PROPOSITIONS AND ATTITUDINAL OBJECTS
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In "Truthmaker Semantics for Natural Language (TSNL)," Friederike Moltmann ("M") "develops a truthmaker semantics for attitude reports and deontic modals based on an ontology of attitudinal and modal objects."(1)

> For modal sentences and attitude reports those objects are what I call *modal* and *attitudinal objects*, entities quite distinct from propositions. Modal objects are entities like obligations, permissions, and needs; attitudinal objects are entities like claims, judgments, beliefs, requests, promises, decisions, intentions, desires, and hopes. Modal and attitudinal objects are typically (but not necessarily) the denotations of nominalizations of modal predicates or attitude verbs. They are characterized by a range of properties that jointly distinguish them from other categories of entities. Most importantly, they carry truth or satisfaction conditions yet display properties of concreteness. (Moltmann TSNL: 3)[1]

M lists beliefs as attitudinal objects, while distinguishing them from propositions. Yet as M notes, propositions are traditionally defined as the objects of attitudes like belief, as well as the bearers of truth conditions. If attitudinal objects are not propositions, what are they?

M says that attitudinal objects "are referents of definite NPs whose heads are nominalizations of attitude verbs" (TSNL: 15), giving *John's belief that S* and *Mary's claim that S* as examples. It is generally recognized that nouns like *belief* have a common ambiguity, denoting either a *state*—the state of believing something, or an *object* of that state—something that is believed. As a state, John's belief that Yellowstone is in Wyoming was acquired years ago, and motivated him to travel to Wyoming. Having that belief makes him similar to other Americans in at least one respect. As an object, John's belief that Yellowstone is in Wyoming is true, and entails that Yellowstone is in America. What is true here does not make John similar to anyone. What John believed was not acquired two years ago. John's believing that Yellowstone is in Wyoming is not true, and does not entail that Yellowstone is in America. When we say that John's belief combines with his desire to see Yellowstone caused him to travel to Wyoming, we are referring to two states. The objects of those states cannot combine to cause anything. Similarly, the noun *claim* denotes either a specific act (the act of claiming that something is the case), or the object of that act (what is claimed). The act of claiming something can be performed by uttering a sentence. What is claimed cannot be performed by uttering a sentence. What is claimed can be true or false, but not the act of claiming it. The ambiguity shared by *belief* and *claim* is commonly called the "act-object" ambiguity, even though in many cases 'act' is a misnomer. M similarly calls both *belief* and *claim* "attitude verbs," even though claiming is an act rather than an attitude.

When M says that beliefs and claims are not propositions, it is natural to infer that she is referring to belief states and acts of claiming. But she also explicitly denies that attitudinal objects are states or acts. What then could she mean by 'attitudinal objects' other than attitudes or their propositional objects? What third

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category of entity is associated with these two? We need to examine M's claim (TSNL: 3) that attitudinal objects "are characterized by a range of properties that jointly distinguish them from other categories of entities."

1   PROPERTIES ATTRIBUTED TO ATTITUDINAL OBJECTS

One "property of concreteness" M cites is *finite duration*, which would distinguish attitudinal objects from propositions.

(1)   Mary's belief that S comes into existence only once Mary believes that S and ceases to exist once Mary no longer believes that S. (TSNL: 16)[2]

Suppose Mary believed Obama is president from the day he was inaugurated until his successor was inaugurated. Her belief (the state) lasted for eight years. Is there any other entity whose existence perfectly coincided with Mary's believing that? What properties would distinguish it from Mary's belief state?

     Another property of concreteness M cites is *perceivability*. While John may have heard Mary's claim that Obama is president, we cannot hear propositions. But did John hear anything other than Mary's speech act, Mary, and the speech sounds she made?

     M (2013a: 136) also cites *strength*, noting that (2)(a) may be true, while (2)(b) is infelicitous.

(2)   (a) John's belief that it will rain is stronger than Mary's belief that it will not.
         (b) ??? John's believing that it will rain is stronger than Mary's believing that it will rain.
         (c) John believes that it will rain more strongly than Mary believes that it will rain.

The infelicity of (2)(b) in contrast to (2)(a) is an interesting fact about English syntax, but it does not show that belief strength is a property of anything other than belief states. For what (2)(a) means is captured by (2)(c).

     M suggests that attitudinal objects and their cognate attitudes differ in whether their temporal properties are *essential*.

> A thought or a scream could easily have occurred earlier than it did, and a promise could have been made later than it was. (M 2019: 196; see also 2013a: 198)

Suppose Mary claimed that Obama is president at noon on January 20, 2009. Her claiming that Obama is president at noon that day could not have occurred an hour earlier or later. But *Mary's claim could have occurred at a different time* is also true: instead of claiming that he was president at noon, she could have claimed that he is president at 1:00 pm. *Mary's claim* could refer to either an act token or an act type. Whereas the act token has its time essentially, the act type could occur at different times. The act type does not have finite duration or any temporal location. *Mary's claim* can also refer to what Mary claimed, the object of those acts, which does not have temporal location or duration either.

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2.   See also Moltmann 2013b: 685; 2017b: §1; 2019: 196; 2020: 15.

One "content-related property" M believes distinguishes attitudinal objects from acts and attitudes is *similarity on the basis of content.*

> Thus *John's thought is the same as Mary's* is true just in case their thoughts share their content. *Is the same as* does not apply in that way to actions: for two actions to be the same they need to share features of their performance; sameness of content will not be enough. (TSNL: 17)[3]

From (3)(a) and (b), however, we can validly infer (c) through (e).

(3) (a) Mary claimed that Obama is president at noon.
     (b) John claimed that Obama is president at midnight.
     (c) ∴ Mary and John both performed the act of claiming that Obama is president.
     (d) ∴ John and Mary performed the same act.
     (e) ∴ The act John performed is the same as the act Mary performed.

The acts Mary and John performed are the same because they made claims with the very same content. It is true, of course, that Mary's claiming that Obama is president is not identical to John's claiming that Obama is president. The act tokens differ because they have different agents and times. So (3)(d) and (e) follow only when 'act' means "act type." When it refers to tokens, *John's claim is the same as Mary's* is false, although the tokens are *similar* in an important respect.

M has to say the same things about attitudinal objects. If attitudinal objects do have properties of concreteness as well as content-related properties, then they cannot enter similarity relations *just* on the basis of content. If their properties of concreteness differ, they differ in some respects. Since Mary and John claimed that Obama is president at different times, there are two attitudinal objects on M's view, one existing when Mary made her claim and the other existing when John made his; the attitudinal objects are not identical, although they have the same content. They must be different tokens of the same type. The question again arises whether, in addition to Mary's and John's token speech acts, there are two other tokens, and if so, what differentiates them from the speech-act tokens.

A second content-related property M attributes to attitudinal object is *having parts.*[4] If John claims that *Obama is president and liberal*, M notes that (4)(a) is felicitous and true, unlike (4)(b).

(4) (a) Part of John's claim is that Obama is liberal.
     (b) Part of John's claiming is that Obama is liberal.

However, *Part of the proposition that Obama is president and liberal is that Obama is liberal* is as felicitous and true as (4)(a). So this property does not distinguish attitudinal objects from propositions.

A third content-related property M attributes to an attitudinal object is *having*

3.   See also Moltmann 2013a: 134, 138; 2013b: 685, 691-2, 694-5; 2017b: §1; 2019: 191-2; 2020: 16.

4.   Moltmann 2013b: 693; 2017b: §1; 2019: 185-6; TSNL: 17; Fine 2017: 566, 569-70.

truth conditions.[5] That would also distinguish the attitudinal object from the correlative attitude.[6] Accordingly, *Mary's belief* in (5) cannot naturally be interpreted as referring to Mary's having a belief.

(5)   Mary's belief was true iff Obama is president.

However, *Mary's belief* in (5) can naturally be interpreted as referring to the proposition Mary believed. Other than the proposition Mary believed (and sentences that express it), what is there that has the property of being true iff Obama is president? I see no reason to believe, as M maintains, that there is any entity that has the duration of Mary's state of belief and the truth conditions and parts of what she believes. Linguistically, *Mary's belief* has no interpretation on which *both* (5) and (1) are true.

　　M (2013a: 134) says that "Attitudinal objects, unlike propositions, are contingent: they exist only if the agent has in fact the relevant attitude...." Indeed, there is a sense in which (6)(a) is true

(6)   (a)   Mary's belief that Obama is president would not have existed if she had not believed that
　　　　　　he is president.
　　　 (b)   Mary's belief that Obama is president would have been true even if she had not believed
　　　　　　that he is president.

Yet M (2013a: 133) also observes that (6)(b) is true. (6)(a) is true only when *Mary's belief that Obama is president* refers to the act of believing, (6)(b) only when it refers to what is believed. There is no interpretation of that noun phrase on which (6)(a) and (b) are both true. If something would not even have existed, it would not have had any properties, including truth.[7]

　　So far we have seen that the properties M attributes to attitudinal objects are properties of either attitudes or their objects, without finding any further entities with both sets of properties. Postulating a third entity with the properties of both the attitude and the proposition would serve no purpose, moreover, unless it has some properties that neither the attitude nor its propositional object have. One property M believes distinguishes attitudinal objects from both attitudes and their propositional objects is "*content-based causation*," another property of concreteness.

> Causal predicates naturally apply to attitudinal objects and then convey content-based causation
> but not so when they apply to the corresponding actions (Moltmann 2013a, 2014, 2017a). Thus,
> *Mary's claim caused excitement* implies that the excitement was due to the content of Mary's claim,
> but not so for *Mary's making a claim/Mary's speech act caused excitement*.... Propositions as abstract

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5.　　See also Moltmann 2013a: 137; 2013b: 684; 2017b: §1; 2019: 191; TSNL: 19.

6.　　 Hanks (2011; 2015: 25-26) and Soames (2013: 480-2; 2015: 25, 29, 67-9) have argued that acts and states do have truth value, and that M's linguistic arguments are inconclusive. For replies that go beyond M's linguistic evidence, see Davis (2020).

7.　　 M (2013a: 133) notes that something may be true "at" a world without existing "in" the world. But that does not make (6)(a) and (b) compatible if 'Mary's belief' has the same referent in both.

objects, on the standard understanding, cannot play causal roles. (TSNL: 16)[8]

Suppose Mary claimed that John won the lottery, causing great excitement. Now compare:

(7)   (a) Mary's claim caused excitement.
        (b) Mary's making a claim caused excitement.

M is correct that (7)(a) but not (7)(b) implies that Mary's claim caused excitement because of its content. (7)(b) might be true no matter what Mary claimed if she had never before said anything. This is no reason to infer, however, that in (7)(a), *Mary's claim* does not refer to her speech act, which is what caused excitement. For on its act interpretation, (7)(a) is not equivalent to (7)(b). *Mary's claim* does not refer to the generic act of making a claim. It can only refer to a specific act of claiming, contextually indicated. In our context, it would most naturally refer to *Mary's claiming that John won the lottery*, which entails but is not entailed by *Mary's making a claim*. Mary's claiming that John won the lottery is an act, one that caused excitement in virtue of its content. Besides the act of claiming that John won the lottery, there does not appear to be any additional entity that caused excitement.

2   PRODUCTS

Following Twardowski (1911), M (TSNL: 15) claims that some attitudinal objects are *products* of their cognate acts,[9] giving them another property of concreteness. Products of acts are things the acts cause to exist or occur, "*artifacts* that the actions create" (M 2013b: 681). Any product of an act is necessarily distinct from both the act and its propositional object. Mary's asserting the proposition that John won the lottery produces neither itself nor the proposition she asserts. M (2013b: 684-7) gives clear examples of acts that have products, including drawing a picture and uttering a word. The act of drawing a picture consists in doing something like moving a pencil on a piece of paper that results in the marks that constitute the picture (a drawing). The picture is the product of the act of drawing. It was caused to exist by the agent's actions with the pencil. Similarly, we perform the act of uttering a word by expelling air from our lungs and moving our vocal chords in a way that causes a sequence of speech sounds to occur that is a token of the word. The word uttered is a product of the act of uttering it. The word token was an effect of the articulatory actions.

    Claiming is unlike uttering and drawing in this respect. The act of claiming does not consist in *causing* a claim. The nominalization *Mary's claim that John won the lottery* can mean either Mary's claiming that John won (an act) or what Mary claimed

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8.   See also M 2013b: 692; 2019: 190-1.

9.   See also Ulrich 1976: 124-5; Moltmann 2013a: 130-9; 2013b; 2017a: §2; 2017b: §1; 2019: 193; 2020: 14; Moltmann & Textor 2017: xiiff; Reiland 2019: 222-3; Siebel 2019. Contrast Moltmann 2019: 194-5.

(a proposition). Mary's claiming that John won does not consist of causing either. Because it is a speech act, claiming something does involve producing an object, namely a sentence token or something equivalent that expresses what is claimed. But the linguistic token produced is not an attitudinal object.

John's belief that Yellowstone is in Wyoming denotes either his believing that Yellowstone is in Wyoming, or what he believes. Neither is caused by his believing that Yellowstone is in Wyoming. Unlike a speech act, believing something does not entail producing a linguistic token (although it may lead to the production of one). There is nothing other than the mental state and its propositional object that believing could consist in causing.[10]

M (2019: 193-4) elsewhere says that the act-product distinction does not apply to beliefs because believing is a state rather than an action. But she does not explain why attitudinal objects could not be products of states. Nor does she explain how the relation between Mary's claiming and her claim is any more causal than the relation between her believing and her belief.

3   FORCE

Another property M believes distinguishes attitudinal objects from propositions is *"force."* M (2013b: 691-2) cites the fact that a statement like (8) "can hardly be true" even though the referents have the same content.

(8)   ? John's belief that Clinton lost is his assertion that Clinton lost.[11]

This is indeed something we would never say even if we are given that John both believes and asserts that Clinton lost. One obvious explanation for the incorrectness of (8) is that we interpret the two noun phrases as referring to acts rather than objects. John's believing that Clinton lost is clearly not his asserting that Clinton lost.

What is harder to explain is why (8) appears to have no correct interpretation on which the noun phrases refer to the objects of John's acts—no interpretation on which it is as true and felicitous as (9):

(9)   What John believes that is the proposition that Clinton lost is what John asserts that is the proposition that Clinton lost.

What can we infer from this linguistic evidence? Letting 'ϕ' stand for any propositional attitude or speech act verb, we can safely infer that *S's* ϕ *that p* when interpreted as referring to what S ϕs is not synonymous with *what S* ϕ*s that is the proposition that p*. It does not follow, though, that objects of belief and assertion are

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10.   M (2017: 266, 271) has suggested that the attitudinal object of a belief state is the state itself (see also TSNL: 26). But that conflicts with her claim that attitudinal objects are distinct from attitudes.

11.   See also Ulrich 1976: 119-2,0 125; Moltmann 2003a; 2013a: 134; 2017b: §1; 2019: 186.

not propositions.

What else might the noun phrases in (8) mean? Consider (10):

(10) (a) ? The proposition that Clinton lost qua something John believes is the proposition that Clinton lost qua something John asserts.

     (b) John's belief that Clinton lost is the proposition that Clinton lost qua something John believes.

     (c) John's assertion that Clinton lost is the proposition that Clinton lost qua something John asserts.

(10)(a) seems just as incorrect as (8), as does the more colloquial result of replacing *qua* with *as* or *considered as*. So the fact that (8) has no correct interpretation on which the noun phrases refer to the objects of John's acts could be explained by the fact that *S's* ϕ *that p* in its object sense is synonymous with *the proposition that p qua something S* ϕ*s*.[12] Indeed, (10)(b) and (c) seem correct on the object interpretation of their subjects.

To further understand such *qua*-descriptions, consider (11):

(11) (a) ? The 45th president qua father is the 45th president qua husband.

     (b) T: The 45th president qua father is a father.

     (c) F: The 45th president qua father is a husband.

     (d) F: The 45th president qua husband is a father.

     (e) T: The 45th president qua husband is a husband.

In fact, the 45th president is both a father and a husband. But qua father he is not a husband, and qua husband he is not a father. So (11)(b)–(e) have the truth values indicated. The truth values of (b)–(e) imply that (11)(a) is not true. Indeed, (11)(a) seems as incorrect as (10)(a). We cannot infer, however, that in addition to the 45th president, who is both a father and a husband, there are two additional entities, the president qua father and the president qua husband, one of which is a father but not a husband, and the other a husband but not a father. What we have to infer is that (11)(a) is not a simple identity statement, just as (11)(b)–(e) are not simple predications.

The same conclusion can be drawn about (10)(a).

(12) (a) T: The proposition that Clinton lost qua something John believes is something John believes.

     (b) F: The proposition that Clinton lost qua something John believes is something John asserts.

     (c) F: The proposition that Clinton lost qua something John asserts is something John believes.

     (d) T: The proposition that Clinton lost qua something John asserts is something John asserts.

Given the truth values of (12)(a)–(d), we can infer that (10)(a) is not true. We cannot infer, as M (2003: 90, 93) suggests, that there are two further objects in addition to the proposition that Clinton lost, one something John believes but does not assert, the other something John asserts but does not believe.[13] What John believes in this case is what he asserts: the proposition that Clinton lost.

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12. Cf. Searle 1968: 423; Davis 2003: 347-8; Moltmann 2013a: 157.

13. Compare and contrast Fine 1982: 100.

To confirm the hypothesis that *S's ϕ that p* in its object sense is synonymous with *the proposition that p qua something S ϕs*, note that the sentences in (13)(a)-(c) are as felicitous and true as their counterparts in (14) on their object interpretation:

(13) (a) The proposition that Clinton lost qua something John believes is true.
      (b) The proposition that Clinton lost qua something John believes is a belief.
      (c) The proposition that Clinton lost qua something John believes is something John believes

(14) (a) John's belief that Clinton lost is true.
      (b) John's belief that Clinton lost is a belief.
      (c) John's belief that Clinton lost is something John believes.

In contrast, (15)(a) and (b) are false, as are (16)(a) and (b) on their object interpretation.

(15) (a)   The proposition that Clinton lost qua something John believes has lasted over three years.
      (b)   The proposition that Clinton lost qua something John believes makes him sad.

(16) (a) John's belief that Clinton lost has lasted over eight years.
      (b) John's belief that Clinton lost makes him sad.

(16)(a) and (b) are true only on the act interpretation of *belief*.

4   SPECIAL QUANTIFIERS

M (TSNL: 14) uses 'special quantifier' for expressions like *something, everything,* and *that* when they take the position of clausal complements of attitude verbs. She cites constructions like (17)(a) and (b) as evidence that special quantifiers range over attitudinal objects rather than propositions.

(17) (a) John said something nice (namely, that S).
      (b) John said something that made Mary upset (namely, that S).

      It is not a proposition that is said to be nice in [(17)(a)], but rather something like John's remark or
      John's claim.... Moreover, it is not a proposition that could have made Mary upset according to
      [(17)(b)], but rather it is a claim or remark that did so. (M 2019: 187)[14]

While the adjectives *nice* and *made Mary upset* apply to the act of saying something, they here qualify quantifiers ranging over objects of the act. M's argument is that those objects cannot be propositions because the adjectives do not apply to propositions.

To see that the validity of this argument questionable, note M's parenthetical, which identifies what John said that was nice, and consider (18):

(18) (a) John said something nice, namely, that Mary is infinitely generous.

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14.   See also Moltmann 2003: 83, 89-90; 2013a: 122, 141-2; 2013b: 696; 2017b: §1.

(b) ?That Mary is infinitely generous is nice.
(c) ?John said something nice, namely, John's remark that Mary is infinitely generous.

Even though (18)(a) tells us that what John said that was nice was *that Mary is infinitely generous*, (18)(b) does not follow. With other adjectives, the analog of (18)(b) is not even grammatical; try *disingenuous*. If (18)(b) cannot be inferred from (18)(a), there is no reason to believe that (18)(a) would entail *The proposition that Mary is infinitely generous is nice* if special quantifiers range over propositions. Note too that (18)(c) is also incorrect in some way, which would be problematic for M's view that special quantifiers stand for attitudinal objects.

On the other hand, (19)(c) is grammatical and follows from (19)(b), which in turn plausibly follows from (19)(a).

(19) (a) John believes the proposition that Mary is infinitely generous.
      (b) John believes something nice, namely, that Mary is infinitely generous.
      (c) What John believes is nice.
      (d) ?The proposition that Mary is infinitely generous is nice.

Why then does (19)(d) strikes us as incorrect? I believe it does so because we take *nice* in (19)(d) to have the meaning it has in *Mary is nice*. For Mary to be nice is for Mary to treat people nicely—for Mary to be *nice to people*. Propositions cannot be nice to people. But that is not the meaning *nice* has in (18)(a) or (19)(b) and (c). If it were, they would be absurd: what John believes or says cannot be nice to people.

What *nice* more plausibly means in (18)(a) is *nice to say*. In (19)(b) and (c), it means *nice to believe*. *Nice* is elliptical in those sentences, with the implicit content supplied by the antecedent verbs *said* and *believe*. *Nice* cannot have the same interpretation in (19)(d) because there is no antecedent verb to supply the missing content. It can only mean *nice to people*. Note that *The proposition that Mary is infinitely generous is <u>a nice thing to believe</u>* is well-formed and follows from (19)(b). *What John said is <u>a nice thing to say</u>* follows similarly from (18)(a), as does *That Mary is infinitely generous is a nice thing to say*. (18)(b) does not have the same meaning because there is no antecedent occurrence of *say*.

Something else must explain why (20)(a) does not entail (b) or (c) even though (20)(a) entails that what John said that upset Mary was that she is brainless.

(20) (a) John said something that made Mary upset, namely, that she is brainless.
      (b) ?The proposition that she is brainless made Mary upset.
      (c) ?That she is brainless made Mary upset.

For there is no evident ambiguity in *made Mary upset*. Recalling our discussion in section 3 of unacceptable identities like (8), consider (21):

(21) (a) John's statement that Mary is brainless made Mary upset.
      (b) John's stating that Mary is brainless made Mary upset.
      (c) The proposition that Mary is brainless, qua something John stated, made Mary upset.
      (d) ?The proposition that Mary is brainless, qua object of belief, made Mary upset.

(21)(a), which follows from (20)(a) assuming John made a statement, can mean either (21)(b) or (21)(c). Whereas (20)(b) seems absurd, (21)(c) does not. (21)(c)

differs markedly from (21)(d), which seems just as absurd as (20)(b). Suppose further that Bill also stated that Mary is brainless, which did not upset Mary because she did not know he said it. Then even though (22)(a) is true, (22)(b) and (c) are false.

(22) (a) Bill and John said the same thing and made the same statement.
　　 (b) Bill's statement that Mary is brainless made Mary upset.
　　 (c) The proposition that Mary is brainless, qua something Bill stated, made Mary upset.

If it seems impossible that (21)(c) and (22)(c) should differ in truth value even though they appear to ascribe the same property to the same object, note that *The truck, qua massive object, made the scale register 20,000 lbs* can be true while *The truck, qua red object, made the scale register 20,000 lbs* is false. These are not simple predications.

5　THE ACT-OBJECT AMBIGUITY

Even though it is codified in the most respected dictionaries, M disputes a key assumption I have been relying on.

> It is common in both philosophy and linguistics to take nouns like *judgment* to stand either for an act or for a proposition, depending on the context. I reject that view: nouns like *judgment* always stand for attitudinal objects. (M 2019: 180; see also 2013a: 136-7)

We have seen, though, that there is no reason to believe there is any entity beyond the attitude and its propositional object for the nouns to denote. After acknowledging that co-predication arguments against polysemy are ineffective, M (2019: 185) uses (23) to illustrate "predicates applicable to what such nominalizations stand for that could neither be predicated of events nor of propositions."[15]

(23) (a) John kept his promise.
　　 (b) ? John kept the proposition that S.
　　 (c) ? John kept his speech act.

M assumes that if *his promise* is ambiguous, referring to either a speech act or a proposition, then either (23)(b) or (c) should be true. Yet both are defective. Predicates with the same property include *broke*, *followed* (said of orders), *satisfied* (of desires), and *carried out* (of decisions).

　　 If the defectiveness of (23)(b) and (c) shows that *his promise* does not refer ambiguously to an act or a proposition, then the defectiveness of (24)(c) shows that it does not refer univocally to an attitudinal object.

(24) (a) John kept his promise.
　　 (b) His promise is an attitudinal object.
　　 (c) ? So John kept an attitudinal object.

15.　　M follows Ulrich 1976: 119-20, 123.

The invalidity of (24) does not necessarily show a problem with (24)(b), however. Consider (25):

(25) (a) John kept his promise.
     (b) John's promise was to pay Mary back
     (c) *So John kept to pay Mary back.

(25)(c) makes no sense even if (a) and (b) are true. (26)(c) is at least grammatical, but it has no true interpretation either even if (26)(a) and (b) are true.

(26) (a) John's promise to pay Mary back was an irresponsible act.
     (b) John kept his promise.
     (c) ? So John kept an irresponsible act.

So it is doubtful that the truth of either (23)(b) or (c) really follows from (23)(a) and the thesis that *his promise* refers to either a proposition or a speech act.

    M's argument against polysemy depends on the problematic assumption that verb phrases of the form *kept his promise* are semantically like verb phrases of the form *kept his vase*, in which the meanings of *kept* and *his vase* combine compositionally as verb and direct object. *Kept* means *retained,* but *kept his promise* does not mean *retained his promise*. (23)(b) and (c) make no sense if *kept* means *retained* or has any of its other meanings (*maintained, restrained*). I believe the last lines of (24) and (26) do not follow, or even make sense, because *kept his promise* is an idiom, meaning *did what he promised to do*.[16] *Broke his promise* similarly means *didn't do what he promised to do*. *His promise* has the meaning *what he promised to do*, but *do* is not one of the meanings of *kept* and *didn't do* is not one of the meanings of *broke*. Furthermore, *kept/broke his promise* does not mean *kept/broke what he promised*.[17] *Follow orders, satisfy desires,* and *carry out decisions* are similarly idiomatic.

6   THE RELATIONAL ANALYSIS

M rejects the standard view that attitudes are relations between agents and propositions.[18]

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16.   Like *cooked his goose* and *kickd his butt*, this idiom is partially compositional (Davis 2016: §6.3.2). The meaning of *kept his promise* is related to the meaning of *keeps her promises* just as we would predict given the syntactic relations between *kept* and *keeps*, *his* and *her*, and *promise* and *promises*. Relatively few idioms are as fixed as *kicked the bucket* or *over the hill*.

17.   Promising *to do* something is not the only kind of promise. A salesperson can promise *that* a product will work. She can neither keep nor break such a promise. M might suggest that in *kept his promise*, *kept* means *acted in accord with*. But if *kept* had that meaning in (23)(b) and (c), they would not be unintelligible. Moreover, *kept the law* and *kept the command* should be meaningful, but they are not.

18.   See also Moltmann 2003; 2013a: 123-33; 2013b: 681; 2019: 182-4; 2020: §3, §5; TSNL: 4, 13, 20.

On the standard view of attitude reports, clauses when embedded under an attitude verb act as singular terms standing for propositions. The present view is that such clauses act semantically as predicates of the attitudinal object associated with the attitude verb. (TSNL: 14).

The metaphysical thesis that believing is a relation to propositions must be clearly distinguished from the linguistic thesis that in a sentence of the form *S believes that p*, the subordinate clause is a singular term referring to a proposition. Consider what M says about the semantics of belief reports with *that*-clauses.

(27) (a) John believes that Obama is president.
      (b) Believe(John, [that Obama is president]).
      (c) ∃e(believe(e, John, [that Obama is president]).
      (d) ∃e(believe(e, John) & [that Obama is president](att-obj(e)).

M takes (27)(b) or (c) to give the semantics of (27)(a) on the relational analysis, with '[that p]' a singular term referring to the proposition that p. (27)(d) is her analysis. 'Believe(e, John)' means that e is a belief state John is in, and 'att-obj(e)' refers to the attitudinal object of e. M takes '[that p]' to be a *predicate*. As M (2019: 183) explains it, the formula '[that p](att-obj(e))' tells us what the content of (att-obj)(e) is, entailing that the object is true iff p.[19] It is compatible with this constraint, however, that '[that p](att-obj(e)' is true iff the proposition that p is the content of the attitudinal object of e.[20] It is also compatible that '[that p](att-obj(e)' is true iff the attitudinal object of e *is* the proposition that p. In either case, ∃*e(believe(e, S) & [that Obama is President](att-obj(e))* would define a relation between agents and the proposition that Obama is president, whose extension contains the ordered pair ⟨S, the proposition that Obama is president⟩ iff ∃e(believe(e, S) & [that Obama is President](att-obj(e)). M's semantics would thus make (27)(a) true provided John stands in that relation to the proposition that Obama is president, even if that-clauses do not refer to propositions.

Consider now some of the different forms belief-reports can take in English.

(28) (a) John believes the proposition that Obama is president.
      (b) John believes that Obama is president.
      (c) John believes Obama is president.
      (d) John believes Obama to be president.

In (28)(a), *the proposition that Obama is president* is clearly a singular term referring (or at least purporting to refer) to a proposition. Since it is the complement of a transitive verb, it is natural to take *believes* to express a relation between John and a proposition. Since (28)(b)–(d) are all semantically equivalent to (28)(a) despite differences in syntax, they too assert that John stands in the belief relation to the proposition that Obama is president, the proposition contingently expressed by the

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19.   See also TSNL: 20, 23-6; Moltmann 2013b: 695-6; 2014; 2017a: §3.2; 2017b: §1; 2019: 183; 2020: §8.

20.   Cf. Moltmann (2020: 20): "On the present view, ... propositions ... play a role only in the sense of being propositional contents of sentences...."

sentence *Obama is president* in English.[21] It does not follow, however, that the clauses complementing the verb *believes* in (27)(b)–(d) are singular terms. They "act as" singular terms only in complementing a transitive verb. *Obama to be president* and *Obama is president* are clearly not singular terms or even nouns. The latter *expresses* the proposition but does not *refer* to it.

Philosophers and linguists commonly do take that-clause complements to be singular terms referring to propositions, as M notes. But as an empirical claim about natural languages, this categorization is syntactically questionable. If it were correct, then (29)(c) and (d) should be as well formed as (a) and (b) when '*O*' is a name or other singular noun-phrase.

(29) (a) *O* is the proposition that Obama is president.
       (b) '*O*' refers to the proposition that Obama is president.
       (c) **O* is that Obama is president.
       (d) **'O'* refers to that Obama is president.

Furthermore, while *that*-clauses in reports like (28)(b) occupy a position that could be occupied by a noun (and so "act as" a noun in one respect), they can also occur grammatically in positions that cannot be occupied by nouns, as in *John is certain that Obama is president*.[22] Even in (28)(a), the *that*-clause is functioning as a noun complement rather than as an independent singular noun-phrase; it is not an example of *apposition* (M 2017: 273).

One of M's biggest objections to the relational analysis is the "Substitution Problem." Many verbs pattern with *believe* in making ϕ *that p* and ϕ *the proposition that p* equivalent alternatives, including *disbelieve, affirm, deny, assert, dispute, prove, disprove, infer, accept, reject, confirm, disconfirm*, and *establish*. But many do not. Consider (30):

(30) (a) Mary expects that Biden will win.
       (b) Mary expects the proposition that Biden will win.

The fact that (30)(b) lacks an interpretation in English on which it follows from (30)(a) is more evidence that *that*-complements are not singular noun-phrases.[23] It may nonetheless be true that *expects* expresses a relation to propositions in (30)(a). Indeed, despite the syntactic differences between *expects* and *believes*, (30)(b) is nearly if not exactly synonymous to (28)(a)–(d).

The "objectification effect" displayed by (30)(b) presents a problem for M too. Note first that (30)(a) entails (31)(a).

(31) (a) Mary expects something.
       (b) Mary expects an attitudinal object.

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21.   See Davis 2003: §7.6; 2017.

22.   See Huddleston & Pullum 2002: 1016, 1022; TSNL: 13.

23.   See Prior 1971: 16; Bach 2000: 120; Moltmann 2003: 82-3; 2013a: §4.3; 2017: 272; TSNL: 13.

On M's view, the special quantifier in (31)(a) ranges over attitudinal objects. So (31)(a) should entail (31)(b). But (31)(b) fails to follow from (30)(a) for the same reason (30)(b) does: when the complement of *expects* is a singular or general noun-phrase other than a pronoun, it has a different meaning than it has when its complement is a *that*-clause.[24]

Consider:

(32) (a) Mary expects John.
      (b) Mary expects John to arrive.
      (c) Mary expects that John will arrive.

(32)(a) means something like (32)(b), which in turn has the meaning of (32)(c). This would be true even if, most unusually, *John* in (32)(a) were the name of a proposition (try replacing it with *Hooke's law*). Similarly, *expect a miracle* means *expect a miracle to occur* and *expect that a miracle will occur*. (30)(b) is absurd, and fails to follow from (30)(a), because it means that Mary expects a proposition to arrive or occur. Thus even in (30)(b) and (32)(a), *expects* expresses a relationship between Mary and *a* proposition. Many propositional attitude and speech act verbs have different but related meanings when complemented by non-pronominal singular or general noun phrases than when complemented by *that*-clauses, including *claim, doubt, desire, fear, worry, observe, see, warn, promise, answer request,* and *write*.

Some propositional attitude and speech act verbs do not permit noun or noun-phrase complements at all, as (33) illustrates.

(33) (a) Mary hopes that Biden will win.
      (b) *Mary hopes the proposition that Biden will win.
      (c) *Mary hopes a victory.
      (d) *Mary hopes something.

To rescue (33)(c) or (d), *for* is required. Inserting *for* in (b) results in the objectification effect. Even though (33)(b) is ungrammatical, (33)(a) expresses a relation between Mary and the proposition that Biden will win. Other verbs that pattern with *hope* in this way are *agree, remark, insist, reply,* and *contest,* as do the verbal combinations *is happy, is certain, has confidence,* and *has some doubt*.[25]

Some propositional attitude and speech act verbs permit only nonfinite complements.

(34) (a) *Mary wants the proposition that Biden will win.
      (b) *Mary wants that Biden will win.
      (c) Mary wants Biden to win.

(34)(c) is nonetheless true only if Mary stands in a particular relation, indicated by *want*, to the proposition whose subject is expressed by the noun in its infinitive complement and whose predicate is expressed by the appropriate form of the verb

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24.   Cf. Huddleston & Pullum 2002: 1022; King 2007: 153-8; Moltmann 2003: 86-8; 2013a: 131-2.

25.   Cf. King 2007: 142. Compare and contrast Moltmann 2013a: 127-8.

in that complement. Mary's desire comes true only if that proposition is true.
Propositional attitude verbs that pattern with *want* include *order, command,* and *beg.*

In sum, it is impossible to understand verb phrases consisting of an attitude
verb and complement without identifying the proposition conveyed by that
complement. But there are many ways in which complements convey propositions
syntactically, and attitude verbs differ in the range of complement forms they
permit. Noun phrases referring to propositions are only one form.[26]

7   FREGE'S PROBLEM

A well-known problem for theories of attitude reports is the marked difference
between the sentences in (35):

(35) (a) Dalton believed that water is water.
      (b) Dalton believed that H_2O is water.

There are contexts in which (35)(b) would be interpreted as a equivalent to (35)(a),
but when we are reading about Dalton's views on the atomic composition of
chemicals, they have to be interpreted as ascribing different beliefs to Dalton.
Unlike his successors, Dalton believed water was composed of one atom of oxygen
and just one atom of hydrogen. Hence (35)(a) is true, (35)(b) false. If (35)(b) were
true, Dalton would have represented the water molecule by drawing three circles
clustered together rather than two.

The same difference is apparent when the complement of *believe* is a noun
phrase referring to a proposition, as in (36)(a) and (b).

(36) (a) Dalton believed the proposition that water is water.
      (b) Dalton believed the proposition that H_2O is water.

Proposition here has the near synonyms *thesis, hypothesis,* and *theory.* The tautological
thesis that water is water is not the scientifically established thesis that H_2O is
water. There are many definitions of 'proposition' in philosophy and linguistics on
which the complements in (36) have the same referent, but they do not capture
what the term means in (36).

M does not address Frege's Problem in TSNL. But her semantics for belief
reports assigns (35)(a) and (b) the same truth conditions.

(37) (a) $\exists$e(believe(e, Dalton) & [that water is water](att-obj(e)).
      (b)$\exists$e(believe(e, Dalton) & [that H_2O is water](att-obj(e)).

On M's view, '[that p]' ascribes to the attitudinal object of e the fusion of the
truthmakers of 'p,' which are the situations that are wholly relevant for the truth of
'p.'[27] Thus '[that water is wet]' ascribes the situation in which water is wet and

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26.   I study yet another complement form in "Quotational Reports."

27.   Moltmann 2019: 190; 2020: §4; TSNL: 11; Fine 2017.

'[that H_2O is wet]' the situation which H_2O is wet. Since water is H_2O, they are the same situation. Hence (37)(a) and (b) are equivalent, which means on M's semantics that (35)(a) and (b) are equivalent. Thus M's semantics accounts for the transparent interpretation of belief reports, but not the opaque.[28]

In M's semantics for belief reports, it does not matter what the attitudinal object of e is as long as it has the truth-maker content ascribed by '[that p].' We might wonder now what M would say about the statements in (38).

(38)   (a) Dalton's belief that water is water was his belief that H_2O is water.
       (b) Cannizzaro's belief that water is water was his belief that H_2O is water.

(38)(b) seems plainly false. Cannizzaro's belief that H_2O is water differentiated him from Dalton; his belief that water is water did not. In contrast, (38)(a) suffers from a presupposition failure. Dalton did not believe that H_2O is water. From these facts about (38), I would expect M to conclude that believing that water is wet differs from believing that H_2O is wet because they have different attitudinal objects. But since the attitudes are the same on her account, it is hard to see how their attitudinal objects could differ.

8   PROPOSITIONS

The linguistic objections we discussed in section 6 are not M's only reasons for rejecting the thesis that attitudes are relations to proposition.

> Abstract propositions raise a number of conceptual problems, which have been a major issue [in] contemporary philosophy of language. They include the problem of the graspability of propositions, the problem of the unity of the proposition, and the problem of how propositions as abstract objects can be true or false. (TSNL: 13)[29]

The graspability problem arises for Frege (1918: 13-30), who took propositions to be *sui generis* abstract particulars existing with numbers in a "third realm" that is neither mental nor physical. This makes it mysterious how people can be related to propositions or how they can play any role in the causal order of the natural world.

The problems of unity and truth arise for Russellian theories that take propositions to be composed of the referents of the terms in the sentences that express them. The referents of the terms in *Obama is president* are Obama and the property being president (or the set of presidents). How do those two objects compose a single entity? One entity they compose is the ordered pair ⟨Obama, being president⟩. But this ordered pair is not something that has a truth value unless we stipulate one for it. Its elements do not represent anything, and it lacks the subject predicate structure of the proposition that Obama is president. Similar comments apply to sets of possible worlds used to represent propositions.

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28.   In earlier work, M (2003: 97) introduced modes of presentation to handle such "substitution problems." I account for the distinction in Davis 2016: §7.4.

29.   See also Moltmann 2013a: §4.2; 2020: 8, §5.

M claims that her theory avoids the abstract-object objection because "Attitudinal objects are mind-dependent particulars" (2019: 183), which are "products" of cognitive acts "as concrete as the corresponding mental or illocutionary event" (2013b: 680; TSNL: 15). According to M, Mary's belief that Obama is president came into existence when she started believing it and ceased to exist when she stops believing it. But as we observed in section 1, there does not seem to be any entity other than Mary's believing that Obama is president with that beginning and end in time. In no sense is Mary's belief that Obama is president a product of her believing that Obama is president. And the act of believing it has no truth value.

Furthermore, M herself notes one of Frege's reasons for taking propositions to be abstract: different people can believe the same thing at different times and places.[30] So their common object of belief cannot be a concrete particular. M accounts for this by noting that in addition to *Mary's* belief that Obama is president and *John's* belief that Obama is president, there is a *type* or *kind* of attitudinal object, *the* belief that Obama is president, which Mary and John can share. Types, however, are not concrete particulars.

Despite being abstract, there is nothing mysterious about how people can be related to the belief that Obama is president—either the mental state we can be in, or the object of that relational state (what we believe). There is also no mystery as to how the belief that Obama is president (the object) can be true or false. It represents Obama as being president, and is true provided Obama is as it represents him to be. M still faces the third realm problem, however, given that truthmakers are defined as parts of possible and impossible worlds (TSNL: 10). How can we be related to parts of nonactual worlds?

Applying an idea developed in section 3, we can see that propositions are no more problematic than types of attitudinal objects:

(39)   The belief that p is the proposition that p qua object of belief.

The properties of concreteness M cited to differentiate attitudinal objects from propositions are not properties of types of attitudinal objects. Indeed, M (2013a: 141) once suggested that 'the proposition that p' refers to one kind of attitudinal object: 'the one whose force is that of "entertaining."'[31] She does not elaborate, but this is reminiscent of the view I have developed.[32]

I focus on *thinking the thought that p,* and more generally, *thinking "p,"* as an attitude distinct from believing that p. One can think the thought that water is H_2O without believing it, and believe that water is H_2O without thinking it. The thought that water is H_2O has occurred to many people at many times, so it is an event-type. Thoughts are mental events in the natural world, and their tokens are

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30.   See also Moltmann 2013a: §4.3; 2013b: 694-5; 2019: 186-8; TSNL: 15.

31.   See also Moltmann's (2017b: §1, §2.1) discussion of reports of the form *S thinks "p."*

32.   See *inter alia* Davis 2003: Ch. 12; 2020.

concrete events in the causal order.[33] For a subject to think (or have) a thought is for the thought to occur to the subject, in much the same way that for a subject to experience (or have) a stroke is for a stroke to occur to the subject. Occurrent thought is one attitude for which there is another object with the same duration. The token thought that Obama is president occurs as long as Mary thinks the thought that Obama is president (cf. section 1). The act and the event are necessarily connected but have different properties. The thought has a truth value, for example, not the act of thinking it. Even in this case, the thinking does not cause or produce the thought. Because the thought that water is water differs from the thought that H_2O is water (the former occurred to people long before the latter did), the thesis that propositions are thoughts accounts easily for Frege cases like (36). Propositions on my view are attitudinal objects, although they lack some of the properties M took attitudinal objects to possess.[34]

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33.   Frege (1918: 13-15) denied that thoughts are part of the "inner realm" of psychology because he took that realm to consist entirely of *token* occurrences of sensations and the like, which necessarily have a unique "owner." Frege did not consider *types* of psychological events, which can be shared.

34.   I thank Hans-Martin Gaertner, Bradley Armour-Garb, and Friederike Moltmann for helpful comments on an earlier draft.

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