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Objections to Structured Propositions Generally

Having considered objections to the particular view of structured propositions I am defending, in the present chapter I address objections to structured propositions generally. For the most part, the objections considered here do not depend on idiosyncrasies of the account of structured propositions I have sketched. Of course, not all challenges to structured propositions can be considered. Thus, the present chapter comprises a sampling of challenges that I take to be important to address.

There is one prominent sort of challenge that will not be considered here. It is sometimes argued that structured propositions of the sort I am defending cannot, without some additional machinery, underwrite a proper semantics for verbs of propositional attitude. For, assuming that names and predicates have the sorts of semantic values I have assumed them to have, that verbs of propositional attitude express two-place relations between individuals and propositions, and that that-clauses designate propositions, neither of the following two sentence pairs can diverge in truth value:

- 1a. Lucy believes that Mark Twain is a great author.
- 1b. Lucy believes that Samuel Clemens is a great author.
- 2a. Lucy believes that a groundhog is in the shed
- 2b. Lucy believes that a woodchuck is in the shed.

In both cases, there is only one proposition to be believed on the present account. And some hold that this is too implausible to accept.¹

I don't ignore this sort of challenge to structured propositions here because I take it lightly or think it isn't important. There are two reasons for setting it aside. First, the challenge is well known and has been extensively discussed in the literature, whereas, so far as I know, the objections I will be considering have not received replies. And second, as I said in Chapters 1 and 2, my *primary*

¹ For example, both Schiffer (2003) and Matthews (2002) give arguments of this sort against Russellian structured propositions. Interestingly, though Schiffer thinks Russellian propositions aren't what that-clauses in sentences like 1a/1b and 2a/2b designate, he nonetheless tends to think that Russellian propositions are needed because possible worlds are constructed out of them. See p. 96.

concern is not with the constituents of propositions, but rather with how those constituents are bound together. Thus, though I have adopted a view about the constituents of propositions on which 1a and 1b express the same proposition (the same goes for 2a and 2b) and I think the view is a plausible one, I at least in principle remain open to other views as long as they cohere with my account of what binds the constituents of propositions together.

That said, let me begin by considering a very general argument against any theory of structured propositions (either Fregean or Russellian) recently given by Stephen Schiffer (2003). (I'll be primarily concerned with the argument as an argument against Russellian views of structured propositions, on which their constituents are objects, properties and relations, since that is the sort of view I am defending.) Since Schiffer states the argument very concisely, let me quote him in full:

- (1) If any theory of structured propositions is true, then (a) 'barks' in 'Ralph believes that Fido barks' functions as a *singular term* whose referent is a constituent of the structured proposition to which the that-clause refers (for all intents and purposes, that referent would either be the property of being a barker or else a concept of that property).
- (2) If (a), then the following inference is valid:
 Ralph believes that Fido barks.
 ∴ (∃x)(Ralph believes that Fido x)
- (3) But the inference isn't even coherent, let alone valid.
- (4) ∴ No theory of structured propositions is true.²

Now the natural first reaction to the argument, which I shall argue is correct, is that premise (1) is false. However, Schiffer offers the following defense of premise (1):

Premiss (1) may strike one as surprising, but the theorist of structured propositions seems committed to it. For example, for the Russellian 'that Fido barks' in 'Ralph believes that Fido barks' is a semantically complex singular term whose referent is, or may be represented as, <Fido, the property of being a barker>. This means that both '<Fido, the property of being a barker>' and 'that Fido barks' are co-referential semantically complex singular terms, in the first of which 'the property of being a barker' refers to the property of being a barker, and in the second of which 'barks' refers to that property. This isn't a role 'barks' could perform if it were functioning as a verb; to perform its referential role in the that-clause it must be functioning as a singular term on all fours with the co-referential expression 'the property of being a barker'. Likewise, mutatis mutandis, for the Fregean, only in her case the reference is not to the property of being a barker but to a concept of it.³

I have to confess that I don't follow Schiffer's reasoning here as to why the structured proposition theorist is committed to premise (1).⁴ Schiffer says that

² P. 30. ³ P. 30.

⁴ A minor problem with his reasoning is that he seems to assume that Russellians will claim that 'the property of being a barker' is a referring expression whose referent is the property of being a

the Russellian is committed to the following claims in defending premise (1) in the above quotation (and suggests that the Fregean is committed to analogues of them):

- A. '<Fido, the property of being a barker>' and 'that Fido barks' are complex singular terms that both refer to the proposition that Fido barks.
- B. 'the property of being a barker' in '<Fido, the property of being a barker>' refers to the property of being a barker.
- C. 'barks' in 'that Fido barks' is a singular term referring to the property of being a barker.

Given that 'barks' is a referring expression in 'that Fido barks', as is claimed in C, it should be legitimate to existentially generalize on it. This gives us the claim in premise (2) that the inference mentioned there is valid.

One thing that puzzles me about Schiffer's defense of premise (1) here is why he brings up '<Fido, the property of being a barker>' at all. Does he think A and B above *entail* C? He doesn't say this, but if he doesn't think it, why did he bring up '<Fido, the property of being a barker>'?

I believe that Schiffer reasons that premise (1) is true as follows.⁵ Assume you are a structured proposition theorist. Assume 'that Fido barks' is a referring expression whose referent is the proposition that Fido barks. Schiffer takes structured proposition theorists to endorse a principle he calls the *compositionality hypothesis* (CH) according to which 'the referent of a that-clause token is determined by its structure and the referents of its component expressions together with whatever implicit references are made in the utterance of the that-clause.'⁶ We can safely ignore implicit references in the present case. Schiffer thinks that in an utterance of 'Wendy believes that it's raining' the speaker might make implicit reference to a place, say Mammoth Lakes, so that the token of 'that it's raining' in question refers to the proposition that it is raining *in Mammoth Lakes*. In the case of 'that Fido barks', we can assume no implicit references are made. So CH tells us that the referent of 'that Fido barks' is determined by its structure and the referents of its component expressions. But 'barks' is one of the component expressions and must surely help to determine the referent of the that-clause. So this means that 'barks' must have a referent.⁷ For the Russellian, could this referent be the set

barker. I, like I think most Russellians, take definite descriptions to be quantificational expressions and so hold that they don't have referents at all. Or perhaps, following Fara (2001), definite descriptions should be understood as predicates. In any case, they aren't referring expressions. Because this is a minor problem, I'll set it aside.

⁵ My belief is based in part on how Schiffer defends a closely related premise in a similar argument against (only) Fregeans. See pp. 27–8.

⁶ P. 17. Schiffer seems to take structured proposition theorists to be committed to CH because he thinks that adherence to CH is what motivates the view that propositions are structured in so far as it is difficult to hold both CH and the view that propositions are *unstructured*. See pp. 1–2; 18; 31; 46; and 88.

⁷ Note that to this point, we are considering any sort of structured proposition theorist, including Fregeans. Thus, Schiffer thinks that any such theorist must hold that 'barks' has a referent in 'that

of barking things? No, because if the set of barking things and the set of things with fleas were the same, it would then follow that ‘that Fido barks’ and ‘that Fido has fleas’ refer to the same proposition. Thus, the Russellian must hold that ‘barks’ is a referring expression in ‘that Fido barks’ that refers to the property of being a barker. In order to do this, ‘barks’ must be a singular term referring to the property of being a barker. But then the inference in premise (2) ought to be valid. I should add that Schiffer correctly assumes that the Russellian doesn’t hold that ‘barks’ refers to the property of being a barker in sentences like ‘Fido barks’. Thus, he thinks that Russellians must hold that ‘barks’ functions differently semantically in that-clauses than it does in sentences like ‘Fido barks’, violating semantic innocence.⁸

As against Schiffer, I’ll argue that there is no good reason to believe premise (1). Worse, I believe premise (1) can be shown to be false. Let me take these points in turn.

Unless the following claim is true there is no reason to believe premise 1:

- i. (Putting implicit references aside) Structured proposition theorists, including Russellians, are committed to the claim that the referent of a that-clause is determined by the referents of the expressions in it and how they are combined syntactically (CH), and so all the expressions in a that-clause (including ‘barks’ in ‘that Fido barks’) must be referring expressions.⁹

For it is the claim that structured proposition theorists hold that ‘that Fido barks’ is a referring expression whose referent is determined by the referents of its parts, including ‘barks’, that allows Schiffer to conclude that structured proposition theorists are committed to the claim that ‘barks’ is a singular term with a referent in the that-clause. I’ll argue that i is false, and so there is no reason to believe premise (1).

Second, premise (1) entails at least the following claims:

- ii. Structured proposition theorists, including Russellians, are committed to the claim that that-clauses are referring expressions.
- iii. Structured proposition theorists, including Russellians, are committed to the claim that ‘barks’ functions semantically differently in that-clauses than it does in sentences such as ‘Fido barks’.

(Premise (1) entails iii in conjunction with the obvious truth that ‘barks’ in ‘Fido barks’ does not function as a singular term.) I’ll show that ii and iii are false, and hence that premise (1) must be as well.

Fido barks.’ Of course what the referent is depends on whether one is a Fregean or Russellian. In any case, the conclusion that ‘barks’ is a referring expression in that-clauses is enough to render the inference in premise (2) valid.

⁸ P. 45. Presumably, Schiffer thinks Fregeans will be stuck with this conclusion as well, since he thinks they will be forced to hold that ‘barks’ is a referring term in ‘that Fido barks’ and they will not hold that it is a referring terms in ‘Fido barks’.

⁹ See note 6.

Taking i first, note that if ii is false, then i is false. If Russellians are not committed to the claim that that-clauses are referring expressions, then neither are they committed to the claim that the *referent* of a that-clause is determined by the referents of the expressions in it and how they are combined syntactically (CH), nor to the claim that all the expressions in a that-clause (including ‘barks’ in ‘that Fido barks’) are referring expressions. Hence since I will show that ii is false, it follows that i is false. I should add that though the Russellian is not committed to these claims, she may well hold that in some sense the semantic value of a that-clause is a function of the semantic values of its parts and how they are combined. It’s just that because she is not committed to that-clauses being referring expressions, she is not committed to the *referent* of a that-clause being a function of the *referents* of its parts and how they are combined.

But I also wish to emphasize that even a Russellian who takes that-clauses to refer should reject both the claim that the referent of a that-clause is determined by the referents of the expressions in it and how they are combined syntactically, and the claim that all the expressions in a that-clause are referring expressions. To see this, consider the case of complex demonstratives. I have argued elsewhere that they are not referring expressions, but suppose one held that they are referring expressions.¹⁰ Would one hold that the expressions in ‘that man in the corner talking’ are all referring expressions and that the referent of the demonstrative is a function of the *referents* of its parts and how they are combined?¹¹ Surely not! Otherwise, one would presumably have to admit that the following inference is valid: John knows that man in the corner talking. Therefore, $(\exists x)(\text{John knows that man in the corner } x)$. Hence, even if one held that complex demonstratives are referring expressions, one should deny that all the expressions in a complex demonstrative are referring expressions. Those Russellians who hold that that-clauses are referring expressions should do the same. Hence, even those who accept the view that that-clauses refer should reject the claim that the referent of a that-clause is determined by the referents of the expressions in it and how they are combined syntactically (CH), and the claim that all the expressions in a that-clause (including ‘barks’ in ‘that Fido barks’) are referring expressions. So contrary to i, not only are Russellians not *committed* to these claims, but no Russellian should *endorse* them.

Turning now to ii, aren’t Russellians committed to the view that that-clauses are referring expressions? They clearly are not. I think that Russellians should hold that a belief ascription such as ‘Lucy believes that Fido barks’ is true iff Lucy stands in the belief relation to the proposition that Fido barks. And I myself hold this. But this doesn’t at all require the Russellian to hold that that-clauses are *referring* expressions. To see this, simply note that holding that a sentence

¹⁰ King (2001).

¹¹ Presumably speaker intentions or some such thing would figure in the determination of reference as well.

like ‘Michelle loves the tallest California congressman’ is true iff Michelle bears the loving relation to the unique thing *o* that is a tallest California congressman doesn’t require one to hold that ‘the tallest California congressman’ is a *referring* expression that refers to *o*. For example, one could maintain that ‘the tallest California congressman’ is a quantifier. In just the same way, the Russellian can hold that a belief ascription like ‘Lucy believes that Fido barks’ is true iff Lucy stands in the belief relation to the proposition that Fido barks, while holding that ‘that Fido barks’ is not a referring expression. It is true that such a person must hold that *in some way* the that-clause here has the effect of making the proposition that Fido barks and the relations it stands in relevant to the truth conditions of the sentence ‘Lucy believes that Fido barks.’ But she need not hold that it does so by *referring* to the proposition that Fido barks.

It is worth adding that there are some reasons for doubting that that-clauses are referring expressions. First, there are expressions that *do* appear to be singular terms referring to propositions, such as ‘logicism’. Given that one believes in propositions, it is hard to think of what such expressions could be except referring expressions whose referents are propositions. Such expressions exhibit distributional differences with that-clauses:

3. Robin embraced logicism/*that arithmetic reduces to logic.
4. Robin is sure of logicism/*that arithmetic reduces to logic.
5. Robin hoped *logicism/that arithmetic reduces to logic.
6. It is necessary *logicism/that arithmetic reduces to logic.

Admittedly, the distributional differences don’t *show* that that-clauses aren’t singular referring terms. But they should give us pause. After all, we don’t find these distributional differences between expressions that are widely acknowledged to be singular referring terms, such as names, indexicals, and demonstrative pronouns. But then if that-clauses and terms like ‘logicism’ are all referring expressions, why would we get distributional differences here?

Second, there seem to be semantic differences between ‘logicism’ and ‘that arithmetic reduces to logic’. The following apparently could diverge in truth value:¹²

- 7a. Glenn knows that Frege believed logicism.
- 7b. Glenn knows that Frege believed that arithmetic reduces to logic.

Suppose that Glenn knows that logicism is a view about the relation between arithmetic and logic, and he knows that according to it they are intimately related somehow but he isn’t sure exactly how. He knows that a number of philosophers held the view in the late nineteenth and early twentieth centuries. Finally, he learns that Frege held this view. Then arguably, 7a is true and 7b is false. But to hold that we must hold that there is some semantic difference between the

¹² I believe this point is due to Richard (1993).

that-clause ‘that arithmetic reduces to logic’ and ‘logicism’. If ‘logicism’ is a referring expression, the that-clause must not be.¹³

Finally, consider a sentence in which a universal quantifier binds pronouns in a that-clause:

8. Everyone believes that he is smart.

The occurrence of the that-clause here doesn’t simply refer to a proposition. At most, it could be held to refer to a proposition relative to an assignment of values to variables. In any case, it does not refer to a proposition in the sense that it cannot contribute a (single) proposition to the proposition expressed by 8. The truth of 8 requires people to believe different things! Hence the that-clause here cannot make the sort of contribution to the proposition expressed by 8 that singular referring terms make: a single referent. Further, the fact that all other expressions in natural language that one can quantify into in this way appear to be quantificational (or at any rate, not referring expressions) provides some reason for thinking that that-clauses are not referring expressions:

9. Every man loves some women he used to date.

10. Most swimmers remember the fastest swim they ever had.

In any case, the main point here is that ii is false. Russellians need not hold that that-clauses are referring expressions. I myself am a Russellian who is at least skeptical of the claim that that-clauses refer for reasons such as those just canvassed.

Finally, let’s turn to iii. To show that iii is false, we’ll construct a toy theory of the semantics of that-clauses that is available to the Russellian and according to which ‘barks’ behaves semantically in the same way in ‘Shirley believes that Fido barks’ and in ‘Fido barks.’¹⁴ Suppose we have a language containing n-place predicates (for arbitrary values of n); let B be a two-place predicate (“believes”). Suppose our language contains names of individuals. For any expression e, let e^* be the semantic value of e. If b is a name, b^* is an individual; and B^* , the semantic value of B (‘believes’), is a two-place relation between individuals and propositions. For other n-place predicates P, P^* is an n-place relation between individuals. Assume our language contains truth functional sentential connectives, quantifiers and the complementizer ‘that’. Assume the obvious syntax (an n-place predicate followed by n names is a sentence, etc.), with the addition that placing ‘that’ in front of a sentence yields a that-clause. We then add:

If α is a name, and C is a that-clause, then $\alpha(B(C))$ is a sentence.¹⁵

¹³ Putting it this way is a little contentious, since Richard himself holds that-clauses refer. But they function differently semantically on his account than expressions like ‘logicism’ and as a result there is a sense in which they do more than refer in the way ‘logicism’ does.

¹⁴ The account I’ll sketch is essentially that of Richard (1993).

¹⁵ Of course we would want to allow quantifiers to occur in place of α here as well, but I’ll ignore that. Further, I’ll not attempt to formulate things in such a way as to allow quantification

Because nothing hangs on it here, we represent propositions by ordered tuples. In what follows, let S be a sentence, let Π be an n -place predicate, and let $\alpha, \alpha_1, \dots, \alpha_n$ be names. Then some of the clauses specifying the propositions expressed by sentences are as follows:

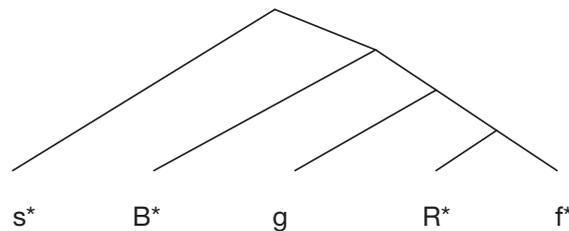
1. $\Pi\alpha_1, \dots, \alpha_n$ expresses the proposition $\langle \Pi^*, \langle \alpha_1^*, \dots, \alpha_n^* \rangle \rangle$.
2. $\alpha(B(\text{that } S))$ expresses the proposition $\langle \alpha^*, \langle B^*, \langle g, \text{Prop } S \rangle \rangle \rangle$, where g is the function that maps every proposition to itself and Prop S is the proposition expressed by S , where the constituents of Prop S are constituents of $\langle \alpha^*, \langle B^*, \langle g, \text{Prop } S \rangle \rangle \rangle$.

The force of the comment that the constituents of Prop S are constituents of $\langle \alpha^*, \langle B^*, \langle g, \text{Prop } S \rangle \rangle \rangle$ can be made clear as follows. Consider a one-place predicate of the language ‘ R ’ (“barks”) and names ‘ f ’ (“Fido”) and ‘ s ’ (“Shirley”).¹⁶ Now consider the sentence:

11. $s(B(\text{that } Rf))$ (“Shirley believes that Fido barks.”)

Instead of rendering the proposition expressed by this sentence as an ordered n -tuple, let’s represent it in tree form. It looks thus:

11’.



Note that R^* and f^* , the constituents of the proposition expressed by ‘ Rf ’, are at terminal nodes in this tree. That is to say, they are constituents of the proposition 11’, which 11 expresses. By contrast, suppose we introduced into our language a singular term referring to the proposition expressed by ‘ Rf ’, say ‘dogicism’. Call such a singular term a *proposition name (PN)*. We then add to the syntax:

If α is a name and D is a PN, then $\alpha(B(D))$ is a sentence.

Now consider the sentence

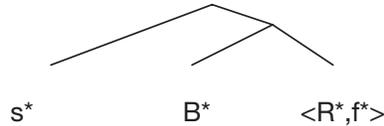
12. $s(B(\text{dogicism}))$

into that-clauses. This is in part why I call the theory a toy theory. My main concern here is simply to show that there are theories of the semantics of that-clauses available to Russellians on which words like ‘barks’ in them function semantically in the same way they function outside them. I’m not claiming the theory I sketch in the text is ultimately precisely the correct one. Again, it is a toy theory. However, I do tend to think that something like this theory is correct.

¹⁶ ‘ R ’ is intended to call to mind ‘rrruff’.

It expresses the following proposition:

12’.



Note that though the proposition $\langle R^*, f^* \rangle$ is a constituent of this proposition (since it occurs at a terminal node), neither R^* alone nor f^* alone is. What the last part of clause 2 tells us is that a sentence containing a that-clause expresses a proposition in which the proposition expressed by the sentence ‘that’ fronts occurs, and where the constituents of the latter occur as constituents of the larger proposition. Finally, our definition of truth for propositions includes the following clause:

1. A proposition of the form $\langle a^*, \langle B^*, \langle g, \text{Prop } S \rangle \rangle \rangle$ is true at a circumstance of evaluation e iff $\langle a^*, g(\text{Prop } S) \rangle$ is in the extension of B^* at e .¹⁷

I take it that on the account I have sketched words function the same way semantically in and out of that-clauses (and terms like ‘barks’ do not function in that-clauses as referring terms that refer to properties). To see this, consider the proposition expressed by

13. Fido barks. (Rf)

It is:

13’. $\langle R^*, f^* \rangle$

Now consider the proposition expressed by

14. Shirley believes that Fido barks. (s(B(thatRf)))

It is (this time as an ordered n-tuple):

14’. $\langle s^*, \langle B^*, \langle g, \langle R^*, f^* \rangle \rangle \rangle \rangle$

In both cases, ‘barks’ contributes to the proposition expressed by the sentence in question R^* , the property of being a barker, and it does so in the same way in both cases. So ‘barks’ functions the same way semantically in both sentences. Thus on

¹⁷ It would be easy enough to introduce a quantifier ‘something’ into our language and allow sentences such as ‘something: $x(s(B(x)))$ ’. This sentence would express a proposition that is true at a circumstance e iff there is something ϕ such that $\langle s^*, \phi \rangle$ is in the extension of B^* at e (i.e. iff s^* believes something in e). We would then get the result that if ‘Shirley believes Fido barks’ (‘s(B(Rf))’) expresses a proposition true at e , so does ‘Shirley believes something’ (‘something: $x(s(B(x)))$ ’).

the present view, the inference Schiffer claims the Russellian is committed to (in premise(2)):

Shirley believes that Fido barks

$\therefore (\exists x)(\text{Shirley believes Fido } x)$

is no better than this one

Fido barks.

$\therefore (\exists x)(\text{Fido } x)$

And Schiffer has offered no reason for thinking the Russellian is committed to the latter inference.

The account of that-clauses I have sketched shows that there are accounts available to the Russellian on which words like ‘barks’ function semantically the same way in and out of that-clauses. Hence iii above is false.

In summary, unless i above is true, there is no reason to believe premise (1) of Schiffer’s argument against structured propositions. Further, Schiffer’s premise (1) entails claims ii and iii mentioned above. I have now argued that i–iii are all false. I conclude that not only is there no reason for holding premise (1) of Schiffer’s general argument against structured propositions (since i false), but in addition it is false (since ii and iii are). For this reason, the argument fails.