The Metaphysics of Propositions

In preparing to give a theory of what meanings are, David Lewis [1970] famously wrote:

'In order to say what a meaning *is*, we must first ask what a meaning *does*, and then find something that does that.'[1] Loosely following the spirit of Lewis' remark, before talking about what propositions *are*—before talking about the metaphysics of propositions—it would serve us well to talk about what advocates of propositions think they *do*. We begin, then, with a discussion of the roles propositions are alleged to play in philosophy.

To begin with, sentences (taken relative to contexts—I'll suppress this henceforth ignoring contextually sensitive expressions) express information. The English sentence 'San Clemente has a wonderful climate.' expresses the information that San Clemente has a wonderful climate. Presumably that same information could be expressed by another sentence of a different language. What is this information sentences express? Believers in propositions can say that the proposition expressed by a sentence is the piece of information the sentence expresses. Propositions are also alleged to be the things that are in the first instance true and false. Sentences are true or false in virtue of expressing true or false propositions. This fits well with the claim that propositions are the pieces of information expressed by sentences, since it seems as though a sentence is true or false in virtue of the information it expresses (and the way the world is). Propositions are also thought to be the things we believe, doubt and suppose.[2] Again, this fits well with the other two roles just discussed, since it seems that we often believe information expressed by sentences, and the things we believe are true and false. Propositions are also alleged to possess *modal characteristics* like being necessary and possible. This again fits nicely

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[1] P. 22
[2] For a dissenting view, see Moltmann [2014].

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with the other roles discussed, since it seems as though the things sentences express and the things we believe are necessary, possible, impossible and so on.

The roles discussed above for propositions were rather general (the things we believe, the things that are true and false, etc.), but propositions are thought to play more specific theoretical roles in philosophy of language. First, there are sentences that assert that subjects believe, doubt and suppose things, such as 'Annie believes that San Clemente has a wonderful climate.'. If propositions are the things we believe, doubt and so on, it is natural to take such sentences as asserting that e.g. Annie stands in the belief relation to the proposition that San Clemente has a wonderful climate. This in turn suggests that we should take the expression 'that San Clemente has a wonderful climate' to be an expression that designates the proposition that San Clemente has a wonderful climate. Hence, in the sentence 'Annie believes that San Clemente has a wonderful climate.' we have two designating expressions flanking the expression 'believes', which expresses the two-place *believing* relation. Since the first designates Annie and the second designates the proposition that San Clemente has a wonderful climate, the sentence asserts that Annie stands in the relation of believing to the proposition that San Clemente has a wonderful climate. So here propositions play the role of the things designated by *that* clauses in a natural and compelling account of the semantics of sentences about what subjects believe, doubt and so on.

Second, on one widely accepted view of *context of utterance*, a context includes the body of information that the conversational participants knowingly take for granted for the purposes of their conversation.[3] It is usual to take such a body of information to

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[3] See Stalnaker [1999].

be a set of propositions. In so doing, we are using propositions to construct one aspect of the context of utterance.

Third, it is natural to take expressions like 'what John said/meant/believes' to designate propositions. For the things said, meant and believed are propositions. Further, if asked what John said, I can answer with a *that* clause: that he would be in San Clemente July 4. But the latter are thought to designate propositions as mentioned above.

For philosophers who think that propositions play some or all of the roles just mentioned, the question arises as to the nature of the things playing these roles. That is, philosophers who claim that propositions play these roles need to say something substantial about the *metaphysics of propositions*. Most recent thinking about propositions in some way or another traces back to the classical theories of propositions of the German logician, mathematician and philosopher Gottlob Frege and the English logician and philosopher Bertrand Russell. They certainly articulated views about the metaphysics of propositions. Hence, we begin by discussing their views.

Gottlob Frege took there to be two entities associated by linguistic convention with linguistic expressions. Frege called these the *sense* and the *reference* of these expressions.[4] In discussing the name 'Aristotle', Frege remarks that one might take its sense to be *the pupil of Plato and teacher of Alexander the Great*.[5] The referent of the name is Aristotle. Since Frege held that the sense of an expression determines its referent, this example suggests that senses of expressions should be thought of as something like descriptive conditions that their references uniquely satisfy: Aristotle is the unique thing that is Plato's pupil and Alexander's teacher. Frege sometimes calls

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[4] In German, the *Sinn* and *Bedeutung*. These are most often translated as *sense* and *reference*, respectively.
[5] Frege [1892] p. 153 note B.

senses *modes of presentation* of referents. Presumably senses are modes of presentation

of their referents in specifying a condition that the referent uniquely satisfies. Note that

since sense determines reference, only senses need to be explicitly attached to

expressions by linguistic convention. These senses then determine the expression's

reference. We count the latter as attached to the expression by convention in a derivative

way. Of course some expressions lack referents, as is the case with 'the greatest natural

number'. But any meaningful expression of a language must have a sense for Frege.

Having a sense just is having a meaning. And so when one understands a linguistic

expression one is grasping its sense.

Frege took it as obvious that a declarative sentence "contains" a thought and when

he says this he is quick to add that by 'thought' he means not the subjective act of

thinking but the objective content of a thought.[6] Frege says thoughts are true or false,

that we assert them, and that we judge them to be true and false.[7] Of course, being things

that are true and false, being things that we assert and being things that we believe are

roles played by propositions. So it seems clear that Fregean thoughts are his propositions

(i.e. what other philosophers would call *propositions*).

Further, thoughts are the senses of declarative sentences. They are naturally

thought of as the meanings/information contents of sentences and hence play another role

propositions are thought to play. After all, Frege held that the references of sentences are

truth-values: true and false. Hence, it would be odd to think of the references of

sentences as their meanings: all true sentences would then mean the same thing. But as

indicated, only senses and references are associated with a sentence by linguistic

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[6] Frege [1892] p. 156 and note E.
[7] Frege [1918] p. 327-328, 329, 330.

conventions, so one of them must be the sentence's meaning. If it isn't the reference, it must be the sense.

Frege held that there were two fundamentally different kinds of expressions in natural languages. On the one hand, there are expressions like ordinary proper names, definite descriptions (expressions of the form *the F*—e.g.'the greatest natural number') and sentences that are what Frege calls *complete* or *saturated*.[8] What Frege seems to mean by this is that these expressions do not have argument places. He calls such expressions *proper names*. On the other hand, there are expressions like verbs, adjectives and nouns that are *unsaturated* or *in need of supplementation*. Frege viewed the unsaturatedness of these expressions as consisting in their having argument places.[9] Different unsaturated expressions can have different numbers of argument places. Unsaturated expressions with one argument place, such as 'tall', 'skis' or 'cow', Frege calls *concept expressions*; and those with more than one argument place, such as 'hugs', Frege calls *relation expressions*. What we might think of as atomic sentences can be formed by taking an unsaturated expression with n argument places, and filling those places with n names. This yields sentences like 'Glenn skis' and 'Sophie hugs Carl.'

Frege thought the completeness of proper names was reflected in their senses and references being complete as well. These complete references of proper names Frege called *objects*. Similarly, concept and relation expressions, being unsaturated or incomplete, had senses and references that were unsaturated as well.[10] The reference of the simplest kind of concept or relation expression is a function from objects to truth-values. So the referent of 'cow' is a function that maps an object to true iff it is a cow. A

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[8] Frege [1964] p. 36
[9] Frege [1891a] p. 139
[10] Frege [1891b] p. 174 note B

concept or relation expression with n argument places refers to an n-place function from objects to truth-values. Frege calls one-place functions of this sort *concepts*. More than one-place functions of this sort are called *relations*. So a sentence like 'Sophie hugs Carl' is true just in case the relation 'hugs' refers to maps Sophie and Carl (in that order) to true.

Frege seems to have held a quite strong principle of compositionality for senses.[11] The sense of a complex expression is a function of the senses of its component words and how they are put together syntactically. But in the case of the senses of complex expressions, Frege seems to have held that their senses are built up out of the senses of the words in the complex expressions in the way that the complex expressions themselves are built out of words.[12] In the case of reference, Frege holds a principle of compositionality as well. The reference of a complex expression is a function of the references of its parts and how they are syntactically combined. However, he can't hold the strong principle of compositionality in the case of reference. Take the sentence 'Glenn skis.' Suppose it is true, so that the reference of the sentence is true. The referents of the parts are Glenn and the concept that maps an object to true iff it skis. But there is no sense in which this function and Glenn are parts of true.

We have discussed the senses and referents of the words in simple "atomic" sentences like 'Glenn skis' and 'Sophie hugs Carl.', as well as the references of such sentences. It was mentioned above that the senses of complex expressions are built up out of the senses of the words in them. Frege had a general account of how the senses of complex expressions are built out of the senses of their parts. In general, such complex

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[11] Frege [1892a] pp. 156-7
[12] Frege [1919] pp. 364-65

senses come about by one or more senses *saturating* an unsaturated sense. In the case of 'Sophie hugs Carl.', the doubly unsaturated sense of 'hugs' gets saturated by the complete senses of 'Sophie' and 'Carl', yielding the complete sense of the sentence: the thought that Sophie hugged Carl. Frege thought that quite generally, "complex senses", senses with other senses as parts, are the result of one or more senses "completing" or "saturating" an unsaturated sense.[13]

We turn now to non-atomic sentences, first considering truth functional combinations. Truth functional connectives like 'not' and 'or' are singly and doubly unsaturated expressions, respectively. By filling their argument places with sentences—proper names of truth-values—one obtains truth functionally complex sentences. The senses of 'not' and 'or' are singly and doubly unsaturated, respectively, as well. When you complete the unsaturated sense of 'not' with a thought, you once again get a thought: the negation of the original thought. Similarly, when you complete the doubly unsaturated sense of 'or' with two thoughts, the result is again a thought (their disjunction). Connectives like these refer to one and two place functions from truth-values to truth-values. Such functions are often called *truth functions*. Since their values are truth-values, they are concepts (one-place function) or relations.

Finally, we turn to quantified sentences. Determiners like 'every', 'some', 'no', etc. are doubly unsaturated expressions—relation expressions—and so express doubly unsaturated senses.[14] The expressions take as arguments two *first level* concept expressions—such as 'student' and 'smiles'— yielding sentences like 'Every student smiles.' Hence, determiners are *second level relation expressions*. At the level of

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[13] Frege [1892b] p. 193, Frege [1919] p. 363
[14] Frege [1892b] p. 187

thought, a second level relation sense combines with the senses of the two first level

concept expressions, taken in a particular order. So, the thought expressed by 'Every

student smiles.' is the result of completing the doubly unsaturated sense of 'every' with

the senses of the (first level) concept expressions 'student' and 'smiles' (in that order).

At the level of reference, 'every' refers to a function from a pair of first level concepts

(functions from objects to truth values) to truth-values. As such, the referent of 'every' is

a *second level relation* (in virtue of taking first level concepts as arguments and yielding

truth-values as values). The relation—two-place function—'every' refers to maps

concepts A and B (in that order) to true iff every object that A maps to true, B maps to

true as well.

Returning to Fregean thoughts, Frege held that they neither exist in the external

physical world, nor in the minds of those who grasp them. He famously claimed 'A third

realm must be recognized.'[15] One of Frege's favorite examples of a thought is the

Pythagorean theorem. He says of it that it is timelessly true, eternal and unvarying.   He

claims it was true before anyone thought it and true whether anyone takes it to be true or

not. So the Fregean picture of thoughts is of unchanging entities that are true or false

timelessly whether ever grasped by thinkers or not, existing in neither in the minds of

thinkers nor in the external world.

As we saw, on Frege's view thoughts/propositions were structured entities that

had as constituents saturated and unsaturated senses, bound together by senses saturating

unsaturated senses. Bertrand Russell [1903] makes a fundamental distinction between

things and *concepts*. Things include Socrates, points, instants, bits of matter, numbers

and "particular existents generally". Things also included nonexistents, such as the

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[15] Frege [1918] p. 337

"pseudo-existents of a novel."[16] Concepts include entities like *human* and *difference*. Russell formulated a theory of propositions on which they were structured entities that had as constituents things like Socrates and concepts like *human* (in the proposition that Socrates is human) or *difference* (in the proposition that A differs from B). Among concepts, Russell distinguishes between *predicates* or *class concepts* and *relations*.[17] This seems to correspond to the distinction between properties ("one-place universals") and relations ("more than one-place universals"). Russell says that predicates are *indicated* by adjectives, and relations are indicated by verbs. 'Indication' is the word Russell uses for the relation between a word and what it contributes to a proposition. *Human* is a predicate and *difference* is a relation. If we call the *extension* of a predicate the set of things it is true of and the extension of an n-place relation the set of n-tuples of things that stand in it, we can say that Russell was an *intensionalist* about concepts: concepts with the same extension may be distinct.[18]

So Russell's propositions have things and concepts as constituents, and Russell talks explicitly of the constituents *being related* in propositions.[19] This suggests that Russellian propositions are structured entities in which constituents are somehow bound together by relations. In discussing the proposition that A differs from B, Russell suggests that the proposition consists of A standing in the *difference* relation to B:

> Consider, for example, the proposition "A differs from B". The constituents of this proposition, if we analyse it, appear to be only A, difference, B. Yet these constituents, thus placed side by side, do not reconstitute the proposition. The difference which occurs in the

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[16] Russell [1903] section 48
[17] Russell is ambivalent about whether there is a substantive distinction between predicates and class concepts. See Russell [1903] section 58.
[18] Russell [1903] sections 24 and 28.
[19] Russell [1903] section 54.

proposition actually relates A and B, whereas the difference after analysis is a notion which has no connection with A and B.[20]

Such a view would appear to give rise to difficulties when we consider false propositions. Suppose it is false that A differs from B. That would seem to require A not to stand in the difference relation to B. But A standing in the difference relation to B was supposed to be the proposition that A differs from B. In fact, Russell [1903] distinguishes *being* from *existence* and claims that "as regards being, false propositions are on exactly the same level [as true propositions], since to be false a proposition must already be."[21] Russell says that true and false propositions are alike in being entities, but that true propositions have some additional quality that false propositions lack. Russell appears to attempt to capture this quality possessed by only true propositions by saying in several places that there is a *logical sense of assertion* in which only true propositions are asserted.[22] But he never makes clear what this logical sense of assertion is, and seems to find it puzzling.[23] Note that Russell can't say that true propositions are so because the relevant facts obtain unlike the case of false proposition. For consider the proposition that A differs from B and suppose it is true. One would think that the fact that makes it true is the fact that A stands in the difference relation to B. But this latter "fact" *just is* the proposition that A differs from B on Russell's [1903] theory. So unless Russell can make good on his idea that only true propositions are asserted in the logical sense, or some such thing, it looks like he'll have to take the truth and falsity of propositions as primitive and having no further explanation.

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[20] Russell [1903] section 54.
[21] Section 427.
[22] Section 38, 52, 478, 498
[23] Russell [1903] section 52

Russell [1910] abandoned propositions altogether, claiming that in judging or believing, one did not bear a relation to a single thing: the proposition judged or believed. Rather, in judging that Charles I died on the scaffold, the judge enters into a relation with Charles, dying and the scaffold and, again, not anything like a single proposition. Russell seems to give as his reason that on a theory like his 1903 theory, truth and falsity have to be taken as primitive and that this is unsatisfactory.

Building on the pioneering work of Rudolf Carnap [1946], A.N. Prior [1956], S. Kanger [1957], Jaakko Hintikka [1961] and others, Saul Kripke [1963] formulated the now orthodox semantics for *modal logic*: the logic of possibility and necessity. Though the details of Kripke's formulation are beyond the scope of the present work, an introduction to some of the leading ideas will be helpful in introducing an important account of propositions that arose in the 1960s. [24] Some familiarity with propositional logic is presupposed.

Let, P, Q and R with or without numerical subscripts be atomic formulae. Formulae are built up with ~ (negation), & (conjunction) and □ as follows: if A and B are formulae, so are ~A, A&B and □A. □A should be thought of as *necessarily A*. We want to formally implement the idea that to be necessary is to be true no matter how the world happens to be. We represent different ways the world might be as different *possible worlds*. Hence, to be true no matter how the world is is to be true in all possible worlds. So, for □A to be true in the actual world, A must be true in all possible worlds. For our semantics, we begin with a pair <W, @> where W is a set and @ ε W. Intuitively, W is the set of all possible worlds and @ is the actual world. We introduce an interpretation

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[24] No attempt will be made to preserve the details of Kripke's [1963] formulation.

function f such that for any atomic formula A and any w ε W, f(A,w)= T or F. We

extend the domain of f to all formulae as follows (let A, B be formulae):

1. f(~A,w) = T if f(A,w)=F; otherwise f(~A,w)=F.

2. f(A&B, w)=T if f(A,w)=f(B,w)=T; otherwise f(A&B,w)=F.

3. f($\Box$A,w)=T if for all w'ε W, f(A,w')=T; otherwise f($\Box$A,w)=F.[25]

Clause 3 captures the idea that for A to be necessarily true (at a world) is for A to be true

at all possible worlds. Call a pair<<W,@>, f> a *model* for our language.

Now looking at f's initial domain and clauses 1-3, we see that in a model, formulae

of our language have truth-values only relative to worlds (members of W). Given a

model M, and any formulae A, we can define a function $g_{A,M}$ whose domain is W and

that for any w ε W, gives us A's truth-value at w relative to M. That is, for any w ε W,

$g_{A,M}$(w) =T if A is T at w relative to M (i.e. f(A,w) =T); otherwise, $g_{A,M}$(w)=F.

Following established usage, we can call $g_{A,M}$ the *intension of A relative to M*. Once

intensions are in the picture, it is natural to think of $\Box$ as an operator on intensions:$\Box$

"looks at" the intension of the formulae it embeds. If that intension maps every w ε W to

T, the $\Box$-formula is T relative to M at the world where it is being evaluated. This in turn

makes it natural to think of the intension as being the thing with modal attributes. An

intension I is *necessary* at a world w iff for all w', I(w')=T. Recall that propositions were

supposed to be the things that possess modal attributes. But then from this perspective, it

becomes natural to identify the proposition expressed by a formulae A in a model M with

the intension of A relative to M. Thus, it is natural to view propositions as functions

from possible worlds to truth-values (or as the sets of worlds whose characteristic

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[25] We suppress the fact that one often introduces an *accessibility relation* R on the set W and writes clause 3 as follows: f($\Box$A,w)=T if for all w'ε W **such that wRw**', f(A,w')=T; otherwise f($\Box$A,w)=F.

functions they are). Call this approach to the semantics of our formal modal language *possible worlds semantics*.

Given the success of possible world semantics in treating modal logic, and given that our modal logic is supposed to give us a model of how a fragment of English containing 'not', 'and' and 'necessarily' behaves, it was natural for people working on the semantics of natural languages to apply possible worlds semantics to natural languages. On such approaches, expressions of natural languages are assigned intensions: functions from possible worlds to appropriate extensions. E.g. names are assigned functions from possible worlds to individuals.[26] N-place predicates are assigned functions from possible worlds to sets of n-tuples. And sentences are assigned functions from possible worlds to truth-values or sets of possible worlds. Again here, and for the same reasons as before, it was natural and reasonable to identify propositions with sentence intensions. Montague [1968] and Lewis [1970] were important early works in this tradition.[27]

However, the view that propositions are sets of worlds or functions from worlds to truth-values is now most closely associated with its most ardent current defender: Robert Stalnaker. Stalnaker [1987, 1999, 2003] provides a wide-ranging articulation and defense of the view. The view that propositions are sets of worlds was the dominant

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[26] If we want to capture the fact that names are *rigid designators*—that is, the refer to the same individual in all possible worlds (see below)—we would make these functions constant functions: they map any world to the same individual.

[27] Here I suppress the fact that for Montague [1968], sentence intensions were function from world/time pairs to truth-values. He called such world/time pairs *points of reference*. Lewis' [1970] intensions are even more complicated.

view from the 1960s until at least the late 1980s. It is still used in much work in formal semantics.[28]

Early on it was recognized that viewing propositions as sets of possible worlds individuated propositions in a very coarse grained way. Any two sentences that are true at the same possible worlds express the same proposition. This means that there is only one necessary truth and only one impossible falsehood. On the classical view of mathematics on which mathematical truths are necessary, this means that there is only one mathematical truth. Finally, if sentences of the form 'Sophie believes that P' assert that Sophie stands in the belief relation to the proposition that P, this means that anytime P and Q are true in all the same possible worlds, 'Sophie believes that P' and 'Sophie believes that Q' cannot diverge in truth-value. To many people, these consequences of the view that propositions are sets of worlds seem incredible. That said, Stalnaker [1987, 1999] has done much to respond to these sorts of concerns. But by the 1980s, many philosophers were eager to find accounts of propositions on which they were individuated more finely. I'll discuss two attempts at formulating such accounts, which I will call the *algebraic approach* and the *neoRussellian approach.*

Bealer [1982, 1993, 1998], Menzel [1993] and Zalta [1988] formulate versions of the algebraic approach.[29] Though these accounts are sufficiently similar in motivation and content to be usefully grouped together under the heading *algebraic accounts,* the

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[28] Here I am meaning to include views on which intensions are more complicated than functions from only *worlds* to extensions. See previous note.

[29] Though considerations of fineness of grain seem to be the primary motivation for those who accept the algebraic accounts (e.g. see Menzel [1993] pp. 62-62, Bealer [1993a] p. 20 and Bealer [1998] p. 5), other worries with possible worlds accounts are mentioned as well. E.g. Bealer [1993a] p. 20, [1998] p. 4 and Menzel [1993] p. 62 worry that possible worlds accounts commit one to denying actualism. However, even the most ardent supporter of the possible worlds account—Robert Stalnaker—has long held that the account is consistent with actualism. See Stalnaker [1987] Chapter 3 (reprinted in Stalnaker [2003]) and [2003] p. 6.

reader should be aware that there are important differences between them.   We shall

focus on the formulation in Bealer [1993a, 1998]. Bealer claims that properties, relations

and propositions are *sui generis* entities not reducible to anything else. There are

fundamental logical operations on these entities. Examples of such operations are:

conjunction (the proposition A&B is the conjunction of the proposition that A and the

proposition that B), *singular predication* (the proposition that o is F is the singular

predication of the property F of o), *existential generalization* (the proposition that there

exists an F is the existential generalization of the property F) and so on. Bealer models

the behavior of the fundamental *sui generis* entities—properties, relations and

propositions—by constructing what Bealer [1998] calls *intensional model structures*

(IMS). An IMS is a triple $<D, \tau, K>$, where D is a domain that partitions into

subdomains, $D_{-1}, D_0, D_1, D_2\ldots$ D_{-1} consists of particulars; D_0 consists of propositions; D_1

consists of properties; D_2 consists of two-place relations; and so on. τ is a set of logical

operations as described above; and K is a set of extensionalization functions. Where $H \in$

K is an externalization function, it assigns appropriate extensions to each item in D: truth-

values to propositions (members of D_0); sets of items in the domain to properties; sets of

ordered pairs to two-place relations and so on. Members of D_{-1} get assigned themselves.

To capture the *actual* extensions of members of D, there is a distinguished

extensionalization function $G \in K$ that is the *actual* extensionalization function. G

assigns their actual extensions to members of D. Extensionalization functions are

constrained to respect the logical operations in the obvious way: if $x,y \varepsilon D_0$, and $H \varepsilon K$,

$H(conj(x,y)) =T$ iff $H(x)=H(y) =T$ and so on. What makes an IMS *intensional* is that for

some x, $y \varepsilon D_i \subset D$, $i \geq 0$, and some $H \varepsilon K$, $H(x)=H(y)$, but $x \neq y$.

Bealer claims that propositions are primitive and simple. They have no mereological parts. Despite this, Bealer has a notion of *propositional constituency*. Each proposition has what we'll call a *composition tree* indicating how it results from the application of logical operations on members of D.[30] For example, here is such a tree for the proposition that o is F:

$$[Fo]$$
$$\text{pred}_s$$
$$F \qquad o$$
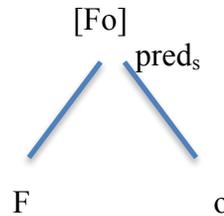
The tree tells us that the proposition that F is o ([Fo]) results from singularly predicating the property F of o. An item x *is a constituent of a proposition* P iff x appears somewhere in P's composition tree. Though o, F and pred_s are in no sense parts of the proposition that o is F, they are constituents of the proposition.

On the algebraic approach, there are distinct, necessarily equivalent propositions. For example, neg(neg(p)) $\neq$ p. Hence, propositions are more fine-grained than on the possible worlds account. After all, these propositions have different constituents: the former has the logical operation of negation as a constituent and the latter doesn't. However, nothing so far gives us the materials for distinguishing the proposition that Hesperus is a planet from the proposition that Phosphorus is a planet. Bealer certainly wants his theory to achieve this. He does this by introducing what he calls *non-Platonic modes of presentation* associated with proper names.[31] Bealer mentions three candidates for being non-Platonic modes of presentation and is prepared to adopt whichever one is

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[30] Bealer [1993a] actually defines a *decomposition tree* for propositions that shows how they can be decomposed into elements of D and the *inverses* of logical operations.
[31] He thinks of the elements of subdomain D_1—properties—as *Platonic* modes of presentation.

the best option in the end. The first candidate is the name itself, understood not as a mere orthographic entity but as fine-grained entity of some sort individuated by the practice of using it. Since the practice of using 'Hannibal' to refer the famous Carthaginian general is different from the practice of using it to refer to a town in Missouri, these are different names. The second candidate for being non-Platonic modes of presentation is the naming practice associated with a name. The third is the *causal naming chain* associated with a name. By invoking these non-Platonic modes of presentation, Bealer is able to distinguish the proposition that Hesperus is a planet from the proposition that Phosphorus is a planet.

Turning now to the neoRussellian account of propositions, as indicated above one motivation for pursuing such a view was that it individuates propositions more finely than possible worlds accounts. Further, Scott Soames [1987] produced powerful reasons for thinking that any account of propositions on which they were sets of metaphysically possible worlds (or indeed any sort of truth supporting circumstances of evaluation) was fatally flawed. But there was a second motivation as well.

Keith Donnellan [1970] and Saul Kripke [1980] had given compelling arguments that proper names did not have their references fixed by being associated with descriptive conditions that their references uniquely satisfied as Frege had thought. Kripke had also argued that proper names were *rigid designators*: they designate the same individual in every possible world. Kripke asks us to consider the following sentence

1. Aristotle was fond of dogs.

Kripke says that everyone agrees that 1 is true just in case a certain man—the philosopher we call 'Aristotle'—was fond of dogs. To say that 'Aristotle' is rigid is just to say that

when we consider whether 1 is true in this or that counterfactual situation, it is always the properties of the same man—the one we actually call 'Aristotle'—that determines 1's true or falsity in that situation. In David Kaplan's seminal [1977], Kaplan went further and claimed that both names, indexicals ('I', 'here', 'now') and demonstratives ('this', 'that', 'she' (used to refer to someone you are pointing at)) are devices of *direct reference*. Though Kaplan [1977] claimed names are directly referential, he didn't argue for the claim. But he did argue for the claim that indexicals and demonstratives are directly referential; and he wanted to distinguish between rigid designators and devices of direct reference. Kaplan held that sentences are true or false relative to both a *context of utterance* and a *circumstances of evaluation*. When a sentence containing a contextually sensitive expression like 'I am hungry.' is uttered in a *context of utterance*, a proposition P gets expressed. We can then ask about P's truth or falsity in various *circumstances of evaluation* (possible worlds).[32] Kaplan's idea was that directly referential expressions may (indexicals and demonstratives) or may not (names) be associated with semantical rules that determine their referents in context. But once their referents are secured in context, those referents are all that is provided by the semantical rules of the expressions in question. Nothing is provided that could be evaluated at a counterfactual circumstance. Consider the word 'now'. It has a rule that determines its referent in context: 'now' refers to the time of utterance in the context of utterance. So if 'now' is used in a context, its associated semantic rule gives it a referent. But that use is not associated with a rule that can be evaluated at a circumstance. The rule associated with 'now' just gives you a referent in context and nothing further that can be applied at a counterfactual circumstance. The rules thus give you a referent in the actual world,

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[32] In Kaplan's [1977] formalism, circumstances are actually world/time pairs.

which then has to be taken to be the referent in other possible worlds/counterfactual circumstances. In a famous passage, Kaplan writes:

> For me, the intuitive idea is not that of an expression which *turns out* to designate the same object in all possible circumstances, but an expression whose semantical *rules* provide *directly* that the referent in all possible circumstances is fixed to be the actual referent. In typical cases the semantical rules will do this only implicitly, by providing a way of determining the *actual* referent and no way of determining any other propositional component.[33]

Note that this make all devices of direct reference rigid designators. But an expression could be a rigid designator without being directly referential. Suppose the truths of mathematics are necessary. Then 'the even prime' designates the same thing in every possible world, since in every possible world 2 is the even prime. But 'the even prime' as used in a context precisely *does* give us a rule to evaluate at counterfactual situations to determine what it designates ("find the even prime"). So this expression is rigid but not directly referential.

The important point is that in a possible world semantics, one cannot distinguish the subclass of rigid designators that are directly referential. For in that framework, singular terms are assigned as their semantic values intensions: functions from possible worlds to individuals. Rigid expressions will be assigned constant functions (relative to a context) as intentions: functions from any possible world to the same individual. But because this is the only semantic value assigned to singular terms, there is no way to distinguish a subclass of rigid designators as directly referential.

In order to make that distinction, Kaplan invoked the idea of neo-Russellian structured propositions with individuals, properties and relations as constituents:

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[33] Kaplan [1977] p. 493.

If I may wax metaphysical in order to fix an image, let us think of the vehicles of evaluation—the what-is-said in a given context—as propositions. Don't think of propositions as sets of possible worlds but, rather, as structured entities looking something like the sentences which express them. For each occurrence of a singular term in a sentence there will be a corresponding constituent in the proposition expressed. The constituent of the proposition determines, for each circumstance of evaluation, the object relevant to evaluating the proposition in that circumstance. In general, the constituent of the proposition will be some sort of complex, constructed from various attributes by logical composition. But in the case of a singular term which is directly referential, the constituent of the proposition is just the object itself. Thus it is that it does not just *turn out* that the constituent determines the same object in every circumstance, the constituent (corresponding to a rigid designator) just *is* the object. *There is no determining to do at all.*[34]

Two pages later, Kaplan writes:

Three paragraphs ago I sketched a metaphysical picture of the structure of a proposition. The picture is taken from the semantic parts of Russell's *Principles of Mathematics.*[35]

So here Kaplan invokes Russell's [1903] account of propositions to distinguish between directly referential expressions and merely rigid expressions (rigid and not directly referential). Directly referential expression contribute to propositions expressed by sentences in contexts their referents in those context. Hence, when such a proposition is evaluated at a counterfactual circumstance, it is always that same individual's properties that are relevant to the truth of the proposition. The individual is "built into" the proposition as a constituent. By contrast, a use of 'the even prime' in a sentence in context contributes to the proposition expressed in that context a rule ("find the even prime") that when the proposition is evaluated at any circumstance yields the same object: 2. Hence, rigidity without direct reference.

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[34] Kaplan [1977] p. 494. Oddly in the penultimate sentence here, Kaplan talks about the constituent corresponding to a *rigid designator*, where he presumably means the constituent corresponding to a *directly referential term*.
[35] Kaplan [1977] p. 496

Though Kaplan used the neoRussellian account of propositions to distinguish between directly referential and rigid expressions, he explicitly says that this account of propositions is not part of his theory, and his formal semantics is a possible worlds semantics. Nonetheless, as more philosophers adopted the view that names, indexical and demonstratives were not merely rigid but also directly referential, they were attracted to an account of propositions that enabled them to make this distinction. Prominent proponents of direct reference and a neoRussellian view of propositions included Nathan Salmon [1986], Scott Soames [1987] and Mark Richard [1990].

Because of the two factors just discussed—wanting a theory of propositions that individuates them more finely then propositions-as-sets-of-worlds and that allows one to distinguish directly referential terms from merely rigid ones—by the early 1990s many philosophers had adopted the neoRussellian structured approach to propositions. But Jeffrey C. King [2007] pointed out that defenders of this position had said surprisingly little about what structured propositions actually are. That is, they had said virtually nothing about the metaphysics of propositions. King pointed out that neoRussellians often represented structured propositions as ordered n-tuples without further comment. Thus, one was often told that the proposition that Frege is busy is <Frege, being busy>. In effect, King posed a dilemma for such theorists. If the n-tuples in question are merely being used to *represent* structured propositions, then given that nothing has been said about what propositions really are, we don't yet have a metaphysical account of them. On the other hand, if theorists are intending to *identify* propositions with n-tuples, King pointed out that there are three problems. First there seem to be too many equally good candidates to be e.g. the proposition that Sophie loves Carl: <Sophie, loving, Carl>,

<Sophie, Carl, loving>, <loving, Sophie, Carl>, <loving, <Sophie, Carl>>, etc. etc. Second, King asked why things of this sort—n-tuples—have truth conditions. Other n-tuples don't have truth conditions. Why do these? Further, even if we somehow became convinced that e.g. <loving, Sophie, Carl> is a proposition with truth conditions, what determines whether it is true iff Sophie loves Carl or true iff Carl loves Sophie? Nothing about the n-tuple <loving, Sophie, Carl> itself settles that question. These questions seem reasonable and it is hard to see what the answers would be.

So King [2007] showed that structured proposition theorists really hadn't given any metaphysical theory of what structured propositions are. King [2007] gave such a theory and since its publication others have stepped forward with accounts. We now turn to these recent theories of the metaphysics of propositions. We provide a brief overview of some main accounts. Due to limitations of space, no attempt will be made to critically assess the theories.

Jeffrey C. King's most recent account of the sort of theory he broached in King [2007] is in King, Soames Speaks [2014].[36] We focus on that formulation. Before getting to that, it is worth highlighting three novel claims in King [2007], since two other theorists discussed below—Scott Soames and Peter Hanks—have since followed King in accepting these claims. As we'll see, other recent theorists reject these claims. First, King rejected as mysterious any theory on which propositions by their very natures and independently of minds and languages represent the world as being a certain way. King claims that the idea that propositions could by their very natures represent and that there is no further explanation of this fact is just not credible. For, King claims, no one has any

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[36] Though King [forthcoming] is an even more recent version of King's view on which propositions are individuated less finely than in King [2007] and King, Soames, Speaks [2014].

idea how something could represent something else by its very nature. Second, King insisted that an adequate account of propositions must explain how/why proposition have truth conditions and so represent the world as being a certain way. Third, King claimed that the explanation for how propositions represent has to appeal to the representational powers of thinking agents.

In terms of King's positive account of propositions, two key claims are these. First, King claims that a structured proposition consists of its constituents standing in what King calls *the propositional relation* of the proposition. So e.g. the proposition that Camille surfs consists of Camille and the property of surfing standing in a two-place propositional relation. The proposition can be pictured as follows:

2P.
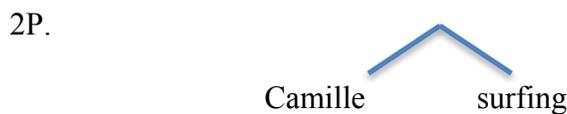
Camille   surfing

Second, King claims this proposition is true iff Camille surfs as a result of speakers *interpreting* the propositional relation (represented by the branching blue lines) as ascribing the property of surfing at its right node to Camille at its left node.

To expand on the first of these claims and explain what the propositional relation is, let's begin by looking at the simple sentence 'Camille surfs' and its syntactic structure:[37]

2.

Camille   surfs

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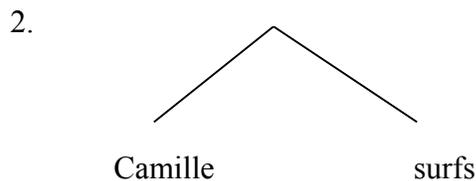
[37] In using 2 as an example, King is idealizing a lot about its syntactic structure. John Collins [2007] has recently argued that King's pretending syntax is much simpler than it is for expository purposes is far from innocent, since the real complexity of syntax ends up being a problem for him. King [2011] responds to Collins.

Call the syntactic relation that obtains between 'Camille' and 'surfs' in the sentence here *R*. King calls relations like R that lexical items stand in to form sentences *sentential relations*. King points out that English speakers *interpret* R in a certain way: they take R to *ascribe* the semantic value of 'surfs' to the semantic value of 'Camille'. This is in part why the English sentence is true iff Camille possesses the property of surfing.

The notion of *interpreting* sentential relations like R is central to King's account of how/why propositions have truth conditions and so more should to be said about it. King claims that English speakers interpreting R as ascribing the semantic value of 'surfs' to the semantic value of 'Camille' consists in the fact that they spontaneously and unreflectively take 2 to be true iff Camille possesses the property of surfing. In other cases in which English speakers encounter syntactically concatenated expressions, we see the same thing. In all such cases, speakers spontaneously and unreflectively compose the semantic values of the concatenated expressions in characteristic ways. For example, when English speakers confront 'grey cat' they do something like conjoin the properties expressed by 'grey' and 'cat'. In general, that speakers *interpret* syntactic concatenation in the ways they do consists in the fact that they spontaneously and unreflectively compose the semantic values of the concatenated expressions in a small handful of ways, including the ways just described. King puts the fact that English speakers interpret R as ascribing the semantic value of 'surfs' to the semantic value of 'Camille' by saying that *R encodes ascription in English*.

King notes that it appears that speakers of different natural languages interpret syntactic concatenation in *the same* small handful of ways. He holds that this is so because it is part of our biologically endowed language faculty. Since the claim that

speakers interpret syntax in certain ways will play a role in the explanation of how propositions expressed by natural language sentences end up having truth conditions for King, it is important that their interpreting syntax not involve their having propositional attitudes whose contents are such proposotions. King thinks that the fact that their interpreting syntax in the ways they do—composing semantic values of concatenated expressions in the ways they do—is hard wired as a result of our biologically endowed language faculty gets around this worry.[38]

As a result of the existence of the English sentence 2 or its French translation, there is a two-place relation that Camille stands in to the property of surfing: *there is a context c and assignment f such that ___ is the semantic value relative to c and f of a lexical item e of some language L and ___ is the semantic value relative to c and f of a lexical item e' of L such that e occurs at the left terminal node of the sentential relation R that in L encodes ascription and e' occurs at R's right terminal node*. This relation, King claims, is the propositional relation of the proposition that Camille surfs. It is the relation that holds Camille and the property of surfing together in the proposition that Camille surfs.

King [2007, 2009, 2014] calls an object possessing a property, or n objects standing in an n-place relation, or n properties standing in an n-place relation or etc. a *fact*. Then according to King the proposition that Camille surfs is the fact consisting of Camille and the property of surfing standing in the two-place propositional relation mentioned above.

Having said what structured propositions are, King goes on to explain how/why they have truth conditions. As we did earlier, let's suppress the fact that for King the

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[38] This is discussed in detail in King [forthcoming]

propositional relation of 2P is complex (e.g. it has the sentential relation R of 2 as a component or "part"), and concentrate on the idea that on his view the proposition that Camille surfs is a fact consisting of Camille standing in the two-place propositional relation to the property of surfing. Picture the proposition as 2P above. We've already mentioned that King holds that speakers interpret the propositional relation of 2P as *ascribing* the property of surfing at its right terminal node to Camille at its left terminal node, and so the fact/proposition 2P is true iff Camille possesses the property of surfing. But in what sense do speakers interpret the propositional relation in this way? What constitutes their so doing? Recall that King claims that the *sentential* relation of the *sentence* 2 *is* interpreted by English speakers as ascribing the property that is the semantic value of 'surfs' to the semantic value of 'Camille', which we expressed by saying that the sentential relation R encodes ascription in English. Recall too that King claims that speakers are hard-wired to do this by their biologically endowed language faculty. King argues that interpreting the *propositional* relation of 2P as ascribing the property of surfing to Camille *just is the same thing* as interpreting the *sentential* relation of 2 as encoding ascription.[39] Hence in the end, the explanation for propositions having truth conditions for King is traceable to speakers interpreting syntax and hence ultimately to our biologically endowed language faculty.

Jeff Speaks (King, Soames, Speaks [2014]) defends the view that propositions are properties. The proposition expressed by 'Amelia talks', for example, is the property *being such that Amelia instantiates talking*. Speaks holds that this property is expressed by the sentence in virtue of the fact that the syntactic concatenation in the sentence contributes the relation ___ *is such that* ___ *instantiates* ___ to the proposition expressed

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[39] See King, Soames and Speaks [2014] Chapter 10 and King [forthcoming] for details.

(as Speaks notes, this is his version of King's notion of interpreting syntax), and the contents of 'Amelia' and 'talks' (Amelia and the property of talking, respectively) fill the second and third slots in this relation (in that order), yielding the property *being such that Amelia instantiates talking*. Truth for propositions is just instantiation: a proposition is true iff it is instantiated. Further, if a proposition is instantiated, everything instantiates it. If the actual world is such that Amelia instantiates talking, than so is my computer, Paris and everything else. Further, a proposition P is true at a world w iff if w were actual, P would be instantiated.[40]

Since we want there to be false and even necessarily false propositions, Speaks' account requires uninstantiated properties and even properties that couldn't be instantiated. Obviously, this means that no one whose theory of properties eschews uninstantiated properties or "impossible" properties can adopt Speaks' account.

Turning to the propositional attitudes, according to Speaks to believe that Amelia talks is to bear an attitude towards the property *being such that Amelia talks*. In particular, Speaks claims it is to believe something is such that Amelia talks. But putting things this way obscures the fact that for Speaks belief is a relation between an individual and a property (what appears to be said to be believed here is that something is such that Amelia talks, and that doesn't sound like a property). Perhaps it is better to make explicit that belief is a relation to a property for Speaks and say that to believe that Amelia talks is to bear the believes-instantiated relation to the property *being such that Amelia talks*. Speaks holds that one may believe-instantiated a property because there is some particular thing that one believes instantiates the property. Speaks suggests

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[40] Actually, Speaks expresses doubt as to whether this is what he wants to say ultimately. See King, Soames and Speaks [2014] Chapter 5 note 8.

that one might believe-instantiated the property that Amelia talks because one believes that the world instantiates that property. Speaks suggests that this fits well with the view that in believing, one takes the world to be a certain way.

There are other cognitive relations we bear to properties that are not propositions on Speaks' view. Here he wants to give an account of "first person" mental states that others have called belief, desire, etc. *de se*. Agents can bear the relation of self-attribution to properties like *being on fire*. This gives us "first personal" mental states of the sort discussed in the literature on *de se* belief. But the properties self-attributed here are not propositions and self-attribution of properties is not belief for Speaks. So Speaks account of these first person mental states is not an account of *de se* belief, desire and so on. On Speaks' account, he could believe Jeff Speaks is on fire, which for Speaks amounts to his believing-instantiated the property *being such that JS is on fire*. Or he could take himself to be on fire, which for Speaks amounts to self-attributing the property *being on fire*. The former is Speaks standing in a relation to a proposition; the latter is not.

As to the semantics of verbs of propositional attitude, Speaks takes 'believes' to express the following two-place relation between a person and a property: ___ takes to be instantiated the property___ (similar remarks apply to other verbs of attitude). It is important to see that for Speaks e.g. belief ascriptions do not by means of their semantics ever assert that one self-attributes a property (similar remarks hold for desire ascriptions etc.). Thus for Speaks, both 'I believe JS is on fire" and "I believe I am on fire" (uttered by Speaks) express the proposition that JS stands in the believes-instantiated relation to the property (proposition) *being such that JS is on fire*. Speaks

suggests that perhaps the proposition that JS self attributes being on fire can be pragmatically conveyed by his uttering "I believe that I am on fire." But Speaks is upfront about the fact that he has no explanation of the mechanism by means of which this proposition is pragmatically conveyed by uttering the sentence in question, while acknowledging that an account of the mechanism is required in order to sustain the suggested pragmatic approach.

A final point about Speaks' view. Though propositions *qua* properties have truth conditions ("instantiation conditions") on Speaks view, they do not represent anything and are not about anything. But surely our mental states with propositional content, such as believing that San Clemente is beautiful, *do* represent and *are* about something. But how can this be on Speaks' view if the things that are their contents don't have representational properties? Speaks holds that what makes my belief that San Clemente is beautiful about something is not the object of my belief (a proposition *qua* property) but the relation I stand in to it. Mental states like belief with representational properties can be factored into two parts: *a relation* that one bears to *the propositional content*. While most people have claimed that the latter infuses the mental state with its representational properties, Speaks claims it is (primarily) the former.[41]

We now turn to the theory of propositions formulated by Scott Soames [2010, 2015,] and King, Soames and Speaks [2014]. As mentioned above, Soames follows King in endorsing the three novel claims mentioned above from King [2007] and subsequent work: (i) Soames rejects theories according to which propositions have truth conditions and so represent the world as being a certain way by their very natures and independently

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[41]The qualification is here because as Speaks notes, the representational properties I instantiate when I believe snow is white have to be different from those I instantiate when I believe grass is green, and this difference is attributable to the difference in the propositions believed.

of minds and languages as mysterious; (ii) holds that an adequate theory of propositions must *explain* how\why propositions have truth conditions and so represent the world as being a certain way; (iii) and holds that since the representational capacities of propositions cannot be something they have inherently and by their natures, their representational capacities must derive from and be explained by the representational capacities of thinking agents. However, Soames' positive account of how/why propositions have truth conditions, and his theory of propositions more generally, differs significantly from King's.

Soames' starting point is what he calls the mental act of *predication*, which he takes to be primitive. However, he provides the following examples of predication. If an agent perceives an object o as red, and so has a perceptual experience that represents o as being red, the agent *predicates* redness of o. If an agent thinks of o as red, she thereby predicates redness of o.[42] For Soames, one can represent o as red and so predicate redness of o without believing o is red. Believing that o is red requires predicating redness of o *and* in some sense committing oneself to the predication. As we'll see, this is a crucial difference between Soames' theory and that of Hanks discussed below.

An agent predicating redness of o is a cognitive act *token*. Soames wants to identify propositions with certain cognitive act *types*. So for examples, on Soames' view the proposition that o is red is the act *type* of an agent predicating redness of o. More generally, propositions are identified with act types of agents performing *sequences* of primitive mental acts.[43] Soames holds that one entertains a proposition by performing an instance of the act type that it is.

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[42] Soames [2010a] p. 103.
[43] Soames needs a number of primitive mental acts beyond predication. See [Soames 2010a] p. 115, 122.

Let's now turn to Soames' account of truth functional and quantificational propositions. Taking truth functional propositions first, Soames holds that the proposition that is the negation of the proposition p is the act type of representing each thing as having the property of *not being such that p*, the latter being a property that is had by either everything or nothing.[44] Similar remarks apply to conjunctive and disjunctive propositions. Quantified propositions are acts of predicating complex properties or propositional functions of other properties or propositional functions. The proposition that all G's are H's is the act of first applying a function to the property or propositional function g, yielding the property of *being true of all things of which g is true* and then predicating the latter of the property or propositional function h.

When an agent predicates redness of o, she performs a token of the act type of predicating redness of o. As such, she entertains the proposition that o is red. In so doing, the agent *represents* o as being red. But this is a matter of *the agent* representing things being a certain way. *Propositions*—cognitive act types for Soames—are themselves supposed to represent things as being a certain way. But initially it is not at all clear how that could be. In performing an act token of predicating redness of o, an agent represents o as being red precisely because she is *predicating* redness of o. But then it would seem that for an act type to represent o as being red, it must predicate redness of o. In what sense could the *act type* be predicating redness of o? Soames says that the act type represents o as being red in the derivative sense that for an agent to perform it is for the agent to represent o as being red.

Soames' view individuates propositions very finely in the sense that on his account there are many more propositions than one might have expected. Consider the

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[44] Soames [forthcoming].

proposition that Plato was human. Call this proposition P. Suppose now I use the sentence 'Plato was human' to perform P by understanding the sentence. I thereby use the name to pick out Plato, use the noun to pick out humanity and use 'was human' to predicate humanity of Plato. Using the sentence in this way is for Soames a representational cognitive act itself and so counts as a proposition P* that is distinct from P—the proposition that Plato is human. After all, entertaining P does not require e.g. using the name to pick out Plato, but entertaining P* does. Entertaining P* is a way of entertaining P, but not vice versa. Similarly, in understanding each of the following, I entertain the proposition that Hempel was a philosopher, which we'll call H:

2a. Carl Hempel was a philosopher.

2b. Peter Hempel was a philosopher.

But in understanding 2a I also entertain a proposition H_c ($\neq H$) whose grasp requires me identify Hempel by cognizing him using the name 'Carl', which proposition I do not entertain in understanding 2b. And in understanding 2b I also entertain a proposition H_p ($\neq H$ and $\neq H_c$) whose grasp requires me to cognize Hempel using the name 'Peter', which proposition I do not entertain in understanding 2a. So in understanding both 2a and 2b I entertain three distinct propositions on Soames' view: H, H_c and H_p, all of which are true iff Hempel is a philosopher.[45] Presumably, this also means that when an English and Filipino speaker understand the sentences 'Carl Hempel is a philosopher.' and 'Carl Hempel ay isang pilosopo.', respectively, though there is a common proposition they entertain (H above), each also entertains another propositions that the other does not (one involves using 'is a philosopher' to predicate being a philosopher of Hempel, the other involves using 'ay isang pilosopo' instead).

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[45] Soames [forthcoming].

Peter Hanks [2015] defends a view with certain similarities to Soames' view. Like Soames, Hanks follows King in endorsing the three novel claims from King [2007] and subsequent work mentioned above: (i) Hanks rejects theories according to which propositions have truth conditions and so represent the world as being a certain way by their very natures and independently of minds and languages as mysterious; (ii) holds that an adequate theory of propositions must *explain* how\why propositions have truth conditions and so represent the world as being a certain way; (iii) and holds that since the representational capacities of propositions cannot be something they have inherently and by their natures, their representational capacities must derive from and be explained by the representational capacities of thinking agents.

In simple cases of judging and asserting, Hanks claims we perform actions of predicating properties of objects. Hanks claims that in silently judging that Ted Cruz is a demagogue, one thinks of Cruz (*refers* to him in thought), thinks of the property of being a demagogue (*expresses* the property in thought) and *predicates* the property of Cruz. In asserting that Cruz is a demagogue, one likewise refers to him, expresses the property and predicates it of him, this time by linguistic means. According to Hanks, in predicating a property of an object, one characterizes the object as being a certain way and so does something that is true or false. That is, Hanks claims these token acts of predicating are true or false. Unlike Soames' notion of predication, Hanks notion is inherently assertive and committing. There is not some neutral thing you do in predicating and then add endorsement or commitment. Predicating *is* committing to the object possessing the property in question on Hanks' view. The proposition that Ted Cruz is a demagogue is the act *type* of predicating *being a demagogue* of Cruz. Hanks holds that this act type

would exist even if it had no tokens. In general, Hanks holds that the act types that are propositions exist whether they have tokens or not.

As we've seen, the proposition that Cruz is a demagogue is the act type of referring to Cruz, expressing the property of being a demagogue and predicating it of Cruz. What Hanks calls the *interrogative proposition* expressible by the question 'Is Cruz a demagogue?' is the act type of referring to Cruz, expressing the property of being a demagogue and combining Cruz and the property in an interrogative way (rather than *predicating* the property of Cruz). Similarly, the *imperative proposition* expressed by the command 'Cruz, be a demagogue!' is the act type of referring to Cruz, expressing the property of being a demagogue and combining object and property in an imperative manner. It should be clear that Hanks rejects the idea that there is some common underlying content running through the (assertive) proposition, imperative proposition and interrogative proposition regarding Cruz being a demagogue. There are just three different propositions here with their "forces" (assertive, interrogative, imperative) built in.

Hanks' explanation of why propositions as act types of the sort described have truth conditions comes in two steps. First, Hanks argues that token acts of predicating properties of objects have truth conditions. Hanks recognizes that some may doubt whether act tokens are the kinds of things that can be true and false. His main argument that they can be is that we have adverbial modifiers 'truly' and 'falsely' and that these attribute properties to action tokens. So just as 'quickly' in 'Obama quickly stated that Clinton is eloquent.' attributes a property to Obama's action, so Hanks claims that 'truly' in 'Obama truly stated that Clinton is eloquent.' attributes the property of being true to an

action of Obama. Hanks then tries to argue that the action *type* of predicating being a demagogue of Cruz inherits the property of having truth conditions from its instances. Note that here it must be actual and possible instances that truth conditions are inherited from, since Hanks wants propositions that have never been and never will be tokened to have truth conditions. The argument here is complex since Hanks notes that types inherit certain kinds of properties from tokens and not others. Hence, Hanks seeks to explain why the having of truth conditions is the kind of property a type inherits from its (actual and possible) tokens.

Even more so than on Soames' theory, on Hanks' theory there are many more propositions than one might have thought. First, there is the proposition that is the act type consisting of referring to Clinton using 'Clinton' and predicating eloquence of her. It is true iff Clinton is eloquent. Then there is a distinct proposition with those same truth conditions that is the act of referring to Clinton in any way whatsoever and predicating eloquence of her. Next, there is another proposition with these same truth conditions consisting of the act of referring to Clinton using 'Clinton' while thinking of her as Obama's former secretary of state and predicating eloquence of her. In addition, there is yet another proposition with the same truth conditions consisting of referring to Clinton using 'Clinton' while thinking of her as the wife of Bill Clinton and predicating eloquence of her. And so on. Again, all these propositions are true iff Clinton is eloquent. There is even a proposition consisting of referring to Clinton using 'Clinton' while drawing a round square and predicating eloquence of her.[46]

Above we saw that for Hanks, predication endows propositions with an inherent element of judgment or assertion. Predicating a property of an object *commits* the

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[46] See Hanks [2015] pp77-78 and note 10 p. 78.

predicator to the object having that property. For Hanks, she did something false if it doesn't. But this raises a problem for him. In disjunctive, negated, conditional propositions and others, embedded propositions do not have assertive force. They aren't asserted. But if these embedded propositions inherently have an assertoric or judgmental element, how can this be? To address this Hanks claims that 'or', 'if' and 'not' create *cancellation contexts*. Since e.g. 'or' creates a cancellation context on Hanks' view, in uttering the following sentence I fail to assert that Cruz is a demagogue:

 3. Cruz is a demagogue or Clinton is eloquent.

Each disjunct expresses a proposition that includes as a sub act the act of predicating a property of the object according to Hanks. But the predication is cancelled. Hence, the asserting/committing element in the proposition is cancelled. Hanks must walk a very fine line here. The inherently assertive committal aspect of predication is what explains both that propositions are true and false and that unembedded propositions make assertions.[47] To explain why some embedded propositions *don't* make assertions, Hanks appeals to the notion of the predication being cancelled in virtue of occurring in a cancellation context. But of course Hanks will want to say that the embedded proposition still has truth conditions and is true or false. Somehow in canceling the predication, though assertive force is cancelled the truth conditions and truth-value aren't, even though predication is responsible for both.

Above it was mentioned that King [2007] and subsequent work endorsed three novel claims about propositions. Two of these are: (i) theories according to which propositions have truth conditions and so represent the world as being a certain way by their very natures and independently of minds and languages are mysterious and to be

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[47] Hanks [2015] p. 22

rejected; (ii) an adequate theory of propositions must *explain* how\why propositions have truth conditions and so represent the world as being a certain way.[48] As we saw, Soames and Hanks follow King in this respect. In a sense, Speaks does too insofar as he feels the need to explain the "aboutness" or intentionality of some mental states.[49] So most recent literature on propositions has taken onboard these two claims of King's. However, some philosophers recently have advocated a return to a more classical conception of propositions on which they are thought to be mind and language independent abstract objects that by their very natures have truth conditions and so represent the world as being a certain way. Such views reject both of King's claims. On the views in question, propositions *are* held to have truth conditions by their natures and independently of minds and languages; and it is *denied* that there can be any explanation of how/why propositions have truth conditions. Trenton Merricks [2015] defends such a view. According to Merricks, propositions are abstract, necessary existents that essentially represent the world as being a certain way.[50] Merricks claims that the fact that propositions essentially represent things as being a certain way is primitive. That is, this fact has no explanation.[51] Further, Merricks holds that propositions are *simple*: they have no constituents.[52] It is worth emphasizing that on this last point, Merricks departs from the classical views of Frege and Russell. On both of their views propositions have constituents.

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[48] King actually made this point in earlier work. See King [1995].
[49] Recall that on Speaks' view, the aboutness of propositions doesn't have to be explained because they aren't about anything.
[50] Merricks [2015] pp. 191-94
[51] Merricks [2015] p. 195
[52] Merricks [2015] p. 207

Lorraine Juliano Keller [2014] expresses sympathy for a similar view that she calls *propositional primitivism*. Her primitivist thinks that not much of anything can be said about the inner nature of propositions except that they are abstract, mind and language independent entities with no constituents or structure. They have truth conditions and are about things, but no explanation can be given of this. On this view, propositions are fine-grained *sui generis* entities. They are not reducible to nor can they be explained by entities in another ontological category. King, Soames, Hanks and perhaps Speaks find a view of this sort mysterious. Merricks and Keller instead find it simple and elegant.

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