About Aboutness

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1. Introduction

Propositions seem to be about things. For instance, <the cat is on the mat> seems to be about a cat and a mat; <your shoes are in the closet> is about some shoes and a closet; <2 + 1 = 3> is about some numbers and their relationship; and so on. But what exactly is it for a proposition to be about something? What is the nature of aboutness?

I shall develop a theory of aboutness that builds upon recent theories of propositions.[1] My theory is designed to help us solve a puzzle that arises from certain paradoxical propositions about propositions. I show that by thinking of propositions as ordered unities of properties, we can analyze aboutness in terms of the exemplification conditions of the properties that constitute a proposition.

2. A Puzzle about Aboutness

I begin by stipulating the following definition: "*x* is a proposition about itself" $=_{def}$ "there are some *y*s, such that *x* is the proposition that the *y*s exist, and *x* is one of the *y*s". With this definition in hand, consider the following *reductio* argument, which I will call "the Aboutness Paradox":

(1) For any *x*s, there is the proposition that the *x*s exist.
(2) There are some *y*s, such that the *y*s are all and only the propositions that are not about themselves.
(3) Therefore, there is the proposition *P* that the *y*s exist. (1, 2)
(4) If *P* is a proposition about itself, then *P* is one of the *y*s—and thus, *P* is *not* a proposition about itself (by definition).
(5) If *P* is not a proposition about itself, then *P* is not one of the *y*s—and thus *P* is a proposition about itself (by definition).
(6) Therefore, there is a proposition that is about itself *if and only if* it is not. (3–5)

[1] I have in mind especially *structural* theories given by, for example, Russell (in "On Propositions: What They Are and How They Mean"), Frege (in "The Thought: A Logical Inquiry"), Scott Soames (in *What is Meaning?*, pp. 99–130), Nathan Salmon (in *Frege's Puzzle*), Jeff King (in *The Nature and Structure of Content*), and *Peter Hanks (in "Structured Propositions as Types"). Cf. essays by* King, McGlone, Soames, and Speaks in *New Thinking About Propositions (forthcoming).*

The argument has a Russellian flavor to it.[2] This argument concerning propositions, however, is, in my opinion, more challenging than Russell's paradox concerning sets. Concerning sets, we may carefully craft axioms of set-hood (such as Zermelo-Fraenkel's axioms) that preclude the existence of sets that are members of themselves. But it is not so clear how crafting axioms concerning aboutness could help us see where *this* argument goes wrong. After all, the argument makes no explicit assumptions about the nature of aboutness: although the argument is given in terms of the word "about," I could have given the argument in terms of "about*", using the same stipulated definition. Thus, it seems the puzzle concerning propositions is importantly different from the puzzle concerning sets.

Let us have a closer look at the premises. Start with premise 1: for any *x*s, there is the proposition that the *x*s exist. This premise seems to fall out of the traditional abstractionist theory according to which propositions are necessarily existing abstracta. For suppose propositions are necessary entities. Then it is plausible that for *any* fact, there is a proposition that corresponds to (or *is*) that fact. If that's right, then it is plausible that for any fact of the form *that the xs exist*, there is a proposition of that same form.

Premise 1 won't appeal to nominalists, of course: for it is plausible that things can exist even if no *concrete* proposition about those things has been expressed or uttered. But I am interested in seeing if there is a solution that doesn't *require* us to be nominalists.[3] So, for the sake of argument, I will assume that truth-value bearers are abstract entities. And I will grant that for every fact, there is a corresponding proposition. Given these assumptions, it seems premise 1 is undeniable.

Turn, next, to premise 2: there are some *y*s, such that the *y*s are all and only the propositions that are not about themselves. Here is an argument for premise 2:

2.1. <2 + 1 = 3> is a proposition.
2.2. <2 + 1 = 3> is not about itself (by the stipulated definition).
2.3. Therefore, there is a proposition that is not about itself. (2.1, 2.3)
2.4. Therefore, there are *the* propositions that are not about themselves.
2.5. Therefore, there are some *y*s, such that the *y*s are all and only the propositions that are not about themselves.

I find each step in this argument to be plausible (inescapable, really). Someone might reject the inference from 2.4 to 2.5 on the grounds that they can't make sense of plural quantification. But my impression is that most philosophers find plural quantification unproblematic. Moreover, the

[2] Cf. Russell, *Principles of Mathematics*, p. 527.

[3] Moreover, there is a version of the Aboutness Paradox that is consistent with nominalism. Replace premise 1 with premise 1*: for any *x*s, *possibly*, there is the proposition that the *x*s exist. Then add a necessity operator to premises 4 and 5. An absurd conclusion follows.

idea that abstractionist views about propositions are incompatible with plural quantification would be surprising and noteworthy news in its own right. But I doubt such news is correct.

Let us move on to premise 4: if *P* is a proposition about itself, then *P* is one of the *y*s—and thus, *P* is *not* a proposition about itself. This premise packs two premises together. Premise 4a is that if *P* is a proposition about itself, then *P* is one of the *y*s. This is true because *P* is the proposition that the *y*s exist, and so, by the stipulated definition of "about" (specifically, that "*x* is a proposition about itself" $=_{def}$ "there are some *y*s, such that *x* is the proposition that the *y*s exist, and *x* is one of the *y*s"), it follows that *P* can only be about itself if it is one of the *y*s it says exist. Premise 4b is that if *P* is one of the *y*s, then *P* is not about itself. This is true because the *y*s are defined as just those propositions that are not about themselves.

The final premise is premise 5: if *P* is not a proposition about itself, then *P* is not one of the *y*s—and thus *P* is a proposition about itself. This premise, like the previous one, follows from the definitions of terms. To see this, suppose *P* is not a proposition about itself. Then *P* can't be one of the *y*s; if it were, then, by the definition of "about", *P* would be about itself. So, *P* is not one of the *y*s. But then since the *y*s are just those propositions that are not about themselves, it follows that *P* is not a proposition that is not about itself.

So much for the premises. In my estimation, the Aboutness Paradox poses a significant and unforeseen problem for abstractionist theories of propositions.[4] Premise 1 is appealing on an abstractionist view of propositions. Premise 2 is appealing on any view of propositions. And the remaining premises follow from the definitions of terms: one might call them "analytic". It seems to me, therefore, that we will not solve the Aboutness Paradox without pursuing a deeper understanding of the nature of propositions and of aboutness.

3. Propositions as Arrangements

In this section, I will present an "arrangement" theory of propositions according to which propositions are ordered complexes—*arrangements*—of properties. I will begin by saying a few things about arrangements. At the most general level, an arrangement is any complex entity that *consists* of things (concrete or abstract) bearing relations to one another. Put differently: an arrangement is anything that depends upon its *parts* (or constituents) bearing certain relations to one another.[5] Arrangements, as I am thinking of them, may contain solely abstract entities: for

[4] Russell raises a paradox applied to propositions (in *Principles of Mathematics*, p. 527), but his paradox depends upon certain technical assumptions that the Aboutness Paradox makes no use of. Pruss and Rasmussen (forthcoming) give a formal exposition of this paradox.

[5] I am using the term 'part' in its most general sense to include constituents, pieces, ingredients, members, and any other part-like relation. Some philosophers may prefer to view propositions as having *constituents* rather than

example, there can be a wholly abstract arrangement consisting of the number 6 bearing the greater than relation to the number 4. The hypothesis on the table is that, in general, any related things from any ontological category form an arrangement. (An intuitive understanding of the term "arrangement" is all that is required for my presentation here. But for those who are encouraged by technical details, I offer a definition of "arrangement" in the Appendix.)

Let us consider an example of a proposition to illustrate the theory. Take the proposition that Tibbles is on the mat. That proposition is about Tibbles and a particular mat, and it describes how they are related. Now in order for a proposition to say of some things that they are related in a certain way, the proposition must somehow *pick out* the things that are related. How do propositions pick out particular things? This question is deep and difficult. But here is a start of an answer: a proposition picks out things by containing properties that are necessarily unique to the things they pick out. So, for example, <Tibbles is on the mat> contains a property that is necessarily unique to Tibbles and a property that is necessarily unique to the mat that Tibbles is on. I will refer to the first property as "[Tibbles]" and the second as "[the mat]". (We'll explore the nature of aboutness further in section 4.)

I propose, then, that <Tibbles is on the mat> is an arrangement of the properties [Tibbles] and [the mat]. Like every arrangement, <Tibbles is on the mat> consists of things tied together by one or more relations. In this case, the arrangement consists of [Tibbles] standing in a certain linking relation to [the mat] to form the proposition that Tibbles is on the mat. I will call this linking relation "|on|" because it is analogous to the *on* relation that Tibbles bears to the mat. We may explicitly define "|on|" as follows:

> "*p* is |on| *q*" $=_{def}$ "*p* bears a relation *r* to *q*, such that $\Box\forall x\forall y$ (if *p* is a property that is necessarily unique to *x* and if *q* is a property that is necessarily unique to *y*, then the arrangement of *p* bearing *r* to *q* is identical to a proposition that says that *x* is on *y*.)" [6]

This definition defines "|on|" in terms of "on", which is helpful because we understand what it means for one thing to be on another. (Note that although I have *defined* "|on|" in terms of "proposition," I have not given a metaphysical *analysis* of |on|. I would say that |on| is a metaphysically primitive relation that links together the parts of <Tibbles is on the mat>.)

I leave it open what more might be said about |on| and other relations that tie the constituents of a proposition together. Some philosophers, such as Scott Soames (*What is Meaning?*, pp. 99–130) and Jeff King (*The Nature and Structure of Content*, pp. 25–64) account for the relation(s) in terms

as having *parts*. They are welcome to do so. If there is a part-*like* relation that propositions can participate in, then that is good enough for the purposes of this paper.

[6] I am assuming that we can express arrangements using such locutions as 'the arrangement of *x*'s bearing *r* to *y*'. I am also assuming that 'says' is intelligible in this context.

of activities or types of activities of agents. My theory is compatible with such accounts, broadly construed. One might suppose, for instance, that |on| is a relation of ascribing to the instance of [Tibbles] the attribute of being *on* the instance of [the mat]. Other "agent-based" accounts are possible. Note that if propositions can exist independently of token activities, then agent-based accounts of propositions should be in terms of activity *types* that can exist prior to their instantiation. Alternatively, one might prefer to treat |on| as a primitive link between various properties. The property-arrangement theory of propositions is compatible with a variety of views concerning how the pieces of a proposition are specifically tied together.

I will further illustrate my theory of propositions with a slightly trickier example (taken from King's "Structured Propositions"): <Rebecca swims>. This proposition consists of a property unique to Rebecca tied together to a property unique to the property of swimming. Call the first property "[Rebecca]" and the second "[swims]". What relation ties these properties together? I suggest it is |exemplifies|, which is a relation *r*, such that the arrangement of [Rebecca] standing in *r* to [swims] is identical to the proposition that Rebecca is (exemplifies) swimming. Here, again, I leave it open what more might be said about the linking relation. My theory of propositions is very much like King's theory because we both treat propositions as consisting of certain things bearing certain relations to each other. So, I am open to King's account of *r*: *r* is analyzable in terms of ascribing the semantic value of [swimming] to the semantic value of [Rebecca], where the semantic values are the things that exemplify the respective properties. (Again, if propositions exist independently of agents, then we should understand the full analysis in terms of *types* of ascribing, or of an abstract language.) Or, we may prefer to say something else about *r*. I leave the exact analysis open.

Or, take a general proposition: <every emerald is green>. That proposition reduces to <*being an emerald* implies *being green*> and so contains a property that is (essentially) unique to *being an emerald* and one that is (essentially) unique to *being green*. Or, consider this quantificational proposition: <some people are happy>. I propose it reduces to <*personhood* is jointly exemplified with *happiness*> and so contains properties unique to personhood and happiness.

Consider, next, a notorious *negative existential* proposition: <Socrates does not exist>. One option is to reduce this proposition to <<Socrates exists> lacks truth>. This proposition would then consist of an essence of <Socrates exists> tied to an essence of truth. Another option is to suppose that <Socrates does not exist> reduces to <being Socrates lacks exemplification>, which in turn contains properties unique to *being Socrates* and to *being exemplified*. The arrangement theory permits options, then, for difficult cases.

An entire research area could be devoted to discussing potentially tricky cases. My goal here is to set the stage for such research and to showcase the general *strategy* of treating propositions as organizations of properties/concepts/terms. The details of particular cases are not crucial.

So the gist of the theory, in general terms, is this: for every proposition *P*, there are some properties that are necessarily unique to whatever might have them, such that *P* consists of those properties tied together by one or more relations. Put simply: a proposition is an arrangement of necessarily unique properties. (I will say more about the nature of these properties in the next section.)

Before I close this section, I would like to showcase a way in which the property-arrangement theory can account for how the structure of a proposition may reflect the structure of our language. According to the property-arrangement theory, propositions are made up of properties that are (necessarily) unique to things. Let us suppose, then, that these properties are the "meanings" (or semantic contents) expressed by the terms of sentences.[7] As a result, sentences reflect the complexity of a proposition because for each term in the sentence that expresses a property in a proposition, there is a corresponding part of the proposition. Moreover, *different* sentences can express the *same* proposition because different terms can have the same meaning. For example, "snow is white" in English expresses the same proposition as "雪是白色" in Chinese. We may account for why they express the same proposition by supposing that (i) "snow" and "雪" both express the same unique property or essence of snow, (ii) "white" and "白色" both express the same unique property or essence of whiteness, and (iii) according to the grammar rules of the respective languages, "is" and "是" are used synonymously to predicate the property expressed by the right term to the item picked out by the left term. Note that the grammar rules for each particular language dictate how the terms should be arranged so that they express a specific proposition. Since the grammar rules differ across languages, there can be different arrangements of terms that nonetheless express the same proposition. Therefore, the property-arrangement theory of propositions provides a foundation for a semantic theory according to which language can reflect, to some extent, the structure of a proposition, even while the grammar rules and sentence structures differ widely from language to language.

Philosophers may raise various objections to this or that part of the theory (such is the nature of philosophy), but I believe I have said enough to get the property-arrangement theory on the table for fruitful discussion. I will show next how the property-arrangement theory enables a metaphysical account of aboutness.

4. Aboutness

I have proposed that propositions are arrangements of properties. I will now apply this property-arrangement theory to the question of aboutness. I propose the following account of aboutness: a proposition *P* is *about* a thing *x* if and only if *P* contains a property that is necessarily unique to *x*. Here is a precise, symbolic statement of the account:

[7] There may still be a different sense of "meaning" that accords with Mill's direct reference theory.

(About) "*P* is about *x*" =$_{def}$ "$\exists q$ (*q* is a part of *P*, □ (*q* is exemplified → *x* exemplifies *q*)".[8]

According to (About), a proposition is about something by containing a property that is (essentially) unique to that thing. So, for example, <Tibbles is on the mat> is about Tibbles and a particular mat because the proposition contains [Tibbles] and [the mat], which are properties that are (necessarily) unique to Tibbles and a particular mat, respectively.

I shall now say something about the relationship between [Tibbles] and Tibbles. I said that [Tibbles] is a property that only Tibbles can have. What property might that be? Here are a few possibilities:

- **Individual Essences**: One may treat [Tibbles] as an individual essence of Tibbles: that is to say, [Tibbles] is a property *p*, such that (i) necessarily, if Tibbles exists, then Tibbles exemplifies *p*, and (ii) it is not possible for there to be anything other than Tibbles that exemplifies *p*. An example would be the property of *being Tibbles* (if there is such a property).

- **World-Indexed Descriptions**: [Tibbles] is a rigidified descriptive property indexed to the actual world; for example, [Tibbles] could be *being the first cat I owned in the actual world*. On this theory, propositions are exceedingly fine-grained.

- **Rigid Descriptions**: [Tibbles] is the following rigidified descriptive property: *being that thing named "Tibbles"*. The idea here is that "being that thing named 'Tibbles'" picks out a property that only Tibbles could have, even though it is possible for the name "Tibbles" to stand for something other than Tibbles. The "that" in "that thing named 'Tibbles'" acts as a rigidly referring device.[9] Thus, the property expressed by "*being that thing named 'Tibbles'*" is necessarily unique to Tibbles, and it is equivalent to (perhaps identical to) the property of *being Tibbles and named "Tibbles"*. This option differs from the preceding one because *being Tibbles and named "Tibbles"* isn't as fine-grained as (say) *being named "Tibbles" in the actual world*. (Note that given this view, the sentence "possibly, Tibbles is not named 'Tibbles'" is ambiguous. On a *de dicto* reading, the sentence expresses the false proposition that <Tibbles is not named "Tibbles"> is possibly true; the proposition is false because <Tibbles is not named "Tibbles"> is implicitly contradictory. But there is a *de re* reading that gives us a true proposition, namely, <Tibbles is potentially not named "Tibbles">.)[10]

[8] By 'part' I have in mind *proper* part.

[9] Therefore, we don't expand 'that thing named by 'Tibbles'' via a Russellian expansion to 'a thing uniquely named by 'Tibbles''.

[10] Scott Soames (in *Beyond Rigidity*, pp. 18–54) gives a trenchant critique of rigidified descriptivist theories of meanings. The heart of Soames' main critique, as I interpret it, is that rigidified descriptions are too fine-grained if they are indexed to the actual world: for if descriptions are indexed to the actual world, then no one in any other possible world brings to mind those same descriptions; the result is that people in nearby worlds cannot believe any of the same propositions that we, in the actual world, believe. Fortunately, his critique doesn't target the third option, since that option doesn't index descriptions to worlds. Moreover, for what it's worth, I am unsure about Soames'

Debates over particular theories of meaning are entrenched, and it is beyond the scope of this essay to argue in detail for any particular view. What I am after here is a theory that explains the nature of aboutness at a fundamental level: aboutness, I propose, consists of (necessarily) unique properties that figure into abstract arrangements. Thus, I don't insist that any particular anti-Millian view about the meaning of names must be correct. The issue is whether things can have (necessarily) unique properties, whatever those properties might be (and leaving open whether such properties can exist without being instantiated). If things can have (necessarily) unique properties, then those properties can act as the basic ingredients out of which propositions are built. The property-arrangement theory is flexible and provides a *metaphysical foundation* for a variety of views about reference and meaning.

I realize that un-sharable (necessarily unique) properties are not cheap.[11] It is worth observing, however, that un-sharable properties behave almost exactly like singular propositions, which seem to be essential elements of ordinary speech. Just like un-sharable properties, singular propositions essentially pertain to a particular thing. Take, for example, <Socrates exists>. It is *about* Socrates. And it is *true* if and only if Socrates exists. Similarly, the property, *being Socrates*, is *of* Socrates. And it is *exemplified* if and only if Socrates exists. It seems that the proposition and the property play very similar roles. I would suggest, therefore, that un-sharable properties are no more (or less) problematic in nature than singular propositions. One might even think of un-sharable properties *as* singular propositions—except that I wish to analyze propositions in terms of properties. So, although I admit that un-sharable properties are puzzling, they are no more puzzling than singular propositions in terms of the roles they play; and singular propositions surely exist if any propositions do. Moreover, un-sharable properties are useful in accounting for the *nature* of singular propositions themselves. I suggest, therefore, that their price is right—that is, if we wish to have an analysis of the nature of propositions.

I would like to note a couple implications of (About). First, (About) implies that all propositions are reducible to singular propositions. So, for example, a *universal generalization*, such as <all emeralds are green>, is reducible to a proposition that is rigidly about *being an emerald* and *being green*.

Second, (About) *allows* a proposition to be about something that doesn't exist. For example, suppose Tibbles ceases to exist. Then *if* [Tibbles] continues to exist, <Tibbles is on the mat> can continue to exist, since the properties that compose it continue to exist. *Existentialists*, those who think that propositions are only about existing things, will deny the antecedent. And that's fine. My point is just that (About) doesn't *commit us* to existentialism. This is a favorable result because

premise that agents in nearby worlds believe the very same proposition we believe. I think there is room for debate here.

[11] Chistopher Menzel explores the challenge of countenancing individual essences in "Problems with the Actualist Accounts".

one might think there is a sense in which propositions can be about things that do not exist: one might think, for example, that <Tibbles is on the mat> is about Tibbles *even if* Tibbles no longer exists.

We may also use (About) to define an *indirect* sense of 'about'. Consider <Suzy rejects the proposition that Bertrand Russell liked to golf>. There is a (primary) sense in which that proposition is about a *proposition*, namely, <Bertrand Russell liked to golf>. But there is also a sense in which it is about Bertrand Russell and golfing. That sense might be spelled out *recursively* as follows:

(Indirect About) '*P* is indirectly about *x*' $=_{\text{def}}$ '$\exists y$ (*P* is about *y*, and *y* is about *x*) $\vee$ $\exists y$ (*P* is about *y*, and *y* is indirectly about *x*').

In this way, we can understand indirect aboutness in terms of a series of applications of direct aboutness. The property-arrangement theory of propositions provides a foundational account, therefore, of the way in which propositions may represent (directly or indirectly) the world.

5. Solving the Aboutness Paradox

The arrangement theory of propositions also provides a foundation for solving the Aboutness Paradox. Specifically, it enables us to motivate a reason to reject premise 1. Recall the premise: for any *x*s, there is the proposition that the *x*s exist. Consider, first, that a proposition of the form *the xs exist* is plausibly *about* those *x*s. Consider, next, that given (About), <the *x*s exist> is about the *x*s if and only if it contains necessarily unique properties of those *x*s. Now let 'the *p*s' designate *all* propositions. It follows from the above two considerations that if <the *p*s exist> exists, then it *contains* a necessarily unique property of itself. But it is certainly reasonable to deny that a thing can *contain* a property it *exemplifies*.[12] After all, you might think the proposition has its essential properties precisely *because* it contains properties as constituents; in other words, you might think the proposition is *grounded in* its parts. I suggest, therefore, that it is very reasonable for the property-arrangement theorist to deny that there is any such proposition as <the *p*s exist>. She has a principled reason to do so: if *that* proposition were to exist, then it would contain some of its own properties, which is impossible.

Now to be clear, <the *p*s exist> is importantly different from *this* proposition: <every proposition exists>. We may analyze <every proposition exists> as <*being a proposition* implies *existing*>

[12] The constituent ontologist will disagree, of course. But note that on the usual constituent ontology theory, properties are parts / constituents of *concrete* things. When it comes to abstract properties, by contrast, it seems that some of them are metaphysically *simple*, despite having many properties. Of course, one could suppose that some, but not all, abstract things contain some, but not all, of the properties they exemplify. But this view is metaphysically extravagant: what could ground these different manners of exemplification? It seems to me that the answer, in this context, can only be given in terms of what the proposition is *about*, but that answer defeats the whole point of analyzing aboutness in terms of more basic ontological building blocks.

which, given the property-arrangement theory, is about a single pair of properties. By contrast, <the *p*s exist>, if it existed, would be about each and every proposition. That makes it different.

You might find it puzzling that certain statements of the form *the xs exist* would fail to express a proposition. You might wonder, for instance, why we cannot meaningfully say of *any* random things that they exist. My answer is that in some cases, our terms simply fail to refer (for various reasons). Take, for instance, 'all and only terms that don't refer to themselves'. That term cannot refer to anything: for if it refers to something but not to itself, then by its very meaning it refers to itself; and if it refers to itself, then by its very meaning, it doesn't refer to itself. The only hope I see of avoiding the contradiction is to suppose the term is empty: it fails to refer. (Incidentally, this point may be useful for solving *some* versions of the Liar Paradox.) This semantic consideration complements the above metaphysical explanation of why premise 1 is false.

6. Other Benefits

I will close this essay by briefly drawing attention to four additional benefits of the theory of aboutness I have given. First, the theory makes sense of why there are any propositions in the first place. There are propositions because there are certain kinds of properties (ones that are necessarily unique to a thing) that bear various relations to one another. When these properties bear relations to each other, they *thereby* form arrangements. Some of those arrangements count as propositions, since they are ordered complexes that are *about* things; and they are about things by being arrangements of (necessarily) unique properties. On the property-arrangement theory, then, propositions automatically fall out of a world in which things have necessarily unique properties. Their existence is not so mysterious now.

Second, the theory of aboutness allows (but does not require) a proposition to exist even while the things it is about do not. As we have seen, this is because a proposition's parts are *properties* of the things the proposition is about, and one might think those properties can continue to exist even while nothing exemplifies them. So, for example, if you think that properties unique to Socrates can outlive Socrates, then you may suppose that <Socrates is running for President> can exist even if Socrates doesn't exist. This result is advantageous for those who think, as I do, that <Socrates is running for President> exists even if Socrates does not.

Third, (About) provides a foundation for explaining how other intentional entities, including token thoughts and token concepts can be about things. Suppose, for example, I have the thought that Tibbles is on the mat. We may analyze my thought as an arrangement consisting of me bearing a certain mental relation (such as *entertaining*) to <Tibbles is on the mat>. Then <Tibbles is on the mat> is part of my thought. (It is the *content* of my thought, we might say.) Since [Tibbles] and [the mat] are parts of <Tibbles is on the mat>, by transitivity, they are also parts of my thought. And since these parts are themselves unique to Tibbles and the mat, respectively, it follows from (About) that my thought that Tibbles is on the mat is about Tibbles and the mat. The result is right.

Or take *concepts*. Suppose a token concept consists of a mind bearing some mental relation—such as grasping—to a unique property. Then, every token concept has a property as a part and is thereby *about* whatever might exemplify that property. For example, my concept of Tibbles is about Tibbles by virtue of containing a property that only Tibbles can have. So, (About) generalizes in favorable ways.

Fourth, and finally, the theory of aboutness opens up a new avenue for investigating the nature of truth-*making*. One of the deepest questions truth theorists ask is, "How can things in the world *make* a given proposition true?" How, for example, is it that when I shove my cat off the pillow, *another* thing—a *proposition* about my cat's location—gets to be true. The theory of aboutness gives us new resources for investigating the nature of truth-making: a foundation is now in place for exploring, for example, the following *structural* analysis of truth-making: *x* makes *P* true *iff* (i) *x* is an arrangement of things that exemplify the properties *P* contains, and (ii) *P* is equivalent to <*x* exists>.[13] I conclude, then, that the theory of aboutness not only extends our understanding of aboutness but also provides a foundation for further research into domains that are less directly about aboutness.

[13] I develop this theory in "How Truth Relates to Reality".

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Appendix

(A) '*A* is an arrangement' $=_{def}$ '*A* is a composition of atomic arrangements', where

ATOMIC: '*A* is an atomic arrangement' $=_{def}$ 'there are some *x*s and some *y*s, such that:

(i) *A* is a composition of the *x*s together with the *y*s (that is, *A* is a composition of some *z*s, where (i) each of the *z*s is either one of the *x*s or one of the *y*s, (ii) each of the *x*s is one of the *z*s, and (iii) each of the *y*s is one of the *z*s).

(ii) There is some relation *r*, such that necessarily, *A* exists *if and only if* the *x*s stands in *r* to the *y*s.

COMPOSITION: '*x* is a composition of the *y*s' $=_{def}$ '(i) for all *z*, if *z* is one of the *y*s, then either *z* is part of *x*, or *z* is identical to *x*, and (ii) for all *z*, if *z* is part of *x*, then there is a *w*, such that *w* is one of the *y*s, and *w* overlaps *z*, where

OVERLAP: '*x* overlaps *y*' $=_{def}$ 'There is a *z*, such that (either *z* is a part of *x*, or *z* is identical to *x*) and (either *z* is a part of *y*, or *z* is identical to *y*)'.[14]

Note 1: This definition is designed to be extensionally adequate: every arrangement satisfies the definition, and whatever satisfies the definition counts as an arrangement. (The definition is not meant to be a *metaphysical* analysis in terms of more ontologically basic properties.)

Note 2: This definition allows non-binary relations to link together the parts of an arrangement, assuming that any given higher-place relation holds if and only if certain two-place relations hold.

Note 3: I assume that *between* is a binary relation that connects pluralities (for example, three students are between two professors), where a plurality consists of one or more entities.

Note 4: I am not committed to (A). Other definitions may be possible. Or one may leave the term as an undefined primitive.

[14] The definition of "*x* is a composition of the *y*s" is equivalent to Peter van Inwagen's definition of "*x* is a mereological sum of the *y*s" in "Can Mereological Sums Change Their Parts", pp. 616–17.