Complex acts and the unity of the proposition

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Abstract

In this paper I do four things: (1) explain one clear thing which ‘the problem of the unity of the proposition’ might mean; (2) develop a notation to perspicuously represent the theory of propositions as complex acts, which has been defended in different forms by Peter Hanks and Scott Soames, focusing on its claim to make room for distinct but representationally identical propositions; (3) explain why the problem of the unity of the proposition (in the sense explained at the outset) arises for that theory; and (4) argue that the natural ways in which the complex act theorist might try to solve the problem fail to do so.

1 THE PROBLEM OF THE UNITY OF THE PROPOSITION

The phrase ‘the problem of the unity of the proposition’ is sometimes used in such a way as to suggest that it is a problem for anyone who believes in propositions. The idea, it seems, is that anyone who believes in propositions must explain in what their unity consists.

But it is hard to see why this should be so. We don’t usually take people who believe in the existence of the number 4 or the property of being red to face the difficult task of explaining what the unity of the number 4 or the unity of the property of being red consists in; why should propositions be any different?
The short answer, I think, is that they don’t have to be. There are plenty of views of propositions which face no special ‘problem of the unity of the proposition.’ A case in point is the widely held view that propositions are sets of worlds. Unless one holds that anyone who believes in sets must explain ‘what the unity of the set consists in,’ it is hard to see why the proponent of a possible worlds theory of propositions should face any special problem of the unity of the proposition. The same goes for theorists who, like Plantinga (1974) and Merricks (2015), take propositions to be simple sui generis abstract objects, on par in this respect with the property of being red. This view, like the possible worlds theory, faces serious objections — but I don’t think that the problem of the unity of the proposition is one of them.

The problem of the unity of the proposition is not a problem for all believers in propositions. Who is it a problem for, then? I think that it is a problem for theorists who try to explain what propositions are by first enumerating some entities which are not propositions, but are in some way bound up with the identity of propositions. Often these are called ‘constituents’; but to avoid associations which that term now has, I will call them ‘elements.’ If one attempts to explain what propositions are by listing some things, the elements, which are not propositions, it is pretty obvious that one owes an account of how propositions are related to those elements. And that is just to give an account of how those elements are united into a proposition.

The classical theories of Russell and Frege both proceed in this way. In his discussion of the proposition that A differs from B, Russell says that the constituents of the proposition are A, difference, and B. But of course none of these things is the proposition that A differs from B; they are just, in my neutral terminology, elements of it. Thus Russell faces the task of explaining how the proposition is related to these elements: how, that is, they are unified into a proposition.

Though matters are less clear with Frege, on one reading his approach is parallel to Russell’s but for the fact that he begins with different elements. In this case the elements are senses, which are modes of presentation of objects and concepts. Just as Russell owes us an explanation of the way in which the proposition that A differs from B is related to his elements — A, difference, and B — so Frege owes us an explanation of the way in which propositions are related to his elements. And to give such an explanation just is to explain what unifies the relevant modes of presentation into a proposition.

I now want to sketch a leading recent theory of propositions, and explain why this theory faces the problem of the unity of the proposition in a way exactly parallel to the way in which Russell and Frege faced this problem. This is the theory of propositions as complex acts which has been defended, in different forms, by Peter

2 Propositions as complex acts

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1This is closest to the ‘unity question 1’ discussed in King (2009) and King (2013).

2Russell (1903), §54.

3This is perhaps clearest in Frege (1963), where he proposes that “we look upon thoughts as composed of simple parts, and take these, in turn, to correspond to the simple parts of sentences” (1). This suggests that the senses of simple expressions are elements of thoughts which are conceptually prior to the thought. Some reason for caution in this interpretation, though, is given by the fact that this passage is immediately preceded by the remark that “we really talk figuratively when we transfer the relation of whole and part to thoughts.”
Hanks and Scott Soames. While this view of propositions has been widely discussed, the fact that it faces this problem seems not to have been noticed. And, as I’ll argue in the sections to follow, the problem, once noticed, is not easily solved.

2.1 Simple propositions

While there are many interesting and important differences between the theories of Hanks and Soames, those differences are mainly orthogonal to the discussion which follows; so, for simplicity, I’ll more closely follow Soames’ exposition of his theory.

Let’s start with the simplest case — a singular proposition which predicates a property \( F \) of some object \( o \). This proposition will, on Soames’ theory, be a complex act which includes the following sub-acts: cognizing \( o \), cognizing \( F \), and predicating \( F \) of \( o \). Because in what follows it will be useful to have abbreviations for these act-types, I’ll represent these simple acts as follows:

\[
\begin{align*}
\text{cog}(o) \\
\text{cog}(F) \\
\text{pred}(F, o)
\end{align*}
\]

To have a neutral way of representing complex acts, I will use ‘\( \phi \oplus \psi \)’ to represent the complex act whose constituent acts are \( \phi \) and \( \psi \). So, in these terms,

the proposition that \( o \) is \( F = \text{pred}(F, o) \oplus \text{cog}(o) \oplus \text{cog}(F) \)

For our purposes, we can leave the notion of cognizing an object or property at the intuitive level; one can think of it as thinking of, or calling to mind, an object or property. I will follow Soames in thinking of predication as a force-less mental act, in the sense that predicating a property of an object (or a relation of an n-tuple of objects) does not involve endorsing, in any sense, the claim that the object has that property (or that the objects stand in the relevant relation). To predicate \( F \) of \( o \) is just to entertain the proposition that \( o \) is \( F \), and not to judge that it is true.

Since propositions are acts, to entertain a proposition, on this view, is just to perform the act which the proposition is. Other mental states can be understood as going beyond this ur-act of entertaining a proposition. So, for example, Soames says that “[t]o judge B to be red is to predicate redness of B affirming what one has done, which is to predicate redness of B in a way that involves forming or activating certain distinctive cognitive and behavioral dispositions.”

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5King (2013), §5 does raise the question of whether Soames’ theory can answer the question of how the constituents of propositions are united in the proposition, but thinks that Soames’ theory can give a satisfactory answer to this question. But King here is discussing an earlier version of Soames’ theory, which did not emphasize the complexity of the acts with which propositions are to be identified. I discuss the possibility that propositions might be simple rather than complex acts in [below].
6Hanks (2015) sharply distinguishes between referring to an object and expressing a property. The distinction between these types of acts won’t matter for the argument to follow.
7This is one of the central points of disagreement between the theories of Soames and Hanks; since (as far as I can see) it does not matter much for the discussion to follow, I simply adopt Soames’ view for ease of exposition. For Hanks’ criticism of Soames’ view of predication, see Hanks (2015), §1.3.
8Soames (2015), 23.
2.2 First person propositions

Let’s now look at how the view handles slightly more complex propositions. Doing so will both introduce some material which will be essential to the argument to follow, and bring out one of the central attractions of the theory of propositions as acts: the fact that it promises to make room for the existence of distinct but representationally identical propositions.

Both Hanks and Soames think that their theories can make room for the existence of propositions which are distinct despite representing just the same objects as having just the same properties and standing in just the same relations. If they are right about this, their achievement would be of very great importance. Many of the most difficult problems in the philosophy of language and the philosophy of mind could be solved if we could make sense of propositions which are genuinely distinct despite representing just the same objects and properties. This is, of course, just what Fregeans aim to do by letting modes of presentation, rather than things in the world like objects and properties, serve as the constituents of propositions. The exciting thing about the project of Hanks and Soames is that they promise to deliver distinct but representationally identical propositions without invoking the dubious apparatus of Fregean senses — and to do this is to deliver something like the holy grail of contemporary work on mind and language.

To see how a theory of propositions as complex acts might make room for distinct but representationally identical propositions, let’s introduce a pair of sentences which many have thought express distinct but representationally identical propositions:

(1) I am on fire.

(2) Jeff Speaks is on fire.

As is well-known, there are at least two ways to make the case that these sentences are used to express different propositions. The first has to do with the connection between the beliefs which would be expressed by these sentences and the actions of the subjects expressing the beliefs. For it is not hard to imagine situations in which, confused about my identity, I would react quite differently to coming to believe what is expressed by these two sentences. The first, given my desire to maintain a livable temperature, would in this case have a very direct connection to action; the connection of the second to action would depend quite a bit on my attitudes towards this ‘Jeff Speaks’ character[9].

The second is simply an instance of Frege’s puzzle which, as in other instances of the puzzle, is best pressed by embedding the relevant sentences in attitude ascriptions. It certainly seems as though there are situations in which the propositions expressed by the following sentences can differ in truth value:

(3) I believe that I am on fire.

(4) I believe that Jeff Speaks is on fire.

[9] Though for some criticism of this familiar line of argument, see Cappelen and Dever (2013).
One might think that we should want to explain how this is possible, by explaining how (1) and (2) could express different propositions.

A quick note about terminology before going any further: so far I’ve been talking about a difference in what pairs of sentences like the ones above express. This might be taken in two ways: first, as a claim about what these sentences semantically express; second, as a claim about what they would typically be used to assert or pragmatically convey. This question about semantic vs. pragmatic renderings of the problem of the first person is, as far as I can see, orthogonal to the questions I want to raise — so in what follows I will use the relatively neutral ‘express’, assuming that what I say can be transposed into either the semantic or the pragmatic way of construing the problem. I will use ‘(1P)’, ‘(2P)’, etc. as names for the propositions expressed, in this neutral sense of ‘express,’ by (1), (2), etc.

Here is what Soames says about the distinction between propositions like (1P) and (2P):

‘The new analysis springing from the cognitive conception of propositions distinguishes predicating P of an agent A identified as predication target in the first-person way from predicating P of A however identified. Since doing the first is also doing the second, but not conversely, the acts are different. Since the same property is predicated of the same thing, they are cognitively distinct but representationally identical propositions.’

Here Soames invokes a new sort of cognitive act: thinking of oneself in a first-person way. Much as we used ‘pred’ as a name for the cognitive act of predication, and ‘cog’ as a name for act of cognizing o, let’s use ‘1stP(o)’ as a name for the cognitive act of thinking of o in a first-person way. On this view, first person propositions are (like all propositions) complex acts; they are distinguished from their third-person counterparts by involving an act of thinking of an object in a first-person way. Using the notation above, we might represent the difference as follows:

\[
(1P) = \text{pred}(\text{on fire, JS}) \oplus 1stP(JS) \oplus \text{cog}(\text{being on fire})
\]
\[
(2P) = \text{pred}(\text{on fire, JS}) \oplus \text{cog}(JS) \oplus \text{cog}(\text{being on fire})
\]

Since one can think of JS in the first person way only if one cognizes JS, one can perform the first act only if one performs the second. But one can perform the second act but not the first if one cognizes JS in something other than the first-person way. And this seems to be exactly what we should want, since it seems that entertaining a first person proposition entails entertaining the corresponding singular proposition, but not the converse.

This treatment of first person propositions depends essentially on the complexity of the acts with which propositions are identified. It should be sharply distinguished from another way in which an act theorist might handle first person propositions, which treats the first person way of thinking, not as an extra sub-act of a complex act, but as a modification of a target of predication. On this sort of view, we would find the following difference between the propositions expressed by (1) and (2):

\[
(1P) = \text{pred}(\text{on fire, 1stP(JS)})
\]
\[
(2P) = \text{pred}(\text{on fire, JS})
\]

\[^{10}\text{Soames (2015), 46. Emphasis in the original.}\]
But this is not a promising way to go, for two reasons. The first is a difficulty seeing what sort of entity could be denoted by ‘1stP(JS).’ It can’t, of course, denote a type of cognitive act — since actions are not the sorts of things which can be on fire, and one can take oneself to be on fire without, absurdly, taking an action to be on fire. It would appear that 1stP(JS) must be an entity distinct from me which is a constituent of the relevant propositions, whose presence explains the difference in informativeness between propositions like (1P) and (2P) and which refers to me — and indeed manages to rigidly designate me. What sort of entity, one wonders, could do all of these things? How could this entity manage to refer to me in every possible world, despite the extreme variance in my properties across worlds? These are, of course, just the difficult questions which Fregeans must answer. If these questions had good answers, then we wouldn’t need an act theory of propositions to make room for distinct but representationally identical propositions: we could just plug these essentially first-personal rigidly designating modes of presentation in as the constituents of propositions, and be done with it.

Second, there is a difficulty for the view that 1stP modifies one of the targets of predication in a first person proposition given the existence of devices of direct reference. For, as noted above, ‘1stP(JS)’ must denote something. Further, it must be something about which I can think (since I can predicate things of it). So presumably it is something I can name. Suppose that I name this entity ‘Rufus.’ Once I do so, I can share the name with you, and you could go on to use it to make predications of your own. So you could, for example, say to yourself, ‘Rufus is on fire.’ In so doing you would be entertaining (1P) — the first person thought which predicates of me the property of on fire. But this amounts to a reductio of the view under consideration, since it is impossible to entertain first person thoughts about anyone other than yourself.

The problems with this quasi-Fregean treatment of the first person help to bring out a key advantage of the complex act theory, which is that it offers to explain first person propositions without employing any theoretical resources other than those which are already on hand in our initial description of the problem to be addressed. It is hard to make sense of first person modes of presentation; but anyone who gets the intuitive distinction between (1) and (2) must already grant the existence of a distinction between thinking of oneself in a first person way and thinking of oneself in a non-first person way. One might, of course, want a further explanation of just what makes a given cognitive act a first person way of thinking; but whether or not we can give such an account, it is plausible that there is such a thing as the first person way of thinking of oneself, and hence plausible that the cognitive acts to which the act theorist appeals are real.  

2.3 Articulated terms

Let’s now turn to our second example of a pair of sentences whose proper treatment seems to require distinct but representationally identical propositions. Consider the following two sentences:

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11Hanks gives an account of what distinguishes first person reference to an object from other ways of cognizing objects in Hanks (2013). Soames leaves the notion unanalyzed.
(5) Russell defended the proposition that arithmetic is reducible to logic.

(6) Russell defended logicism.

This pair of sentences is an instance of the problem of articulated terms. As is well-known, pairs like this generate a difficult problem. On the one hand, given that ‘logicism’ is a name for the proposition that arithmetic is reducible to logic, it looks like (5) and (6) express the same proposition, since both claim that Russell stands in the relation expressed by ‘defended’ to the same entity. On the other hand, there is considerable pressure to hold that (5) and (6) express different propositions, since it looks as though substitution of one for the other in the complement of an attitude ascription can change truth value, as in examples like

(7) Mary judges that Russell defended the proposition that arithmetic is reducible to logic.

(8) Mary judges that Russell defended logicism.

One can imagine that Mary was given on the first day of her philosophy class a list of the some of the main theses that Russell defended, and was told that logicism is a thesis in the philosophy of mathematics, but was not told just which thesis in the philosophy of mathematics it is. Then intuitively, (8) might be true and (7) false.

Soames holds that his theory of propositions can explain how (7) and (8) can differ in truth-value by explaining how (5P) and (6P) could be distinct. He says:

“understanding (6) and entertaining the proposition it expresses requires predicking trying to prove of Russell (however he is identified as predication target) and L (however it is identified). Since one can use the name ‘logicism’ to identify L without knowing much about its referent, one who has picked up the name can entertain proposition (6) without being able to identify L in any more informative manner. The conditions for understanding and entertaining (5) are the same, except that one is required to identify the second predication target, L, by entertaining it (which involves predicating being reducible of arithmetic and logic). So, to entertain proposition (5) is to entertain proposition (6), but not conversely, from which the different truth conditions of (7) and (8) follow.”

So to entertain (5P) is to perform two different acts of predication:

\[
\text{PRED}(\text{reducible}, \langle \text{arithmetic, logic} \rangle)
\]

and

\[
\text{PRED}(\text{defended}, \langle \text{Russell, logicism} \rangle)
\]

To entertain (6P), by contrast, one need only perform the second. So we might represent this account of the difference between these propositions as follows:

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12 Soames (2015), 40. Emphasis in the original. I’ve changed the sentence numbers to conform to the numbering of sentences above.
\[
\begin{align*}
(5^P) &= \text{PRED}(\text{defended}, \langle \text{Russell, logicism} \rangle) \oplus \text{COG}(\text{Russell}) \oplus \text{COG}(\text{logicism}) \\
& \quad \oplus \text{PRED}(\text{reducible}, \langle \text{arithmetic, logic} \rangle) \oplus \text{COG}(\text{reducible}) \oplus \text{COG}(\text{arithmetic}) \\
& \quad \oplus \text{COG}(\text{logic}) \\
(6^P) &= \text{PRED}(\text{defended}, \langle \text{Russell, logicism} \rangle) \oplus \text{COG}(\text{Russell}) \oplus \text{COG}(\text{logicism})
\end{align*}
\]
which gives us the wanted result that \((5^P) \neq (6^P)\).

On this view the treatment of articulated terms is — while different in ways which will be of interest later — of a piece with the treatment of first person propositions.

These seem like very attractive solutions to our problems. It certainly does seem as though thinking of myself in a first person way is a different type of act than thinking of my self in a non-first-person way. And it seems plausible that a conception of propositions as acts should be able to use this fact to distinguish between the propositions expressed by (1) and (2). Similarly, it does seem like the reason why we think that (8) can be true even if (7) isn’t is that one can believe that Russell defended logicism without ever having predicated reducibility of arithmetic and logic, and hence without ever having really entertained the proposition for which ‘logicism’ stands. If we multiply types of cognitive acts, the view would also seem to generalize naturally, as both Hanks and Soames emphasize, to other examples — like those involving apparent substitution failures of coreferential simple names — which seem to require distinct but representationally identical propositions.

The theory of propositions as complex acts thus has considerable explanatory promise.

3 The Problem of the Unity of Complex Acts

In one very obvious sense, this theory is parallel to the theories of Russell and Frege. The theory is an attempt to tell us what propositions are. But if we ask what the proposition that \(o\) is \(F\) is, we are given a list of things, none of which is identical to that proposition: the act of cognizing \(o\), the act of cognizing \(F\), and the act of predicating \(F\) of \(o\). These are, in the above sense, elements of the proposition that \(o\) is \(F\): they are (according to the present theory) part of the explanation of what that proposition is, but none of them is that proposition. We are thus owed an account of how the complex act which is the proposition that \(o\) is \(F\) is related to these elements — an account of what unifies these acts into a proposition.

3.1 Complex acts and conjunctive acts

This much, I think, is not really disputable. What is disputable is whether this is a very serious challenge to the theory of propositions as complex acts. For a natural

\[\text{13}\]
Hanks does not explicitly address the problem of articulated terms, though the discussion of target-shifting in Hanks (2015), §4.2 suggests an approach which is roughly similar to Soames’, at least in the sense that entertaining \((5^P)\) will, on his view as on Soames’, involve carrying out two distinct acts of predication.

\[\text{14}\]
For their discussions of substitution failures involving names, see the discussion of linguistic modes of presentation in Chapter 4 of Soames (2015) and the discussion of semantic reference types in Chapter 5 of Hanks (2015).

\[\text{15}\]
Recall that the proposition is not identical to the simple act of predicating a property of the object; that would be to go for the view that propositions are simple rather than complex acts, which would not make room for the possibility of distinct but representationally identical propositions. I consider the viability of a ‘simple act’ theory in the final section below.
response to this point is to grant that the act theory of propositions faces the problem of the unity of the proposition — but to point out that the problem, as it arises in this context, is very easily solved. For the act theorist can say that to perform a complex act just is to perform all of the sub-acts of which it is composed. This is, in effect, to interpret ‘⊕’ as ‘&.’ Let’s call this the conjunctive act theory.

The conjunctive act theory is a reasonably natural first interpretation of the way that Hanks and Soames typically explicate their views. In explaining what some proposition is, both Hanks and Soames typically explain the acts which make up the relevant complex act — and stop there. For example, in explaining which proposition is expressed by ‘George is clever,’ Hanks says that it

‘has three components: (i) reference to George, (ii) expression of the property of cleverness, and (iii) predication.’

Given explanations of the nature of acts (i)-(iii), Hanks then takes himself to have explained what the relevant proposition is, which suggests that there is nothing to the performance of the composite act beyond the performance of its components. Soames’ explanations of the nature of various propositions are the same in this respect.

Both Soames and Hanks now reject the picture of propositions given by the conjunctive act theory. But that theory is still worth discussing, because the problems which the conjunctive act theory encounters bring out the challenges which face any adequate account of the unity of proposition, on the view that propositions are complex acts.

3.1.1 The problem of coincidence

According to the conjunctive act theory, to perform the complex act to which (1P) is identical is to simply perform the acts of which it is composed: predicating being aflame of Jeff Speaks, cognizing the property of being on fire, and thinking of Jeff Speaks in a first person way. A moment’s reflection shows this view of complex propositions as conjunctive acts can’t be right. I might be thinking of myself in a first person way while also predicating the property of being aflame of Jeff Speaks without entertaining (1P), simply because I might be thinking other thoughts about myself in a first-person way while thinking that a person seen in a mirror — who of course turns out to be me — is on fire. So if (1P) is a complex act, something stronger than simply performing all, or performing all at the same time, must bind together the simple of acts of which it is composed.

Parallel problems arise with our proposed solution to the problem of articulated terms. For one can perform

\[
\text{PRED( defended, } (\text{Russell, logicism})
\]

thus entertaining the proposition that Russell defended logicism, and perform

\[
\text{PRED( reducible, } (\text{arithmetic, logic})
\]

16 Or, perhaps, to perform each of these acts within a certain interval.
18 Personal communication.
thus entertaining the proposition that arithmetic reduces to logic, without entertain-
ing the proposition that Russell defended the proposition that arithmetic reduces
to logic. One might, intuitively, not realize that the proposition one entertains by
predicating reducibility of ⟨arithmetic, logic⟩ is the proposition named by ‘logicism.’
Hence performing the complex act with which we are identifying this proposition
must involve something over and above performing each of the acts which make it
up. Our question is: what is this extra something which one must do?

3.1.2 The problem of structure

The problem of coincidence is enough to refute the conjunctive act theory. A separate
problem helps to bring out some of the constraints on an account of complex acts
which hopes to do better.

This problem can be brought out by noticing that, in the case of complex propo-
sitions, the sub-acts of the proposition play very different roles. Consider again the
case of articulated terms. Setting aside for simplicity the acts of cognizing the in-
dividual constituents of the proposition, the proposition expressed by (5) will be, in
the above notation,

\[
(5\text{P}) = \text{pred}\langle\text{defended,}\langle\text{Russell, logicism}\rangle\oplus\text{pred}\langle\text{reducible,}\langle\text{arithmetic,logic}\rangle\rangle
\]

Now consider what it takes for \((5\text{P})\) to be true. One might have thought that complex
acts are true iff both of their sub-acts are true; but the above example shows that this
is not right, since the truth of the proposition that Russell defended the reducibility
of arithmetic to logic does not require that arithmetic be reducible to logic. The
truth conditions of the complex act depend only on the truth conditions of the first
sub-act.

Parallel points could be made about first person propositions. Indeed, given that
the cognitive act

\[
1\text{stP}(JS)
\]

is not the sort of thing which can be true or false, we can hardly require that it be
true in order for \((1\text{P})\) to be true.

In the case of complex propositions which involve multiple acts, the truth con-
ditions of the proposition always seem to derive from just one of the constituent
acts. I’ll call this the parent act of the proposition, and any other sub-acts of the
proposition its children. In what follows, I’ll mark the parent act with a squiggly
underline. So, setting aside for simplicity the acts of cognizing the constituents of
the proposition, we will have

\[
(5\text{P}) = \underline{\text{pred}\langle\text{defended,}\langle\text{Russell, logicism}\rangle\rangle}\oplus\text{pred}\langle\text{reducible,}\langle\text{arithmetic,logic}\rangle\rangle
\]

If propositions are acts, it seems that this squiggly underline must represent some-
thing that agents who entertain \((5\text{P})\) do. Our question again is: what is it?

I want to note in passing here a puzzle which arises from the need to distinguish
between parent and child acts once we try to give an account of the propositional
attitudes. Above I quoted Soames’ view that “[t]o judge B to be red is to predicate
redness of B affirming what one has done, which is to predicate redness of B in a
way that involves forming or activating certain distinctive cognitive and behavioral dispositions.” But in the case of a complex act like \((\text{5P})\), performance of which requires the agent to do several things, what does it take to affirm what one has done? One might have thought that one must affirm all of the things that one has done; but the present example shows that to be incorrect, since one can judge that Russell defended the proposition that arithmetic reduces to logic without also judging that arithmetic reduces to logic. One might think instead that to judge a proposition is to entertain the proposition, and affirm just its parent act. But that can’t be quite right either, since I might entertain distinct propositions which have their parent act in common, but judge just one of them — something which would be impossible if the account of judgement just sketched were correct. While I think that there are difficult issues here for the act theorist, in what follows I’ll bracket these questions about the attitudes and focus on the problem of the unity of propositions, thought of as complex acts.

It is very natural for the complex act theorist to address this pair of worries with the following intuitive thought: the complex acts with which propositions are identical are not just a matter of performing a plurality of acts; rather, they are a matter of performing certain acts by performing others. There is obviously a distinction between my getting rich by playing the lottery and my getting rich while playing the lottery — where, in the second case, my newfound wealth has no connection to my gambling habits. Surely we can appeal to the same distinction to solve the problem of coincidence: there is a distinction between my predicating being aflame of JS by thinking of JS in a first person way, and my predicating being aflame of this object while thinking of myself in a first person way. And, once we have this distinction on the table, we might use it to solve the problem of structure — given that ‘\(\phi\)ing by means of \(\psi\)ing’ seems to express an asymmetric relation, perhaps we’ll be able to read parent-child structure off of the relevant dependency relations between constituent acts.

This is an appealing thought. And in one way it is completely unobjectionable. It is of course true that there are such things as complex acts. My act of getting a beer includes the sub-acts of walking to the refrigerator, picking up the bottle, getting the bottle opener, etc. The question is whether we can use our prior grip on complex acts of this sort to understand the nature of propositions, as the complex act theorist thinks of them.

There are two natural stories to tell about the unity of complex acts like my act of getting a beer. One is broadly intentional: on this view, when we say that my walking to the refrigerator was part of my act of getting a beer, or that I got a beer by walking to the refrigerator, we are saying something about my propositional attitudes regarding the different sub-acts and their relations to each other (for example, beliefs that one action is a means to another). A second is broadly causal: on this view, when we say that these various acts were all parts of my act of getting a beer, we are saying something about the causal relations between these sub-acts and my eventual acquisition of the beer.

These two different views of complex actions need not be thought of as rivals. We can speak of collections of actions which are united by certain mental states of their
agent, and can speak of collections of actions which stand to each other in certain close causal relations. For different purposes, one might wish to focus on one rather than the other sort of complex act.

I’ll argue, in the next two sections, that neither the intentional nor the causal story is well-suited to the purposes of the complex act theory of propositions. But it is worth emphasizing that it is no part of my aim to call into question the existence of complex actions. My question is rather whether, given two natural and in themselves unobjectionable ways of understanding complex actions, it makes sense to think of propositions as complex acts.

### 3.2 Intentional theories of complex propositions

Sometimes when we say that someone φ’s by ψ-ing, we mean that that ψ-ing was part of that individual’s plan for φ-ing. One might cash this out in different ways; here I want to focus on a way of understanding this which analyzes plans at least partly in terms of the propositional attitudes of the subject in question. On one simple version of this kind of view, for ψ to be part of my plan for φ-ing is for me to intend to φ, believe that I can φ by ψ-ing, and intend to ψ at least in part because of my intention to φ and my means-end belief.

Let’s think about how we might use this sort of relation between acts to understand the complex acts with which we want to identify propositions. If we focus on the case of first person propositions, the idea would be that I not only think of myself in the first person way while predicating being aflame of JS, but also believe that I can predicate being aflame of JS by thinking of JS in a first person way, and intend to think of JS in a first person way at least partly because of this means-end belief and my intention to predicate being aflame of JS.

This appears to be a non-starter, for three reasons:

1. It is a wild over-intellectualization of first personal thought. First person thought seems to be among the most primitive forms of mental representation; it would be surprising if it required the ability to form intentions and means-end beliefs with respect to mental acts.

2. It also seems to get the order of explanation exactly backwards. An intention to predicate being aflame of JS would seem to require me to think of JS. Hence making this intention explanatorily prior to my act of thinking of myself in a first person way would make my ‘third-personal’ thoughts about JS more fundamental than my first-personal thoughts about JS — which seems wrong.

3. Perhaps most decisively, this theory or any like it seems to lead to a vicious regress. We are trying to explain what it is for me to entertain a proposition p via my intentions and beliefs. But those intentions and beliefs will have propositions other than p as their contents; and to have those intentions and beliefs, I will have to entertain these other propositions. If our story is to be general, we’ll then have to explain our entertaining these propositions via yet other intentions and beliefs, with the result that we will have to entertain infinitely many propositions to entertain any.
These problems seem to generalize to any way of understanding the unity of propositions, thought of as complex acts, in terms of the propositional attitudes of the relevant agent.

3.3 Causal theories of complex propositions

It is much more promising to appeal here to broadly causal, rather than intentional, relations. The simplest theory of this sort would be:

One performs $\phi \oplus \psi$ iff one’s performing $\psi$ causes one to perform $\phi$

This promises to solve both the problem of coincidence (since in the examples of coincidence above the relevant acts stood in no causal relation) and the problem of structure (since the asymmetry of causation promises to distinguish between parent and child acts).

It is no surprise that this simple causal theory fails for reasons familiar from simple causal theories of action, perception, and just about everything else. It might be that my thinking of myself in a first person way causes me to look in a mirror, at which point, seeing there an image of someone on fire (who I take not to be myself), I perform (2P). This would not be sufficient for me to entertain (1P).

The fact that this sort of problem of ‘deviant causation’ for causal theories is pervasive does not make it less real. It is sometimes swept under the rug with the stipulation that what is required is not just causation, but the ‘right kind of causation.’ This seems to be especially unsatisfactory in the present case, since we don’t have an especially strong grip on the causal relations which obtain between mental acts of predication which are themselves theoretical posits rather than introspectively evident aspects of our mental lives.

For now, though, I will set these sort of worries about deviant causation to the side, and consider two other problems which arise for the complex act theorist who aims to explain the unity of the proposition in broadly causal terms.

3.3.1 The problem of causal reversal

Suppose that, seeing an object on fire in a mirror, I predicate being aflame of that object. I then recognize that object to be myself, thus thinking of that object — which I recognize to be the same as the object of which I predicated being aflame — in the first person way. This, it seems to me, suffices for me to entertain (1P). But in this case, the act of predication is the cause of, rather than the effect of, my act of thinking of myself in the first person way. Hence, according to the solution of the problem of structure given by the simple causal theory, the act of thinking of myself in a first person way should be the parent act of the proposition. But it isn’t: the truth conditions of the proposition are fixed by the act of predicating being aflame of JS.

One might point out that acts of thinking of oneself in a first person way don’t have truth conditions, and hence are not the sort of things which could be parent acts of propositions. But just the same problem arises in the case of attitude ascriptions like (5), which have multiple acts of predication as sub-acts. Suppose that I first predicate the relation defended of the pair (Russell, logicism), and that this act of
predication causes me to recall that logicism is the thesis that arithmetic is reducible to logic (and hence also causes me to predicate reduces to of the pair (arithmetic, logic)). The fact that the acts of predication exhibit this causal order does not make the predication of reducibility of (arithmetic, logic) the parent act. The subject, after all, has genuinely entertained (5P), which is true iff Russell defended logicism, not iff arithmetic reduces to logic.

One might push back against this sort of objection in two ways. First, one might say that in these cases there is always another (perhaps unnoticed) act of performing the parent predication which is an effect of the relevant child act. While I concede that this could sometimes occur, it seems a bit unmotivated to claim that it always must.

Second, and more plausibly, one might think of acts of predication as more like states than as one-off actions. Perhaps one can continue to predicate being aflame of JS while first thinking of JS in a third person, and then in a first person, way — much as one can continue to perform the action of holding something over one’s head, while doing this first with one’s left hand, and then with one’s right hand. But it is not completely clear just how this would help the causal theory, because, even if we think of the act of predicating being aflame of JS as a state which persists until the subject thinks of JS in a first person way, it is not clear that the first person act of thinking is a cause of the subject continuing to be in this state. Here there seems to be disanalogy with the example of holding something over one’s head. There we can say that, had the subject moved his right arm, he would not have continued holding the object over his head — or at least would not have continued to do so in same manner. But in the above example, it is not true that, had the subject stopped thinking of JS in a first person way, he would have stopped being in the relevant state of predication. One might reply that he would have stopped predicating the property of JS in the same manner. But then we need to be told something about what it is to predicate a property of an object in a certain manner — and the story can’t be told in terms of the difference between thinking of an object in a first-person vs. a third-person way, since we’re aiming to explicate the relation between those ways of thinking about objects and acts of predication which suffices for the subject to entertain the proposition with those constituent acts.

3.3.2 The problem of coordination

A second problem for causal theories stems from the fact that we can have a pair of complex propositions which are plainly distinct and yet consist of the same parent and child acts standing in just the same causal relations. The following sentences provide one kind of example:

(9) I am chasing Jeff Speaks.

(10) Jeff Speaks is chasing me.

Any satisfactory account of first person propositions must distinguish these three propositions. But (setting aside cases of causal reversal), whether I am entertaining

\[^{19}\text{Thanks to Gideon Rosen for this point.}\]
(9P) or (10P), my act of predicating chasing of the pair ⟨JS,JS⟩ will be caused by my thinking of JS in the first person way. Hence the simple causal theory, at least, lacks the resources to distinguish between these propositions.

A parallel problem arises in the case of articulated terms, as the following example shows:

(11) Logicism is more plausible than the proposition that arithmetic reduces to logic.

(12) The proposition that arithmetic reduces to logic is more plausible than logicism.

These seem to express different propositions, but, like (9) and (10), seem to consist of the same parent and child predications standing in the same causal relations. The parent predication in both cases appears to be

\[
\text{pred}(\text{more plausible than}, \langle \text{logicism, logicism} \rangle)
\]

And each seem to involve the same child predication:

\[
\text{pred}(\text{reduces to}, \langle \text{arithmetic, logic} \rangle)
\]

Hence again we have distinct propositions which are identified by the simple causal theory.

Returning to the simpler case of (9) and (10), it is very natural to want to distinguish these propositions in something like the following way:

Both of (9P) and (10P) consist of the same parent and child acts, but in the two cases the child act of thinking of JS in a first person way attaches to the parent predication in different ways. In (9P), this child act attaches to the first member of the ordered pair of which the relation of chasing is predicated, whereas in (10P) it attaches to the second member of this ordered pair.

This is very plausible as far as it goes. But if we have nothing else to say, this reply labels the problem rather than solves it. (9P) and (10P) are both acts, and we need some account of what the difference in these acts is. So we need some account of what it means for the act of thinking of oneself in a first person way to attach to one argument place rather than another — when a subject entertains one of these rather than the other, the subject must be doing something which attaches this predication to one argument place rather than another.

It is not easy to see how to say what this ‘something’ is in causal terms. One might try to explicate the distinction using a broadly counterfactual theory of causation.

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20It is worth noting that this problem would not arise if we had adopted the Fregean use of first person ways of thinking, discussed above. For if we could make sense of first ways of thinking as modifying targets of predication, the distinction between (9P) and (10P) would be easy to draw. This is the one place where the complex act theorist, despite enjoying many advantages over more standard Fregean views, incurs an extra explanatory obligation which the standard Fregean does not.
by holding that, in the case of (9P), had the subject not thought of JS in a first-person way, he would not have predicated chasing of the pair \( \langle JS, JS \rangle \), but would have, for some other \( x \), predicated chasing of \( \langle x, JS \rangle \). The problem is that neither counterfactual need be true. It might well be that, had the subject not thought of himself in a first person way, he would still have gone on to predicate the chasing relation of the pair \( \langle JS, JS \rangle \) (while thinking of JS in some non-first-person way), or it might be the case that, had the subject not thought of JS in a first person way, he would not have predicated the chasing relation of anything.21

One might instead appeal to a more fine-grained conception of the parent act, and say that, even if in both (9P) and (10P) the act of thinking of JS in a first person way causes the subject to predicate the chasing relation of the pair \( \langle JS, JS \rangle \), in the case of (9P) but not (10P) the act of thinking of JS in a first person way causes the subject to predicate the chasing relation of the pair \( \langle JS-as-thought-of-in-a-first-person-way, JS \rangle \). But this to lapse into the quasi-Fregean treatment of acts of thinking of oneself in a first person way discussed and criticized in §2.2 above.

In each case just discussed, the problem results from the fact that some child act, or constituent of some child act, is \textit{coordinated} with one target of predication of the parent act, but not another.22 In what follows I’ll represent coordinated constituents via connecting lines:

\[
(9P) = \text{pred}(\text{chasing}, \langle JS, JS \rangle) \oplus 1\text{stP}(JS)
\]

\[
(10P) = \text{pred}(\text{chasing}, \langle JS, JS \rangle) \oplus 1\text{stP}(JS)
\]

\[
\ldots
\]

So far I’ve argued for two conclusions. The first is that complex act theories of propositions of the sort defended by Hanks and Soames face a problem of the unity of the proposition in the same clear and easy to understand sense in which the theories of Russell and Frege faced this problem. The second is that the solutions to this problem which spring most readily to mind are insufficient to solve it.

4 A fallback option: propositions as simple acts

So far our progress in understanding the nature of complex acts has been more typographical than philosophical. Each of our conventions for representing complex propositions is of course no more than that; each, in some way, must represent something that agents who entertain these propositions do. What we need to be told is what, in each case, this something is.

21 This sort of problem is closely related to the much-discussed problem of preemption for counterfactual theories of causation. Going into the vast literature surrounding cases of this sort would exceed both the space available and my competence. But perhaps some of the treatments of preemption which have been offered from within broadly counterfactual approaches could be of some use to the causal theorist here.

22 The term is borrowed from Fine (2007), though I use it in a somewhat different way.
I’d like to close by considering a relatively simple and straightforward solution to the problems we’ve been discussing. That is to abandon the theory of propositions as complex acts for a theory of propositions as simple acts. The simplest act theory of propositions would identify all propositions with acts of predication. This theory, unlike the theory of propositions as complex acts we have been discussing, would face no special problem of the unity of the proposition. There is no more a special problem of the unity of the act of predicating $F$ of $o$ than there is a special problem of the unity of the act of putting $x$ next to $y$.23

Neither Hanks nor Soames goes for this simple act theory; and one of the reasons why they don’t is that this sort of simple theory would not make room for the possibility of distinct but representationally identical propositions. For presumably if $F = G$ and $x = y$, then the act of predicating $F$ of $x$ is the same as the act of predicating $G$ of $y$.24 But this fact gives these simple acts of predication conditions of sameness and distinctness effectively the same as Russellian propositions as ordinarily construed, which notoriously make no room for distinctness of contents without some corresponding distinction in objects and properties represented.

But many Russellians have learned to live with this consequence of their view. Even if the simple act theorist can’t claim to have an advantage in this respect over more standard Russellian views, she is still not worse off than the proponent of such views. Does the simple act theory have anything to recommend it?

Aside from its capacity to make room for distinct but representationally identical propositions, one of the central motivations for the view that propositions are acts is that the view promises to explain the representational properties of propositions. Hanks and Soames have parallel views about how this explanation is supposed to run.

On Hanks’ view, the explanation begins with the fact that token acts of predication have representational properties and truth conditions; when a subject predications $F$ of $o$, that token act of predication represents $o$ as $F$. Act-types — propositions — then have representational properties because their tokens do; they have, as Hanks says, representational properties and truth conditions in ‘a secondary or derivative sense.’25 As he points out, we often attribute properties to types in virtue of the properties of tokens, as when we say that the Union Jack — a type of flag rather than a token material object — is striped and rectangular.

On Soames’ view, the explanation begins with the fact that thinking subjects represent the world as being certain ways. When a subject predicates $F$ of $o$, that subject represents $o$ as being $F$. Acts — propositions — then have representational properties in a derivative sense. Just as acts are called intelligent if they ‘would mark an agent as behaving intelligently,’ so propositions are said to have representational properties, and truth conditions, in virtue of the way any possible subject who entertained that proposition would be representing the world as being a certain

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23 As King (2013), 89 in effect notes (though he is discussing a slightly different version of Soames’ theory).
24 One could deny this, and say that acts of predication are non-extensional (whatever this might mean). But positing primitive non-extensional acts would hardly give us an explanation of the possibility of distinct but representationally identical propositions.
26 Hanks (2015), 74.
So both Hanks and Soames think that propositions have representational properties and truth conditions in an extended sense. These representational properties are derived from the representational properties of token acts of which they are types (Hanks) or the representational properties of subjects who entertain those propositions (Soames). It seems to me, however, that if this is a good explanation of the representational properties of propositions, it is one which can be co-opted by virtually any view of propositions.

The paradigm case of a view which is supposed to fail to explain the representational properties of propositions is the much-reviled view that propositions are ordered n-tuples. But someone who holds the view that the proposition that $o$ is $F$ is the ordered pair $\langle o, F \rangle$ (and hence also holds that this ordered pair is the object of the judgement of anyone who judges that $o$ is $F$) can say that this ordered pair represents $o$ as $F$ — in a derivative, extended sense — in virtue of the fact that anyone who stands in the judgement relation to this ordered pair will be representing $o$ as $F$.

A parallel story, it seems, could be told about any other candidates to play the role of propositions. Consider the view that propositions are properties which are true iff they are instantiated. The property theorist who wishes to can, in just the manner suggested for the ordered pair theorist, explain how these properties might have (in a secondary, derivative sense of course) representational properties. After all, on this view judgement is a relation to properties; and anyone who stands in the judgement relation to such a property will be representing the world as being a certain way. In much the same sense as we say that the British flag is rectangular or acts are intelligent, then, we might say that the property also represents the world as being that way.

So it seems that even if the Hanks/Soames explanation of the representational properties of propositions is a good one, it gives no special advantage to the view that propositions are acts.

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28 In my view, it is more a way of giving up on the view that propositions have representational properties than it is an explanation of how they could have those properties. For consider the examples used to motivate the explanations. Hanks points out that we say that the Union Jack is rectangular — and he’s clearly right about this. But surely when pressed on this, the right think to do is to retreat and admit that this is loose talk. It is, after all, hard to see how an abstract object, which does not occupy space, could be rectangular! Analogous remarks, I think, apply to Soames’ examples of calling acts intelligent. Similarly, if either Hanks’ or Soames’ view were correct, I think that the right thing to say would be that propositions aren’t really representational, or true or false.

29 For defenses of this view, see Richard (2014) and Speaks (2014).

30 Against this, the act theorist might say that it is part of our commonsense practice to attribute the properties of tokens to types (Hanks) or the properties of agents to acts (Soames), whereas no ordinary practice can support the imagined attributions of representational properties to order n-tuples or properties. (Thanks to Peter Hanks for raising this objection.) But the ordered n-tuple or property theorist can reply by pointing out that, on her view, propositions are things that we use to represent the world, and that it is a part of our commonsense practice to, when $z$ is used to do $y$, say that $x$ itself (in an extended sense, of course) does $y$. Propositions represent the world, on this view, in the same sense that word processing programs produce documents and drills make holes.

31 Thanks for very helpful comments on previous versions of this material to Peter Hanks, Lorraine Keller, Gideon Rosen, Scott Soames, audiences at talks at the University of Leeds and USC, and the participants in Boris Kment’s and Shamik Dasgupta’s graduate seminar at Princeton.
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