Propositions, Synonymy, and Compositional Semantics

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Introduction

Quine and Davidson always insisted that their skepticism about propositions had nothing to do with ontological parsimony or nominalistic scruples about abstract objects. Quine’s complaint was that “if there were propositions, they would induce a certain relation of synonymy or equivalence between sentences themselves” (Quine 1970, 3), and such a synonymy relation makes no objective sense. Davidson agrees with Quine about this, of course, but adds his own reasons for rejecting propositions. In “Truth and Meaning” he famously remarked that:

Paradoxically, the one thing meanings do not seem to do is oil the wheels of a theory of meaning — at least as long as we require of such a theory that it non-trivially give the meaning of every sentence in the language. My objection to meanings in the theory of meaning is not that they are abstract or that their identity conditions are obscure, but that they have no demonstrated use. (Davidson 1967, 20-1)

His point was that associating meanings with linguistic expressions is neither sufficient nor necessary for a theory that aims to give the meanings of sentences on the basis of the meanings of their parts. This is a direct challenge to the theoretical usefulness, and hence existence, of propositions.

The aim of this paper is to rescue propositions from Quine’s and Davidson’s objections. My central claim is that these objections only pose a threat to a certain Fregean conception of propositions, which, when set out explicitly, looks independently problematic. Quine’s and Davidson’s arguments only cast doubt on propositions as they are given to us by this Fregean conception. There is another way of thinking about propositions that bypasses these problems, and gives us a better overall picture of the relationship between content, thought, and language. According to this alternative, propositions are types of actions that we perform in thought and speech. These types are classificatory entities that we use to characterize and individuate our thoughts, utterances, and sentences. Conceiving of propositions in this way allows us to remain neutral about synonymy and the analytic/synthetic distinction, and it shows how it is possible to construct a compositional theory of meaning directly, by assigning meanings to the parts of sentences. Davidson’s claim that propositions do not oil the wheels of a theory of meaning is based on the supposed futility of this direct strategy. His alternative is to pursue a theory of meaning indirectly, by piggybacking off of the canonically derived theorems of an interpretive truth-theory.[[1]](#footnote-1) But even if this indirect strategy works, I think we can all agree that in the theory of meaning it is better to be direct than indirect.

Propositions and synonymy

 I call it the “Fregean” conception of propositional content, but the conception is not committed to Fregean senses as the constituents of propositions.[[2]](#footnote-2) The Fregean conception operates at a higher level of generality than debates about the semantic contents of names. It best viewed as a framework for thinking about propositional content and its relation to thought and language. The basic commitment of this framework is to a realm of objective, mind and language independent entities that are the primary or original bearers of truth conditions. Other things that have truth conditions, such as beliefs, assertions, and sentences, derive their truth conditions from propositions. To form an attitude or perform a speech act you must take hold of a proposition by entertaining it, and then you take an attitude toward it, or you put it forward with a certain illocutionary force. The satisfaction conditions of the resulting attitude or speech act are a function of the truth conditions of the proposition you entertained. The Fregean conception thus incorporates an explanatory order in which the representational features of propositions come first and those of thoughts, utterances, and sentences come second. The role for propositions, on this conception, is to serve as a source of truth conditions, which we put to various uses in thought and speech.

In the case of sentences, the Fregean account entails that for a sentence to have truth conditions it must bear a special relationship to a proposition. As Frege put it, “a sentence *expresses* a thought,” (Frege 1918, 328).[[3]](#footnote-3) Sentences have truth conditions because they express propositions. The sentence ‘Snow is white’ is true iff snow is white because the sentence expresses the proposition that snow is white, and this proposition is true iff snow is white. Logical properties and relations are explained in a similar fashion by reference to propositions. A sentence S1 implies S2 just in case the proposition expressed by S1 implies the proposition expressed by S2. Ambiguity is also cashed out in terms of propositions. A sentence is ambiguous if it expresses more than one proposition.

As we saw earlier, Quine’s complaint against this conception of propositions is that it induces a synonymy relation on sentences. Two sentences are synonymous just in case they express the same proposition. This synonymy relation is objective insofar as the propositions themselves are mind-independent abstract entities, and the expression relation is grounded in language-wide facts about conventions or use or what have you. Armed with the relation of synonymy for sentences it is easy to define synonymy for sub-sentential expressions: two expressions are synonymous just in case their substitution produces synonymous sentences. Synonymy for expressions can then be used to define analyticity. A sentence is analytic just in case it can be turned into a logical truth by substituting synonyms for synonyms (Quine 1951). In this way the Fregean account of propositional content leads directly to the analytic/synthetic distinction. It also renders translation determinate, since the synonymy relation provides a standard of correctness for translation manuals (Quine 1960, 205-6).

A Fregean might respond by locating indeterminacy in the expression relation between sentences and propositions.[[4]](#footnote-4) Perhaps the facts about conventions or use or etc. that ground the expression relation fail to determine that a sentence expresses any particular proposition. The propositions are out there, but there is no fact of the matter about which proposition a given sentence expresses. If the expression relation is indeterminate then the synonymy relation will be as well. Quine’s response would be that the synonymy relation between sentences is the only purchase we have on the identity conditions for propositions. As he put it, “the question of how to individuate propositions is the question how to define equivalence of sentences,” (Quine 1970, 8). If we let go of the synonymy relation by allowing the expression relation to be indeterminate then we lose identity conditions for propositions and hence lose the right to think of propositions as objects. In Quine’s view, the Fregean conception of propositions as *objects* carries with it a commitment to determinate synonymy relations.

The Fregean may have ways of resisting this Quinean line, for example by finding different identity criteria for propositions, or perhaps by rejecting Quine’s demand for such criteria. I don’t want to pursue this line of argument any further. Even if we put issues about analyticity and the indeterminacy of translation to one side, there are independent reasons for rejecting the Fregean conception of propositional content. These reasons coalesce in the form of the problem of the unity of the proposition. Although this problem manifests itself in different ways, at its core it is the problem of making sense of how propositions have truth conditions. On the Fregean view, we explain how thoughts and utterances and sentences have truth conditions by appealing to propositions. Propositions are supposed to have their truth conditions prior to and independently of these uses in thought and language. This naturally leads to questions about whether it is possible to explain how propositions themselves have truth conditions. Given the explanatory structure of the Fregean conception, in answering this question we cannot appeal to what goes on when subjects form judgments or make assertions. We are also barred from appealing to the semantic properties of sentences or words. Propositions must somehow have their truth conditions independently of all human representational activities. This forces us to look to the internal constituents of a proposition and their relations to one another to explain how the proposition has its truth conditions. This is why it makes sense to label this a *unity* problem. The explanatory order of the Fregean conception demands that we look to the way in which the constituents of a proposition are unified in order to explain how it has truth conditions.

In the light of the repeated failures to solve the unity problem, including those of Frege and Russell, it is tempting to say that there is no need to give an explanation for the truth conditions of propositions.[[5]](#footnote-5) Perhaps it is a ground-floor fact that propositions have truth conditions, not explainable in terms of other more basic facts. If that were right then it would be confused to ask how or why propositions have truth conditions. Propositions would be the primary bearers of truth conditions as a matter of brute or primitive fact.[[6]](#footnote-6)

But think about the picture of thought and language that results by taking propositions to be primitive bearers of truth conditions. How is it that our thoughts and utterances have truth conditions? The answer we now have is that there are certain abstract entities that have their truth conditions as a matter of brute fact. We latch onto these entities by entertaining them, and then we take various attitudes towards them, or we put them forward in various ways in speech acts. Our attitudes and utterances derive their truth conditions and other representational features from these abstract, primitive bearers of truth conditions. When set out explicitly like this, I think it is natural to feel dissatisfied with this explanation of how we represent the world in thought and speech.

The Fregean conception leads us to view human subjects, not as producers of representations, but as consumers of them. We do not generate representations when we form judgments or make assertions. Rather, we take various stances towards pre-existing representations when we form attitudes, or we put these representations forward in various ways when we perform speech acts. On the Fregean view, to think or to speak is to do something with a proposition. This inserts intermediaries between us and the objects and states of affairs that we think and talk about. To judge that *a* is F you must direct your attention on the proposition that *a* is F, and then endorse this proposition. Your judgment concerns *a* only indirectly, by way of the proposition that *a* is F. Our cognitive contact with the world is thus mediated through propositional representations that we bring before our minds through a faculty of entertainment.[[7]](#footnote-7) One can try to forge a direct relationship to objects by incorporating them into propositions as constituents, but then questions about unity come back to the forefront. If the proposition that *a* is F is a composite entity, with *a* as a constituent, then how are the components of the proposition unified together into something that is true iff *a* is F? Within the confines of the Fregean account, no appeal can be made to what subjects do or think or say, which makes the problem intractable.

The Fregean conception of content is in large part the result of a reaction, on Frege’s part, to a psychologistic conception of content that was prevalent among his predecessors. To combat psychologism Frege felt the need to make contents as objective and mind-independent as possible. Many of the features of the Fregean view are reflexes of this strive for objectivity. But it is not necessary to take on the whole Fregean package in order to capture what is important about the objectivity of content. Propositions need to be objective in the sense that they can be the common content of attitudes held by different subjects, or by a single subject on different occasions. Both of these commitments can be met by taking propositions to be types of actions that we perform in forming attitudes or making utterances. Types are sharable, in the sense that different subjects can perform tokens of the same type, and they are repeatable, insofar as a single subject can perform tokens of the same type on multiple occasions.

 This is the alternative to the Fregean conception of propositional content. It involves a reversal of the usual explanatory order. Instead of judgments and assertions inheriting truth conditions from propositions, propositions inherit truth conditions from particular judgments and assertions. Our acts of judging or asserting are the primary bearers of truth conditions, and propositions get their truth conditions from these actions. To judge or assert that *a* is F, on this view, is to predicate the property of being F of *a*. To predicate F of *a* is to apply or attribute the property of being F of *a*. This is to characterize *a* as being a certain way, and thus the act of predication can be right (true) or wrong (false) depending on whether *a* is this way. Truth conditions originate in this act of predication. A token act of predicating F of *a* is true iff *a* is F. The proposition that *a* is F is a type under which this act of predication falls, and it inherits these truth conditions from its tokens.

 This raises an immediate concern about whether acts are suited to be bearers of truth and falsity at all, much less the primary bearers. The motivation for this concern resides largely in the oddity of certain sentences that apply truth and falsity to actions. It sounds bad to say things like ‘Her act of judging that *a* is F is true’ or ‘What he just did in uttering that sentence was false’. On the basis of these and related examples many philosophers have concluded that it is a mistake, perhaps even a category mistake, to think that actions are bearers of truth and falsity.[[8]](#footnote-8) But these examples cannot settle the issue. The question is whether actions can be bearers of truth and falsity. To answer this we apply a linguistic test: are there any sentences that felicitously apply truth or falsity to actions? This is an existential question, and you can’t refute an existential claim with a handful of negative examples. You cannot show that there is no way to felicitously attribute truth or falsity to actions by offering a few examples that fail in this regard. And in any case, here are some positive examples:

 1a. She truly judged that *a* is F.

 b. He falsely stated that *b* is G.

Here the adverbs ‘truly’ and ‘falsely’ are verb modifiers that express properties of actions.[[9]](#footnote-9) English provides a number of closely related such adverbs:

 2a. She rightly/correctly/accurately judged that *a* is F.

 b. He wrongly/incorrectly/inaccurately stated that *b* is G.

The adverbs in (2a-b) can express different evaluative properties in different contexts. ‘Rightly’ and ‘wrongly’, for example, can obviously mean ‘morally right’ or ‘morally wrong’ in the right context. Nevertheless, each adverb has a clear representational sense on which it expresses the properties of truth or falsity. In some contexts, to say that she *rightly* or *correctly* or *accurately* judged that *a* is F is just to evaluate her act of judging as true.[[10]](#footnote-10) This is enough to show that our ordinary ways of talking allow us to evaluate actions for truth and falsity. Token acts of judging or asserting are perfectly appropriate as bearers of truth and falsity. On the present alternative to the Fregean conception, they are the primary or original bearers.

 On the Fregean view, propositions serve as a source of truth conditions. On this alternative, propositions play a fundamentally classificatory role. Types are classificatory by nature. We use them to classify and individuate the things that fall under them. Propositions are types of representational actions, and we use them to characterize, classify, and individuate our mental and spoken actions. To report a mental state or speech act by giving its propositional content is to classify that state or act under a type. Propositions do not endow our thoughts and utterances with truth conditions. Rather, they are devices we use for the purpose of identifying and distinguishing these states and actions.

 An analogy with measurement reports will help clarify this. Many philosophers, including Davidson, have observed that propositional attitude reports bear affinities to the sentences we use to report attributes like height, weight, temperature, and age.[[11]](#footnote-11)

 Jones is 6 feet tall.

 Jones weighs 150 pounds.

 Jones has a temperature of 98.6° F.

 Jones is 40 years old.

In each case we describe Jones by relating him to a node on a measurement scale. Now, no one thinks that the fact that Jones bears a relation to a node on a measurement scale *constitutes* the fact that he has a certain height or weight or etc. Jones bears the weighing relation to 150 pounds, but that is not *why* he weighs 150 pounds. The direction of explanation goes in the other direction. It is because Jones has a certain physical attribute that he bears the weighing relation to the node 150 pounds. The same applies to attributions of propositional content. In reporting a judgment or assertion we relate a subject to a type, which occupies a position in a structured system of such types. This is a way of characterizing an underlying representational act performed by the subject.

 The analogy between attitude reports and measurement sentences can be used to bolster the idea that propositions are types, but doing so requires fixing a mistake about the latter. Philosophers who have noticed the analogy tend to hold that measurement sentences report relations between objects and numbers. For example, according to Matthews, “…to say that an object has a temperature of 30° C is to say that the object stands in a substantive physical relation to the number 30,” (Matthews 2007, 124).[[12]](#footnote-12) For this to make sense, the units of measurement have to be built into the measurement relations. The logical form of ‘Jones has a temperature of 98.6° F’ would be ‘Temperature-in-°F (Jones, 98.6)’. A report using the Celsius scale would involve a different relation, i.e. ‘Temperature-in-°C (Jones, 37)’. All measurement sentences would employ the same numerical scale, the number line. The differences between measurements of height, weight, temperature, etc. would be located in the different relations we use to relate objects to numbers.

 I think this seriously distorts our intuitive understanding of measurement. Fahrenheit and Celsius give us different scales for measuring temperature, and when we switch from Fahrenheit to Celsius we switch from one scale to another. The two reports ‘Jones has a temperature of 98.6° F’ and ‘Jones has a temperature of 37° C’ relate Jones to different nodes on these two scales. Philosophers who hold that measurement sentences report relations between objects and numbers have to deny these apparent truisms. On their view, there is a single, unit-free numerical scale used for all measurement sentences. The obvious alternative is to build the units into the entities to which we relate objects when we give their measurements. To say that Jones has a temperature of 98.6° F is to relate Jones to a node on the Fahrenheit scale, 98.6° F. The logical form of this claim is ‘Temperature (Jones, 98.6° F)’. We use the same relation when we say that Jones’s temperature is 37° C, but we relate him to a node on the Celsius scale, 37° C. Measurement sentences report relations between objects and things like temperatures, heights, weights, and ages, not between objects and numbers.

 Numbers are metaphysically familiar sorts of entities, which may explain the comfort that philosophers have felt with the prevailing view that measurement sentences report relations between objects and numbers. Entities like 98.6° F and 150 pounds are less familiar. What is a temperature or weight or height? Think of them as types. The temperature 98.6° F is a type, tokens of which are things that have a certain temperature. 150 pounds is type, whose tokens weigh 150 pounds. The relations we use in measurement sentences are tokening relations. To say that Jones weighs 150 pounds is to say that he is token of the type 150 pounds. Similarly, propositions are types and propositional attitude relations are tokening relations. To say that Jones judged that *a* is F, or asserted that *a* is F, is to classify his acts of predication under the proposition that *a* is F. The analogy between measurement sentences and attitude reports is even stronger than many have supposed.

 So far I have focused on the role propositions play in the classification of mental and spoken acts, such as judgments and assertions. Propositions also play this classificatory role when assigned to sentences. To associate a sentence with a proposition is to associate a type of action with the sentence and thereby characterize an act someone performs by uttering it. The nature of this association is descriptive. It is meant to reflect a fact about how the sentence is used. This is in contrast to the Fregean conception, on which the relation between sentences and propositions accounts for how sentences have their truth conditions. On the classificatory alternative, the fact that a sentence expresses a proposition does not explain why that sentence means what it does or why it has certain truth conditions. Rather, it simply records a fact about what speakers do with that sentence when they utter it.

 Both the Fregean conception and the classificatory alternative accept that there are underlying facts about conventions or use or etc. that ground semantic facts. According to the Fregean account, these facts determine the extension of the expression relation, which in turn determines the extension of the synonymy relation. On the classificatory alternative, the underlying facts determine synonymy relations, which then determine how propositions should be associated with sentences.

*Fregean conception*

Conventions, use, etc. → assignment of propositions to sentences → synonymy relations

*Classificatory conception*

Conventions, use, etc. → synonymy relations → assignment of propositions to sentences

Given the classificatory picture, there should be no temptation to say that propositions induce a synonymy relation on sentences. The fact that two sentences express the same proposition does not make it the case that they are synonymous. Rather, a shared association between two sentences and a proposition reflects a prior fact about the meanings of those sentences. Perhaps there is an objective synonymy relation, perhaps not. If there is, then there will be a single, objectively correct scheme for classifying sentences with propositions. If not, then not. The classificatory conception of propositions is neutral about the objectivity of synonymy, the analytic/synthetic distinction, and the indeterminacy of translation.

Consider the sentences ‘Jones is a doctor’ and ‘Jones is a physician’. In the classificatory framework, to ask whether these sentences express the same proposition is to ask whether a subject who utters them performs the same act of predication. If the sentences are synonymous, then these utterances ought to be classified under the same type of act of predication. If not, then the utterances should be classified under different types. If there is no fact of the matter, then either scheme of classification will accord equally well with all the underlying facts about conventions, use, etc., and there is no answer about which one is correct.

These three options correspond to three answers we can give about how to individuate these types of acts of predication. If the sentences are synonymous, then predicating being a doctor of Jones is the same type of act as predicating being a physician of Jones. If the sentences are not synonymous, then these are different types of acts of predication. If there is no fact of the matter, then the types can be individuated only relative to a scheme of classifying sentences with propositions. Relative to one scheme they count as the same type, relative to another they count as different types. Irrespective of any classificatory scheme, there is no fact of the matter about whether the types are identical. If there is no objective synonymy relation then propositions are best viewed as theory-relative classificatory devices, which have no theory-independent status or identity conditions.[[13]](#footnote-13)

The Fregean picture, by contrast, is committed at the outset to the mind and theory-independent status of propositions. By Quine’s lights, this locks the Fregean into one of the first two options described above, and hence into the reality of the analytic/synthetic distinction and the determinacy of translation. As we saw earlier, there may be ways for the Fregean to resist these conclusions, e.g. by finding a way to individuate propositions other than in terms of synonymy relations. That is going to force the Fregean to face difficult questions about the nature and unity of propositions. I suspect that in answering these questions the Fregean will be pushed toward the view that propositions are primitive bearers of truth conditions, which leaves us with a philosophically unsatisfying picture of the relationship between content, thought, and language. In any case, the point I want to emphasize is that the classificatory conception of propositions carries no antecedent commitment to objective facts about how propositions are to be individuated. Understood in the classificatory sense, propositions should be acceptable even to the most hardened Quinean.

Propositions and compositional semantics

 A compositional theory of meaning for a language *L* will tell us the meaning of every sentence of *L*, and will do so by showing how the meanings of sentences are determined by the meanings of their parts. If you have a theory that tells you the meaning of a sentence, and you understand the theory, then you should be in a position to understand that sentence. Knowing a compositional theory of meaning for *L* should therefore equip someone with the ability to understand every sentence of *L*. In particular, knowing a theorem that states the meaning of a sentence *S* should grant you an understanding of *S*.

 What is it to know or understand the meaning of a sentence? Many philosophers are attracted to Wittgenstein’s slogan that “to understand a sentence means to know what is the case if it is true,” (Wittgenstein 1922, 4.024). But that can’t be right in general, since many sentences, such as interrogatives and imperatives, are not true or false. Even in the case of declarative sentences it is often possible to know what is the case if a sentence is true without understanding that sentence. Consider any sentence of the form ‘Snow is white and *S* or not-*S*’. I know that any sentence of this form is true iff snow is white, and I know that without having to understand *S*.

Better: to understand a sentence is to know what a competent user of that sentence says by uttering it. To say something with a sentence is to perform a certain type of action. In at least one important sense, then, to understand a sentence is to know what type of action a competent speaker performs by uttering that sentence. A theory that tells us, for any sentence *S* of *L*, what type of action a competent speaker of *L* uses *S* to perform would grant us the ability to understand the sentences of *L*. A compositional theory of meaning can therefore serve its purpose by associating types of actions with sentences. To be compositional, the theory has to assign types of actions to sub-sentential expressions and show how to combine these component types into the types associated with sentences. Given the identification of propositions with types of actions, this is what a compositional assignment of propositions to sentences will do.

 Let’s borrow an example from Plato by way of Davidson — the sentence ‘Theatetus flies’. A competent speaker who utters this sentence predicates the property of flying of Theatetus.[[14]](#footnote-14) A compositional theory of meaning should associate this type of action with this sentence, i.e. the type of act of predicating the property of flying of Theatetus. This act of predication has a certain structure. To predicate flying of Theatetus, the speaker has to *refer* to Theatetus, *express* the property of flying, and *predicate* this property of Theatetus. The total act of predication can be factored into these component acts: an act of reference to Theatetus, an act of expressing the property of flying, and an act of predication. Let’s represent this type as follows:

 3. ┣ <**Theatetus***,* flying>

‘**Theatetus**’ stands for a type of act of referring to Theatetus, ‘flying’ stands for a type of act of expressing the property of flying, and ‘┣’ stands for predication.

 Note that I’ve separated the act of predication from the act of expressing the property of flying. Such a separation is called for because there are cases in which someone expresses this property without predicating it of anything. Consider the sentence ‘Does Theatetus fly?’. Someone who utters this sentence does not predicate the property of flying of Theatetus. Rather, the speaker *asks* whether Theatetus has this property. Let ‘?’ stand for this type of action, i.e the type of act of asking whether an object has a property. Here is the type of action someone performs by uttering the sentence ‘Does Theatetus fly?’:

 4. ?<**Theatetus**, flying>

Another way to combine the property of flying with Theatetus is to order Theatetus to fly, as in an utterance of ‘Theatetus, fly!’. Let’s use ‘!’ to stand for this type of action, i.e. ordering an object to have a property. In an utterance of ‘Theatetus, fly!’ a speaker performs a token of the following type:

 5. ! <**Theatetus**, flying>

Predication is only one of three things you can do with a property, along with asking and ordering.

 These three types, (3)-(5), are the propositions expressed by the sentences ‘Theatetus flies’, ‘Does Theatetus fly?’, and ‘Theatetus, fly!’, respectively. In order to arrive at assignments of these propositions to these sentences, a compositional theory of the kind we are envisioning will assign the reference type **Theatetus** to ‘Theatetus’ and the expression type flying to the predicate ‘flies’. But of course that’s not enough. To arrive at the types (3)-(5) we need to identify some other element or aspect of these sentences to be associated with the combinatory types ┣, ?, and !. The obvious candidates are the different sentential moods of these sentences. ‘Theatetus flies’ is in the declarative mood, ‘Does Theatetus fly?’ is in the interrogative mood, and ‘Theatetus, fly!’ is in the imperative mood. On this approach the sentential moods are semantically significant. We assign them contents — types of actions — alongside the other significant parts of sentences.[[15]](#footnote-15)

 This gives us a sketch of how a compositional theory of meaning of the present sort will work, at least for a simple sentence like ‘Theatetus flies’. The theory assigns a type of reference act to ‘Theatetus’, a type of expression act to ‘flies’, and predication to the declarative mood. We’ll also need a rule that says that the type assigned to a sentence is composed out of the types assigned to its parts and mood. This results in the assignment of the type ┣<**Theatetus**, flying> to the sentence ‘Theatetus flies’, and this assignment is sufficient to give the meaning of this sentence.[[16]](#footnote-16)

 Note that the rule for assembling these component types into sentence-level type can be very simple. The rule says that the type assigned to the sentence ‘Theatetus flies’ is the type composed out of the types assigned to its parts and mood. The rule doesn’t need to say anything more about how these types are composed because there is one and only one possible way of combining ┣, **Theatetus**, and flying into a composite type.[[17]](#footnote-17) These three component types compose uniquely into the type of act of predicating the property of flying of Theatetus. They cannot compose into the type of act of predicating Theatetus of flying, since there is no such type of action. This follows from the nature of the act of predication. To predicate a property of an object is analogous to sorting that object with other objects according to a rule for sorting. The rule involved in an act of predication is given by a property. Imagine that you have a pile of marbles of various colors in front of you, and you’ve decided to sort them according to their colors. Suppose you start by sorting out the green marbles. In doing so you’ve given yourself a rule for sorting, in the form of the property of being green. This rule determines whether any particular act of sorting is correct or incorrect. If you pick up a red marble and put it in the green pile then your act of sorting is incorrect. The property of being green provides the rule that determines correctness conditions for this act of sorting. The marbles themselves do not provide any such rule. It does not make sense to sort the marbles according to one of the marbles. You can sort them according to the property of being identical to a certain marble, but then you are sorting according to that property, not according to just the marble itself. Acts of predication are like acts of sorting, and they do not make sense in the absence of rules determined by properties. It is possible to randomly divide a pile of marbles into two groups, with no principle of division, but it is not possible to randomly predicate. An act of predication requires a rule, in the form of a property, in order to make sense. The only coherent way to combine the types ┣, **Theatetus**, and flying into a composite type, therefore, is to take the property of flying as giving the relevant rule and Theatetus as the target of the act of predication.

 It is also impossible to compose the types ┣, **Theatetus**, and flying by *conjoining* them into the type of act in which someone predicates *and* refers to Theatetus *and* expresses the property of flying. The reason there is no such conjunctive type is that there is no such thing as a free-standing act of predication, i.e. an act of predication that is not an act of predicating a property of an object. It makes no sense to *just* predicate. Any act of predication has to be an act of predicating a property of some intended target. This means that┣ must *merge* with **Theatetus** and flying to produce the composite type of act of predicating flying of Theatetus. Similarly, we cannot *disjoin* these types into the type of act of predicating *or* referring to Theatetus *or* expressing the property of flying. That again involves a free-standing act of predication, and there is no such thing. The only way to combine these types is to merge them together into the composite type of predicating the property of flying of Theatetus.

 To repeat, then, here is the sketch of a compositional theory of meaning for a simple sentence like ‘Theatetus flies’. We assign the reference type **Theatetus** to ‘Theatetus’, the expression type flying to the predicate ‘flies’, and predication, ┣, to the declarative mood. Then we have a rule that says that the type assigned to a sentence is composed out of the types assigned to its parts and mood. Since there is only one possible way to compose these types, this generates an assignment of the type of act of predicating flying of Theatetus, i.e.┣ <**Theatetus**, flying>, to the sentence ‘Theatetus flies’. This assignment tells us what type of action competent speakers use this sentence to perform, and in that sense gives the meaning of the sentence and enables someone to understand it.

 Now, there are serious questions about whether this approach can be scaled up to cover more than simple subject-predicate sentences.[[18]](#footnote-18) But that is not Davidson’s objection to propositions. His objection is not based on a perceived inability of the propositional approach to handle more complicated kinds of sentences. Davidson thought that the inutility of propositions could be demonstrated even for simple subject-predicate sentences like ‘Theatetus flies’. A key passage occurs in the second paragraph of “Truth and Meaning”:

One proposal is to begin by assigning some entity as meaning to each word (or other significant syntactical feature) of the sentence; thus we might assign Theatetus to ‘Theatetus’ and the property of flying to ‘flies’ in the sentence ‘Theatetus flies’. The problem then arises how the meaning of the sentence is generated from these meanings. Viewing concatenation as a significant piece of syntax, we may assign to it the relation of participating in or instantiating; however, it is obvious that we have here the start of an infinite regress. (Davidson 1967, 17)

The target of this passage might be the view that we can construct a compositional theory of meaning just by assigning entities to the parts and structures of sentences. In other words, perhaps we can construct a compositional meaning theory with nothing more than the theoretical device of assigning entities to words and syntax. But that is a straw man. It is obvious that this strategy cannot succeed. No matter what kinds of entities are assigned to the parts, we will need a rule that tells us how these entities are combined into the entities assigned to sentences.

 A more interesting target is the view that a compositional theory of meaning could consist of assignments of entities to the parts of sentences along with a compositional rule for putting those entities together into the entities assigned to sentences. The drift of Davidson’s argument would then be that there is no way to give such a compositional rule, i.e. there is no way compose a collection of entities together into the meaning of a sentence. As he put it, “the problem then arises how the meaning of the sentence is *generated* from these meanings,” (Davidson 1967, 17, my emphasis). That would make Davidson’s objection a form of the problem of the unity of the proposition. That problem, remember, is the problem of explaining how various entities can be unified together into something that is capable of serving as the meaning of a sentence. If the problem is intractable — if there is no way to assemble a collection of entities into the meaning of a sentence — then this strategy for compositional semantics is a dead-end.

 I think the theory I sketched above for ‘Theatetus flies’ counts as an instance of this strategy, and I think it is immune to Davidson’s argument. For Davidson’s argument to succeed there would have to be no way to compose entities together into something which, when assigned to a sentence, gives the meaning of the sentence and enables someone to understand it. The strategy I sketched above showed that this is possible. The key to its success is that it results in an assignment of types of actions to sentences.

 Immediately after giving the argument I just quoted Davidson considers an attempt at a compositional theory of reference for expressions of the form ‘the father of *n*’. Suppose we assign the father-of function to ‘the father of’ and referents to names, e.g. Annette to ‘Annette’. Even with these assignments in place we can still ask how the referent of ‘the father of Annette’ is determined by the entities assigned to its parts. According to Davidson, we need a rule that tells us that when a name is combined with ‘the father of’, the resulting expression refers to the father of the referent of that name. But once we have this rule, the assignment of the father-of function to ‘the father of’ is otiose. The rule, along with assignments of referents to names, allows us to derive statements that give the referents of any expression of the form ‘the father of *n*’. There is no need along the way to assign an entity to ‘the father of’. Assuming these considerations carry over to sentences, the lesson is that it is not necessary to assign an entity to each meaningful part of a sentence in order to arrive at theorems that give the meanings of sentences.

 I bring this up because Lepore and Ludwig take these considerations to reveal the “deep reason for the inutility of meanings in pursuit of a compositional meaning theory,” (2005, 55). The rule for ‘the father of’ *uses* the expression ‘the father of’ to give the referents of expressions of the form ‘the father of *n*’. Lepore and Ludwig think that this shows something important about how it is possible to give the meaning of a sentence in such a way that will allow someone to understand it. Doing so requires *using* a sentence in the meta-language to give the meaning of the target object-language sentence. An assignment of an entity to an object language sentence grants understanding of that sentence only insofar as someone can, on the basis of that entity, produce a matching meta-language sentence. It is worth quoting Lepore and Ludwig at length about this:

The fact that we treat the expressions as referring to, or being assigned, a meaning, is not what enables understanding. It is prior understanding of the expressions in the meta-language which are chosen because they are the same in meaning as the object language terms. This is true as well of approaches which assign properties or relations to predicates and propositions to sentences. The properties are identified using predicates synonymous with the predicates whose meanings are being given (‘being red’ for ‘red’, etc.), and the propositions are represented using ordered n-tuples specified using terms that are the same in meaning as object language terms, and whose structure is in accordance with a rule that enables us to produce a meta-language sentence alike in meaning to the object language sentence the proposition expressed by which is thereby represented. The whole effect is achieved by contriving a mechanical way of matching a metalanguage sentence alike in meaning to an object language sentence. Since it is the mechanical matching of object language sentences with metalanguage sentences we understand that does the work, the appeal to meanings as entities is not necessary. Since assigning the meanings does not itself guarantee that we assign them in ways that generates such a mapping, the appeal to meanings is not sufficient either. (Lepore and Ludwig 2007, 25-6)

If Lepore and Ludwig are right about this — if entities assigned as meanings enable understanding only insofar as they allow someone to pair an object language sentence with a used metalanguage sentence — then assigning entities to sentences is at best an unnecessary detour on the way to such pairings.

 But how does using a sentence in the metalanguage enable someone to understand an object language sentence? What is so important about *using* a sentence? To use a sentence is to perform a certain type of action. If the metalanguage sentence has the same meaning as the object language sentence, then by using the metalanguage sentence you perform a token of the type of action that the object language sentence is used to perform. This is enough to grant someone knowledge of the type of action associated with the object language sentence, and hence enough to grant understanding. Suppose I want to know what ‘Schnee ist weiss’ means. I want to know what someone would say if she were to utter ‘Schnee ist Weiss’. My bilingual German friend responds by using the sentence ‘Snow is white’, thereby performing a token of the type of action that someone performs by uttering ‘Schnees ist weiss’. That answers my question. Now I know what ‘Schnee ist weiss’ means. I know what type of action this sentence is used to perform, and I know this because I have been provided with a token of that type of action. The important thing, though, is that I know what type of action ‘Schnee is weiss’ is used to perform. The *way* in which I come to know this type does not matter so much as the fact that I come to know that it is the type associated with ‘Schnee ist weiss’. My German friend also could have answered by saying (in English) that when you utter ‘Schnee ist weiss’ you predicate whiteness of snow. That would also have granted me an understanding of this German sentence. In this case, however, my German friend didn’t use the sentence ‘Snow is white’. She identified the relevant type in a different way, by describing it as an act of predicating whiteness of snow.

 Of course, not any way of identifying a type will grant understanding. Suppose President Obama says that snow is white at a news conference (and that is all he says). I do not learn what ‘Schnee ist weiss’ means if I am simply told that it is what Obama said at the news conference. This allows me to identify the type of action associated with ‘Schnee ist weiss’ — it is the type of action Obama performed at the news conference — but that does not help me understand this sentence. The type has not been identified in the right way. So not just any way of identifying a type of action will grant understanding. There must be a constraint on the way a type is identified if doing so is to give the meaning of a sentence. Using a sentence meets this constraint, as does, I submit, describing the structure of the act of predication.

It is not difficult to see what the relevant constraint must be. Some ways of identifying a type enable someone to perform a token of that type; others don’t. Identifying a type by tokening it, or by describing its structure as an act of predication (or asking or ordering), will put someone in a position to perform a token of that type. If you provide me with a token of the type of act of predicating whiteness of snow, or if you describe that act as an act of predicating whiteness of snow, then I am in a position to perform a token of this type. On the other hand, if you describe the type as what Obama said at the news conference, and that’s all I know about the type, then I am not in a position to perform a token of this type. We might say that understanding a sentence requires *executive* knowledge of the type of action that competent speakers use it to perform, i.e. knowledge that enables a speaker to perform a token of that type. Using a sentence in the metalanguage is one way to grant someone executive knowledge of a type, but it is not the only way.

The point of these considerations is to show that there is a way to construct a compositional theory of meaning by assigning entities to the parts of sentences and assembling those entities into propositions that are assigned to sentences. This strategy is sufficient for deriving theorems that give the meanings of object language sentences. Now, Davidson’s other point was that such a strategy is not necessary. There are other ways of pursuing compositional semantics that do not assign entities to each meaningful part of a sentence, and that do not assign propositions to sentences. This is, of course, Davidson’s truth-theoretical approach. Davidson’s truth-theoretical strategy is best understood as an indirect approach to the theory of meaning. What we get directly from a truth-theory are theorems of the form ‘S is true iff *p*’. These theorems *do not* tell us the meanings of sentences. However, if the axioms of the theory are interpretive, and the theorems are derived in the right sort of way, then we can be sure that the sentence on the right gives the meaning of the sentence on the left.[[19]](#footnote-19) From each appropriately derived T-sentence of an interpretive theory we can therefore arrive at an M-sentence of the form ‘S means that *p*’. The truth-theory, along with an additional rule that allows us to derive M-sentences from T-sentences, constitutes the compositional meaning theory.

Some philosophers have argued that this indirect approach cannot give us what we want out of a compositional theory of meaning (Harman 1974; Speaks 2006). These philosophers think that a Davidson-style theory tells us no more about meaning than what we would get from a translation manual coupled with a rule that allows us to move from translational theorems to M-sentences. If such an expanded translation manual does not suffice as a compositional theory of meaning then an indirect Davidsonian truth-theory shouldn’t either. This would undercut Davidson’s claim that assigning meanings as entities is not necessary for the theory of meaning — although really establishing that would require showing that there is no other way to pursue a theory of meaning, and I do not know how someone could argue for that. In any case, it is beyond the scope of this paper to decide whether Davidson’s indirect approach succeeds. It is enough for my purposes to have shown that a compositional assignment of propositions to sentences can do the work of a theory of meaning.[[20]](#footnote-20)

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1. Here I follow the interpretation of Davidson’s project in (Lepore and Ludwig 2005, 2007). [↑](#footnote-ref-1)
2. See (Hanks 2015, ch.1) for more on the Fregean conception, and why I call it “Fregean”. [↑](#footnote-ref-2)
3. Nothing I have to say in this paper depends on or involves context-sensitivity, so we can safely suppress the need to relativize the expression relation to contexts. [↑](#footnote-ref-3)
4. I am indebted here to discussions with David Taylor. [↑](#footnote-ref-4)
5. See (Hanks 2015, ch. 2) for discussions of Frege’s and Russell’s attempts at solving the unity problem.

 [↑](#footnote-ref-5)
6. See (Merricks 2015) for a recent example of this view. [↑](#footnote-ref-6)
7. Davidson attacks this idea in (Davidson 1987), arguing that it undermines first-person authority about what we think and believe. [↑](#footnote-ref-7)
8. See, for example, (Strawson 1950, 162), (Searle 1968, 423), (Bar-Hillel 1973, 304), (MacFarlane 2005, 322), and (King 2013, 90). Friederike Moltmann has offered detailed and forceful statements of this line of argument – see (Moltmann 2013, this volume). I can’t fully address Moltmann’s objections here, but I will try to blunt their force. See (Hanks 2015, ch.3) for a related discussion.

 [↑](#footnote-ref-8)
9. ‘Truly’ can also be read as a sentence modifier, meaning something like ‘actually’ or ‘in fact’. But it doesn’t have to be read this way. There is a perfectly good reading of (1) on which ‘truly’ adverbially modifies ‘judged’. (Moltmann 2013, 698) points out that German and French lack adverbial counterparts of this use of ‘truly’, but that seems neither here nor there. She also argues that uses of ‘true’ as a modifier of nouns for states or actions are infelicitous, e.g. ‘John’s true state of believing’, ‘that true act of claiming that *a* is F’. I don’t share Moltmann’s judgments about these examples — they seem fine to me. [↑](#footnote-ref-9)
10. Moltmann rightly observes that “for an act of asserting to be correct, it needs to fulfill whatever the relevant norms are, norms that may vary from context to context,” (2013, 690). (This is by way of drawing a contrast with what she calls the “products” of acts of assertion, which, according to Moltmann, have truth as their context invariant norm of correctness.) But this is a problem only if truth is never the relevant contextual norm for acts of assertion, and it obviously is sometimes the relevant norm. In many contexts the correctness of an act of assertion is just a matter of its truth or falsity.

 [↑](#footnote-ref-10)
11. See, for example, (Churchland 1979), (Field 1981), (Stalnaker 1987), (Dennett 1987), (Davidson 1989, 1997), (Matthews 1994, 2007) and (Perry 2001). [↑](#footnote-ref-11)
12. See also (Stalnaker 1987, 8) and (Davidson 1989, 59; 1997, 83). [↑](#footnote-ref-12)
13. Elsewhere I wrote that to adopt the classificatory picture of propositions is “not to adopt an instrumentalist or anti-realist attitude about propositions,” (Hanks 2014). Strictly speaking this is correct: the classificatory picture does not entail an anti-realist attitude about propositions. It all depends on whether one accepts the analytic/synthetic distinction. But I wasn’t sensitive to this when I made the earlier remark, which now strikes me as misleading. [↑](#footnote-ref-13)
14. I think this is true without qualification. *Any* utterance of ‘Theatetus flies’ by a competent speaker is an act of predicating the property of flying of Theatetus, even ones that are embedded inside conditionals, disjunctions or attitude reports, or that are ironic or non-literal, or that are performed on stage or as part of a joke, or etc. The key point is that it is possible to predicate flying of Theatetus without thereby asserting that Theatetus flies. This occurs in what I call *cancellation contexts*, contexts in which an act of predication does not count as an assertion. The use of words like ‘if’ and ‘or’ and ‘believes’ create cancellation contexts, as do irony and non-literality and theatrical conventions. See (Hanks 2015, ch. 4) for more on this notion of cancellation. [↑](#footnote-ref-14)
15. This is not to say that there is a conventional or semantic association between the declarative mood and *assertion*. Davidson argues against such an association in (Davidson 1979). I am claiming that there is a semantic association between the declarative mood and the act of *predication*, and not every act of predication is an act of assertion. The use of a declarative sentence during a play is an act of predication on the part of the actor, but it is not an assertion by the actor. This is because the act of predication takes place in a context in which acts of predication do not count as assertions. This is an example of a cancellation context, a context in which acts of predication do not have their usual status as assertions.

 [↑](#footnote-ref-15)
16. The theory’s work is done once it assigns a proposition to a sentence – there is no additional need for a recursive assignment of truth conditions to propositions. This avoids a nagging problem for the usual presentations of structured propositions semantics. The structured propositions framework is typically presented as consisting of two stages, a recursive assignment of propositions to sentences in stage 1, and a recursive assignment of truth conditions to propositions in stage 2 (e.g. Soames 1989; King 2007). This makes the assignment of propositions look like an unnecessary detour on the way to an assignment of truth conditions to sentences, which tends to make the Davidsonian truth-theoretic alternative look appealing, since it bypasses stage 1 and goes directly to the assignment of truth conditions. On the approach I am defending there is no need for stage 2. All of the work of the theory of meaning is accomplished at stage 1 in the recursive assignment of propositions to sentences.

 [↑](#footnote-ref-16)
17. That is, there is only one way to assemble these *and only these* three component types into a composite type. There are, of course, innumerable ways of combining these three types with other types to arrive at composite types. [↑](#footnote-ref-17)
18. Elsewhere, (Hanks 2011, 2015), I show how this approach can be extended to relational, compound, and quantified propositions, as well as the propositions expressed by propositional attitude reports. [↑](#footnote-ref-18)
19. See (Kölbel 2001) and (Lepore and Ludwig 2005, 71-4).

 [↑](#footnote-ref-19)
20. Many of the ideas in this paper originated during an NEH Summer Seminar on Quine and Davidson, held at Princeton in summer 2011. Thanks to the organizers, Gilbert Harman and Ernie Lepore, and to all the participants in the seminar, especially Kirk Ludwig and Greg Ray, for many illuminating conversations about Quine and Davidson. [↑](#footnote-ref-20)