

Why composition matters¹

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Abstract: Many say that ontological disputes are defective because they are unimportant or without substance. In this paper, we defend ontological disputes from the charge, with a special focus on disputes over the existence of composite objects. Disputes over the existence of composite objects, we argue, have a number of substantive implications across a variety of topics in metaphysics, science, philosophical theology, philosophy of mind, and ethics. Since the disputes over the existence of composite objects have these substantive implications, they are themselves substantive.

Keywords: composition, mereology, substantivity, metametaphysics, material objects

1. Introduction

Some disputes just don't *matter*. It doesn't *matter* whether the number of electrons is odd; nothing hangs on that question. And so disputes about whether the number of electrons is odd are themselves trivial, non-substantive, unimportant, shallow, or defective in their very subject matter.³

Ontological disputes, let us say, are disputes about what there is. They concern theses like:

Comp. There are composite objects.

Plato. There are abstract objects.

Soul. There are thinking immaterial objects.

Many philosophers think ontological disputes are defective.⁴ In particular, disputes over Comp -- disputes about composition and whether there are any composite objects at all -- have come under fire. In this article, we defend such disputes.

A standard complaint about ontological disputes (and those over Comp, in particular) is that they are *merely verbal*. Another is that they are *trivially easy* to settle. Yet another is that the disputes are defective because they are *irresolvable*. Disputants have, of course, found ways to

¹ Thanks to Bradley Rettler and anonymous referees for helpful critique and feedback. Thanks also to the Singapore Ministry of Education for funding in support of this research.

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³ Bracket concerns about whether quantum field theory implies that there aren't any particles such as electrons, and whether electrons are "individuals." The important point to note is that, *assuming there are a determinate number of electrons*, it simply doesn't matter whether that number is odd or even.

⁴ The detractors of ontological disputes -- and of disputes about Comp in particular -- are legion. Prominent among them are van Fraassen 2002, Putnam 2004, Bennett 2009, Hirsch 2011, Thomasson 2007, 2015, and Willard 2013. See Sider 2009 for discussion and for citations of even more detractors.

develop or rebut these charges.⁵ In this article we are concerned with the complaint that ontological disputes (and those over Comp, in particular) are defective *because they are unimportant in their subject matter*. Compare: a dispute over whether the number of electrons is odd wouldn't obviously be merely verbal, and it wouldn't obviously succumb to trivial settlement. Nevertheless, such a dispute would be defective because it simply *doesn't matter* whether the number of electrons is odd. (Of course, it may also be defective because it is irresolvable.)⁶

Bas van Fraassen complains that many metaphysical disputes, including the dispute over Comp in particular, are impotent "with respect to real questions of any importance".⁷ Similarly, James Maclaurin and Heather Dyke contend that, in contrast to such important subjects as ethics, politics, and religion, the question of whether there are composite objects "can perhaps be said to play an important part in the lives of a relatively small group of academic philosophers and their students".⁸ Similar sentiments are even more frequently voiced informally, especially by philosophers who do not specialize in metaphysics.⁹

Concerns about mere verballity, triviality, and the concern that ontological disputes are irresolvable, have already found ample expression and rebuttal in the literature. By contrast, philosophers have made little effort to evaluate the complaint that ontological disputes, and the dispute over Comp in particular, don't matter.¹⁰ We shall rectify this situation by bringing this new complaint to the fore and -- more to the point -- showing that it fails.

⁵ See, e.g., Dorr 2005, Sider 2011: Ch.9.

⁶ Here and in the sequel, we'll treat "is important", "is substantive" and "matters" as synonymous. That a dispute enjoys this condition does not imply that we should, all things considered, engage it; for more on that, see our discussion of which disputes are "worthwhile" in section 4.

⁷ Van Fraassen 2002: 4, 9.

⁸ Maclaurin and Dyke 2012: 300. See also Unger 2014: Ch. 6; Unger claims that disputes over Comp are "concretely empty", and it *seems* that they would therefore lack import. On interpretive difficulties with Unger's arguments, see Hawley 2014.

⁹ Cf. the following entry in a popular series of web comics: <https://existentialcomics.com/comic/339>

¹⁰ There are exceptions. Graham 2014's defense of the importance of ontological disputes complements our own, although he does not specifically address Comp. Graham argues that the significance of a theoretical dispute is measured, in part, by whether that dispute has implications for other theoretical issues. To say that a dispute is "significant" in this sense is to say that it is "worth taking seriously, or paying attention to, or investing time and effort in" (Graham 2014: 68). On the basis of this criterion Graham defends the significance of two sorts of ontological disputes: disputes over the existence of concrete possible worlds, and disputes regarding coincident material objects. A similar defense is in Hofweber 2016: Ch.1.4.3, 7, 9.3. According to Hofweber, disputes about Comp are important because if there are no composite objects then many of our beliefs are false. And in particular many of our beliefs that involve or require our own existence will be false, since if there are no composite objects then presumably we do not exist. Unfortunately, Hofweber's defense of these claims is tied up with controversial meta-ontological theses about quantification. He also doesn't make the sorts of explicit connections we make in this paper between disputes over Comp and other substantive philosophical disputes worth caring about. Baron 2018 argues that the study of metaphysics is valuable for much the same reasons that the study of pure mathematics is valuable. Giberman 2018 argues that we should care about disputes regarding the metaphysics of properties and persistence over time. Korman forthcoming addresses the question "why care about what there is?" But the question which concerns him isn't quite the question which concerns us. The question which concerns him is "why care about what there is, as opposed to merely caring about what there *ultimately* is?"

One might here offer a negative defense of ontological disputes, by addressing the reasons which have been offered on behalf of the claim that ontological disputes don't matter. Though we'll later have something to say about the detractors, answering their concerns is not our central strategy.¹¹ We shall, instead, offer a direct argument that the detractors are wrong. Our argument is, if you like, a positive defense.

2. Argument

Our positive defense takes this form:

Substance. Disputes about Comp have substantive consequences.

Closure. If a dispute has substantive consequences, then it is substantive in its subject matter.

Therefore, disputes about Comp are substantive in their subject matter (from Substance and Closure).

The main target of our argument -- Professor Unaware, if you like -- is the critic who is heretofore unaware that Comp connects to so many other domains and has substantive consequences in them (we'll give examples shortly). Professor Unaware regards fussing over Comp as a rather insular affair, unconnected to other disputes.

Professor Unmoved, by contrast, is aware that disputes over Comp connect with many other disputes, at least as generally understood by their participants; but Unmoved denies that their target phenomena really *do* require composition and so denies that the disputes in fact implicate Comp in that way. We hope to make philosophers like Unaware more aware. We do not aim to refute Unmoved. For as we see things, Unmoved might be more a critic of composite objects than of disputes over the existence of composite objects.¹² Here's why. Unmoved's hypothesis that the target phenomena discussed in some dispute don't require composition (and thus that their existence doesn't imply Comp) is compatible with thinking that disputes over Comp matter. In fact, that hypothesis finds an easy home within a *rejection* of Comp and within a philosophical program that assigns some importance to rejecting Comp.¹³

¹¹ Indeed, a negative defense of this sort would be difficult, since the sentiment we aim to attack is, as noted above, expressed more in informal social contexts than in detail and in print.

¹² There may also be other paths to Professor Unmoved's position, of course; those are beyond the scope of this paper.

¹³ Perhaps, for example, the mereological nihilist (who denies that there are any composite objects), and the mereological anti-realist (who rejects all mereological ideology -- cf. Cowling 2014), would contend that no real world phenomena need to be understood in terms which require composite objects. But they may very well still think that the *dispute* over the existence of composite objects is a substantive dispute. What's more, while they maintain that no real world phenomena need to be understood in terms requiring composite objects, they may nevertheless concede that certain live *interpretations of or metaphysical theories regarding* some phenomena do require composition (a view we'll exploit below).

Are there actual living philosophers like Unaware? We will not attempt to mind-read here; but our argument will show that there *shouldn't* be any.¹⁴

Our argument is valid; so our task now is to explain and defend the premises in turn.

3. Composition and its connections

Our argument for Substance exploits the consequences of Comp or its denial. Disputes about Comp, as it turns out, impinge on a variety of substantive and perennial questions that are important in their subject matter.

It is not always obvious whether some dispute that superficially seems to turn on Comp really *does* turn on Comp. Some philosophers say that sentences that seem to posit or presuppose the existence of composite objects can sometimes be true even if there are no composite objects, just as sentences like “the Sun moved behind the elms” can be true, even if the change in the relative position of the Sun and the trees is due to the movement of the Earth, rather than the Sun.¹⁵ Others disagree.¹⁶ We'll not intervene in that debate. How, then, do we tell whether some dispute *really* turns on the resolution of the dispute over Comp? Principles aren't obvious; we take things on a case by case basis. The disputes we discuss below are all cases in which we are strongly inclined to think that the truth or falsity of Comp really does impinge on the truth or falsity of the positions staked out in the disputes. Sometimes this is because disputants involved in those disputes explicitly maintain that their view requires the existence of a certain sort of object, and explicitly maintain that that object is composite. What's more, these explicit pronouncements are made “in the ontology room”¹⁷ and so should be interpreted as staking out a position regarding composition. Other times it just seems clear to us that there is no way to understand various positions in some dispute without interpreting them as requiring the existence of composite objects.

We'll give five brief examples, and then explore another in some detail. Each example offers independent support for Substance; if any succeeds, the premise is true. In each case we will briefly say why resolving the target dispute crucially turns on Comp.

3.1 Quantum entanglement

Quantum entanglement is often thought to involve some sort of “holism” or “non-separability.” It is controversial how exactly we should understand these purported features of entanglement.

¹⁴ Thanks to an anonymous referee for suggesting that we explicitly distinguish between Professors Unaware and Unmoved in this way.

¹⁵ Van Inwagen 1990: Ch.10; Horgan and Potrč 2008. Van Inwagen doesn't actually deny Comp, but he doesn't believe in many of the composite objects many pre-theoretically accept (in particular he thinks that the only composite objects that exist are organisms). Nevertheless, he maintains that “outside of the ontology room” many sentences that seem committed to composite objects are true, even if “inside the ontology room” many of those sentences are false.

¹⁶ Merricks 2001: Ch.7.

¹⁷ Van Inwagen 1990: Ch.10.

For our purposes it is enough to note that they are often characterized in mereological terms, as involving composite objects of a certain special sort, such as “entangled wholes”.¹⁸ Perhaps this is loose talk or to be interpreted as involving only, say, “things arranged entangled whole-wise”. But the philosophers we have in mind explicitly argue that this interpretation of quantum entanglement won't work, and that entanglement should be understood in terms requiring composition.¹⁹ On those views, a live and well-supported scientific hypothesis -- that quantum entanglement occurs -- requires not only that Comp is true but that some items together compose a very special sort of object, an “entangled whole”. Perhaps that's not right, and quantum entanglement doesn't actually require composition. We will remain neutral on that question. But that some philosophers or scientists advance models that require composition is strong evidence, we think, that the question of when composition occurs is implicated in the interpretation of the phenomena in question. Even if the target phenomena *don't* themselves plainly implicate Comp, certain models or interpretations of them *do*.

3.2 Species

One major dispute within evolutionary biology and the philosophy of biology concerns which unit(s) of selection is the primary locus of natural selection. Hierarchical models (those models of natural selection which take so-called “higher-level” entities such as groups or species as the units of natural selection) are sometimes claimed to require the existence of certain special sorts of composite objects (e.g., species, conceived as composite objects).²⁰ Again, the views in question appeal to the existence of objects which are explicitly claimed to be composite. Proponents of these views do not merely talk loosely in terms involving composite objects, in a way which might be compatible with there being merely “things arranged species-wise” (or whatever). So Brogaard:

“The genes found in cells are not members of the cell, and the cells that constitute an organism are not members of the organism. Cells and organisms are wholes with parts. Since wholes with parts are mereological sums of some sort, cells and organisms are mereological sums. If species taxa are like cells and organisms in the relevant respect, they, too, must be sums”²¹

Brogaard ultimately concludes that species are, like organisms, mereological sums. Brogaard and other proponents of this sort of view explicitly contrast their view with a conception of species as classes or sets, and Brogaard herself discusses whether species are best described using classical extensional mereology. So, they seem to be well aware of salient alternatives to their metaphysical hypothesis concerning species, and they seem to be firmly situated “within the ontology room.” We suggest, then, that they be taken at face value when they claim that species are composite objects. On this view, another live and well-supported scientific

¹⁸ See, e.g., Maudlin 1998: 55; Healey 2013: 56.

¹⁹ Morganti 2009, 2013; Schaffer 2010; Calosi and Tarozzi 2014; Calosi and Morganti 2016; Ismael and Schaffer 2020. For critical discussion of all of these arguments see Brenner 2018: §3.

²⁰ Ghiselin 1974; Hull 1976, 1978, 1980; Gould 2002: 602-608, 673-674; Brogaard 2004. For a critical discussion see Brenner 2018: §4.

²¹ Brogaard 2004: 225-226.

hypothesis requires that there be a very special sort of composite material object. We remain neutral on the question of whether this interpretation of natural selection is correct. The important point is that this interpretation of natural selection cannot be correct unless Comp is true. The question of whether composition occurs is implicated in the question of how we should interpret natural selection.

3.3 Philosophical theology

Some philosophical models of the Christian doctrine of the Trinity rely on there being some object composed of one or more persons of the Trinity, or rely on one or more persons of the Trinity being composed of something else.²² If there aren't any composite objects, as those who deny Comp maintain, then these models of the Trinity are non-starters for metaphysical, rather than purely theological, reasons. We take no stance on the question of whether the Trinity really should be interpreted in terms which require composition. But we maintain that the *models* of the Trinity we have in mind ineliminably involve composition. The models are not compatible with there merely being “persons arranged Trinity-wise” (or some non-spatial analogue). A model developed by Jeffrey Brower and Michael Rea, for example, contends that the three persons of the Trinity are distinct but nevertheless composed of the same underlying material, just as a statue and the lump of matter of which it is made are said to be distinct but composed of the same underlying material. This model cannot survive the rejection of Comp. Its central analogy (to composite objects such as statues and lumps of matter) would have no purchase at all, there being no such things as statues and lumps of matter. What's more, it is composition that unites the three persons into one God; for each person is said to overlap a common part, the divine nature. This mereological overlap is what preserves monotheism despite the distinctness of the divine persons.²³ So, it is composition that allows this model of the Trinity to satisfy two crucial desiderata which are *prima facie* difficult to reconcile, namely that in the Trinity there are *three* persons and yet *one* God.²⁴

²² Brower and Rea 2005. Moreland and Craig advance a model on which the persons of the Trinity together compose a whole and sum it up thus: ‘... it seems undeniable that there is some sort of part-whole relation obtaining between the persons of the Trinity and the entire Godhead’ (2009, 39). It would be very surprising, we think, if Moreland and Craig's model of the Trinity could be correct on this point but nothing entered into any proper part-whole relations. Three persons compose a Godhead only if there are composite things -- if Comp is true. This is evidence that the model of the Trinity here in view does, in fact, turn on Comp. Not all models of the Trinity deploy composition, of course, and we don't claim that the doctrine itself obviously hinges on Comp; there is room here for disagreement. So Plantinga 2007: “Just how we are to think of the Trinity is of course not wholly clear; it is clear, however, that it is false that in addition to each of the three persons of the Trinity, there is also another being of which each of those persons is a part.”

²³ Consider the theory that, though there are *two things* on the pedestal (a statue and a lump of clay), there is only *one material object* there because the statue and lump have enough proper material parts of the right kind in common (one version of this theory appears in Rea 1998; see also Lewis 1993). This theory might have some plausibility — but not if nothing has any proper parts. So also for the Trinitarian model in view; without overlap — without Comp — it collapses.

²⁴ Whether mereological models of the Trinity are correct will bear on other matters in philosophical theology. Some theists (al-Ghazālī, Maimonides, Aquinas, and others) maintain that God is absolutely simple. But models of the Trinity that construe God as composite seem incompatible with such simplicity. For example, Aquinas writes that “There are many ways of showing that God is altogether simple. ... Secondly, everything composite is subsequent to its components and dependent upon them; whilst God,

3.4 Philosophy of mind

Some philosophers of mind think that the circumstances under which certain sorts of phenomenal or intentional states would or would not be instantiated are connected to the circumstances under which composition occurs.²⁵ Such philosophers maintain, for instance, that things cannot collectively instantiate phenomenal or intentional states except insofar as they compose something that instantiates those phenomenal or intentional states. This claim is thought to have important implications for how we should think about influential thought experiments in the philosophy of mind, including the Chinese nation and Chinese room thought experiments.²⁶ If there *could be* such things as Chinese nations (enormous but scattered wholes composed of billions of people), then they pose deep questions for philosophers of mind. If there *couldn't be* any such things, then a unified reply may be given to a host of influential thought experiments in the philosophy of mind -- for example, the contention that the Chinese nation would not be conscious can be supported by noting that there isn't any such composite object as the Chinese nation.²⁷ So, disputes regarding the circumstances under which composition occurs (including disputes over Comp) may turn out to have substantive and surprising consequences in the philosophy of mind. Again, we take no stance regarding the question of whether these philosophers are correct, and the question of when and where composition occurs really is tied up with the question of when and where phenomenal or intentional states are instantiated. But it surely matters whether these philosophers are correct, in part because, as we've noted, it will affect how we think about thought experiments such as the Chinese nation and Chinese room thought experiments. And so the question of whether/when composition occurs is potentially connected with a wider range of disputes than we might initially think.

3.5 Social ontology

A dispute within social ontology and the philosophy of the social sciences more generally is whether social groups and their constituents enjoy part-whole relations.²⁸ In this case those who say that social groups and their constituents are related by part-whole relations are not speaking loosely, in such a manner that the social groups can exist even if they are not thought of as composite objects. Rather, the philosophers we have in mind explicitly contend that social

as we have seen, is the first of all beings [Ia. 2, 3]" (Aquinas, *Summa Theologiæ* Ia 3, 7; 1964: 41, 43). The question of whether divine simplicity is correct will have broad ramifications of its own -- it is, for example, the linchpin of much of Aquinas's theological system.

²⁵ See van Inwagen 1990: §12; Olson 2007: 188-193; Bailey 2016; Dowland 2016.

²⁶ See especially van Inwagen 1990: 118-119; Bailey 2016: §2.

²⁷ What philosophers who discuss the Chinese nation (and similar examples) don't always notice is that it is by no means obvious that there *could be* such things as Chinese nations in the first place. If there couldn't be such things in the first place -- if Comp is necessarily false, as many nihilists maintain -- then reasoning about them crucially involves counterpossibles: reasoning about what would be the case were some impossibility actual. Here, then, the *modal* status of Comp is relevant -- not just to the first order dispute ("can computers think?") but to a correct statement of what is even happening when conducting that first order dispute ("are we dealing with possibilities or impossibilities when doing the Chinese nation thought experiment?").

²⁸ See, for example, Ruben 1983, Copp 1984, Hawley 2017.

groups should be thought of as composite objects. But if there are no composite objects at all, then there are no composite social objects either. So if Comp is, after all, false, a wide swath of theories in social ontology and the social sciences -- theories that deploy composite social objects -- are thereby false as well. And the *extent* to which there are composite objects will constrict the range of permissible theories. If the conditions for composition are relaxed indeed (as when, for example, any items whatsoever compose another), then there are plenty of composite social objects to play various theoretical roles -- courts composed of lawyers, nations composed of citizens, unions composed of workers, and so on. If the conditions for composition are rather more strict (as when, for example, only rigidly bonded objects compose another), then there are not nearly so many candidates to play those theoretical roles. So disputes about the truth of Comp -- and related disputes about the precise *extent* of composition -- bear on important questions in social ontology and the social sciences. Again, we do not claim that social groups really must be understood in terms requiring composition. Rather, our point is that certain *models* of the metaphysics of social groups really do require composition in order to be correct. And those interested in the metaphysics of social groups will surely care whether these models are correct.

These five examples each *independently* support our contention that disputes about Comp are entangled with substantive disputes across seemingly unrelated fields. For the premise Substance to fail, all five examples must fail. Absent a case against each, however, we think some confidence in the premise is in order. Ubiquitous appeals to the existence and properties of composite objects, inside and outside philosophy, assure this result.

3.6 Personal ontology

We'll now consider another example in a little more detail. This will provide even more evidence for Substance.

As it turns out, disputes about Comp intersect with substantive disputes about the metaphysics of human nature. For if Comp is false, then a whole range of views in the metaphysics of human persons are also false. For example, if Comp is false and there are no composite objects, then there are no organisms, no brains, no cerebral hemispheres, and no four-dimensional objects composed of temporal parts (we suppose here that if there are such things as organisms, brains, and so on, they are composite).²⁹ And so we are not any of these things; we are not (contra the usual materialist views) organisms, nor are we brains, and so on. Virtually every materialist -- naturalism-friendly -- answer to the question of what we are is ruled out by the falsity of Comp, since virtually every materialist answer to the question of what we are identifies us with a composite physical object of some sort.³⁰ Disputes about Comp, then, have substantive

²⁹ This assumption is widely endorsed, but at odds with the view defended in Contessa 2014 and Goldwater 2015. For compelling critical discussion, see Wilkins 2016 and Long 2019.

³⁰ Van Inwagen 1990: 72-73, Dorr and Rosen 2002: §6, Olson 2007: 198, Sider 2013: §7, Brenner 2017, and Gilmore ms all recognize this but do not draw the main meta-ontological lesson of this article.

consequences for the question of what we are, and in particular for the question of whether we are wholly material beings.³¹

Whether we are wholly material is, of course, an old question. It is also itself of some importance. For it bears on the success of naturalism and its materialist or physicalist specifications. Those specifications, and so naturalism itself, would be disconfirmed should we turn out to be partly or wholly immaterial. And naturalism itself is, we note, the very paradigm of a non-trivial, substantive, and deep philosophical matter. Its status is relevant to topics ranging from institutions (“should universities fund paranormal research?”) to religion (“am I the sort of thing that could survive death?”) to medicine (“can the ordinary tools of science be used to promote human flourishing, or are special techniques required?”). These are questions everyone cares about, and they plainly matter.

Implications of disputes over Comp extend further still into matters of practical ethics. For example, consider animalism, the thesis that we are human organisms (as opposed to, say, immaterial souls, or mere brains).³² If Comp is false then animalism is false too, since animalism identifies us with composite human organisms.³³

But animalism has practical and ethical consequences. Given animalism, you probably shouldn’t step into the teletransporter in the hopes that it’ll take you places, for example. For whatever information it transmits about your mind or body, it’s doubtful that it actually moves the *organism* you are from one place to another.³⁴ For the same reason, you probably shouldn’t be confident that “uploading” your mind onto a computer would allow you to survive the death of your body.³⁵ For on animalism it isn’t plausible that merely emulating a particular brain and its

³¹ For more on the content of materialism about human persons and its broader metaphysical significance, see Bailey (2020).

³² Van Inwagen 1990, Olson 1997, Snowdon 2014, Bailey 2015.

³³ Compare two theories: (i) there are human animals, we are them, and human animals are composed of various smaller things (cells, say). (ii) there are human animals, we are them, but human animals are not composed of any smaller things; animals are, rather, simple. Animalists, as a matter of sociological fact, overwhelmingly favor (i); this is no bias or prejudice. (i) is, in fact, much much more plausible than (ii). Our claim here is not that it is very plausible that there are composite animals. It is, rather, that, given what’s in common between theories (i) and (ii) -- given that there are human animals and that we are them -- it is overwhelmingly likely that animals are composite items. A quick review of one popular argument for animalism is helpful. The Thinking Animal Argument (as in Olson 1997, Chapter 5; 2003) selects for consideration one living, breathing organism that’s sitting in your chair, and argues that you are that one thing (since you are one in number, it has to be one in number too; the argument presupposes this is not a case of many-one identity). For if you weren’t that thing, untoward consequences would follow -- ontological overpopulation and such. But what living breathing organism is there in the vicinity of your chair for you to be, except one that is about yea high, that has feet, that can be seen in the mirror over there, and so on? Next step: a single living, breathing thing that is about yea high, that can be seen in the mirror over there and so on -- would certainly *seem* to have parts (hands, feet, cells, whatever). One could deny that there is any such composite; that’s fine. But it would be a strange denial indeed for the philosopher who insists that you are that one living thing sitting in your chair that breathes and has feet and so on.

³⁴ Cf. van Inwagen 1996. One, but not the only, route to this conclusion is via the claim that animalism implies that we have biological (and not merely psychological) criteria of identity over time.

³⁵ Not as fanciful as it may sound; see Sandberg 2013.

associated mental states in a computer would preserve the existence of the *organism* you are. Consider, too, the ethics of abortion. A prominent argument in favor of the *prima facie* moral impermissibility of abortion -- the future-like-ours argument³⁶ -- maintains that abortion is *prima facie* morally impermissible because it deprives fetuses of valuable futures. This argument requires that the fetus is identical to the person that eventually succeeds it.³⁷ And that identity finds its most natural home in animalism.³⁸

So, the truth or falsity of Comp has implications for the truth or falsity of animalism, which in turn has implications regarding other practical and ethical concerns.

Turn from animalism to another important view in personal ontology. One traditional motivation for the Buddhist non-self doctrine is mereological nihilism (the denial of Comp).³⁹ Above we've noted one way mereological nihilism might support the non-self doctrine: if there are no composite objects, then we can thereby rule out many of the possible answers to the question of what we are.⁴⁰ Ultimately, the proponent of the non-self doctrine maintains, we aren't anything at all: selves do not exist.⁴¹ We do not claim that mereological nihilism *entails* that selves do not exist. Even if mereological nihilism is true, we might be something other than composite objects -- for example, we might be mereologically simple immaterial souls. But, again, mereological nihilism *supports* the non-self doctrine by ruling out most of the views regarding personal ontology which philosophers actually endorse. And at any rate many philosophers would contend that we have good reason to think that if we exist then we are composite objects, rather than simple objects (if, for example, our being simple requires substance dualism, and we have good grounds to reject substance dualism).

Among its proponents, the Buddhist non-self doctrine is generally thought to have soteriological and ethical implications. For example, it is alleged to reduce suffering and fear of death in its proponents. It is also alleged to force us to apply equal moral consideration to the welfare of others as we apply to our own welfare.⁴² These claims should be disambiguated. On the one hand we have two normative claims: the non-self doctrine *should* reduce our fear of death, or

³⁶ Marquis 1989.

³⁷ Though for a cautionary note, see Conee 1999.

³⁸ Olson 1997: Ch.4; McMahan 2002: Ch.4. Also worth mentioning in this context is the dispute regarding whether or not the developing fetus is a part of its mother (Kingma 2019). We doubt that this issue should inform our assessment of the ethics of abortion. Nevertheless, it is an issue which some philosophers regard as substantive and interesting. And the question of when, or *whether*, composition occurs is of obvious relevance to this question about the metaphysics of pregnancy.

³⁹ For discussion see Siderits 2015: Ch.4.

⁴⁰ Contemporary mereological nihilists tend towards eliminativism about persons for precisely this reason. See, e.g., Rosen and Dorr 2002: §6, Sider 2013: §7.

⁴¹ Buddhist proponents of the non-self doctrine traditionally maintain that while it is *ultimately* true that there are no selves, it may still be *conventionally* true that there are selves (for discussion see Siderits 2015: Ch.1). Buddhist proponents of mereological nihilism would generally say something similar about composite objects: while it is ultimately true that there are no composite objects, it is conventionally true that there *are* composite objects (this point is illustrated in, e.g., the famous discussion of the chariot in the *Questions of King Milinda*). For simplicity we ignore these slight complications in the main body of this article.

⁴² For discussion of both of these alleged consequences of the non-self doctrine see Siderits 2015: Ch.5.

should lead us to concern ourselves with the welfare of others. On the other we have two descriptive claims: advocates of the non-self doctrine will in fact have a reduced fear of death, or will in fact have greater concern for the welfare of others. Though Buddhist proponents of the non-self doctrine have traditionally endorsed both the normative and the descriptive claims, here we are particularly interested in the normative claims.⁴³

For illustrative purposes, consider the alleged connection between the non-self doctrine and the normative claim that we should be just as concerned for the welfare of others as we are concerned for our own welfare. In his *Bodhicaryāvatāra*, Śāntideva offers the following influential line of thought in support of this normative claim. My suffering is a bad thing. In general, I should aim to reduce my own suffering. But it would be arbitrary to suppose that I should reduce my own suffering and not the suffering of others. One purported relevant distinction between my own suffering and the suffering of others is that my own suffering is *my* suffering, and those who suffer have a special obligation to reduce their own suffering. Here is where the non-self doctrine comes in:

“The continuum of consciousnesses, like a queue, and the combination of constituents, like an army, are not real. The person who experiences suffering does not exist. To whom will that suffering belong? Without exception, no sufferings belong to anyone. They must be warded off simply because they are suffering. Why is any limitation put on this? If one asks why suffering should be prevented, no one disputes that! If it must be prevented, then all of it must be. If not, then this goes for oneself as for everyone”⁴⁴

If the non-self doctrine has the normative implications that its proponents generally claim it has, and if the truth of Comp bears on the truth of the non-self doctrine, then the truth of Comp bears on the truth of these normative claims. And it seems clear, furthermore, that the normative claims at hand are substantive indeed.

We conclude that the case for Substance is strong. Disputes about Comp have substantive implications across a variety of disputes in metaphysics, science, philosophical theology, philosophy of mind, and ethics.

4. The closure of substantivity

And because those disputes matter, so too does Comp. Or so we shall now argue. Our argument relies on this principle:

Closure. If a dispute has substantive consequences, then it is substantive in its subject matter.

⁴³ Although for some recent empirical evidence bearing on the descriptive claims see Bartels, et al. 2013, Nichols, et al. 2018.

⁴⁴ Śāntideva 1995: Ch.8, §§101-103. Note the mereological nihilism in this passage, implicit in Śāntideva’s assumption that such things as queues and armies are not real.

Closure proposes a *sufficient* condition for substantivity. The condition is by no means necessary. Indeed, for all we say here disputes over Comp are, in addition to being *instrumentally* substantive, *non-instrumentally* substantive -- interesting in their own right and independent of their consequences.

It's hard to say what makes a philosophical dispute substantive in its subject matter. But suppose a dispute between various views is indeed substantive; any philosophical position that rules out a wide swath of those views would seem to itself be substantive in its subject matter too. Trivial or shallow positions that are unimportant in their subject matter don't have such consequences.⁴⁵ Compare: Gregor Mendel's experiments involving pea plants might initially seem unimportant, except for those interested in breeding pea plants. But once one realizes that those experiments unlock the mysteries of genetic inheritance, and so unleash important insights regarding evolutionary processes, one sees that the experiments are important after all. The experiments are important because they have important *implications*. Similarly, if it turned out that something interesting or deep or substantive really did follow from the thesis that the number of electrons is odd (if it followed from that thesis that nothing was morally right or wrong, say), then disputes about electron cardinality would themselves prove interesting and substantive in their subject matter. They would, because of their connection to *other* things, matter. The same goes for disputes about Comp.

Does a dispute, no matter how zany, become substantive simply by bearing on something important? We think so. To stave off appearances to the contrary, it is helpful to distinguish between whether a dispute is substantive and whether it is worth our time. It *matters* whether the Earth is flat -- for geography, world history, astronomy, philosophy of science, optimal flight paths, and so on.⁴⁶ But it doesn't follow that disputes about the shape of the Earth are worth our time. A host of factors figure into an overall assessment of whether a theory is to be taken seriously and whether we should argue over it: its prior probability, its posterior probability on a given body of evidence, its fruitfulness or parsimony, and so on. If disputes over the flatness of the Earth are defective or not worth our time, it is not because they don't matter; it's because they've already been *settled* (we would model this as the target hypothesis being overwhelmingly improbable on a wide body of shared and indisputable evidence). Perhaps disputes over Comp are similarly settled; perhaps the denial of Comp resembles a flat Earth hypothesis in this respect. But note: nothing we've said contradicts that assessment. Our claim is, rather, that debates over Comp are substantive. They matter.

So Closure is quite plausible. And given Substance, the conclusion of our argument follows: disputes about Comp are substantive in their subject matter.

⁴⁵ For defense of a general "closure of substantivity" principle that implies Closure, see Greco 2015. Graham 2014 deploys a similar premise.

⁴⁶ The point of the example is that mattering in the target sense can peel away from being worthwhile, all things considered. We do not claim that disputes over Comp matter as much as those about the flat Earth hypothesis. Perhaps they don't (though this may change -- in a future where "uploading" is cheap and viable, the metaphysics of material objects -- including Comp -- might become as practically important as fuel economy).

Our argument so far is interesting enough. But it may be augmented towards an even stronger conclusion. Substantivity comes in degrees. Even among various disputes that matter, some matter more than others. We propose this extension, then, of Closure: if a dispute has *many* substantive consequences, then it is *very* substantive in its subject matter. The evidence we've offered in the preceding section supports the antecedent of that conditional; disputes about Comp bear on a great many disputes of real consequence and import. And so we suggest that disputes about Comp are *very* substantive in their subject matter.

5. Consequences

We'll close by briefly taking stock, addressing a few stray concerns, and drawing out what follows.

5.1 Varieties of substantivity

We may distinguish between substantivity in subject matter and in method. Our argument suggests that disputes about Comp enjoy the former; it says nothing about the latter. Our argument does not show that there are strong reasons for or against Comp, that we have evidence for or against Comp, that philosophers have pursued questions about Comp with the right tools, that such philosophers are not talking past each other here (as in 'merely verbal' disputes), or even that we have any hope of discovering the truth about Comp. It shows only that disputes about Comp matter; the truth about Comp is a matter of some significance.

Is our conclusion, despite its modesty, interesting or newsworthy? We think so. It is easy to see why some philosophical disputes matter. The correct social epistemology of trust and expertise, for example, has obvious consequences regarding the aptness of relying on the judgements of epidemiologists. It is much less easy to see that something of importance could hang in the balance when it comes to metaphysics. And so it is tempting to conclude that metaphysics, for that reason and in contrast to ethics or epistemology, say, just isn't worth our time -- disputes over Comp, even more so. Our argument shows that this tempting line of reasoning is incorrect. It uncovers what kind of stakes are at play in disputes over Comp. Some are purely theoretical -- within and beyond metaphysics proper. And some are practical -- they concern what we should do. That metaphysics could be like ethics or epistemology in this respect is a surprising result.

5.2 Whence the resistance?

We've concluded that composition matters.

Why would anyone have ever thought otherwise? One reason, we suspect, is that discussions of Comp occur at a level of abstraction that masks connections with matters that more plainly command our attention and care. At that high level of abstraction, the dispute concerns whether a proper parthood relation is ever instantiated, whether or when unity arises from diversity, and so on, with perhaps a detour into even more abstract meta-ontological disputes regarding, e.g., whether the quantificational expressions used to frame the dispute over Comp are "joint-

carving.”⁴⁷ This is heady business. And when the discussion is not so abstract, it can easily appear to mostly concern proper metaphysical interpretation of the mundane and quotidian features of everyday life. The metaphysician might wonder, for example, whether tables (it's almost always tables) exist, or whether there are merely “things arranged table-wise.”

We feel the pull of these concerns. The way that disputes over Comp typically unfold gives the impression that the matters under dispute are either abstruse or mundane and therefore isolated from anything of deep and real interest.⁴⁸ We've shown how disputes over Comp are in fact connected with disputes worthy of our care, disputes that concern matters which are neither banal nor, we think, overly abstract. The main goal of our paper, then, has been to make explicit the connection between Comp and some of the issues with which it intersects. We hope to dispel the air of unreality that attends abstract discussions about the nature of parthood and to dispel the air of triviality surrounding seemingly dull and pointless debate over household furniture.

Despite everything we have said, some still can't shake the sense that debates over composition just aren't important in their subject matter. They're a game. It doesn't matter who's right or wrong. We've argued directly that this impression is mistaken. That is the main point of our paper. In addition to all that, we've offered one hypothesis about the origins of that impression.

Here is a slightly more speculative diagnosis.

Knowledge skeptics -- who think we don't know anything at all -- say the darndest things. Taken at face value, their views strictly imply that we don't know why the Twin Towers fell, whether HIV causes AIDS, or whether vaccinations work. It's puzzling that skeptics still get jobs. We read and cite their books dutifully. We take them seriously; they are not mere cranks. Perhaps our toleration is to be explained along these lines: skeptics don't really mean the things they say. It sure sounds like they mean something mad. But in fact, they mean something else. There is some charity in this interpretation. But there is not-charity too. For in saving the skeptic from charges of madness, the interpretation at hand implies that disputes over skepticism are considerably less important than they might initially seem. They don't concern the mad thing; they're about something else. And it is far from obvious that something else matters at all. Maybe chatting with skeptics, then, is just a game.

We speculate that something similar happens in metaphysics. Nihilists about composition say the darndest things: that there aren't any composite objects, for example. Taken at face value, their views strictly imply that there aren't any such things as rockets (so NASA never made any rockets that went to the moon) and that there are no rare books in the Beinecke Rare Book & Manuscript Library. It's puzzling that these nihilists get jobs. We read and cite their work. Why? Perhaps it's because we suspect that nihilists, too, don't really mean the things they say. Like the

⁴⁷ Cf. Sider 2011: Ch.9.

⁴⁸ In this connection, see Ross et al. (2007: 14) who say composition is a topic where “... metaphysicians have constructed a herm[e]tically sealed world in which they can autonomously study their own special subject matter.”

skeptics, they mean something else, something that just doesn't matter. So chatting with them is, after all, just a game.

Our argument points in a different direction. We could bend over backwards to interpret nihilists as saying something benign and unimportant -- true, perhaps, but boring. Or we could accept that their views are important, if true. And then we could simply accept or deny those views on the basis of the best *arguments*.⁴⁹ This is how we'd react to conspiracy theories about NASA or the Beinecke. Why not here as well? Perhaps the thought is that nihilism, interpreted as an interesting and important thesis, is just mad, and so clearly false. Some do react this way to nihilism. But this is not the concern that we aim to address in this paper -- if you think that nihilism is obviously false, then we direct your attention to extant responses to that concern on behalf of nihilism.⁵⁰

5.3 Two reactions

Our argument typically prompts one of two contradictory reactions.⁵¹ The first is that none of the disputes discussed in our argument turn on Comp. The second is that the disputes we discuss obviously *do* turn on Comp; so those who regard the debate over Comp to be non-substantive must have a special sense of "substantive" in mind, one not addressed here.

We have engaged the first of these reactions directly throughout this paper. But what about the second? Well, we don't think that it is *obvious* that Comp is implicated in so many other disputes. That is a link that requires argument to uncover. We suspect that those who think that disputes over Comp are unimportant have probably not appreciated the extent to which they intersect with so many others.⁵² This dismissive attitude, our argument shows, comes at a price: it requires either a dismissive attitude toward all these other disputes, or commitment to the view that those disputes don't connect with Comp after all. We doubt that those who are dismissive of disputes over Comp generally realize that they'll have to take on one or both of these two commitments. Nor would they be comfortable doing so.

Now, perhaps you'll suspect that *all* of these other disputes which, we claim, intersect with the dispute regarding Comp are unimportant in their subject matter (it has to be all; if only *some* are unimportant, our argument still succeeds), or that the dispute over Comp doesn't really impinge on those other disputes. We have no knockdown refutation of these suspicions. But we would like to emphasize two points.

⁴⁹ In this connection, see Brenner (2015a, 2015b, forthcoming), Korman (2016) and Rettler (2018).

⁵⁰ Van Inwagen 1990: Ch.10-11; Rosen, Dorr 2002: §5; Merricks 2001: Ch.1; Sider 2013, especially §§2-5.

⁵¹ Thanks to an anonymous referee for raising this issue explicitly.

⁵² For example: Recall that Maclaurin and Dyke 2012 cite the dispute over Comp as a metaphysical dispute of dubious value. But Maclaurin and Dyke also cite philosophical disputes regarding the nature of species (2012: 293), and disputes regarding the unit of selection (2012: 300), as examples of naturalistic metaphysics, whose importance they do not call into question. They don't seem to realize that disputes about species and the unit of selection crucially implicate Comp. Our argument draws from the same Hull paper cited by Maclaurin and Dyke, a paper which argues that species should be thought of as mereological wholes. We think Hull is correct to connect Comp and questions about species, and our argument corrects Maclaurin and Dyke's apparent (and perhaps ironic) oversight.

First, the fact that Comp is connected with so many other disputes across so many fields of inquiry (ethics, philosophy of biology, etc.) supports the view that disputes over Comp themselves have wide-ranging implications. At the very least, given the sheer number and variety of connections we've identified between Comp and other substantive disputes, it seems to us to be very doubtful that the dispute over Comp is *entirely* barren, in the sense that the truth or falsity of Comp has *no* substantive implications.

Second, suppose that one or more of the disputes we discuss do not *really* turn on the status of Comp. There may nevertheless remain a sense in which the dispute over Comp is substantive, insofar as it is indirectly integrated with these other substantive disputes.⁵³ For example, it may be suggested that those who regard species as a salient unit of selection and as composite objects do not *really* thereby commit themselves to the existence of composite species, and so do not *really* thereby commit themselves to a position in the dispute over Comp. This attitude towards talk of “species as composite objects” requires a controversial meta-ontological position; it requires that we do not take the explicit pronouncements of the existence of “species as composite objects” by philosophers and biologists at face value. Perhaps this meta-ontological position is defensible -- we lack the space here to consider it in detail. But note that even if this meta-ontological approach is correct, the dispute over Comp would nevertheless be integrated in an indirect manner with the dispute over species as composite objects. Given this integration, a thorough assessment of the “species as composite objects” thesis would require taking stock of the fact that Comp’s status is a potentially relevant consideration.

5.4 Critics answered

Our central task, again, is not to answer the critics. But our positive argument does, we think, show where some go wrong. As we noted earlier, Maclaurin and Dyke write that the question of whether there are composite objects “can perhaps be said to play an important part in the lives of a relatively small group of academic philosophers and their students.” But that a question only interests a small number of people doesn’t imply that disputes regarding the answer to that question don’t matter. One reason to think that a dispute matters is that it intersects with a number of other disputes which matter -- a condition that can be satisfied even if overlooked by many and even if many don’t care. But Maclaurin and Dyke also argue that non-naturalistic metaphysics (metaphysics which, in principle, has no observable implications) is lacking in value because “as an intellectual endeavour, it can have no practical benefit to anybody. This is to say that universals, tropes, possible but non-actual worlds, etc., cannot be harnessed for practical effect. In particular, it can make no difference to science which of a range of metaphysical theories is true”.⁵⁴ We have seen, however, that disputes over Comp impinge on a wide variety of other substantive matters. In that sense, then, engaging in the dispute over Comp can have at least one benefit: it can help us make progress in these other substantive disputes. We have even seen that the dispute over Comp has life or death consequences which are of plainly *practical* importance. For example, would you like to survive death? Then you might

⁵³ Thanks to an anonymous referee for helpful discussion here.

⁵⁴ Maclaurin and Dyke 2012: 299.

consider “uploading” your mind into a computer. But before you do so, you’d better have some idea about whether you are the sort of thing that can survive uploading. And coming to terms with *that* requires engaging Comp. As for whether the dispute over Comp has any implications for science specifically, we have seen that it does -- or, at any rate, we have seen that the dispute over Comp intersects with disputes in the philosophy of biology, the philosophy of physics, and the philosophy of the social sciences.⁵⁵

5.5 The way forward

We began by wondering whether ontological disputes matter, giving Comp as one example of a potentially important ontological dispute. Our argument has been in the affirmative. We have thus struck a blow, not just for Comp, but for ontology and metaphysics. The lessons from our argument extend further still. It’s not as though metaphysics is the only field in philosophy that finds audiences skeptical of its value, after all.⁵⁶ Our main argument suggests a general way to show how a given field matters or has import: lay bare its connections to *other* things of real import. Perhaps this can’t go on forever; some things have to simply matter themselves, and not just *instrumentally* and because they connect to *other* things. We close, then, by highlighting a question worthy of future inquiry: what makes a dispute *non-instrumentally* or *intrinsically* important?⁵⁷

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⁵⁵ Maclaurin and Dyke might here reply that, in drawing out these connections, we’ve shown that debates over Comp are in fact exercises in “naturalistic metaphysics” and so not subject to their objections to non-naturalistic metaphysics. Fair enough, we say: naturalistic or not, Comp matters.

⁵⁶ Arguments in Bennett 2016 are illuminating in this connection.

⁵⁷ For useful discussion of many issues in this neighborhood framed in terms of what is *interesting*, see Grimm 2011.

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