

Grammar constrains acts of predication*

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Abstract

Båve has argued that act-type theories of propositions entail unwanted ambiguity of sentences such as ‘Donald loves Joan’. King has argued that act-type theories of propositions entail an unwanted abundance of propositions. I reply that a version of the act-type theory can avoid these objections. The key idea is that grammar constrains the acts that can be performed by the utterance of a sentence. I present enough of the details of this version of the act-type theory to show how it can be used to respond to Båve’s and King’s objections. I conclude that this is a promising way to develop the act-type theory of propositions.

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1 Introduction

Båve (2019) has argued the act-type theories of propositions must be rejected because such a theory will entail unwanted ambiguity, i.e., that some sentences that are obviously not ambiguous turn out to be ambiguous. Båve’s targets are the act-type theories defended by Hanks (2015) and Soames (2015), as well as some precursors and fellow travellers.¹ I describe the act-type theory and Båve’s objection, as well as a related objection by King, in section 2 and section 3.

I will argue that a version of the act-type theory avoids Båve’s objection. To make this point, I will, in section 4, present that version of the theory in enough detail to show that it is coherent. I will then show, in section 5, that, given that version of the act-type theory and some reasonable ideas about syntactic structure drawn from mainstream linguistics, the grammar of a language constrains which acts are performed by utterances of its sentences. I conclude that Båve’s and King’s objections can be met by adopting that version of the act-type theory.

To support this response, in section 6, I address some objections that might be made to the particular kind of act-type theory I develop in order to respond to Båve. The common idea behind the objections I discuss is that propositions should not be individuated by syntactic structure. I argue that there is no decisive objection against the act-type theory to be made based on that point.

2 An act-type theory

The core idea of an act-type theory of propositions is that propositions are a particular kind of abstract object, i.e., types of act. Consider two actual individuals Donald and Joan and the property *loves* that holds of ordered pairs of individuals A, B such that A loves B. Take a sentence such as (1).

- (1) Donald loves Joan.

An act that can be performed by uttering (1) is to refer to Donald, refer to Joan, express the property *loves*, and predicate *loves* of Donald and Joan, in that order. An utterance of (1) performs a token of the type of act just described. This is a relatively uncontroversial claim. The novel claim of the act-type theory of propositions is that we should identify the type with the proposition that Donald loves Joan, as opposed to identifying the proposition with another abstract object of some other kind. Proponents of act-type theories say that the

¹See Hodgson (2021) for a survey of act-type theories.

identification of the proposition with the act type is an improvement over these alternative theories of what propositions are.

The theory I have just described is based on Hanks (2015). Most act-type theorists would agree with the spirit of what has been said, and it is enough to present and respond to Båve’s criticism of the act-type theory. Hanks introduces a piece of notation for representing these act types. Bold represents acts of reference; capitals (Hanks uses small capitals) represent acts of expression of properties. Hanks regards talk of properties to be something that we should ultimately be able to give a non-Platonist interpretation; for the purposes of presenting the theory I will talk as if properties are abstract objects. A whole proposition might be represented as:

$$\vdash \langle \langle \mathbf{Donald}, \mathbf{Joan} \rangle, \text{LOVES} \rangle$$

The full development of Hanks’ theory involves many more details, none of which are relevant to Båve’s criticism. I will also focus on the cases where the acts of referring and expressing are directed at objects and properties directly, rather than under some mode of presentation. Hanks would write, e.g., $\mathbf{Donald}_{\text{obj}}, \mathbf{Joan}_{\text{obj}}$ to indicate an ‘object-dependent reference type’, and use bold, without subscript, for a ‘semantic reference type’ (Hanks 2015, 116–20 & 153–154). Hanks’ view is that the proposition expressed by, e.g., (1) is composed of semantic reference types not object-dependent reference types; I ignore this because it makes no difference to the criticism I am discussing. Nothing I say is incompatible with the more sophisticated things that the act-type theorist might want to say, or extensions of the act-type theory to more complicated sentences.

While Soames has a different theory to Hanks in several respects, the differences won’t matter for the purposes of this paper. I will take inspiration from a feature of Soames’ theory in developing my preferred theory. Soames claims that the act of predication that is the proposition associated with a sentence such as (1) is comprised of a series of sub-acts: *loves* is first combined with Joan, and the result with Donald (King, Soames, and Speaks 2014, 123–24). I will make use of this idea.

3 Alternative analyses and ambiguity

Båve proposes a *reductio* of act-type theories. He argues that a sentence such as (1) might be associated with a range of acts. One is the act of combining the meaning of ‘loves’ with the meaning of ‘Joan’ and combining the result with the meaning of ‘Donald’. Another is the act of combining the meaning of ‘loves’ with the meaning of ‘Donald’ and combining the result with the meaning of ‘Joan’. Another is the act of combining the meaning of ‘loves’ with the meanings of ‘Donald’ and ‘Joan’, in that order. The third act corresponds to Hanks’ proposal, described in section 2; the other two might be represented as:

- $\vdash \langle \mathbf{Donald}, \text{LOVES-JOAN} \rangle$
- $\vdash \langle \mathbf{Joan}, \text{LOVED-BY-DONALD} \rangle$

I will use *meaning* for the contributions made to propositions expressed by sentences by the words in those sentences. This seems to me to be a reasonable use of the term, although I would be happy to use a different one.

The three acts described are all act types, and, according to the act-type theorist, they are propositions. So, Båve argues, the act-type theorist is committed to saying that an utterance of (1) expresses all of these distinct propositions. And, a sentence that expresses many propositions is ambiguous. So, the act-type theorist is committed to the claim that (1) is ambiguous. And, by parallel arguments, to the claim that most sentences are ambiguous. This is, Båve claims, an unacceptable result: many of these sentences, including (1), are not ambiguous.

When I present my response to Båve’s argument in section 5 I will rely on some points about ambiguity, which I will now describe. Firstly, like Båve, I do not take context sensitivity to be a kind of ambiguity. Nor do I regard the possibility that an expression might have meant something different as ambiguity. I follow Båve in saying that a sentence is ambiguous if and only if it has, simultaneously, two meanings, i.e., it expresses two distinct propositions.² Standardly, a distinction is made between *lexical* and *syntactical* ambiguity (Sennet 2016). In the first case, some expression in the sentence has two possible meanings, such as the two meanings of ‘bank’, in the second case a sentence can be assigned two different phrase structures. Båve’s example of syntactical ambiguity is (2).

(2) Flying planes can be dangerous.

There is a further distinction to make, between what I will call *redundant* and *non-redundant* ambiguity. An ambiguity is non-redundant if the alternative meanings are such that they correspond to different things being said, otherwise it is redundant. Båve uses the term ‘say’ to make this point (Båve 2019, 195). This can be illustrated with (2): one meaning corresponds to saying that an activity, the flying of planes, can be dangerous, the other corresponds to saying that a class of object, planes that are flying, can be dangerous. I will rely on the following: if two propositions have different truth conditions, then expressing them is saying different things. So, if two propositions have different truth conditions, a sentence that expresses them both is non-redundantly ambiguous. This gives a sufficient condition for non-redundant ambiguity, which I will use in my defence of the act-type theory against Båve’s objection. I am thinking of truth conditions in terms of possible worlds. Because the two propositions described above will have the same truth conditions in this sense, i.e., they are true at all the same possible worlds, the claim that (1) is ambiguous, given the act-type theory, must be the claim that it is redundantly ambiguous.

The distinction between redundant and non-redundant ambiguity is important, because the standard way to identify ambiguity is to first argue that a sentence can be associated with two distinct truth conditions. All ambiguities identified in this way will be non-redundant. I will, in section 5, rely on a point that Båve accepts (Båve 2019, 195). The point is that we should not posit redundant syntactical ambiguity. The idea is that the standard way to identify ambiguities is

²It might be said that this conception of ambiguity does not fit with the standard notion, because according to the standard notion ambiguous sentences do not typically express both meanings simultaneously. This would not affect Båve’s substantive point, or mine.

the only way to identify syntactical ambiguities, i.e., the only legitimate reason to posit two distinct syntactic structures is that two distinct truth conditions have been found for the sentence in question. Båve endorses this line of thought: he argues that (1) cannot be syntactically ambiguous, because, if it is ambiguous at all, it is redundantly ambiguous and this is incompatible with it being syntactically ambiguous.

It is useful to distinguish Båve’s objection from a similar one made by King against Soames’ version of the act-type theory (King, Soames, and Speaks 2014, 131–33). King says of Soames’ theory that it must posit distinct acts corresponding to the last two of the three acts described above. King then claims that this means the theory distinguishes propositions that ought not to be distinguished. King does not suggest that this results in ambiguity: the objection is just that there are too many propositions, and that the different propositions do not capture real differences in what the sentences can be used to say. The response I suggest is to accept that there are as many propositions as King fears, but deny that this is a problem. Because only one proposition is actually expressed by an utterance of a sentence such as (1) there is no ambiguity; ambiguity would be a problem, but it is not entailed by abundance. I know of no other argument against abundance as such, although I consider in section 6 the objection that distinctions are being made between propositions that should not be distinguished. In developing this solution I am taking up an idea briefly suggested by Soames in response to King (King, Soames, and Speaks 2014, 238). Jespersen (2015) also considers King’s objection to Soames, and concludes that we want as many propositions as the theory predicts. In that case, abundance is, not only not a problem, but it is a theoretical virtue. However that turns out, it is helpful to distinguish the objection based on ambiguity and the argument based on abundance, because the former can be replied to, and the latter is not an objection.

4 An alternative act-type theory

I will now describe an alternative act-type theory which, I will argue, avoids Båve’s objection. First, I will briefly mention the semantic theory presented in Heim and Kratzer (1997). I do this to illustrate what kind of proposal can be made for the act-type theory, and to make it plausible that the act-type theory can be developed into a theory with the same empirical coverage as a semantic theory such as Heim & Kratzer’s while making use of many of the same ideas. I have used this particular theory because I want to base the proposal on familiar ideas found in a standard textbook. The theory is based on phrase structures, associated with sentences such as (1).³ Like Heim & Kratzer I will just assume particular phrase structures for the sentences that I am interested in; alternative proposals are unlikely to make a difference.

According to the theory, an interpretation function $\llbracket \cdot \rrbracket$ is defined which should provide a denotation for each phrase structure and each proper part of each phrase structure. Denotations are either members of one of two basic types: e , individuals, or t , truth values defined as elements of $\{0, 1\}$. Or, they are of

³Heim & Kratzer use bold instead of quotation marks to mention expressions; I will reserve use of bold for meanings.

a derived type: if ϕ, ψ are types then there is a type $\langle \phi, \psi \rangle$ which is a set of functions from entities of type ϕ to entities of type ψ . The denotations of the things occupying the terminal nodes of a phrase structure are stipulated. Rules are then defined which assign denotations to all other nodes. The rules that are relevant to our example are *non-branching nodes*: if a node has one daughter, it has the denotation of its daughter. And, *functional application*: if a node α has daughters β and γ such that $\llbracket \beta \rrbracket$ is a function with $\llbracket \gamma \rrbracket$ in its domain, then $\llbracket \alpha \rrbracket = \llbracket \beta \rrbracket(\llbracket \gamma \rrbracket)$.

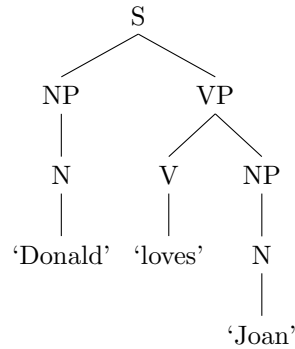


Figure 1: Phrase structure for ‘Donald loves Joan’

The derivations can be presented in a simplified form by dropping nodes with one daughter and replacing node labels with their denotations.

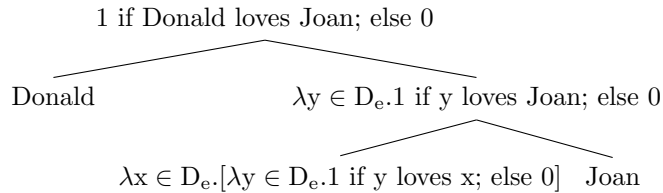


Figure 2: Derivation for ‘Donald loves Joan’

A similar idea can be applied to an act-type theory. Terminal nodes will be assigned acts such as referring and expressing. The root of the graph will be assigned the act of predicating a property of something. The compositions performed where the phrase structure branches will also be acts. Every node is assigned an act.

The act of referring to some object will be represented with bold: **Donald** and **Joan** are the acts of referring to Donald and Joan, respectively. I will also represent the act of expressing a property with bold. Furthermore, I will assume that properties are abstract objects which have ‘slots’ for their *relata*; the number of slots is the *arity* of the property. For example, *loves* has two such slots: one for the lover and one for the beloved. This amounts to assuming a theory of the sort that Fine (2000) calls ‘*positionalist*’; for a defence of the view, from which I take the ‘slot’ terminology, see Gilmore (2013).⁴

⁴I use ‘property’ to cover entities of all arities. I would be happy to use ‘relation’ instead.

When a property is expressed that property is picked out in such a way that it can be predicated of objects. Because a property with an arity of n can be predicated of n objects in many ways, particular acts of expression must present the available slots of the property in a specific way. I will assume that this can be done by assigning the slots indices from a suitable sequence such as the natural numbers. So, *loves* might be expressed in a way represented as **1-loves-2**: there are two slots available to be filled, and the lover slot has been assigned the first in the sequence and the beloved slot has been assigned the second. This is a different act from **2-loves-1**, and a notational variant of the act **2-is-loved-by-1**.

Having assigned acts to the terminal nodes of a phrase structure it will be necessary to assign acts to all other nodes. One sort of act will be predication: the act of predicating a property of an object. Another is more exotic, but can be found in the literature. First we define a function PLUG_i which is a function from a property and object to a property; the definition defines a function for each value of i . The function is defined as follows by King (2019b, sec. 3.3): ‘ PLUG_i is a function that maps an n -place [property] R and an object b to the $n - 1$ -place [property] R' such that $\langle o_1, \dots, o_{i-1}, o_{i+1}, \dots, o_n \rangle$ stand in R' iff $\langle o_1, \dots, o_{i-1}, b, o_{i+1}, \dots, o_n \rangle$ stand in R .’⁵ King’s definition is given when describing the theory in Zalta (1988). Båve uses similar terminology to describe an operation on predicates and names, and also attributes it to Zalta. I use King’s version with objects and properties because I want the acts of predication to target objects and properties, not their representations. There will be acts of the general type **plug _{i}** which is the act of applying PLUG_i to the referent of an act of reference and the property expressed by an act of expression and then expressing the resulting property. For example, one might perform **plug₂** on **Joan** and **1-loves-2** and thereby express **1-loves-Joan**; I write this as **plug₂(Joan, 1-loves-2) = 1-loves-Joan**.

With these acts defined, the composition rules can be given. If a node has two daughters, and one is an act of referring to an object and the other is an act of expressing a property with an arity of one, then the act assigned to the node is an act of predicating the property of the object. If a node has two daughters, and one is an act of referring to an object and the other is the act of expressing a property with an arity of greater than one, then the act assigned to the node is an act of performing some **plug _{i}** on the acts of reference and expression. It follows from the definition of **plug _{i}** that this act is the act of expressing a property. For now, let’s assume a maximally permissive version of this rule that allows i to be any index less than or equal to the arity of the property expressed, and allows the property that is expressed to be expressed with any indexing.

Given these definitions, a graph can be used to represent a complex act that someone who utters (1) might perform; I label this as First proposition. I claim that this is a real act type. And a theory has been given of how it is assigned to the root of the phrase structure given the acts assigned to the terminal nodes. However, it is a different act from the one that Hanks would assign to this sentence. The act at the root would be represented in Hanks’ notation, as I did

Or to call those with an arity of greater than one ‘relations’, and restrict ‘property’ to those with an arity of one.

⁵I have replaced ‘relation’ with ‘property’.

in section 2, as:

$\vdash \langle \mathbf{Donald}, \mathbf{LOVES-JOAN} \rangle$

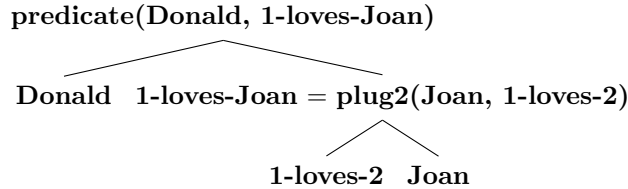


Figure 3: First proposition

I have presented the theory in such a way that it avoids an objection to act-type theories made in Collins (2018, sec. 3). Collins claims that Hanks’ notation suggests that act-types of reference and expression are targets of predication. But, in order to get truth conditions, objects and properties must be the targets of predication. Speaks (2020) makes a similar objection to a version of the act-type theory. The theory I have sketched is explicit that it is objects and properties that are the targets of predication. And, an act such as **plug_i** is the act of plugging an expressed property with an object and then expressing the resulting property. One might object to this way of developing the theory, but it is not open to the charge of confusion on this point.

The theory covers only a fragment of English. In order to count as a full proposal it would need to be expanded to cover a range of more complex sentences, including quantified sentences. The first ideas to consider would be the suggestions made in Hanks (2015, 87–89); King, Soames, and Speaks (2014, 100); Soames (2015, chap. 2 & 3), as well as the criticisms of these proposals in Collins (2018). That is beyond the scope of this paper, and is unnecessary for explaining how to respond to Båve’s objection.

5 Problems solved

I will now show that the theory in section 4 provides a basis for resisting Båve’s argument against the act-type theory. Båve’s objection is that the act-type theory must accept that (1) is ambiguous. A sentence is ambiguous if it expresses several propositions. I will start by assuming that (1) expresses the proposition that I described in section 4 called First proposition. The question is whether the act-type theorist must allow that (1) expresses other propositions as well. I will show that it does not, provided the act-type theorist says some other well-motivated things.

Three possibilities must be considered. Firstly, that different acts are associated with the expressions at the terminal nodes. Secondly, that different phrase structures are possible. Thirdly, that meanings are combined in different ways. I will first consider each possibility on the assumption that the other two factors are kept fixed, and then discuss some possible combinations of these possibilities.

Regarding the first possibility, it is not an option to say that different acts are associated with either ‘Donald’ or ‘Joan’. These acts would be acts of reference

to different objects. This would result in a different proposition being expressed, but it would not be the kind of redundant ambiguity Båve bases his objection on. Furthermore, changing the referents would count as a change in meaning: therefore, it would not be ambiguity at all. Things are more complicated with ‘loves’. The proposition I described is assigned to (1) on the basis that ‘loves’ is assigned **1-loves-2**. If the idea is to assign, e.g., **1-taller-2** to ‘loves’ instead, then the same point applies: this is a change in meaning and not ambiguity. However, ‘loves’ could have been assigned **2-loves-1**. This is a perfectly good act, and the theory as stated allows it. Holding everything else fixed, (1) then expresses Second proposition. If a sentence expresses both first proposition and second proposition then it is non-redundantly ambiguous, because First proposition and Second proposition differ in truth conditions. So, this would not show that the theory is vulnerable to Båve’s objection which is that (1) is redundantly ambiguous.

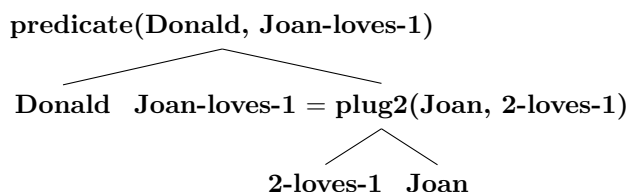


Figure 4: Second proposition

There is still a problem for the act-type theorist, because it seems as if the theory predicts that (1) can be non-redundantly ambiguous between propositions that correspond to different sayings, i.e., First proposition and Second proposition. But that is just false of (1): no English speaker hears (1) as saying the thing captured by Second proposition. This is not Båve’s objection, but it requires an answer; I will provide one after I have discussed all three possible sources of ambiguity.

The second possible source of ambiguity would be (1) being assigned more than one phrase structure, i.e., syntactical ambiguity. For example, suppose that the grammar of English allowed both the phrase structure that I took from Heim & Kratzer and an alternative where ‘Donald’ composes with ‘loves’. In that case, holding everything else fixed, Third proposition would be expressed by (1). This would be a case of non-redundant ambiguity. So, it cannot be used to make Båve’s argument, which is based on the idea that (1) is redundantly ambiguous. It would be a problem if the act-type theory allowed for a non-redundant ambiguity, because speakers do not detect such an ambiguity in sentences such as (1).

Thirdly, one might vary the way in which meanings are composed. Within the constraints of the theory, and holding everything else fixed, the only possibility would be to perform **plug1(Joan, 1-loves-2)** where ‘loves’ and ‘Joan’ compose. Once again, this leads to a different proposition expressed, Fourth proposition, but not a redundant ambiguity.

Allowing any one of the three factors to vary, while holding the other two fixed, does not generate a redundant ambiguity. So far, Båve’s objection cannot be

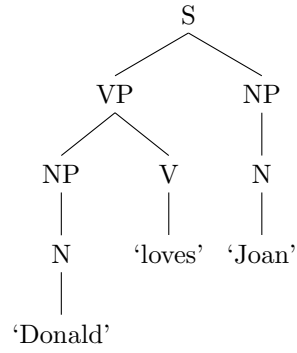


Figure 5: Alternative phrase structure for 'Donald loves Joan'

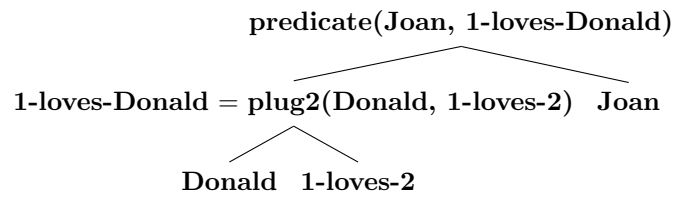


Figure 6: Third proposition

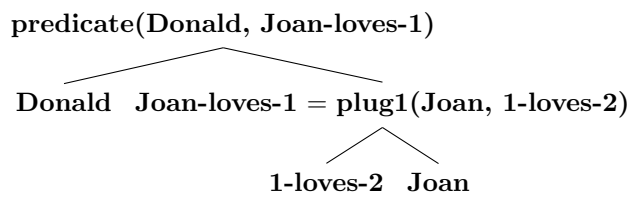


Figure 7: Fourth proposition

made against this version of the act-type theory. I will now consider some combinations of the factors. Firstly, (1) will be ambiguous between Second proposition and Fourth proposition if both the phrase structure can be varied and ‘loves’ might be assigned **1-loves-2** or **2-loves-1**. Another possibility is varying both act of expression and act of combination. The latter option would allow the original phrase structure to express Fifth proposition, and make (1) redundantly ambiguous. The way to generate both of the pair of propositions discussed in Båve and King’s objections would be to vary both structure and either what is expressed or the action performed, to get, e.g., Sixth proposition.

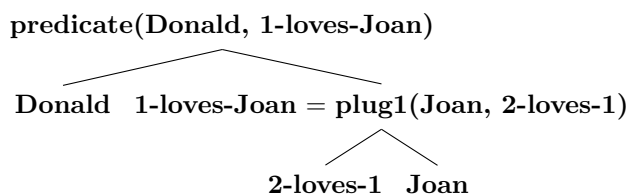


Figure 8: Fifth proposition

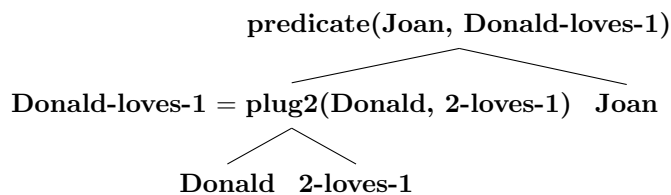


Figure 9: Sixth proposition

In response to these possibilities, the act-type theorist should claim that a sentence such as (1) cannot be assigned more than one phrase structure. And they should claim that the expression and composition rules are more restrictive than I have so far specified them as being, so that it is not possible to perform different acts of expression and combination. This rules out the individual sources of variation, which generate unwanted non-redundant ambiguities, and combinations of them, which generate unwanted redundant ambiguities.

The first claim can be defended by appealing to the following principle: a sentence should be assigned multiple structures if and only if that sentence is non-redundantly ambiguous. Everybody agrees that (1) is not non-redundantly ambiguous. So, if the principle holds then the claim that the act-type theorist wants to make is justified. This claim is also standardly made by linguists investigating sentence structure. It is up for some debate what structure to assign to (1), but not whether a grammar ought to generate one or two structures for (1). The type of theory I give can be adapted to whatever is the best proposal about natural language phrase structures. As stated, the theory requires only that phrase structures are binary branching graphs.⁶

⁶Collins (2011, chap. 5), in the context of a discussion of the metaphysics of propositions, defends a theory of syntax such that all phrase structures are binary branching. If so, my assumption is justified.

The act-type theorist should also set less permissive rules for expression and combination. Suppose that there is just one phrase structure that can be associated with (1), and that it is the one described by Heim & Kratzer. In that case, the defender of the act-type theory might say that ‘loves’ must be associated with **1-loves-2**, and that the act of combination must be **plug2**. Or, they might say that ‘loves’ must be associated with **2-loves-1** and the act of combination must be **plug1**. These look like notational equivalents: each one says that the beloved slot must be indexed a certain way and then that index must be plugged. So, one possibility is that the act-type theorist can just pick either option.

A more ambitious possibility would be to give a rule that captures a generalisation about how verbs work in English. One idea would be that verbs not only have a number of arguments, but these arguments correspond to types of role associated with the verb. It is not arbitrary that the first thing that a verb like ‘loves’ combines with plays the beloved role, and the second the lover. This could be captured by requiring ‘loves’ to express **1-loves-2** and requiring the combination for all acts of expression and reference to be a rule which says that the highest index must be plugged.⁷

If the act-type theorist rejects the possibility of multiple structures for (1), says that the meanings of verbs are fixed, and says that the acts of combination are fixed, sentences such as (1) will express exactly one proposition. Such sentences will be neither redundantly nor non-redundantly ambiguous. I claim that these are reasonable things for the act-type theorist to say, and therefore that they can meet Båve’s objection.

6 Fineness of grain

According to the version of the act-type theory described in section 4, which I will now refer to just as ‘the act-type theory’, propositions are abundant, and they are (relatively) *fine grained* in the following sense: there are pairs of distinct propositions that are necessarily equivalent in truth value. Which proposition a sentence expresses is also highly *sensitive* to the structure of that sentence: no pair of sentences with different structures, whether from the same or different languages, express the same proposition. The act-type theory shares this feature with any theory which closely connects propositional structure and sentence structure. King’s theory of propositions is a well-known example of such a theory (King 2007, 2009, 2013a, 2013b, 2019a; King, Soames, and Speaks

⁷Hanks (2015, 86) uses these ideas in his treatment of constructions such as (1). Hanks appeals to work on thematic roles, citing Dowty (1989). Collins (2018) also presents Hanks’ position in terms of thematic roles, citing Chomsky (1981) as the source of the idea. Soames attributes his version of the idea to Montague (1973). There is therefore, a developed position that can be appealed to, and it is one to which some act-type theorists are already sympathetic. The discussion in Heim and Kratzer (1997, chap. 3) explains their thinking about thematic roles and related issues. Heim & Kratzer’s theory imposes constraints on the roles played by arguments via the denotations they assign. They explicitly reject the possibility of variation of this hierarchy (Heim and Kratzer 1997, 55). The idea that I propose for the act-type theorist is essentially the same as the one that they discuss, and attribute to Grimshaw (1990). Verbs encode a hierarchy of arguments. Furthermore, the phrase structure fixes which object is assigned to each argument: slots are filled by immediate syntactic neighbours in an order fixed by the encoded hierarchy.

2014, chap. 4). I will not discuss King's views, except to note that he makes arguments for sensitivity which, if they succeed, would also support the act-type theory. I will discuss some objections that might be raised against the act-type theory regarding sensitivity. I think that in each case there is a reasonable answer; more specifically, I think that in each case there is an objection to be made only given some additional claims which the act-type theorist might reasonably reject.

The first objection is that there are pairs of sentences which have different syntactic structures, but which, it is argued, express the same proposition. Collins (2007, 820) provides some intralinguistic examples:

Passives: Bill kicked the ball – The ball was kicked by Bill
Expletives: A fly is in my soup – There is a fly in my soup
Clefts: Bill wants a car – What Bill wants is a car – It is a car that Bill wants
Raising: Bill appears to be tired – It appears that Bill is tired

I will discuss the active/passive pair (3) and (4):

- (3) Bill kicked the ball.
- (4) The ball was kicked by Bill.

Tsompanidis (2013) provides an interlinguistic example from Modern Greek:

- (5) Dara swims.
- (6) Η Ντάρρα κολυμπάει
DEF.ART-FEM Dara swim-3s
Dara swims

I will grant the first premise of the argument, i.e., that the members of the pairs have different structures, regarding the active/passive pair, (3) and (4), and the English/Greek pair, (5) and (6). And, I agree that it follows from sensitivity, and the first premise, that the active/passive pair express distinct propositions, and that the English/Greek pair express different propositions. So, if the argument can be made that the pairs do express the same proposition, the act-type theory must be rejected along with all theories entailing sensitivity. A natural idea is that the pairs in question have some property in common which entails that they express the same proposition. For example, perhaps (3) and (4) have the same meaning. Or, perhaps (5) is the standard translation of (6), and *vice versa*.

There are two ways to respond to this sort of argument. The first is to deny that the pairs have the property, the second is to deny that having the property entails that they express the same proposition. These strategies can be mixed to cover different cases. Following the first strategy, the act-type theorist can deny that the pairs have the same meaning. Sameness of meaning should be defined as expressing the same proposition; the act-type theory entails that different propositions are expressed. Following the second strategy, the act-type theorist can deny that translation requires identity of proposition expressed; they can therefore accept that the sentences of the English/Greek pair are translations of each other.

Putting the point more generally, there are two possible collections of views. Firstly, one can either, (i) accept sensitivity, (ii) say that two sentences mean the same if and only if they express the same proposition, and (iii) deny that the active/passive pair mean the same. Or, secondly, (i) accept sensitivity, (iv) reject the claim about meaning in (ii), and (v) accept the claim that the active/passive pair mean the same. The first collection of views, (i)–(iii), is no worse than the second collection, (i), (iv), (v). So, that the act-type theorist must accept the first collection of views rather than the second is not an objection to the act-type theory.

Another objection concerns attitude reports, such as the report pair, (7) and (8), which differ only in whether (3) or (4) is embedded in the environment ‘Anne believes that ...’.

(7) Anne believes that Bill kicked the ball.

(8) Anne believes that the ball was kicked by Bill.

Consider the following *simple theory of attitude reports*. An attitude report, e.g., (7) or (8), reports that the subject of the report stands in the relation *believes*, a property holding of pairs of subjects and propositions, to the proposition denoted by the ‘that’-clause in the report. Furthermore, a ‘that’-clause denotes the proposition expressed by the sentence embedded in it. According to the act-type theory, the two ‘that’-clauses denote different things.

Consider also the following *simple theory of belief*. Belief is a relation that holds between a subject and a proposition, i.e., an act of predication, if and only if the subject is either performing or is disposed to perform that act of predication. On this view, it is possible to believe the proposition expressed by (3) but not (4), and *vice versa*.

The simplest option would be to accept these consequences. These are different things that Anne might believe, therefore, one report might be true while the other is false. Another viable option is to propose a more complicated theory about attitude reports. Perhaps, for example, what is being reported is that Anne stands in the belief relation to some proposition in a class determined by the ‘that’-clause, and that both (3) and (4) determine the same class. Hanks (2015, chap. 7) and Soames (2015, chap. 7) both endorse more sophisticated theories of attitude reports.

The act-type theorist might also reject the simple theory of belief. In particular, they might reject the claim that performing, or being disposed to perform, an act of predication is necessary for believing that proposition; perhaps, for example, performing one predication in a certain class entails believing all the propositions in that class. So, that Anne performs only one act of predication does not entail that she believes only one proposition. By rejecting one or both of the simple theory of attitude reports and the simple theory of belief, the act-type theorist can accept the standard intuitions about attitude reports while holding that propositions are abundant and sensitive to the syntactic structure of the sentences that express them.

Making the response that I have just suggested allows for a response to a related objection. Suppose, for the sake of argument, that the sentences of Modern Greek can express only some propositions, and that the sentences of English

can express only some propositions, and that these classes are distinct. One might put this as the claim that there are things that both English and Modern Greek speakers cannot say, as well as things that English speakers can say that Modern Greek speakers cannot, and *vice versa*. It might then be objected that this contradicts a plausible principle of *effability*: anybody can say anything. The act-type theorist will have to accept this consequence, at least if it turns out that natural languages differ in their syntactic structures in relevant ways. However, the points made above about attitude reports and the nature of belief allow them to say that while effability may well be false, that does not entail either of the following two claims. Firstly, that there are propositions that speakers of, e.g., English cannot believe. Secondly, that there are propositions that speakers of, e.g., Modern Greek can believe that speakers of, e.g., English cannot report those speakers as believing. Even if effability is false, speakers can believe things that they cannot say, and their beliefs can be truly reported using ‘that’-clauses which express propositions that they cannot say. These observations make the rejection of effability more plausible.

Another objection concerns the individuation of propositions. The question can be presented by contrasting a coarse grained theory of propositions, e.g., that propositions are sets of possible worlds, and a relatively fine grained theory such as the neo-Russellian theory which identifies propositions with complexes of objects and properties (King, Soames, and Speaks 2014, chap. 3; King 2019b, sec. 2). One motivation for preferring the more fine grained view is to point out the implausibility of saying that someone who believes the proposition expressed by (9) necessarily believes the proposition expressed by (10).⁸

(9) Two is prime.

(10) Six is perfect.

A better view is that these two sentences express distinct propositions, which, since both are necessary, are both true at every possible world. The more fine grained neo-Russellian view distinguishes these propositions, because different properties, *prime* and *perfect*, and different objects, two and six, are involved.

The act-type theory is committed to a view that is more fine grained than the neo-Russellian theory. To see this, compare the English (5), Modern Greek (6), and German (11).

(11) Dara schwimmt.

Both the sets of worlds theory and the neo-Russellian theory say that (5), (6), and (11) have the same meaning, i.e., that they express the same proposition. The act-type theory assigns the same proposition to (5) and (11), and a different proposition to (6). The objection might then be made that this is a distinction without a difference.

The neo-Russellian theory has a reason to count the meanings of (9) and (10) as distinct, and the meanings of (5), (6), and (11) as the same. This is because the neo-Russellian theory is motivated by the idea that sentences should be assigned different propositions as meanings if and only if it is possible that someone might believe one proposition but not the other. Many people find this plausible for

⁸A *perfect* number is the sum of its divisors: $1 + 2 + 3 = 6$.

(9) and (10), but much less plausible for (5), (6), and (11). From the point of view of this motivation for the neo-Russellian view, assigning different meanings to (6) and (5)/(11) is a distinction without a difference.

The act-type theory does not have an equivalent reason to reject sensitivity. The act-type theory is motivated by the need to give a theory of what is expressed by sentences such that it is plausible that such things exist and play at least some of the traditional roles of propositions. The act-type theory then identifies propositions with acts, and assigns different propositions to sentences because of differences in syntactic structure. From the point of view of the act-type theory, motivated in this way, the distinction in meaning between (6) and (5)/(11) is not a distinction without a difference: the difference is that different acts are performed.

7 Conclusion

I have shown how one might develop an act-type theory of propositions which is not vulnerable to Båve's objection, or to King's. My development of the theory rests on reasonable assumptions about language, and is, at the least, an internally coherent theory that act-type theorists and their opponents should consider.

According to the theory that I have described, grammar constrains the acts of predication that are performed when a sentence is uttered. The first way this is effected is through the phrase structure of the sentence. If a sentence has a particular phrase structure, then the complex act performed is restricted in important ways. The act-type theorist can defer to syntactic theory as to what these structures are like, as long as one structure is assigned to each non-ambiguous sentence, and that (syntactical, non-redundant) ambiguity is explained by a correspondence between distinct readings and distinct structures. Secondly, grammar requires some expressions, e.g., transitive verbs, to have certain acts assigned as their meanings and certain acts to be performed when meanings are composed. Within these constraints imposed by grammar, an utterance results in a single act and therefore the expression of a single proposition.

One might still object that this allows for too many propositions that differ in ways that seem unimportant. The propositions I have discussed all exist, according to the theory, they are just not expressed by (1). That was not the point of Båve's criticism, although it is suggested by King. However, it is not obvious why the existence of these propositions should be taken to be a problem for a theory of propositions that is otherwise attractive.

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