, you might ask me why. 'Because I like chocolate' strikes me as a perfectly good answer. Or suppose you want to know why I want to invite Sally along tonight. Again 'because I like her' seems to be a perfectly good answer. These explanations appear to be causal. Furthermore, they seem effective. One good explanation for the effectiveness is that liking and desiring stand in a causal relation to one another – liking is (at least a partial) cause of some of our desires. Of course other relations *could* do the work, but a causal relation looks like a very good candidate. An alternative might be to suggest that *what it is* to like y is to be disposed to form a desire with such and such content. But consider again the explanation for why I wanted chocolate to be put out. Such an explanation seems satisfactory in a way that an explanation of the pill's making me sleepy in terms of its disposition to make one sleepy doesn't. If we take liking y to simply be the disposition to form certain desires,

we should expect the explanation of my desire to be deficient as well.

Given the role liking plays in our psychological explanations, it seems that it, along with seeing and hearing, belong in a distinct category from wanting, seeking, thinking about, and so on. While those relations seem to play a role in our psychological explanations in virtue of being constituted (at least in part) by propositional attitudes, states such as liking, seeing, and hearing seem to play a role in our folk psychological explanations in virtue of their normal causal relations to beliefs and desires. This is clearly brought out by returning to Shroeder's example which I repeat here:

Ronnie likes dancing and Bradley hates it. This psychological difference explains why the fact that there is dancing at the party is a reason for Ronnie to go to the party and for Bradley to stay away.

Now that we see how liking relates to desire it is plain why we are able to cite liking dancing rather than wanting to dance – liking dancing normally causes one (all else equal) to want to dance.

Thus far, I've focused quite a lot on liking, but the above points seem to apply equally well to loving, hating, and fearing. I would be unsurprised to learn that the list is much longer than this.

Up to now I hope to have established that there are a range of states which are superficially similar in surface structure and which are superficially similar with respect to their role in our folk psychology. Despite these superficial similarities we have seen that there are interestingly dissimilar classes of

states. In and of itself this observation strikes me as interesting, especially in light of remarks by Humeans like Davidson and Schroeder, but I think there is quite a lot more to be said. As I've noted, nothing above demands that one conclude that seeing, hearing, liking, or any other states fail to be (or to depend on) relations to propositions. In fact, seeing and hearing seem to have a good claim to being propositional attitudes at bottom, at least if one is an intentionalist (though I'll say no more about this in the present paper).⁵ Nevertheless the above paves the way for a serious discussion about whether or not states such as liking, loving, hating, fearing, and so on are (in some sense or other) propositional attitudes. In the second chapter I argue that they are not.

⁵For intentionalist-friendly accounts of seeing I refer the reader to Dretske (1973), Tye (1982), and Tye (2009).

Chapter 2

Non-Propositional Attitudes

2.1 Chapter Introduction

Thus far I have suggested that there are ascriptions of the form ‘S V’s y’ that feature in our explanations of behavior. I have argued that although a range of such ascriptions are deployed out of convenience and depend for their truth on the presence of certain propositional attitudes, others seem to suggest the existence of causally and explanatorily relevant states. I offered reasons for taking wanting, seeking, thinking about and so on to themselves be propositional attitudes or to depend on propositional attitudes, but I did not consider whether liking, loving, hating and so on might succumb to (distinct) arguments for a similar conclusion.

2.2 Motivating Propositionalism

Are all intentional states relations to propositions? David Lewis (1979) offers the following:

When we assign a propositional object rather than, say, a Meinongian incomplete [object], we characterize the attitude more fully. If I want a cat, most likely what I want is that I enjoy the company

of some cat. But my want might involve some other relationship; for instance, I might want that I be the legal owner of some cat. Saying just that I want a cat leaves it unclear which of these wants I have. Assigning a propositional object makes it clear.

(There is a genuinely unspecific want, namely wanting that I either own or enjoy the company of some cat. But to say that I want a cat is not to ascribe this unspecific want; it is to ascribe an underspecified want which may be this one, but more likely it isn't)
(514).

We saw above that there are good reasons to think that wanting is (or depends on) a propositional attitude. But of course, given what came above, we needn't think quite the same thing for quite the same reason about liking, hating, loving, fearing, and so on.

I think that by and large philosophers take all intentional states *to be* relations to propositions.¹ Let's call such theorists *propositionalists*. In fact, in light of what came above, let us give propositionalists a bit more flexibility. Let propositionalism be the thesis that all intentional states are themselves relations to propositions or (as in the case of seeking, thinking about, and others) depend for their existence on some or other propositional attitude or attitudes.

¹See especially Bealer (1982) and Perry (1994), though most philosophers working on intentionality seem to take this for granted. For recent exceptions see Crane (2001), Montague (2007), and Szabó (2003). What follows is a far more detailed attack than has previously been offered.

My aim in this chapter is to convince you that some intentional states are not themselves relations to propositions and do not depend for their existence on propositional attitudes – there are intentional states which relate one to non-propositional objects and do so without relating one to a proposition.

2.3 Mediate and Immediate Objects of the Attitudes

Straight away, one might take the claim that there are intentional relations that take as arguments individuals and non-propositional things as uncontroversial, so it is important to differentiate my claim from one for which it might be mistaken. The rider “without relating one to a proposition” is meant to rule out this confusion, but it is worth saying a bit more.

De re attitudes are relations between individuals and ordinary objects in the world. When one believes of (say) Dee that she is tall, one is de-re-belief related to Dee. But de re attitudes are importantly distinct from the sorts of attitudes for which I’m arguing. First, de re attitudes still involve predication – when one believes of Dee that she is tall, one predicates tallness of Dee, even if she is not thought of as Dee. When one (say) likes Dee or fears Dee, one needn’t predicate anything of her, at least not in virtue of (say) liking or fearing her. Second, many theorists aim to capture de re attitudes in terms of de dicto attitudes. For instance, one common view has it that to stand in a de re attitude to an object is to stand in a de dicto relation to a singular

proposition.² On other views, to stand in a de re attitude to an object is to (i) stand in a de dicto attitude to a proposition featuring that object in some way or another and (ii) to stand in a special relation to that object – either by being directly acquainted with it or by having a “vivid” conception of it.³ More nuanced views allow that (ii) is a contextually sensitive relation.⁴ Whichever of these routes is adopted, it is important to note that one stands in a de re attitude by standing in a de dicto attitude. In this way, one’s relation to a non-propositional object is *mediated* by a relation to a proposition.⁵ Contrarily, when one stands in a non-propositional attitude relation to an object or property or whatever, I maintain that there isn’t (or at least needn’t be) mediation of this sort via a proposition (though there may be mediation via conception or non-propositional representation). But even with this difference in mind, one might think that the alleged non-propositional attitudes can in some way or other be assimilated to the propositional attitudes. Let us consider this claim now.

2.4 Logical Forms

Recall (1) - (4) from above:

(1) John fears cats.

²Salmon (1997).

³Kaplan (1968), Lewis (1979), Sosa (1970).

⁴Bonomi (1995).

⁵I wish to remain officially silent on de re attitudes. One needn’t take the de re to reduce to the de dicto. See, for example, Burge (1977). The above is meant to be illustrative of mediation.

- (2) Sally loves Bill.
- (3) Some students hate the color red.
- (4) Everyone likes chocolate.

There are adherents of a certain linguistic approach to ascriptions like those in (1) - (4) who maintain that appearances notwithstanding, the verbs in question take sentential complements. Call these theorists *sententialists*. Given that part of our motivation for thinking that there might be non-propositional attitudes comes from the surface form of the ascriptions, if sententialists are correct, we should take the seemingly non-propositional attitudes to be propositional attitudes after all. In other words, arguing for sententialism is one way to argue for propositionalism.

2.5 Against Sententialism

Sententialism has been approached in two non-mutually-exclusive ways – (i) the syntactic and (ii) the lexical. According to the syntactic approach, there is hidden structure in the complement position. Generally, the noun phrase (NP) that appears on the surface is taken to be the argument of a hidden predicate. According to the lexical approach (which really might be taken to first involve a metaphysical analysis), the lexical meaning of verbs such as ‘to like’, ‘to seek’, and so on are to be analyzed in terms friendly to the sententialist – for example, Quine (1960), Montague (1970), and others

following them have suggested that the seeking relation is to be analyzed in terms of the try-to-find relation.⁶

It's obvious that a careful sententialist will opt either for the lexical approach across the board or a hybrid approach. The reason, of course, is that a number of the verbs in question simply don't take sentential complements; *e.g.* 'to look for', 'to covet', 'to miss'. In other instances, the syntactic approach might get some footing – one can fear Jones and fear that Jones will harm him, hate the cold and hate that the cold kills her flowers. But if any sententialist project is going to work, the lexical approach must be utilized at some point. Nevertheless, it will be worthwhile to consider arguments against both approaches.

Recent proponents of syntactic sententialism⁷ have offered a range of reasons for thinking that there must be hidden sentential structure in the object position of the verbs in question. Specifically, they have appealed to sentences involving propositional anaphora, ellipsis, and adverbial modification/attachment ambiguity to support their position. More traditional motivations have proceeded from considerations surrounding opacity and specificity, and as far as I can tell were aimed at supporting lexical sententialism.⁸ Let us

⁶Quine in fact offers "regimentations" or "paraphrases". It's not completely clear whether Quine was after analyses, though it does seem clear that for his own purposes he was happy enough with less. For the present discussion it would take us too far astray to try to cash out what regimentation and paraphrase amount to and what they accomplish. Writers following Quine (Montague (1970)) and responding to him (Partee (1974)) talk in terms of analysis. I'll follow such Quinean-inspired theorists rather than Quine himself.

⁷Larson et al. (1997), Larson (2002).

⁸Quine (1960).

consider these motivations. Along the way, I will argue that the motivations (with the exception of opacity, which falls prey to other worries) are present only in a subset of the cases we should care about – there are verbs that refer to mental relations that do not succumb to the historical motivations nor to the syntactic sententialist’s motivations. I will then argue directly against attempts to analyze the non-propositional in terms of the propositional, *i.e.* against lexical sententialism.

2.5.1 Against Historical Motivations

2.5.1.1 Opacity

Let us start with the best case for my opponent.

Opacity is a well known phenomenon in philosophy – in a number of contexts the substitution of co-extensional (and in some cases even co-intensional) terms and phrases are normally taken to alter the truth-value of the whole sentence. For instance, while it is true that my neighbor Sam believes that Buzz Aldrin walked on the moon it is false that he believes that Edwin Aldrin walked on the moon.⁹ Likewise, it is possible for the young lady to like the man she went on a date with tonight without liking the murderer all the papers are talking about, even if those descriptions pick out one and the same man.

There are, on the other hand, readings of these ascriptions in which

⁹Millians will not share this view – see for example Salmon (1986) and Soames (1997). Despite that, these certainly seem to be the common judgements. One option is to take them at face value.

substitution is allowed – Sam believes *of* Edwin Aldrin that he walked on the moon, the murderer all the papers are talking about is such that the young lady likes *him*. Let us put these “transparent” readings aside.

Focusing on the opaque readings only, Quine has suggested that opacity is a property of *sentence* contexts. When there is opacity in the object position, we should expect a sentence in that position, at least that is what we find most of the time. But when we consider cases in which a propositional complement is not forthcoming, things are a bit trickier. Consider, for instance, the following pair of sentences:

(5) John seeks the fountain of youth.

(6) John seeks the most coveted object of Ponce de Leon.

It seems possible for (5) to be true while (6) is false – suppose, for example, that John simply wants to make de Leon unhappy by getting whatever it is that de Leon wants most.

In such examples, Quine (or at least the Quinean-inspired theorist) is inclined to either posit clausal complementation or offer some analysis of sentences like (5) and (6). His reasons for proceeding in this way are roughly as follows: opacity is a familiar property of sentences, so in reducing opacity in what otherwise appear to be non-sentential contexts to sentential contexts, we can reduce the relatively unexplained to the relatively explained. Quine offers something akin to the following for (5) and (6):

(7) John is endeavoring that he find the fountain of youth.

(8) John is endeavoring that he find the most coveted object of Ponce de Leon.

Given this analysis (provided that it is successful), the opacity of (5) and (6) can once again be captured by a view according to which opacity is a property of sentence contexts.

Presumably, according to a theorist like Quine, we would offer the same sort of analysis for the cases of interest – ‘to like’, ‘to love’, ‘to fear’, ‘to hate’, etc. We will see below (when considering the lexical approach) that such analyses are not available. Since the viability of this view depends on finding workable analyses, we will see that this approach fails.

In addition, a Quinean view isn’t the only possibility in these cases. According to Richard Montague’s semantics, intensionality is widespread and is often a feature of noun phrases rather than a property of sentences. Working in such a framework, one needn’t posit clausal structure in order to accommodate opacity.¹⁰ Given the availability of such a semantics (which will be explained in more detail at the end of the chapter) in concert with the problems faced by a Quinean strategy, motivation from opacity seems rather weak, though at this point I’ve offered promises rather than arguments.

¹⁰For a helpful discussion see Partee (1974).

2.5.1.2 Specificity/Non-specificity

Specific/Non-specific ambiguities arise in contexts involving quantified noun phrases and are especially salient in examples involving indefinites (where the parentheticals are merely helpful cues for the reader and are not part of the content of the sentences):

(9) John believes that an apple is on his desk (but no apple in particular).

(10) John believes that an apple is on his desk (specifically, the one on the table at which he is looking).

According to Quine, and others following him, this ambiguity is to be captured in terms of scope. In (9) the quantifier is inside of 'believes that' and in (10) it is outside. In a case like this one, such an approach appears to offer a plausible explanation. But when we move to a case that doesn't involve (at least on the surface) a clausal complement, problems arise:

(11) Sam wants a sloop (but no sloop in particular).

(12) Sam wants a sloop (specifically, the HMS Resolution).

(11) and (12) seem to admit of the same type of ambiguity as (9) and (10). But treating these pairs in the same way presents a difficulty. In the pair (9)/(10), things run smoothly, but in the pair (11)/(12), only the specific reading seems to receive an adequate interpretation:

(12') $\exists x$ Sloop(x) and Wants(Sam, (x)).

Turning to the non-specific reading, notice that no sensible completion seems available:

(11') Sam wants $\exists x$ Sloop(x) and...

The indefinite description in (11') can't obviously be treated quantificationally. Of course, in the case at hand, it's not hard to see how we might fix this problem. Very plausibly 'wants a sloop' is elliptical for 'wants to have a sloop'. So long as such material can be uncovered or offered via plausible analysis, we can formalize (11) as (11''):

(11'') Sam wants $\exists x$ Sloop(x) and that Sam have (x).

The proponent of a view like this one will aim to extend the proposal to any case that admits of a specific/non-specific ambiguity, and she may in fact point to the availability of such an approach as an argument in favor of adopting sententialism.

Against this alleged motivation, notice that the verbs presently at issue do not seem to exhibit the ambiguity in question, so this motivation is a non-starter:

(12) Sam likes a car.

(13) Frank loves three woman.

(14) John hates some assignments.

(15) Sally fears a snake.

In each case the specific reading seems to be the only one available. Of course, *generic* readings, readings with (nearly) universal force across times or contexts, can be constructed with a bit of work:

(16) John loves a (good) bottle of wine (after dinner).

But one must be careful to notice that generic readings are distinct from non-specific readings. Let us take a moment to motivate this claim.

(17) John kicks a (good) bottle of wine (after dinner),

seems to offer a generic reading – this is the sort of thing John often does and there needn't be some specific bottle that always gets kicked. Though notice that such a reading is unavailable in the following:

(18) John is kicking a (good) bottle of wine.

This suggests that genericity is induced in (17) by *tense* (and we can say something similar about variants on (12) - (16)). We can in turn use this point to argue that genericity is to be distinguished from non-specificity. Take the progressive tense counterparts of (12) - (16) (e.g. 'Sally *is fearing* a snake') in which a generic reading seems unavailable. Compare those sentences with a sentence like (11) which, when shifted into the progressive, allows for a non-specific reading: 'Sam is wanting a sloop (though no one in particular)'.

Changes in tense don't effect the availability of non-specific readings, but such changes do block generic readings.

In further support of the claim that non-specificity and genericity are distinct and that only generic readings (to the exclusion of non-specific readings) are available in sentences like (12) - (16), notice that the following pairs are (very nearly) equivalent (where (19) and (20) are not to be read specifically):

(19) Dee (is the kind of woman who) fears a snake.

(19') Dee (is the kind of woman who) fears snakes.

(20) Mac (is the kind of guy who) likes a redhead.

(20') Mac (is the kind of guy who) likes redheads.

On the other hand, the following pairs seem inequivalent:

(21) Denis wants a sloop.

(21') Denis wants sloops.

Clearly there is potential for more work in this area, but for present purposes it is enough to notice that generic readings are very likely not to be identified with non-specific readings. In light of this and in concert with the fact that sentences featuring verbs such as 'to like', 'to love', 'to hate', and so on admit only of generic readings, we should not take the well received sententialist

treatment of non-specifics as a point in favor of sententialism in the cases at issue.

2.5.2 Against Syntactic Sententialism

Recall that according to syntactic sententialists there must be *hidden sentential structure* in the object position of the verbs in question. Proponents of this view claim that the material exists in the deep logical form of the sentences and can be recovered with a bit of work.

Propositional anaphora, which is meant to motivate this position, is exhibited in the following case:

(22) The department needs an epistemologist, but the budget won't allow it.

In (22) 'it' seems, most plausibly, to be anaphoric on 'to have an epistemologist'. This provides evidence for hidden clausal structure, but such data seems only to arise with verbs in what is sometimes called the "wants/needs" verb group. Such anaphoric links aren't forthcoming in every case:

(23) *Sally loves John, but her mother won't allow it.

(24) Sally loves John, and her mother isn't happy about it.

(23) seems marked, and while (24) is felicitous, the anaphoric connection seems to be to the proposition that Sally loves John but not to any (even partially)

hidden proposition. There simply doesn't seem to be motivation from propositional anaphora in the case of 'to love' and similar considerations apply to the other verbs of present interest.

Evidence for clausal complementation is also motivated by examples like the following:

(25) Do you want a drink?

(26) I really shouldn't, but I guess I will.

Naturally, the speaker of (26) is claiming that he shouldn't *have* a drink, but he will *have* one. As before, such cases seem unavailable with the psychological verbs under consideration.

Turning to adverbial modification/attachment ambiguity, a number of philosophers and linguists have cited the following sort of evidence in favor of propositional structure in the complement position:

(27) Sally will want a car tomorrow.

(27) is ambiguous between a case in which Sally has a desire for a car tomorrow (though neutral on when the desire arises), and a case in which, sometime tomorrow, the desire for a car first arises.

One obvious way to make sense of this ambiguity is to posit hidden structure involving 'to have':

(28) Sally will want [to have] a car tomorrow.

With this additional structure, we can now capture the ambiguity in terms of verb modification. In one reading ‘tomorrow’ modifies ‘to have’ and in the other ‘to want’.

But once again, such data seem unavailable for psychological verbs:

(29) Sally will fear Jones tomorrow.

(30) Chris will love a girl in his class tomorrow.

The syntactic approach simply isn’t widely motivated, and without motivation, positing syntactic structure in every case seems profligate and linguistically irresponsible. The above considerations don’t, however, count against *lexical* sententialism. Recall that according to the lexical sententialist the lexical meanings of the problematic verbs are to be analyzed in terms friendly to the sententialist. There are, broadly, two ways one might proceed with this project. The “first way” looks superficially similar to the syntactic approach in that the relation picked out by the main verb remains unchanged in the analysis. The “second way” allows for analyses of the relation picked out by the main verb in terms of another relation.

2.5.3 Against Lexical Sententialism

The so-called first way will only apply to verbs that allow sentential complements, so such an approach won’t work across the board. Despite that fact, one might think that in some cases it constitutes a promising approach.

Before turning to what I'm calling the second way, let us consider some reasons for thinking that the first way is misguided.

As a natural first pass, consider the following suggestion:

(31) S V 's y iff $\exists F$ (S A 's that y is F),

where A and V are attitudes and $A=V$.

Such a proposal is elegant, and offers a simple sententialist formula, but there are of course witnesses that make true the right hand side, though not the left. For example, it is possible to like that Jones is leaving town without liking Jones.

One might suggest that we restrict quantification in some way:

(32) S V 's y iff $\exists F$ such that F has property ψ and S A 's that y is F .¹¹

There won't, of course, be any plausible restriction that we will want to hold fixed across all attitudes, but perhaps there is a good candidate in each individual case. Allow me to expand on this suggestion. Suppose we are looking at a case involving liking. Quite plausibly, we will want a different restriction than in cases involving hating or fearing. Given this, I think it will be more promising to look at individual attitudes rather than the very abstract construction found in (32). If we find that there are successful analyses in the

¹¹Alternatively, if one wishes to avoid properties of properties, we might replace 'F has property ψ ' with 'F is belongs to the set of properties X '.

individual cases, perhaps we can then abstract away, but for the time being, let us move down a level.

To anticipate, my concern is that as we tighten our restrictions, a proposed analysis will fail on necessity, and when we try to go more lax, we will lose sufficiency, which suggests a structural flaw in this sort of approach. Let us work through some examples in order to see this.

Turning to fearing, we might offer the following, if only in order to get a handle on how to restrict our quantification:

(33) Charlie fears y iff Charlie fears that y will harm him,

and we might offer the following for liking:

(34) Denis likes y iff Denis likes that y tastes good (to him).

Clearly these analyses won't do; I think many smokers fear that cigarettes will cause self harm, but very few of them fear cigarettes. After all, without hesitation, and in fact often with great anticipation, smokers seek out and purchase cigarettes.

As for liking, the above suggestion might be plausible for foods, but certainly it isn't plausible for, say, dogs (and to be honest, it doesn't look that good even for foods given that we might get onto some of them without tasting them). Let us stick with liking for a bit, though nearly all of the considerations below generalize to fearing, loving, and hating.

As we have seen, we cannot allow just any substitutions for F, for to like that your enemy is suffering is not to like your enemy. Intuitively, we want to restrict things to include only “positive” properties, and those properties will have to be in some way or other “relevant”. In the case of foods, perhaps tasting good, or smelling good, or... . For people and pets, some other restriction will be in order, and so on for anything one could like. But, as noted earlier, these restrictions (if they can be found) will jeopardize the the necessary direction of our analysis. Consider the following candidate for liking a pet:

(35) Denis likes Fido (his dog) iff Denis likes that Fido is loving.

Intuitively however, one might like his dog without liking that his dog is loving, so we seem to have tightened things a bit too much. We might offer something like (36) as a repair:

(36) Denis likes Fido iff Denis likes that Fido causes him pleasure in some way or other.

But this suggestion seems to fall prey to roughly the same sort of objection – it seems possible to like Fido even if he causes one no pleasure (in fact, he might cause one quite a lot of displeasure when he tears up the house).

So far things aren’t looking promising, but they can be shown to be be worse still. Notice that ‘liking-that’ is factive – it is impossible to like

that p if p is not the case.¹² In this way, liking is similar to remembering or knowing. But it certainly seems possible to like some object that features in some state of affairs that does not actually obtain. This is going to put quite a bit of pressure on potential analyses, especially when one likes an object that doesn't (actually) exist.

As far as I can tell, analyzing liking in terms of liking-that is just misguided. Beyond the worries just leveled, liking and liking-that simply seem to be very different beasts. I might like that plastic bottles cut down on broken glass without liking plastic bottles, and I might like that soy beans have a lot of protein without liking soy beans. It seems possible to like states of affairs without liking some object that is relevant to that state of affairs and vice versa. By moving from liking to liking-that we in fact *displace* what is liked – an object for a state of affairs.¹³ This fact is highlighted by the following. From (37), (38) and (39) both follow:

(37) John likes Sally.

(38) There is someone John likes.

(39) There is something John likes, namely Sally.

But notice that what one might take to be a sententialist-friendly suggestion does not license such inferences:

¹²Above I said that nearly all of the arguments generalize to fearing, loving, and hating. Fearing-that does not seem factive.

¹³I have found that with respect to fearing Forbes (2000) has made a similar suggestion. In fact, I borrow “displaced” from his discussion.

(37') John likes that Sally is nice to him.¹⁴

(38) *There is someone John likes.

(39) *There is something John likes, namely Sally.

The same issue arises for other verbs that intuitively pick out mental states and which allow both NP and that-clause complements – the objects seem to be inappropriately displaced by states of affairs involving the object in question.

Now, there might be a nearby proposal that is slightly more attractive – we might try to analyze liking in terms of liking-to. For example:

(40) Denis likes Fido iff $\exists \alpha$ Denis likes to α Fido,

where α is to be filled in with some action.¹⁵

Of course we will once again need to restrict our allowable substitutions, for it doesn't follow from one's liking to kick Fido that one likes Fido. As before, there is a serious question as to how to implement such a restriction, but we can at least fill things in schematically:

(41) Denis likes Fido iff $\exists \alpha$ such that α has property ϕ and Denis likes to α Fido.

¹⁴Or one might try 'makes him feel good', 'helps others', or whatever.

¹⁵Such infinitival complements are often taken to be sentential. See Humberstone (1990) and Larson (2002) for a bit more on this point.

Considering first the sufficiency of the present suggestion, imagine someone who likes to do a wide variety of things with Fido – he likes to run Fido, pet Fido, feed Fido, watch Fido play, and so on. Even this sort of suggestion will fail, for it will always be possible for someone to like to do all of these things without liking Fido. Imagine someone who is very concerned with his health and who believes that running Fido aids in digestion, that petting Fido scares away skin cancer, watching Fido play improves his vision, and so on. Such an individual needn't like *Fido*.

The obvious repair is to include something like the following:

- (42) Denis likes Fido iff $\exists \alpha$ such that α has property ϕ and Denis (intrinsically) likes to α Fido.

In terms of sufficiency this strikes me as a vast improvement. In fact, counterexamples are quite hard to come by when we consider a case where there is some (suitably restricted) array of things one (intrinsically) likes to do to/with/for Fido. But just as before, we must be certain that we have not undermined the necessary direction of our analysis.

One might suggest that in terms of a necessary direction, we are actually on the right track here, for one might think that in order to like something one must like to do *something* with/to/for it – this is certainly a (*prima facie*) plausible suggestion. To illustrate this point, consider someone who claims to like Fido but who also claims that he doesn't like to walk Fido, pet Fido, play with Fido, look at Fido from afar, and so on. I think we would indeed

find this individual puzzling and we might become skeptical about whether he really likes Fido. But I think there is a possible confusion here since there is an ambiguity in sentences of the form ‘S does not like to α y’. Sentences of this form have a reading according to which S *dislikes* α -ing y and a reading according to which S is “likes-agnostic”, for lack of a better term, about α -ing y. For present purposes we need only focus on cases in which S is likes-agnostic. But isn’t it possible for someone to feel agnostic about doing things with Fido while, nevertheless, liking the dog? Imagine someone who is persistently depressed and doesn’t like to *do* anything. Couldn’t this person still like his dog Fido? It seems clear to me that he could. And as our need for a sufficient condition leads us to add more things that Denis must like to do with/to/for Fido, this problem becomes all the more difficult to overcome.¹⁶

Additionally, much like our earlier suggestion that liking might be analyzed in terms of liking-that, the present suggestion seems to displace what one likes. The left hand side of our latest bi-conditional ascribes to Denis the liking of an object while the right hand side says that there is something he likes to do. But, intuitively, liking objects isn’t the same as liking to do things. Suppose Denis intrinsically likes to walk Fido, pet Fido, and all the rest. It seems that what he likes is petting, walking, and so on, but we are after an

¹⁶It seems to me that the demand that one must like that some object is F or like to do something with some object stems from the intuitive idea that in order to like some object one must like something *about* it. But notice that such an intuition needn’t push us in the direction of sententialism or propositionalism more broadly. I might like Sally because I like her blonde hair, her confidence, and her positive attitude, but this is just to move the problem if you are a sententialist – liking Sally’s confidence will demand an analysis just the same as liking Sally.

analysis of liking Fido! It doesn't seem that there is much hope for analyzing liking in terms of liking-that or liking-to.^{17,18}

Let us now turn to what above I called the second way. On the second way, sententialists allow a shift in the attitude on the right-hand side of the analysis, which seems like a promising proposal. In fact, Quine's and Montague's preferred treatment of seeking (as I've pointed out above) involves an analysis in terms of trying to find. Additionally, recall thinking-about. Plausibly, what it is to think about some object is to have some thought about it – some belief, some desire, or so on. This is to say that an analysis of thinking-about in terms of propositional attitudes other than thinking-that seems possible.¹⁹

Returning to liking, we might offer the following:

(43) Denis likes Fido iff $\exists \alpha$ such that α has property ϕ and Denis (intrinsic-

¹⁷Recall that the syntactic sententialist aims to discover hidden material in certain verb involving constructions. Given this approach, such a theorist should find the above discussion troubling, since it seems to suggest that in addition to lacking motivations for hidden material in many cases, it is completely unclear what the desired hidden material might even (ideally) be.

¹⁸There is also a theoretical reason for applying pressure to analyzing liking in terms of liking-that/to that can be derived from recent work by Jeff King. King (2002) reminds us of a long standing puzzle: Why is it that 'John believes that p' seems to mean the same thing as 'John believes the proposition that p' while 'John fears that p' doesn't mean the same thing as 'John fears the proposition that p'? His suggestion is that there is ambiguity in the verb 'to fear' (and a host of others), but not in 'believes'. Though I find his linguistic motivations (*i.e.* some standard ambiguity tests) unconvincing, the need for an explanation of this puzzle does give us reason to take seriously the possibility of ambiguity (or at least polysemy) in certain cases. Supposing one finds this plausible, I would suggest that the ambiguity is between a propositional and a non-propositional use of the verb, which is supported by the failed attempts at analysis given just above.

¹⁹See Crane's suggestion on page 12 above.

cally) desires that he (himself) α Fido (or desires that Fido is F).

But this analysis seems to offer no advantages over the ones just above involving liking-to/that. Once again it seems possible for someone to like Fido without wanting to do anything with/to Fido and without wanting Fido to have some feature or other.

We also seem to run up against the displacement worry again – desiring that some state of affairs be realized seems importantly distinct from liking some object that might be involved in the desired state of affairs.

A more promising suggestion involves switching to belief:

(44) Denis likes Fido iff $\exists F$ such that F has property ϕ and Denis believes that Fido is F.

But yet again, it seems possible to make true the right hand side without making true the left – surely one can believe that Fido is a handsome dog without liking him. In fact, even with a multitude of such beliefs we won't reach a sufficient condition – it's possible to believe that Fido is well behaved, loving, handsome, a good pet, and so on without liking him, and these properties all seem to be about as plausible as any candidates could be.

Perhaps if we suppose that on balance the “positive” beliefs one has about Fido outweigh the “negative” ones (that Fido is dangerous and mangey, say) we will get further along. But even then we don't seem to have a sufficient condition. Even if one believes a range of positive things about Fido to the

exclusion of negative things, it still seems possible to fail to like him. I, for instance, went to high school with someone whom I thought was a good guy, a nice person, a hard worker, a good teammate, and all the rest. He really didn't contribute anything negative to my life, but lo and behold, I really didn't like the guy. My impression is that many people have had such an experience.

But what about the necessity of this proposal? I said above that it is possible for Dennis to like Fido without believing that he is handsome, but is it really possible for Dennis to like Fido without believing *anything* about Fido?

It certainly seems unlikely that someone would like some object without having some beliefs about it – very likely one will believe that most of the things one likes exist (though perhaps this isn't so for fictional characters, say) and will believe that they are self-identical. I think there will be concept possession worries that arise here – one might have the concept *fido* but lack the concept *exists* or *identity*, but let us put such worries aside. *Must* one have some belief or other about an object to like it? I certainly don't see any reason to say more than this: one *very often* will have such beliefs. I simply can't see why one would be forced to commit to more here. Perhaps one's views will diverge from mine at this point. Even so, a good argument against this sort of position would not save the sufficiency of the analysis presently on offer.

Sententialists might offer further refinements. One approach might be to look for contextually sensitive analyses, though given the worries above it's not clear how this will help – shiftiness doesn't seem to be the problem. The

burden is on the sententialist to say more.

Despite the difficulties found above with the reductive approach of the lexical sententialist one might still have the suspicion that the non-propositional, intentional states *depend* (ontologically) on propositional states, and one might think that if this were so the propositionalist would have the day. In the next section I'll offer reasons for thinking that the non-propositional states do not supervene on the propositional states. Although the success of supervenience does not guarantee the success of an interesting ontological dependence relation, I think most would agree that the *failure* of supervenience rules out the possibility of an ontological dependence relation.

2.6 A Weaker Relation?

Do the non-propositional attitudes depend on the propositional? Earlier I quoted the following from Mark Sainsbury:

Ponce de Leon has summoned his men and told them that there is a fountain of youth (he heard it from a reliable source), that finding it would enable each of them to attain immortality, and wealth beyond imagination, that therefore they would be starting at dawn the next day, using a rough map drawn by the local informant. Next day at dawn, true to his word, Ponce de Leon led the expedition up river. Nothing more is required to ensure that he was looking for the fountain of youth.

The truth of ‘S looks for y’ depends on S having some beliefs, desires, and intentions, and that he do certain things out in the world. Isn’t this enough to be a propositionalist?

Notice that on such a proposal, looking-for has not been reduced to a propositional attitude, though looking for y can be (in part) explained in terms of propositional attitudes. It is important to notice that on a proposal like Sainsbury’s, the intentionality of looking-for supervenes on propositional attitudes.²⁰ Once this is recognized, one might think that insofar as the looking-for relation is intentional, it is in virtue of every instance of that relation involving some or other set of beliefs and desires. In this way, one might suggest that looking-for depends on propositional attitudes even if it is not itself a propositional attitude.

If one’s aim is to defend the thesis that all attitudes are (in some sense or other) propositional attitudes, one should find Sainsbury’s approach friendly. This type of approach aims to capture the *intentional* component of an otherwise complex state (looking-for in this case) in purely propositional attitude terms. Why should one commit herself to the thesis that all intentional states can be *reduced* to nothing but propositional attitudes?²¹ If one were able to show that all intentionality is, at bottom, propositional, one would have indeed shown something of philosophical interest. In fact, one might claim to

²⁰Thanks, in addition to Mark Sainsbury, to Josh Dever and Adam Pautz for pressing me on this sort of line on behalf of propositionalists.

²¹Failure to take seriously this sort of approach strikes me as a major weakness of the recent attack on propositionalism leveled by Montague (2007).

have shown something important about the nature of intentionality in its most fundamental form, *i.e.* that it is proposition involving.

2.6.1 The New Multiple Realizability

In order to argue against the supervenience of the non-propositional, intentional relations on the propositional attitudes, it is first necessary clarify how such a proposal might go. Looking-for was one example and earlier we explored thinking-of and number of other relations, but things can be put more generally. It will be instructive to briefly rehearse a similar (and more familiar) proposal about the alleged supervenience of the mental properties on the physical properties.

Putnam (1967) famously argued that mental state types cannot be identical to physical state types in virtue of the multiple realizability of mental states. If this is correct, a type-type identification between the mental and the physical fails – mental properties must be distinct from the physical properties. A physicalist needn't be pushed into a troubling form of dualism, though. Non-reductive physicalists, for instance, accept that type-type identity fails but argue that the mental is nothing “over and above” the physical. They do so by arguing that the mental depends on the physical. For brevity, I will assume the reader is familiar with this position. The important point is simply that one might think that in an interesting sense the mental is nothing over and above the physical, if the mental and physical stand in the supervenience relationship for which non-reductive physicalists argue.

Similarly, one might argue that all of the non-propositional, intentional relations supervene on the propositional attitudes. Just as the non-reductive physicalist admits that mental properties aren't identical to physical properties, the theorist I am envisaging would grant that the non-propositional, intentional relation types are not identical to the propositional attitude types. Despite that, it might still be maintained that the non-propositional, intentional relations are nothing "over and above" the propositional attitudes, or at least that their intentionality is not. If this approach is to be made plausible, the proponent of this view will need to offer both the token attitude and content of that attitude that will underwrite each token non-propositional state. I hope to have convinced you above that this is no easy task, but right now I want to attack supervenience more directly. I will argue that it is possible for there to be a difference in non-propositional, intentional relations without there being a difference in propositional attitudes with the hope of assuaging any left over worries one might have. First, I'll discuss, by way of useful setup, an empirical study. Next, utilizing what was learned from the study, I'll construct a brief thought experiment that shows that supervenience fails.

2.6.2 Against Supervenience

Smith (1977) has constructed an experiment involving a species of bird known as the great kiskadee, which eats, among other things, small reptiles. Concomitant with the kiskadee is the micrurus, a highly venomous snake which displays a distinctive coral-snake pattern – a pattern comprised of wide red,

narrow yellow, wide black, and narrow yellow rings, in that order). If a kiskadee is bitten by a micrurus, death is likely.

In the experiment, six young kiskadees were raised in captivity and presented with wooden dowels painted in various ways. Some of the dowels were painted with rings of various colors and widths and others with stripes of various colors and widths. For instance, one set of dowels was painted with rings geometrically like that of the micrurus though colored differently. Another set of dowels was painted to resemble the micrurus in color though not in width. Other dowels covered similar options with striped patterns rather than rings. And, of course, one set of dowels was painted to resemble the micrurus as closely as possible. Baby kiskadees were presented with the various dowels and the number of pecks on each was recorded.

Importantly, the kiskadees used in the experiment were taken from their nests just after their eyes were opened, and Smith points out that the natural nests are fully covered. Despite a general lack of worldly experience, the kiskadees exhibited behavior that suggests they have an innate fear of the micrurus. For instance, a dowel painted white and green was frequently pecked and a red and yellow *striped* dowel was only slightly avoided. Dowels painted with red and yellow stripes in the coral-snake pattern (that is, with the appropriate spacing) were avoided more often. Completely avoided were the dowels painted with red and yellow rings (both in the coral-snake pattern and not). Interestingly, although no kiskadee approached either the yellow and red ringed dowel nor the coral-snake patterned dowel, the responses to

the two differed. Smith notes that only two birds gave mild alarm calls to the former, but those same birds, plus two others gave high intensity alarm calls to the latter type of dowel. Smith argues that the kiskadee's "stronger rejection [to] the coral-snake models, both rings and stripes, suggests that the great kiskadees have an innate aversion to the coral-snake pattern, yet will generalize to avoid a pattern of wide yellow and narrow red rings" (538). Be the aversion to patterns or to a variety of snakes themselves, it seems plausible that the fear is innate.

With Smith's experiment in the background, one can construct a thought experiment involving creatures with a more robust cognitive life who are propositional-attitude-identical though distinct with respect to their non-propositional, intentional relations.

Suppose that there are two ancient tribes, A and B. Tribe A has evolved in an environment in which a certain sort of snake claims many lives. Over the course of many generations (as many as are needed to make the thought experiment reasonable), the tribesmen have evolved such that upon the presentation of this type of snake they illicit fear responses – wide eyes, arched backs, gasping, running away, and so on. Now, in tribe B, there is no such threat, though conditions are otherwise as similar as possible. Next, suppose we remove two sets of twins, a set of identical twins from each tribe, and raise them in identical environments. Let us call the twins from tribe A 'a' and 'a*' and the twins from tribe B 'b' and 'b*'. All the tribesmen learn the same language and all are raised under qualitatively identical conditions. Each of

them them is willing to openly and freely assent to 'snakes aren't dangerous' and each of them has expressed a desire to see a real snake. In fact, all four report the same desires, beliefs, intentions, wishes, hopes, and so on. But suppose that one day we present *a* and *b* with the type of snake that is known to threaten tribe A and find that *a*, but not *b*, reacts fearfully – a result which wouldn't be terribly surprising. Though, of course, this is not to say that tribesman *a himself* wouldn't find it very surprising that upon presentation of the snake he was "stricken with fear". "I don't know what happened, but that thing sure freaked me out," he might report.

Intuitively, there is something it is like for *a* in that situation and something it is like for *b* in that situation. As a result, there are very likely a lot of propositional differences between *a* and *b* during the time the snake is present. Furthermore, one might argue that at the very moment the snake is presented, *a* (causally or miraculously) comes to, say, desire to be away from snakes. Let us grant all of this.

But turn now to *a** and *b**, neither of whom are presented with a snake at any time – they have undergone exactly the same experiences at every time. It seems reasonable to conclude, given the known behavior of the two tribes and the experiment just run on *a* and *b*, that *a** fears snakes but *b** does not. Just as a phobic fears heights from the comfort of his own bed, *a** and *b**, sitting quietly in their respective rooms, fear snakes. Importantly, they still seem propositionally identical.²²

²²One might suggest that the sort of fearing at issue in the case is simply a disposition

Only this one result is necessary, but similar thought experiments seem available for other non-propositional, intentional relations as well – loving, hating, liking, and perhaps others.

If there is an innate, unreported propositional attitude that accounts for the difference between the tribesman, the burden is on the propositionalist to say what it is. In the case of fearing, we have a true report of the form ‘S fears y’ at our disposal. It seems to me that in light of the case, only a prior commitment to propositionalism could motivate positing the mysterious, propositional state that makes the difference.

2.6.2.1 Defending The Case

One way of pressing the above case is as follows: the relevant relations involving the tribesmen, it may be granted, do not supervene on the propositional attitudes, but those relations are not intentional; those relations couldn’t relate someone to a non-existent thing. On the other hand, in the cases involving, say, liking Holmes or fearing Pegasus, one should holdout hope for the supervenience thesis. In fact, reflect upon liking Holmes. One reads a bit of a novel and forms some beliefs about a fictional character. After doing

to undergo occurrent fear. If such a route is meant to help my opponent, we must be given reason to think that occurrent fear is propositional. Furthermore, the opponent must make sense of the fact that the dispositional fear seems to explain occurrent fear rather than the other way around. A similar point was made above with respect to liking and wanting, but here is a quick illustration. “Because I’m afraid of snakes,” seems to be a good answer to the question, “Why did you scream when I showed you that snake?” Compare this with the following: “Why are you afraid of snakes?” “Because I react certain ways when they are around.”

so, one might then find himself liking Holmes. If things *must* go this way, supervenience looks tenable.

I think there is some plausibility to this line of thinking. After all, the examples above seem to rely on certain evolutionary profiles, and it's not obvious that evolution is going to key a creature onto non-existent things. But there is a good response to this sort of objection.

If one is going to press my case in this way, he must posit many relations where there appear to be fewer. Many people have feared the boogy man, liked Sherlock Holmes, and so on. These relations certainly seem to be intentional, for none of those objects exist. Since the crucial claim is that the relations of the tribesmen are not intentional, the type of relation people have stood in to, say, the boogy man, cannot be the same relation as the one in which the tribesmen stand to snakes.

This type of move is tantamount to saying that the verbs 'to fear', 'to like', and so on are ambiguous. But they do not appear to be ambiguous. Consider the following:

(45) *John ran a marathon and Sam a company.

In (45) the word 'run' has been elided, and the result is an infelicitous sentence. This suggests that the verb 'to run' is ambiguous. When the same sense of 'to run' is at issue the elision is harmless:

(46) John ran a marathon and Sam a triathlon.

Notice that such elisions suggest the lack of ambiguity in the verbs under question above (let us name a^* from above "Allen" and one of the kiskadees "Fred"; John is an ordinary, adult male):

(47) John fears Sherlock Holmes and Allen snakes.

(48) Fred fears snakes and John unicorns.

And I find the data all the more persuasive when we consider only one individual:

(49) *John ran a marathon and a company.

(50) Allen fears snakes and unicorns.

(51) Here are some the things John fears: Holmes, Allen, unicorns, and his mother.

These linguistic tests, though not conclusive, suggest that there is no ambiguity in these verbs.²³ In fact, this linguistic data counts not only against my opponent but in favor of my overall position – as an opponent is tempted to argue that the relation in question is not intentional, he has presumably given up the view that it is propositional.

²³Why not conclusive? Well, my opponent may argue that the verbs are not ambiguous but *polysemous*. The distinction between ambiguity and polysemy is both subtle and controversial, but I do grant that polysemy *might* make sense of the linguistic data while allowing my opponent to hold onto his position. A full discussion of this type of move would take us too far astray. Let this simply be a flag; a rout one may wish to pursue. Despite the potential availability of such a move, I take the above data to count quite strongly against my opponent.

2.7 A Better Semantics

Syntactic sententialism seems to be in quite a lot of trouble, reduction looks hopeless, and supervenience seems flawed. One might now wonder if there is anything positive to be said. In this section I want to sketch a (non-original, but) more plausible semantics for the types of sentences in which we have been interested. Given the methodology of using our language as a guide to our metaphysics of mind, this will pave the way for future positive work on non-propositional, intentional states.

More promising approaches stem from Richard Montague's intensional type-theoretic semantics.²⁴ Type theoretic semantics is built around "functional application" – given any two expressions x and y which can concatenate into a meaningful expression xy , the meaning of one of these expressions is taken to be a function and the meaning of the other is taken to be an item of the kind for which the function in question is defined. The meaning of the whole is then taken to be the output. Depending on which expression is taken as input, we may represent this operation as $x(y)$ or $y(x)$.

In an extensional type-theory, truth-values (t), individuals (e), and functions taking these types as inputs are taken as primitives. The meaning of a sentence is taken to be a truth-value (type t), and since the meaning of, say, 'Jane' is an individual (type e), the meaning of 'smokes' in 'Jane smokes' is taken to be a function from individuals to truth values (type $e(t)$). A noun,

²⁴Montague (1974).

such as ‘cat’ is taken to be a property of individuals, also of type $e(t)$ – a function that takes all the objects of the relevant domain and maps them onto true iff the object is a cat. An adjective, such as ‘fuzzy’ (which we may attach to ‘cat’) must then take as input things of the type $e(t)$. Its output must also be of type $e(t)$, since ‘fuzzy cat’, just like ‘cat’ is taken to be a function from individuals to truth-values (mapping individuals to true iff the individual is a fuzzy cat). Quantified noun phrases (*e.g.* ‘a fuzzy cat’) will be of type $((e(t))t)$ (a property of properties), allowing the combination of a quantified noun phrase with an intransitive verb (‘A fuzzy cat runs’). By assigning to individuals meanings of type e and meanings of type t to whole sentences, one may continue in this way, assigning types to any expression.

Of particular interest are transitive verbs, which seem to allow individuals, quantified noun phrases, and so on in object position. Since quantified noun phrases are of type $((e(t))t)$ one might think that a transitive verb must take such a type as input. On the other hand, transitive verbs also seem to take type e as input. For this reason, type theories are taken to include “type shifting” rules. Commonly, an individual (type e) in object position is raised to type $(e(t))t$. A complete discussion of type shifting simply cannot be given now, and in fact it is a matter of controversy, though most theorists endorse *some* kind of shifting.²⁵

So far so good, but an extensional type theoretic semantics will not

²⁵Partee (2000).

allow us to differentiate between co-extensive expressions – renate and chordate to use an old example. This is unacceptable when sentence operators such as ‘it is necessary that’ are to be accounted for. Problems also clearly arise in attitude contexts. An *intensional* semantics is meant to alleviate these difficulties. Intensions are taken to be functions from worlds or indices to extensions. For instance, the intension of ‘cat’ is a function that takes as input possible worlds and gives as outputs functions of type $e(t)$ which map each individual in the input world onto true iff that individual is a cat. Worlds are assigned type s , so the intension of ‘cat’ is of type $s(e(t))$. On this type of account, propositions are taken to be sets of possible worlds – type $s(t)$. As in the extensional type theory, one can work out the intensions of any expression (which is not to say that this task is easy or without subtle complications, but this crude outline is enough for present purposes).

The importance of all of this for the present discussion is that we needn’t treat the complement of every attitude verb as a sentence. Noun phrases can now be treated as inputs to transitive verbs (in order to capture differences in co-extensive expressions, we actually want intensions of noun phrases as input). The upshot of a picture like this is that in addition to sentential complements, there seem to be properties as objects and individuals as objects, though we may find that the best semantic theory collapses these via type shifting.

Interestingly, Montague himself adopts a sententialist line, at least in some cases. For example, he, like Quine, aims to capture ‘to seek’ in terms of

‘to try to find’ by analyzing the seeking relation in terms of the trying to find relation.²⁶ Importantly, however, this lexical analysis is optional. On Montague’s semantics a verb like ‘to seek’ is first taken to be a relation between individuals and quantifiers (properties of properties of individuals as we have seen). The seeking relation is then analyzed into a propositional attitude, and this analysis influences the lexical entry for ‘to seek’. This move might seem welcomed given that it allows us to explain the relatively unfamiliar in terms of the relatively familiar (that is, in terms of the propositional/sentential). Furthermore, one might wonder what it is to be related to a property of properties. As we have seen, however, such propositional analyses aren’t always available. One approach, the one taken by Moltmann (1997) and Richard (2001), has been to explain what it is to stand in an attitude relation to a property of properties. A second approach has been to tinker with the semantics in order to avoid commitment to properties of properties, replacing them with first order properties. Zimmermann (1993) proceeds in this way.²⁷

Choosing amongst these views (or offering an alternative) would take us too far astray. What all of these views have in common is that they offer a semantics which applies to the verbs under question – verbs that refer to intentional states that seem, on the surface, to take non-sentential comple-

²⁶Though he does worry that not all verbs will be so well behaved – he explicitly worries about ‘to worship’.

²⁷For yet another alternative see Forbes (2000) who turns to a Davidsonian event semantics. This approach allows for a range of entities to feature as the theme of an event. Forbes argues that this approach is especially attractive for search verbs, though it is unclear to me how attractive it is as a more general account.

ments. Though these theories are not without their problems,²⁸ they allow one to avoid the difficulties we with sententialism.

Given the above discussion and the methodology of reading our metaphysics of mind (at least in part) off of our attitude ascriptions, there is pressure to conclude that propositions aren't the only immediate objects of the attitudes. Depending on how we ultimately work out the semantics, different commitments will arise, but on all of the best theories on offer the complement position of the verbs in question are (at least sometimes) occupied by a term that picks out a non-propositional object.

In addition to semantic evidence, we saw in the first section that some of these attitudes play a role in our explanation of behavior. Of course, if everything were propositional, our lives might seem easier, our theory of mind more parsimonious. Despite a desire for ease, the objects of the attitudes seem varied. There is no doubt that truth-evaluable entities which stand in logical relations serve as useful objects of the attitudes, and one might worry that non-propositional objects lead to debts that wouldn't have existed if all the objects were propositional. The elucidation of those debts and their repayment constitutes promising future work on intentionality.

²⁸It is worth noting that great attention is paid to the specific/non-specific ambiguities by the authors just mentioned, and many of the hardest cases involve capturing that ambiguity. Fortunately, the verbs in which I've been interested, as noted above, do not seem to admit of that ambiguity.

Bibliography

- Anscombe, G.E.M. (1963). "Intention,(1957)."
- Barrett, J. (1994). "Rationalizing explanation and causally relevant mental properties." *Philosophical Studies* 74(1): 77–102.
- Bealer, G. (1982). *Quality and concept*. Oxford University Press, USA.
- Block, N. (1990). "Inverted earth." *Philosophical perspectives* 53–79.
- Bonomi, A. (1995). *Transparency and specificity in intensional contexts in On Quine, New Essays - P. Leonardi and M. Santambrogio (eds)*. Cambridge University Press.
- Burge, T. (1977). "Belief de re." *The Journal of Philosophy* 74(6): 338–362.
- Crane, T. (2001). *Elements of mind*. Oxford University Press.
- (2009). "Is Perception A Propositional Attitude?" *The Philosophical Quarterly* 59(236): 452–469.
- Davidson, D. (1963). "Actions, reasons, and causes." *The Journal of Philosophy* 685–700.
- Deigh, J. (1994). "Cognitivism in the Theory of Emotions." *Ethics* 824–854.
- Dretske, F. (1973). *Seeing and knowing*. University of Chicago Press.

- (1979). "Simple seeing." *Body, Mind and Method* 1–15.
- (1988). "Explaining behavior: Reasons in a world of causes." *Cambridge (MA)* .
- (1997). *Naturalizing the mind*. The MIT Press.
- Fodor, J.A. (1975). *The language of thought*. Harvard Univ Pr.
- (1986). *Representations*. MIT Press Cambridge, MA.
- (1987). *Psychosemantics: The problem of meaning in the philosophy of mind*. MIT press.
- Forbes, G. (2000). "Objectual attitudes." *Linguistics and Philosophy* 23(2): 141–183.
- Horgan, T. (1993). "From supervenience to supervenience: Meeting the demands of a material world." *Mind* 102(408): 555.
- Humberstone, IL (1990). "Wanting, getting, having." *Philosophical Papers* 19(2): 99–118.
- Kaplan, D. (1968). "Quantifying in." *Synthese* 19(1): 178–214.
- King, J.C. (1998). "What is a Philosophical Analysis?" *Philosophical Studies* 90(2): 155–179.
- (2002). "Designating propositions." *The Philosophical Review* 111(3): 341–371.

- Larson, R. (2002). "The grammar of intensionality." *Logical Form and Language*. Oxford: OUP 228–262.
- Larson, R., M. den Dikken and P. Ludlow (1997). "Intensional transitive verbs and abstract clausal complementation." *Linguistic Inquiry* .
- Lewis, D. (1979). "Attitudes de dicto and de se." *The Philosophical Review* 88(4): 513–45.
- Loar, B. (1981). *Mind and meaning*. Cambridge University Press.
- Matthews, R.J. (2007). *The measure of mind: propositional attitudes and their attribution*. Oxford University Press, USA.
- McKinsey, M. (1999). "The semantics of belief ascriptions." *Nous* 519–557.
- McLaughlin, B. (2005). "Supervenience." *SEP* .
- Millar, A. (2004). *Understanding people: normativity and rationalizing explanation*. Oxford University Press, USA.
- Moltmann, F. (1997). "Intensional verbs and quantifiers." *Natural Language Semantics* 5(1): 1–52.
- Montague, M. (2007). "Against Propositionalism." *Nous* 41(3): 503–518.
- Montague, R. (1970). "Universal Grammar. Formal Philosophy. RH Thomason."

- (1974). “The proper treatment of quantification in ordinary English.” *Formal Semantics: The Essential Readings* .
- Nussbaum, M.C. (2003). *Upheavals of thought: The intelligence of emotions*. Cambridge Univ Pr.
- Partee, B. (1974). “Opacity and scope.” *Semantics and philosophy* 81–101.
- Perry, J. (1994). “Intentionality.” *A companion volume to the philosophy of mind* 386–395.
- Putnam, H. (1967). “Psychological predicates.” *Art, mind, and religion* 37–48.
- Quine, W. (1956). “Quantifiers and Propositional Attitudes.” *Journal of Philosophy* 53: 177–187.
- Quine, W.V.O. (1960). *Word and object*. The MIT Press.
- Richard, M. (2001). “Seeking a Centaur, adoring Adonis: Intensional transitives and empty terms.” *Figurative language* 103–127.
- Sainsbury, RM (2008). “Intensional Transitives and Presuppositions.” *Crítica, Revista Hispanoamericana de Filosofía* 40(120): 129–139.
- (2009). *Fiction and Fictionalism*. Routledge.
- Salmon, N. (1997). “Is de re belief reducible to de dicto?” *Canadian journal of philosophy. Supplementary volume* 23: 85–110.
- Salmon, N.U. (1986). *Frege’s puzzle*. MIT Press.

- Schiffer, S.R. (1987). *Remnants of meaning*. MIT Press.
- (2003). *The things we mean*. Oxford University Press, USA.
- Schroeder, M.A. (2007). *Slaves of the Passions*. Oxford University Press, USA.
- Searle, J.R. (1983). *Intentionality, an essay in the philosophy of mind*. Cambridge Univ Pr.
- Sinhababu, N. (2009). “The Humean Theory of Motivation Reformulated and Defended.” *The Philosophical Review* 118(4): 465.
- Smith, M. (1987). “The Humean theory of motivation.” *Mind* 96(381): 36.
- Smith, S.M. (1977). “Coral-snake pattern recognition and stimulus generalisation by naive great kiskadees (Aves: Tyrannidae).” *Nature Publishing Group* .
- Soames, S. (1985). “Lost innocence.” *Linguistics and Philosophy* 8(1): 59–71.
- (1997). “Direct reference, propositional attitudes, and semantic content.” *Readings in the Philosophy of Language, MIT Press: Cambridge* 921–62.
- Solomon, R.C. (1973). “Emotions and choice.” *The Review of Metaphysics* 20–41.
- Sosa, E. (1970). “Propositional Attitudes De Dicto and De Re.” *The Journal of Philosophy* 67(21): 883–896.
- Stalnaker, R.C. (1987). *Inquiry*. MIT Press Cambridge, MA.

- Stampe, Dennis W. (1987). "The authority of desire." *Philosophical Review* 96(July): 335–81.
- Szabó, Z.G. (2003). "Believing in Things." *Philosophy and Phenomenological Research* 584–611.
- (2005). "Sententialism and Berkeley's master argument." *Philosophical quarterly* 55(220): 462–474.
- Tye, M. (1982). "A causal analysis of seeing." *Philosophy and Phenomenological Research* 42(3): 311–325.
- (1995). *Ten problems of consciousness: A representational theory of the phenomenal mind*. The MIT Press.
- (2008). "The Experience of Emotion: an Intentionalist Theory." *REVUE INTERNATIONALE DE PHILOSOPHIE* 62(243): 25.
- (2009). *Consciousness revisited: materialism without phenomenal concepts*. MIT Press.
- Zimmermann, T.E. (1993). "On the proper treatment of opacity in certain verbs." *Natural Language Semantics* 1(2): 149–179.

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