Mereological Nihilism and the Special Arrangement Question

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Abstract: Mereological nihilism is the thesis that composite objects – objects with proper parts – do not exist. Nihilists generally paraphrase talk of composite objects F into talk of there being "xs arranged F-wise" (for example, while nihilists deny that there are tables, they concede that there are "xs arranged table-wise"). Recently several philosophers have argued that nihilism is defective insofar as nihilists are either unable to say what they mean by such phrases as "there are xs arranged F-wise," or that nihilists are unable to employ such phrases without incurring significant costs, perhaps even undermining one of the chief motivations for nihilism. In this paper I defend nihilism against these objections. A key theme of the paper is this: if nihilists need to employ such phrases as "there are xs arranged F-wise," non-nihilists will need to do so as well. Accordingly, any costs incurred by the nihilist when she employs such phrases will be shared by everyone else.

What's more, such phrases are intelligible when employed by the nihilist, as well as when they are employed by the non-nihilist, insofar as analyses of such phrases will not essentially involve mereological concepts incompatible with nihilism.

1 Introduction

Mereological nihilism is the thesis that composite objects – that is, objects with proper parts – do not exist.¹ There's no consensus among nihilists about whether everyday talk of composites (that is, apparent quantification and reference to composites by non-philosophers and philosophers in their everyday lives) is true, despite the fact that on first glance it seems to quantify over composites (van Inwagen 1990), or whether its false but in some sense almost as good as true ("correct," maybe, or "quasi-true," whatever exactly these terms amount to – see, for example, Merricks 2003).² All nihilists seem to agree, however, that the nihilist denial of the existence of, say, tables, isn't as crazy as it might at first sound, since the nihilist agrees that there are "things arranged table-wise," a phrase first employed by van Inwagen (1990). For example, here's what Sider says on the subject:

Since I accept the existence of [noncomposite subatomic particles], my denial of an object composed of them isn't absurd. Denying that T exists in addition to a, b, and c is no more absurd than denying that holes exist in addition to perforated things, or denying that smirks exist in addition to smirking faces. Similarly, denying the existence of persons, animals, plants, and the rest is not absurd if one accepts subatomic particles that are "arranged"

¹Proponents of mereological nihilism (henceforth just "nihilism") include, among others, Dorr (2002), Rosen and Dorr (2002), Cameron (2010), and Sider (2013). Nihilism is sometimes described as the thesis that only mereological simples exist. That's not quite right, since one might be a mereological nihilist, as well as a proponent of a "stuff" ontology, or some other sort of ontology according to which there aren't the sort of discrete individuals suggested by the term "simples." Strictly speaking, mereological nihilism is the thesis that composition never occurs – no composite objects, stuff, etc.

²Peter van Inwagen (1990) and Trenton Merricks (2003) are actually organicists, who believe that the only composites are living things. van Inwagen and Merricks are frequently lumped together with nihilists, or described as "semi-nihilists," since they both deny that there are very many composite objects. Much of what follows concerns van Inwagen and Merricks' work, so for now we might think of them as "honorary nihilists." Just keep in mind that, as a matter of fact, they're not actually nihilists.

³Or "stuff arranged table-wise," but I'll ignore that option for the rest of this paper.

personwise"..., animal-wise, plant-wise, and so on (Sider 2013: 238)

So, when the nihilist denies that, say, the moon exists,⁴ she's not endorsing a conspiracy theory with respect to the existence of the moon, or suggesting that our moon-ish perceptual experiences are a mass delusion or hallucination, or anything like that. The nihilist agrees that there are "things arranged moon-wise" in the location generally regarded as the location of a composite object called "the moon." The nihilist simply denies that those objects arranged moon-wise compose some *further* object, the moon. (If the moon were composed of n simples, for example, then where we generally think the moon is there would be at least n+1 objects – namely, the moon, as well as those objects which compose the moon. The nihilist might believe in the n objects, even if she denies the existence of the n+1st object.) Let's say more generally that, where some alleged composite object F exists, the nihilist will generally concede that there are "xs arranged F-wise."

Recently several philosophers have argued that nihilism is defective insofar as nihilists are either unable to provide an account of what it means for "xs to be arranged F-wise" (Elder 2011, Tallant 2014, Unger 2014),⁵ or unable to provide such an account without undermining a chief motivation for adopting nihilism (Bennett 2009, Tallant 2014), or endorsing otherwise objectionable consequences of the analysis of the notion of there being "xs arranged F-wise" (Uzquiano 2004).

We might put the challenge posed to the nihilist like this: how is the nihilist going to answer what Tallant calls the "Special Arrangement Question" (SAQ), which asks, for any composite object sortal F, "under what circumstances are there xs arranged F-wise?" In this paper I mainly discuss two variants of this challenge: 1.Can the nihilist give an answer to the SAQ? 2.Can the nihilist give an answer to the SAQ which does not undermine any of her chief motivations for adopting nihilism? I'll defend nihilism against

⁴I should mention that it isn't actually the case that *all* nihilists deny the existence of moons, tables, cats, etc. Contessa 2014, for example, suggests that nihilists should endorse the sentence "the moon exists," but should take the referent(s) of "the moon" to be simples arranged moon-wise.

⁵Strictly speaking, as we'll see, Unger doesn't actually think that the nihilist is unable to say what it means for there to be "xs arranged F-wide." Rather, he thinks that the nihilist is unable to give a *coherent* characterization of such phrases, at least for many sortal terms F.

⁶The SAQ is modeled after van Inwagen's "Special Composition Question," which asks "when is it the case that there is a y such that the xs compose y?" (see especially van Inwagen 1990: 30-31). The Nihilist answer to the special composition question is this: "there is a y such that the xs compose y iff there is only one x" (van Inwagen 1990: 73).

these challenges. The upshot of the paper is that nihilists can make perfect sense of the notion of some xs being "arranged F-wise," and so can everyone else. In fact, nihilists who employ such predicates will make sense of such phrases as "there are xs arranged F-wise" in pretty much the same manner as any non-nihilists who employ such phrases.

2 Do Nihilists Need To Answer the Special Arrangement Question?

In the next section I address arguments to the effect that nihilists are unable to make sense of such phrases as "there are xs arranged F-wise." This objection to nihilism has been developed independently by Elder (2011), Tallant (2014), and Unger (2014). Before I consider their objections I'd like to make some *general* points regarding the SAQ, points which seem to me to be important.

First, it's unclear to me why the nihilist is required to give an answer to the SAQ. The SAQ asks for a general account of what it means for some xs to be arranged F-wise, for any composite object sortal F. Why should we think there's any way to answer that sort of question? Rather, it seems plausible to me that there will be a variety of answers, corresponding to a variety of sortal terms F. For example, in answer to the question "under what circumstances are xs arranged table-wise?" we'll give one answer (the xs are arranged table-wise if they're arranged like this – pointing to a table, a variety of tables, a table blueprint, whatever), and they're arranged, say, pig-wise if they're arranged like that. I don't see any reason to suppose that anyone should expect there to be *one* way of answering the question "when are some xs arranged F-wise," where "F" can refer to any composite object sortal at all. Of course, the nihilist should, for any particular statement of her's involving "xs arranged F-wise," be able to say something informative about the arrangement in question. For example, if the nihilist says that there are "xs arranged baseball-wise," she will be able to tell you something about the arrangement: the xs in question are not arranged dog-wise, although they are more or less arranged sphere-wise; the xs are spread over more or less such-and-such a volume; etc. What I intend to deny here is simply that there should be, for any composite object sortal F, one general recipe or formula for turning talk about the (alleged) composite object F into talk about xs arranged F-wise.

But more generally, we might be skeptical that a correct fundamental description of the world will make use of any sort of arrangement predicate (e.g., "arranged F-wise"), regardless of which view regarding composition we endorse. If that's right, then nobody – nihilist, as well as non-nihilist – will need to employ any sort of F-wise arrangement predicate in their fundamental description of the world. To see why this is important, let's briefly step back and look at one of the motivations for nihilism. Nihilism is often motivated by considerations of theoretical simplicity, insofar as nihilism is simpler than alternative views regarding the ontological status of composite objects. Since simplicity is, all other things being equal, generally regarded as an indication that a theory is true, nihilism's simplicity would give us some reason to suppose that it is true.

Of course, there's more than one respect in which a theory will be more or less simple. A common distinction, generally attributed to Quine (1951), is the distinction between the ontological and the ideological commitments of a theory. Sider puts the distinction like this: "A theory's ontology consists of the objects that the theory posits – the range of its quantifiers, if the theory is to be true. Its ideology consists of the undefined notions it employs, both logical and extra-logical" (Sider 2013: 238-239). Nihilism, of course, has a simpler ontology than its rivals, but there's a case to be made that it is ideologically simpler as well, insofar as nihilists can make do without a primitive parthood relation (and, I suppose, any mereological notions, if there are any, that can't be defined in terms of the parthood relation). This latter point is Sider's chief argument for nihilism (Sider 2013: §1). In particular, Sider contends that theories which posit a simpler fundamental ideology are more likely to be true (Sider 2013: 240), where "fundamental matters" include, in Sider's reckoning, physics, mathematics, and "fundamental metaphysics" (Sider 2013: 241).⁷

Here's where F-wise arrangement predicates become relevant. Sider (2013: 240) writes: "it is no objection [to nihilism's ideological simplicity] that nihilists must use ideology like 'arranged plant-wise', 'arranged dollar-bill-wise', 'arranged river-wise', and so forth to describe reality's biological, economic, and geological features – these predicates are not part of the nihilist's theory of fundamental matters." The assumption here seems to be that any sort of "F-wise" arrangement predicates will be absent from a correct fundamental description of the world. If Sider's right about that, then nobody needs to answer the SAQ, since in principle nobody needs to make use of F-wise arrangement predicates in their fundamental description of the world, whether or not composition occurs.

It's unclear what Sider's motivations are for supposing that a fundamen-

⁷For the manner in which Sider is conceiving of the relationship between the fundamental and the non-fundamental, Sider refers us to his 2011: §7.3-7.8.

tal description of the world won't include F-wise arrangement predicates. Tallant (2014: §3.1.1) challenges Sider on this point, arguing that a physical (fundamental) description of chiral molecules requires either quantification over composites (namely, those chiral molecules), or a multi-place arrangement predicate (i.e., simples "arranged chiral-molecule-left-hand-wise" or "arranged chiral-molecule-right-hand-wise"). Presumably Sider would contend that such predicates are not fundamental.⁸ I won't take a stance on this issue here. My overall point is simply that we shouldn't take it for granted that anyone (nihilists or non-nihilists) will need to employ F-wise arrangement predicates. If such predicates are replaced with more fundamental non-arrangement predicates then presumably the nihilist can make use of the latter such predicates in replacements of her paraphrases of composite object F talk in terms of there being "xs arranged F-wise."

In any case, for the rest of the paper I'll assume that nihilists will need to employ predicates like "are arranged F-wise." As I'll argue momentarily, if the nihilist needs to employ such predicates, then so does the non-nihilist – the fact that the non-nihilist includes composite objects in his ontology does not mean he can do without "arranged F-wise" predicates.

So, here's the second main point I'd like to make in this section: if the nihilist is unable to answer the SAQ, those who believe in composition are no better off. They would be better off only if they were able to answer the SAQ by employing resources unavailable to the nihilist. In other words, they would be better off only if their proposed answer to the SAQ essentially involves composition, parthood, or some other notion which the nihilist will find unacceptable. This is in fact just the sort of answer to the SAQ which Elder endorses. Elder endorses the following analysis of there being "xs arranged dog-wise":

microparticles are dogwise arranged just in case (i) they are among a plurality of microparticles that between them are such as to cause the folk to judge that a dog is present, and (ii) they lie within the region occupied by a dog (Elder 2011: 124)

⁸There are several ways this might go, although I don't know which of them Sider would endorse. Here are two examples. First, you might think that fundamentally the world contains only one or two physical objects in a high dimensional configuration space, with our manifest image of the world somehow supervening on what goes on in that configuration space (Albert 1996). If this were true, then a correct fundamental description of the world presumably wouldn't mention many (if any) F-wise arrangement predicates. Or, maybe some variant of monism (existence monism, as in Horgan and Potrč 2008, or priority monism, as in Schaffer 2010) is correct, in which case, while we might have fundamental arrangement predicates, we wouldn't have fundamental multi-place arrangement predicates.

This account is, of course, unacceptable to the nihilist, since the nihilist believes there are xs arranged dog-wise, but there aren't any dogs. On Elder's proposed answer to the SAQ, "The claim that there is a dogwise arrangement in the world would leave open no further question as to whether the microparticles so arranged compose dogs" (Elder 2011: 124). Luckily for the nihilist, Elder doesn't actually give us any reason to suppose that this answer to the SAQ is correct, other than the alleged failure of alternative answers to the SAQ (or at least those answers which Elder considers). What's more, we have at least three good reasons to reject Elder's answer to the SAQ, as well as any other answer to the SAQ which essentially involves composition.

First, what should we say about xs arranged F-wise that don't compose anything? Elder will either have to give an alternative analysis of the notion of these xs being arranged F-wise, or he'll have to contend that it's not possible for some xs to be arranged F-wise without composing an F, for any sortal term F. Many philosophers will not hesitate to endorse the latter option (this includes, for example, mereological universalists), but I suspect some philosophers will be uncomfortable doing so. For example, some philosophers (e.g., Baker 1997) think there can be xs arranged statue-wise which don't compose a statue (they won't compose a statue if they weren't arranged with the intention to produce a statue). Or maybe we could imagine a complex arrangement predicate F which doesn't correspond to a composite object sortal. In that case some xs might be arranged F-wise, and yet fail to compose anything.

Second, given Elder's answer to the SAQ, we won't have anything informative to say about what makes some object fall under some particular composite object sortal. For example, what makes something a table? Those who believe in tables would be inclined to say something like "if its parts are arranged table-wise." In fact, the xs compose a table because or in virtue of the fact that those xs are arranged table-wise. But someone like Elder can't say any of that, since he defines "being arranged table-wise" in terms of composing a table. So, it looks like Elder won't be able to say anything informative about what makes some object a table – at most he'll be able to say something trivial like "it's a table if its parts compose a table, and its

⁹Actually this is false, according to Elder's own analysis of there being "xs arranged dog-wise." Even if some xs are "among a plurality of microparticles that between them are such as to cause the folk to judge that a dog is present," and even if they "lie within the region occupied by a dog," it wouldn't follow that those xs are parts of dog. Perhaps, for example, the xs are colocated with, but fail to overlap, the dog and any of the dog's parts, yet nevertheless tend to give rise to the folk belief that a dog is present.

 $^{^{10}}$ By contrast, if the xs were, say, scattered across the galaxy, then they would almost certainly not compose a table, even if they composed some object.

parts tend to cause the belief that there is a table."

Third, and the most significant problem for Elder's answer to the SAQ, is that, as an exercise in conceptual analysis, Elder's answer to the SAQ is just clearly wrong. For starters, the first conjunct of the analysis – that the microparticles in question should be such that they cause the folk to judge that a dog is present – is not a necessary condition for there being microparticles (or objects more generally) arranged dog-wise. There might be xs arranged dog-wise, for example, even if there are neither folk nor people of any sort. Second, the concept of there being xs arranged F-wise does not include the concept of those xs lying within a region occupied by an F – and, for that matter, it does not include the concept of those xs composing an F.¹¹ If we need an argument, here it is: the concept of some xs composing an F, or being located in the region occupied by an F, is not included in the concept of those xs being arranged F-wise, because it is epistemically possible for the latter situation to obtain (the xs are arranged F-wise), but the former situation not to obtain (the xs neither compose an F, nor are located within the region occupied by an F). More generally, it is epistemically possible for some xs to be arranged F-wise, tend to give rise to folk belief that there is an F, and yet nevertheless fail to compose an F.¹² In short, (conversational implicature aside) if I believe or assert that some xs are arranged F-wise, I don't thereby believe or assert that those xs compose anything, are located in a region occupied by an F, or are apt to give rise to any particular sort of belief. There's a conceptual gap between the former notion and the latter

¹¹Or perhaps I only need to defend a weaker claim: the two concepts (xs are arranged F-wise, and xs are located in a region occupied by an F) are distinct "in the ontology room." Perhaps, for example, outside the ontology room the sentence "there are things arranged table-wise" entails or is equivalent to the sentence "there is a table." Even if this is true, however, it is certainly false that that entailment or equivalence holds for such sentences as uttered in the ontology room – that is, when we're engaged in careful metaphysical debate, with its attendant linguistic norms. If this is the case, it's either because, outside the ontology room, the sentence "there is a table" employs a non-joint carving quantifier, or, and this is the view I favor, that sentence does not, despite appearances, always quantify over tables. (For more on the distinction between ontological disputes conducted inside the ontology room vs. ontological disputes conducted outside the ontology room see van Inwagen 2014).

 $^{^{12}}$ I should emphasize that this is true whether or not it is necessarily true that any such xs compose an F. The point I'm interested in here is whether or not Elder has given an adequate characterization of a particular concept, the concept of there being xs arranged F-wise. I'm arguing here that, as a matter of conceptual analysis, Elder's characterization of there being objects "arranged F-wise" is incorrect. So, whether or not Elder is correct that, say, it is necessarily the case that any xs which are arranged dog-wise compose a dog, he is not correct that it is somehow true by definition that any such xs compose a dog.

3 Can Nihilists Answer the Special Arrangement Question?

With those preliminary, but (I think) very important, points out of the way, let's consider whether Elder (2011), Tallant (2014), or Unger (2014) give us compelling arguments for the view that nihilists are unable to answer the SAQ. Again, it's not obvious to me that the nihilist needs to give an answer to the SAQ. But supposing she does, is there anything preventing her from doing so?

I'll address Tallant's arguments first. Tallant takes his cue from Bennett, who puts the challenge for the nihilist like this:

The nihilist does indeed a [sic] straightforward answer to the Special Composition Question, as well as to the closely related question 'when, if ever, do some things compose an F?', where F is a sortal or kind term. In both cases, the nihilist will say 'never'. But there is a question closely analogous to the second of those two, to which the nihilist does not have a straightforward answernamely, 'when, if ever, are some things arranged F-wise?' Put the point this way: perhaps the believer has to say something about what the world has to be like to contain tables. However, the nihilist equally needs to say something about what the world has to be like to contain simples arranged tablewise. If the believer should tell us when and how some simples compose a thing of kind F, the nihilist should tell us when and how some simples are arranged F-wise (Bennett 2009: 66)

Bennett merely raises the challenge for the nihilist, while Tallant, by contrast, contends that the nihilist is unable to meet the challenge.

A natural characterization of such phrases as "the xs are arranged tablewise" is in terms of a particular sort of counterfactual. So, when the nihilist

 $^{^{13}}$ Of course, the claim I'm making in this paragraph isn't entirely uncontroversial. Thomasson (2007), for example, contends that it is analytic that where we have xs arranged table-wise we have a table. But Thomasson is incorrect: saying there are xs arranged table-wise just doesn't involve quantification over tables. There isn't this sort of analytic entailment here, even if there is a true relevant material or strict conditional in the neighborhood, something like "if there are xs arranged table-wise then there is a table" (a conditional which, in any case, the nihilist will reject).

says some xs are "arranged table-wise," what he means is that the xs are arranged in the manner in which they would be arranged if they composed a table. This line of thought suggests a straightforward answer to the SAQ, something like "xs are arranged F-wise iff they are arranged in the manner in which they would be arranged if they composed an F." Something like this sort of counterfactual answer to the SAQ is endorsed by Rosen and Dorr (2002), and Merricks (2003). There's actually more than one way to characterize the relevant counterfactuals in detail, but Merricks' account is pretty typical: "Atoms are arranged statuewise if and only if they both have the properties and also stand in the relations to microscopica upon which, if statues existed, those atoms' composing a statue would non-trivially supervene" (this is Tallant's rendition: Tallant 2014: 1515; see also Merricks 2003: 4).

So, what, according to Tallant, is supposed to be wrong with this sort of answer to the SAQ?¹⁴ Tallant follows Williams (2006) in endorsing the following principle:

GLOBALIZATION: If F fails to apply to anything in the actual world, then F has no intension (Tallant 2014: 1515)

GLOBALIZATION is supposed to be an "extension of Kripke's (1980, p. 24) claim that – issues of mereology to one side – if there don't in fact exist any such things as unicorns, then, 'we cannot say under what circumstances there would have been unicorns'" (Tallant 2014: 1516). GLOBALIZATION is alleged to be particularly plausible when it comes to purported natural kinds. If, for example, cats don't exist, then our term "cat" won't have an intension. It follows that we won't be able to specify the circumstances under which there would be cats. But, as a matter of fact, nihilists deny that there are any cats. If the nihilist is correct about this, then, given GLOBAL-IZATION, the nihilist should think that we can't specify the circumstances under which there would be cats. If that's right, however, then a counterfactual analysis of "there being xs arranged cat-wise," of the sort Merricks

¹⁴Here's an objection Tallant (and, for that matter, Elder and Unger) does not give: If nihilism is true, then it is necessarily true. So, if nihilism is true then it's impossible that any xs compose a table. So, the sorts of counterfactuals cited by Merricks and others are actually counterpossibles, in which case any xs would turn out trivially to be arranged table-wise. Tallant specifically disavows this objection to counterfactual style answers to the SAQ (Tallant 2014: note 3), but should the nihilist be worried anyway? I won't go into the matter in this paper, but I suppose the nihilist has at least three options, none of which seem particularly implausible to me: 1.Deny that nihilism is necessarily true (compare Cameron 2007); 2.Accept some account of counterfactuals according to which at least some counterpossibles are non-trivially true; 3.Decline to give an answer to the SAQ which makes use of counterfactuals of the sort in question.

might endorse, won't work.¹⁵ This sort of analysis would look something like this (quoted from Tallant 2014: 1516): "Atoms are arranged cat-wise if and only if they both have the properties and also stand in the relations to microscopica upon which, if cats existed, those atoms' composing a cat would non-trivially supervene." If we don't believe in cats, then we just can't specify the conditions under which "if cats existed, those atoms' composing a cat would non-trivially supervene." So, the analysis fails, and similar analyses involving "xs being arranged F-wise" will fail for any other natural kind term involving a composite object.¹⁶

A similar argument will undermine van Inwagen's analysis of the notion of some xs being arranged F-wise. ¹⁷ According to van Inwagen, "The xs are arranged chair-wise" is true if the xs fill a "chair-receptacle" and "satisfy certain other conditions" ¹⁸ (van Inwagen 1990: 109). What is a "chair-receptacle"? A chair-receptacle is any region ¹⁹ of space that, "according to

 $^{^{15}\}mathrm{As}$ a matter of fact, of course, Merricks (and, for that matter, van Inwagen) does believe in cats. But, as I mentioned earlier, in this paper I'm treating Merricks as an honorary nihilist.

¹⁶For what it's worth, Williams (2006) only uses GLOBALIZATION to argue against contingent nihilism, the thesis that mereological nihilism is contingently true (since the proponent of this sort of nihilism will be forced to say something like "the proper parthood relation fails to obtain, but it's possible that that relation obtain," although the term "proper parthood relation" will lack an intension).

¹⁷Actually, in van Inwagen 1990, van Inwagen denies that he is capable of giving a general answer to the SAQ, or, what may amount to the same thing, a general recipe for paraphrasing talk of composites into talk of xs arranged composite-wise (van Inwagen 1990: 108). However, he does offer paraphrases of particular sentences which make reference to particular sorts of composite objects (chairs, for example), and, for present purposes, I'll follow Tallant in supposing that such paraphrases might offer us a general recipe for most or all paraphrasis of sentences which refer to composite objects. (Although, as we'll see, it will definitely fail to apply to paraphrasis of talk of non-spatially located composites.) More recently, in correspondence, van Inwagen says he would endorse a different analysis of some xs being "arranged F-wise," one inspired by remarks in van Inwagen 1990: 278-279 (remarks on a somewhat different subject). Unfortunately I don't have the space here to describe the analysis. It's important to note two points, however. First, van Inwagen's new analysis doesn't make use of the notion of a "chair-receptacle," to which, as we'll see below, Tallant directs his objection. But second, nevertheless, the analysis makes use of the notion of some xs composing an F. If Tallant's objection to van Inwagen's earlier analysis is cogent, then he'll be able to give a structurally similar objection to van Inwagen's new analysis, since the phrase "the xs compose an F" will, given nihilism and GLOBALIZATION, lack an intension. On this latter point see footnotes 16 and 20 of the present paper.

¹⁸ What "other conditions" van Inwagen is referencing here doesn't need to concern us, since Tallant's objection focuses on the notion of some xs "occupying a chair-receptacle."

¹⁹Wait a second, aren't regions composites, in which case nihilists should deny that there are such things as regions? That's true, but I don't think it's much of a problem in

those who believe in the existence of chairs, are occupied by chairs" (van Inwagen 1990: 105). What's wrong with van Inwagen's analysis, according to Tallant, is that the notion of, say, a "cat-receptacle" will make reference to the term "cat," a term which, if the nihilist is correct, has no referent, and therefore, given GLOBALIZATION, has no intension. So, given van Inwagen's analysis of the notion of some xs "being arranged F-wise," the nihilist can't make sense of the phrase "xs arranged cat-wise" (and similar points apply, mutatis mutandis, with respect to any other natural kind term involving an alleged composite object).²⁰

I don't think that Tallant's argument poses much of a threat toward nihilism, for two reasons.

First, there must be something wrong with Tallant's argument, since it proves too much. If Tallant's line of thought is correct, then the nihilist will be unable to employ phrases like "xs arranged unicorn-wise" or "unicorn receptacle," insofar as for the nihilist the term "unicorn" will lack an intension since unicorns, if they existed, would be composite objects. But, of course, since Tallant presumably doesn't believe in unicorns, Tallant should concede that for him the term "unicorn" will also lack an intension. But if the term "unicorn"'s lacking an intension prevents us from employing such phrases as "xs arranged unicorn-wise" or "unicorn receptacle," then it should equally prevent us from employing such phrases as "unicorn statue," "unicorn drawing," "unicorn painting," "unicorn movie," etc. So, Tallant should contend that there are neither xs arranged unicorn drawing-wise, nor unicorn drawings. Since there clearly are either xs arranged unicorn drawingwise or unicorn drawings, we should reject Tallant's argument. (I'll remain neutral here with respect to where exactly Tallant's argument goes wrong – i.e., whether GLOBALIZATION is false, or whether there's something wrong with the manner in which Tallant employs GLOBALIZATION. I should mention, however, that the argument I've presented in this paragraph is compatible with the core Kripkean idea that it's metaphysically impossible that there be unicorns.)

Perhaps Tallant would respond by offering paraphrases of sentences which

the present context. Perhaps instead of "regions" we should just refer to those points of spacetime from which some alleged region is made up. Or, following Sider (2013: §11), we might accept the existence of regions after all, but identify regions with spatially located sets.

²⁰Tallant's argument only seems relevant to natural kind composites. Can we make the argument more general? Sure, just remember my earlier footnote about Williams' argument: maybe for the nihilist the proper parthood relation fails to have an intension, in which case she can't specify when a "proper parthood relation" would counterfactually obtain.

quantify over unicorn drawings or xs arranged unicorn drawing-wise, paraphrases which don't make reference to the term "unicorn." But if such paraphrases are available in these sorts of cases, it's unclear why similar paraphrases would be unavailable for the nihilist who wishes to avoid quantifying over composite objects. For example, any paraphrase Tallant might employ to avoid quantification over unicorn drawings could presumably be employed by the nihilist to avoid quantification over composite objects (indeed, unicorn drawings, if they exist, are themselves composite objects). Similarly, any paraphrase Tallant might employ to avoid quantification over xs arranged unicorn drawing-wise could again presumably be employed by the nihilist who wishes to avoid quantification over composite objects. Just as the former paraphrase will presumably not involve quantification over flesh and blood unicorns, so the latter paraphrase will presumably avoid quantification over composite objects, in which case the nihilist would be glad to substitute her present paraphrases of composite talk in terms of "xs arranged F-wise" with whatever new paraphrases are inspired by Tallant's own paraphrases.

The second problem with Tallant's argument is this. Even assuming Tallant's argument does not fall prey to the objection above, there may be alternative characterizations of the phrase "xs arranged table-wise" which the nihilist might choose to adopt, and it's not obvious to me that they're susceptible to Tallant's objection. For example, we might characterize the notion of there being "xs arranged table-wise" in terms of the manner in which we thought some xs were arranged when we believed they composed a table (that is, before we became nihilists). This way we only make reference to a belief about an uninstantiated kind (table), rather than the kind itself. Or perhaps the nihilist should give a fictionalist answer to the SAQ, something like "xs are arranged F-wise if they are arranged as they are arranged according to the fiction that there are Fs." Or, perhaps the nihilist

 $^{^{21}}$ I am not suggesting that what it is for some xs to be arranged table-wise is for people to believe that such xs are arranged table-wise. Rather, the suggestion is that what it means for xs to be arranged table-wise is that those xs are arranged in the manner in which those who believe in tables actually suppose the parts of tables are arranged. The belief of those who believe in tables is being used to pick out a certain arrangement. So, I'm not using the belief in question as a component of what it means for some xs to be in that arrangement. This point addresses Elder's objection to fictionalist accounts of what it means for xs to be arranged F-wise: "That the contents of a given region are dogwise arranged is supposed to explain why the folk suppose that in that region there is a dog, and the explanation is supposed to be causal: in virtue of being dogwise arranged, the contents of such a region are supposed to be such as to cause in folk observers doggish sensory experiences, and to cause in surrounding regions events that will look to the folk like the sorts of effect we expect to see dogs produce. So that the contents of a region

should say that the xs model the F in the same way a drawing models a unicorn. (Of course, there are slight disanalogies here. In the case of the xs, for example, we'd have many things (the xs) collectively modeling rather than one thing (the drawing) modeling. Plus models might involve someone having an intention to model, whereas xs can be arranged F-wise without this sort of intention. Still, the modeling analogy seems to me to be useful and informative.)

So, I don't think Tallant's arguments here are very compelling.

As I mentioned earlier, Elder (2011) also contends that the nihilist is unable to answer the SAQ. Here's Elder's thought process. People generally believe that there are, say, dogs. Dogs are, if they exist, presumably composite objects, so how is the nihilist going to explain widespread belief in such things? The answer is, of course, that there are xs arranged dog-wise, and that these xs account for the widespread belief that there are dogs – people see the xs and incorrectly infer or otherwise come to believe that there is a dog where in fact there are merely xs arranged dog-wise. This line of thought is presumably one which a typical nihilist will endorse. But then it looks like the nihilist endorses the following thought as well:

dogwise arrangement is that by virtue of which the contents of some region of the world look and act like a dog. That is, it is that by virtue of which the contents of some region cause (or would cause) in conscious subjects certain sensory experiences, and cause (or would cause) in surrounding regions the sorts of observable effects that we expect dogs to cause (Elder 2011: 116)

If the bearer of any instance of [dogwise arrangement] is many microparticles, the microparticles in question will, it seems, be all and only those that between them are such as to cause in folk observers (should folk observers be present) the judgment that a dog is present (Elder 2011: 120)

Elder seems to think this will be the nihilist's favored answer to the SAQ,²² but he's wrong about this. This particular answer to the SAQ isn't endorsed by any nihilist (or, for that matter, almost-nihilists like van Inwagen

are dogwise arranged must be a state of affairs distinct from the fact that the folk would suppose that there exists in that region a dog. The fictionalist position makes dogwise arrangement be just equivalent to the belief that it is supposed causally to explain" (Elder 2011: 119-120).

 $^{^{22}}$ Actually, Elder considers some modifications of this answer to the SAQ, but a central component of all of these accounts is that the xs arranged F-wise are those particles which tend to cause the belief that there are Fs.

and Merricks). It's true that the nihilist will agree that the xs in question (those that are arranged dog-wise) plausibly cause the belief that there is a dog. The nihilist should undoubtedly concede that point. But when the nihilist makes that point she's not trying to give an answer to the SAQ. That is, she's not trying to say what it is for some xs to be arranged dog-wise. Elder seems to be under the impression that when the nihilist says that some xs arranged dog-wise are what cause the belief that there are dogs, the nihilist is saying that those xs are the only causes of that belief, or perhaps that what it means for some xs to be arranged dog-wise is for those xs to cause (or tend to cause, or whatever) the belief that there are dogs. Nihilists shouldn't endorse either of these ideas, and as far as I'm aware they never have. So, once again, I don't think Elder has given a compelling argument for the view that the nihilist is unable to answer the SAQ.

Recently Peter Unger has suggested that the predicate "is arranged F-wise" is incoherent, for many sortal terms F. Here's what he says on the subject:

Several recent deniers of tables see no serious troubles with having there be lots of much simpler things arranged tablewise. ... (When I was in the business of denying tables, by contrast, I was just as much in the business of denying, in effect, that any things could ever be arranged tablewise. For me then, just as 'table' was impossible to satisfy, governed as it was by conflicting conditions of application, so, also, 'tablewise' was unsatisfiable, governed as it was by conflicting conditions ...) (Unger 2014: 14 n.18)

In effect, Unger is suggesting that nihilists are unable to give a coherent answer to the SAQ, for many sortal terms F. I say "for many sortal terms F" since, as we'll see, Unger plausibly doesn't intend to deny that just *any* predicate of the form "is arranged F-wise" is unsatisfiable.

Unger doesn't spell out his argument in detail, but he does refer us to an earlier paper in which he argues against the existence of various sorts of objects ("ordinary things," people, etc.) (Unger 1979c; but see also Unger 1979a and 1979b). He seems to think that those arguments can, with little or no modification, represent equally compelling challenges to the coherence of many "arranged F-wise" predicates. Since Unger says so little on this latter subject, what follows is my own reconstruction of the line of thought I take Unger to be endorsing (or at any rate alluding to)²³ in the passage above.

 $^{^{23}}$ Whether Unger would now endorse the line of thought reconstructed below isn't a particularly important question.

Let's take the predicate "are arranged table-wise" as an example, and let's suppose that those things which are alleged to be arranged table-wise are "atoms." The following propositions are jointly inconsistent:

- (1) There are atoms arranged table-wise.
- (2) For any things there may be, if they are atoms arranged table-wise, then they are a finite number of atoms.
- (3) For any things there may be, if they are atoms arranged table-wise (of which there are many, but a finite number), then a.the net removal of one atom, or only a few, in a way which is most innocuous and favorable, or b.a change in relative positions of any of the atoms with respect to the other atoms, in a way which is most innocuous and favorable, will not mean the difference as to whether there are xs arranged table-wise in the situation.²⁴

These propositions are jointly inconsistent, and here's why. Assume that we have some atoms arranged table-wise. The net removal of just one of these atoms, in a way which is most innocuous and favorable for the continued satisfaction of the predicate "are arranged table-wise" by the atoms in question, will not cause those atoms to cease to satisfy that predicate. Similarly, a change in the relative positions of any of the atoms with respect to the other atoms, in a way which is most innocuous and favorable for the continued satisfaction of the predicate "is arranged table-wise" by the atoms in question, will not cause those atoms to cease to satisfy that predicate. But now take our atoms which are purportedly arranged table-wise and, bit by bit, remove one atom at a time and/or change the relative positions of the atoms. Eventually we'll be left with one atom, or atoms which are clearly not "arranged table-wise." So, at the end of the process we won't have "atoms arranged table-wise." But, since at no point in the process did we go from having atoms arranged table-wise to not having atoms arranged table-wise, it must be the case that, despite our initial inclinations to the contrary, we never had atoms arranged table-wise to begin with. So, (1), (2), and (3) are jointly inconsistent. Since these propositions are jointly inconsistent, one of them has to go. Unger recommends that we reject (1). Similar arguments will purportedly show, for many sortal terms F, that there are not atoms (or objects more generally) arranged F-wise. These arguments are not supposed to show that, for any sortal term F, there are no objects arranged F-wise. Perhaps, for example, there are xs arranged in a very specific manner such that the net removal of one of those xs, or any change in the relative position

 $^{^{24}}$ The manner in which this argument is worded is modeled after an argument in Unger 1979b: 120.

of one or more of the xs with respect to one another, will result in our no longer having xs arranged in that manner.

So, does Unger's new sorites argument against there being xs arranged, say, "table-wise" pose a problem for nihilism? I think not. The fact that the nihilist can't coherently speak of there being xs arranged F-wise is only alleged to be a problem since the nihilist wants to paraphrase talk of some composite F into talk of there being "xs arranged F-wise," in order to avoid quantification over Fs. So, if we can be assured that there aren't any Fs, the fact that the nihilist can't offer paraphrases of talk of F into talk of xs arranged F-wise shouldn't be a concern. If, for some composite object sortal F, Unger is correct that there aren't xs arranged F-wise, there also won't be any Fs. This is because, for any composite object F, if there aren't xs arranged F-wise, then there aren't any Fs. To give an example, how could there be, say, a table, if the table doesn't have parts that are arranged table-wise (put informally: doesn't have parts that are arranged also also

To reiterate: if (for some composite object sortal F) there aren't any xs arranged F-wise, there aren't any Fs either, in which case the nihilist shouldn't be concerned that he is unable to offer a paraphrase of F talk into talk of xs arranged F-wise – such paraphrasis was only offered in the first place to avoid quantification over Fs. So, even if Unger's new sorites arguments against there being xs arranged F-wise are sound, this won't provide any resources for an objection to nihilism. But in any case those arguments are not sound, even if his earlier sorites arguments against the existence of ordinary things (as well as animals, people, etc.) are sound. There is an important disanology between the two sorts of arguments, which render the former arguments far less plausible than the latter arguments.

There are actually at least two relevant variants of Unger's earlier sorites arguments against the existence of ordinary things, people, etc. First, there are those concerning predicates. For example, we might begin with a rock, and, removing one atom at a time, ask at each stage of the process whether we've still got a rock. We will ignore the question of whether or not the composite object before us (if there *is* a composite object after the removal of the most recent atom) is identical with the alleged rock with which we began. (This is, in fact, the sort of sorites argument Unger has in mind for most of Unger 1979b.) A second sort of sorites argument is this. We begin

 $^{^{25}}$ Of course, there might be a table even if there aren't xs arranged table-wise if the table in question is a mereological simple. In that case it would perhaps sound odd to say that the table is arranged in any particular manner (although perhaps this won't sound quite as odd given that the table in question would presumably have to be spatially extended). In any case, I avoid such counterexamples above by restricting the principle in question (there can't be an F if there aren't xs arranged F-wise) to composite objects.

with an alleged rock and ask, at the removal of each atom (or bit of rock, or whatever), whether the alleged object with which we began still exists, whether or not it is still a rock. (Unger briefly endorses this sort of sorites argument in Unger 1979b: 149, and his separate arguments against his own existence in Unger 1979a seem to be of this sort.)

The second variety of sorites argument retains some degree of plausibility (especially for the nihilist) because it centrally relies on the notion that existence cannot be vague. This is a point on which most philosophers will agree. By contrast, an argument against there being "xs arranged F-wise," modeled after Unger's previous arguments against the existence of "ordinary things," will turn on the much more controversial notion that there cannot be any vague predicates. The xs in question will, presumably, exist regardless of their arrangement. What's at issue is whether they instantiate a particular multi-place predicate, "being arranged F-wise." If Unger's argument against their being arranged in that manner is sound, structurally identical arguments can be constructed against any x or xs instantiating any predicate that isn't entirely precise. And on this point all philosophers will agree that objects can satisfy vague predicates. Where philosophers will disagree is with respect to the *nature* of that vagueness – whether, for example, the vagueness in question is an instance of genuine ontic vagueness, or whether the vagueness in question is merely semantic or epistemic. Similarly, where exactly we say Unger's argument goes wrong will depend on what account of vagueness we endorse. I don't need to endorse any particular account of vagueness here. My main point is simply that Unger's argument against there being xs arranged F-wise should be rejected by anyone who accepts the possibility of an object (or some objects) satisfying a vague predicate.²⁶

²⁶Why is vague existence so much more objectionable than vague predicates? The chief difference stems, I think, from the fact that our linguistic decisions decide which properties we intend to pick out with certain words or phrases, but they do not decide what exists. Insofar as our linguistic practices are imprecise, they'll be incapable of picking out one precise property in every case. Thus we have vagueness stemming from semantic indecision. Again, by contrast, our linguistic decisions do not determine what exists (other than, perhaps, things like linguistic utterances themselves). So, we don't have a plausible story regarding the origins of vague existence, or even a plausible account of what vague existence could consist in (whereas vague predicates, by contrast, would consist in our having a hard time picking out just one precise property when we say a man is, say, bald). This is, in any case, the important difference between vague existence and vague predicates - why the former is far less plausible than the latter - given a linguistic or semantic theory of vagueness. Similar point could be made, I think, with respect to other accounts of vagueness. An epistemicist might think, for example, that our linguistic practices as a community serve to pick out a determinate extension for each of our predicative expressions, even if we'll often be unable to tell what that extension is. Vagueness on such an account is merely epistemic: we don't know which property,

(For what it's worth, Unger would probably concede this point. A major theme of Unger 1979c is Unger's rejection of the coherence of "qualitative vague discriminative expressions" – that is, expressions which concern qualitative features of some objects, which are vague, and which are intended to distinguish some objects from other objects.²⁷ Probably almost all of the predicates we employ are expressed using qualitative vague discriminative expressions.)

4 Can Nihilists Answer the Special Arrangement Question Without Undermining Nihilism?

In the previous two sections I considered the contention that nihilists are unable to answer the SAQ, to their detriment. I argued that we've been given no convincing reason to suppose that nihilists are unable to answer the SAQ, it's not clear that the nihilist needs to answer the SAQ, and, whether or not the nihilist can or should answer the SAQ, non-nihilists will be in just the same position as the nihilist – if the nihilist can't answer the SAQ, neither can the non-nihilist. A related concern is that, whether or not the nihilist can answer the SAQ, she can't do so without undermining one of her chief motivations for accepting nihilism (Bennett 2009, Tallant 2014), or accepting otherwise objectionable logical or metaphysical commitments (Uzquiano 2004).

Let's begin with the first objection, that nihilists are unable to answer the SAQ without undermining a key motivation for nihilism.

Above I said that nihilism is often motivated by the fact that it is alleged to offer us a simpler picture of the world. Sider (2013) in particular argues for nihilism on the basis of nihilism's alleged ideological simplicity, insofar as nihilism allows us to do without a primitive parthood relation. Bennett and Tallant contend that nihilism is *not* ideologically simpler than its rivals, since nihilists will have to make use of ideologically extravagant resources to make sense of such locutions as "xs arranged F-wise." Tallant puts the point like this:

the nihilist does require just as much ideological complexity as

exactly, is picked out by some expression of ours. By contrast, our linguistic practices as a community don't serve to bring anything *into existence* (other than, again, perhaps linguistic expressions themselves).

²⁷ "Entity," for example, will not be discriminative in this manner, even if it turns out to be a somewhat vague term, insofar as anything whatsoever would be an entity.

someone who believes that there is composition because the nihilist replaces talk of 'the xs compose an F' with talk of 'the xs arranged F-wise'. Thus, this is a [sic] simply a case of replacing one predicate with another and so does not obviously generate any greater ideological simplicity (Tallant 2014: 1523)

Actually, matters aren't even that simple, since the nihilist will need more than the sort of simple plural predication involved in the sentence "the xs are arranged F-wise." As Bennett puts it:

Many (alleged) composites are (allegedly) composed of other (alleged) composites. The nihilist needs to be able to recapture explanations of, say, how water droplets come together to form thunderclouds, how molecular bonding works, and the distinction between single-celled and multicellular organisms. The nihilist's translations need to preserve compositional structure. Making sense of multicellularity requires making sense of putative organisms that are putatively composed of cells; multicellularity is not a property directly instantiated by simples. Thus, nihilists need to be able to say, not just that there are simples arranged multicellularly, but rather something closer to:

((((((there are simples arranged atomwise) arranged moleculewise) arranged organellewise) arranged cellwise) arranged organwise) arranged ...) (Bennett 2009: 60)

These sorts of considerations will force the nihilist to adopt ideological commitments which go beyond mere plural quantification and predication:

There are strategies available for dealing with these issues. Nihilists who are willing to countenance sets can supplement plural quantification over simples with plural quantification over sets. Alternatively, they can supplement plural quantification over simples with *plurally plural* or *perplural* quantification over simples (Bennett 2009: 60)

In short, "[nihilists'] paraphrase scheme cannot be as simple as they typically make out" (Bennett 2009: 60), and at the end of the day the nihilist may end up with a theory (ontology + ideology) at least as complex as those endorsed by people who believe in composite objects. He "cannot automatically claim victory on the simplicity score" (Bennett 2009: 63).

Here's my response. I don't think the nihilist should be concerned by the arguments just outlined, since those who believe in composition will be forced to accept those very ideological commitments employed by the nihilist in his talk of "xs arranged F-wise." After all, if the nihilist believes that there are xs arranged table-wise, but no table, while someone who believes in composite objects believes in the table, won't the latter person also believe that there are xs arranged table-wise? And won't similar points apply with respect to the sorts of concerns Bennett raises about xs being "(((((arranged atomwise) arranged moleculewise) arranged organellewise) arranged cellwise) arranged organwise) arranged...)"? Won't someone who believes in organisms also believe in objects which are arranged in that manner?²⁹

Bennett doesn't adequately address this point. Here's what she says:

The believer [in composition] need not countenance either these highly structured plural predicates, nor any properties that answer to them. She does not need to say that the simples themselves directly satisfy any such plural predicate or instantiate any such property. She can simply say that the simples directly satisfy 'arranged quarkwise' – or whatever the smallest items composed from simples are. Then the quarks satisfy 'arranged atomwise', and so forth on up. It is molecules that get arranged into cells. So the believer does not need to countenance the highly structured properties or predicates of simples needed by the nihilist (Bennett 2009: 64)

Here's why I'm not convinced by this argument. If, for example, atoms compose molecules, which in turn compose a dog or something,³⁰ you can't

²⁸Compare some remarks Cameron makes with respect to Lewis's reduction of modality: "If parsimony is what motivates you to seek a reduction then our question should simply be whether what is in the proposed reductive base are resources that we need anyway. If I want an analysis of Φ in terms of Ψ on the grounds of parsimony then Ψ had better be something I need to appeal to whether or not I accept the analysis; otherwise I haven't increased my ideological parsimony, merely swapped one bit of primitive ideology for another. But if we need to take Ψ as primitive anyway, then I can claim an advantage over those who in addition take Φ as primitive" (Cameron 2012: 18). My response to Bennett and Tallant is that those who believe in composition will, just like the nihilist, need to employ and make sense of such phrases as "the xs are (((arranged atom-wise) arranged molecule-wise) arranged ...)." However, the non-nihilist will also need one or more mereological primitives, primitives which the nihilist can do without. So, nihilism still wins the ideological simplicity contest.

²⁹This is all assuming, of course, that the nihilist needs to employ "arranged F-wise predicates." See my discussion of this issue in §2 above. Here I'm assuming that the nihilist will need to make use of such predicates. My point here is that, if the nihilist needs to employ such predicates, then so does the non-nihilist.

³⁰I'm, of course, using a very simplified example, but that doesn't affect the points I'm going to make.

just say that the *molecules* are arranged dog-wise, while the atoms are merely arranged molecule-wise. It seems clear to me that the molecules will be arranged dog-wise, and the atoms will be ((arranged molecule-wise) arranged dog-wise). After all, the atoms certainly seem to be shaped like a dog. I don't know what else you'd have to do to make the atoms satisfy the "((arranged molecule-wise) arranged dog-wise)" predicate than to arrange them in this manner. The fact that they also happen to compose molecules just seems to me to be irrelevant on this point.

Here's another way to make this point: let's suppose that facts about composition are contingent, and that God can decide of some objects that don't compose something that, henceforth, they will compose something. So, let's say we have atoms ((arranged molecule-wise) arranged dog-wise), but they don't compose molecules or a dog. Now, God decides that henceforth they will compose molecules and a dog. Do the atoms in question cease to be ((arranged molecule-wise) arranged dog-wise)? Of course not, since their arrangement hasn't changed – they're just where they were before God issued his edict. So, it looks like those who believe in composites will need to countenance just the same sorts of "highly structured plural predicates" that the nihilist needs.

This conclusion can be strengthened by further arguments, of which I'll offer two.

First, for those who believe in composite objects, the fact that some xs are arranged F-wise is the reason they compose an F. The parts of a table, for example, are alleged to compose a table because those parts are arranged table-wise. Those who believe in some composite object F, then, should concede that the parts of that object are "arranged F-wise," and a similar point applies, mutatis mutandis, to Bennett's more complex examples.

Second, when the nihilist says something like "hey, I may not believe in tables, but that's not as bad as you might think because I do believe in things arranged table-wise," she's not introducing a new predicate ("arranged table-wise") which her interlocutor doesn't employ. Rather, she's saying, "I don't accept one claim that you accept (there are tables), but I do accept this other claim that you accept, namely that there are xs arranged table-wise." The whole point, then, of the paraphrase is to indicate to the believer in composite objects that the nihilist accepts something that the believer also accepts. This is, I think, precisely how such paraphrases were intended to function when they were introduced by van Inwagen (see van Inwagen 1990: §10-11, especially pp.104-106).

Given the previous discussion, Uzquiano's (2004) objection to nihilism is rather easily dealt with. His objection is very similar to the objection developed by Bennett and Tallant. Uzquiano argues that nihilists can't paraphrase certain sentences involving plural quantification over composites, or sentences involving "plural predicates collectively satisfied by composites" (Uzquiano 2004: 437), without incurring significant costs. Namely, the nihilist will either need to employ perplural quantification,³¹ quantification over plural properties (those involved in relevant monadic second-order quantification), or quantification over sets of simples arranged in a certain manner. Unfortunately for the nihilist, perplural quantification is currently too poorly understood or independently motivated to employ with confidence, quantification over the sorts of plural properties the nihilist will need is ontologically extravagant, and relevant paraphrases involving sets of simples will involve identifying alleged composites with sets (something Uzquiano thinks few nihilists will want to do).³²

The chief difference between Uzquiano's objection and the objection offered by Bennett and Tallant is that Uzquiano doesn't cast his objection in terms of the relative simplicity of nihilism vs. its rivals. Rather, the resources nihilists will need to employ to make sense of certain sorts of paraphrases (perplural quantification, plural properties, etc.) are themselves objectionable. My response to Uzquiano is, however, the same response I gave above, namely that if nihilists need to employ the sorts of (allegedly) objectionable technical devices cited by Uzquiano (perplural quantification, plural properties, etc.), the non-nihilist will need to employ them as well, even if the non-nihilist will also endorse corollary sentences (directly involving composite objects, and the arrangement thereof) which the nihilist will not endorse.³³

 $^{^{31}}$ Uzquiano calls it "pluplural" quantification. I'll continue to use the term "perplural" to remain consistent with Bennett's use of the term above.

 $^{^{32}}$ Ironically, at least one recent prominent nihilist (Sider 2013) has identified alleged composite objects (chairs, dogs, etc.) with spatially located sets, although not in response to Uzquiano's arguments.

³³A residual issue, and one which I won't discuss at length here, is whether perplural quantification would undermine nihilism. For example, if the nihilist is willing to quantify over, say, multiple pluralities, we might wonder whether the "pluralities" in question would qualify as composite objects. (One way out of the problem, of course, is for the nihilist to forgo perplural quantification in favor of quantification over sets, or monadic second order quantification.) I'm not sure what the nihilist should say here, but a fictionalist construal of perplural quantification of the following sort might resolve the problem: "Perhaps, we can understand the language [of perplural quantification] through a convenient fiction according to which pluralities are real entities over which perplural quantifiers range. The fictional interpretation of the language need not lead to inconsistencies as long as we stipulate that the plural quantifiers of such a language range only over the non-fictional entities of the universe. The plural quantifiers will have their ordinary meaning whereas the perplurals will have a fictional meaning that merely helps us in our counting" (Spencer 2012: 73 n.10). (For what it's worth, Spencer isn't defending mereological nihilism in this passage.)

So, again, it seems that those who believe in composition will need to countenance those very same locutions (involving "xs arranged F-wise," and variants thereof) which the nihilist will employ in those paraphrases she offers of talk involving composites – again, assuming that even the nihilist needs to make use of such locutions.³⁴ Of course, the believer in composites might be better off than the nihilist if the former can provide an analysis of those sorts of locutions while the nihilist cannot. This would be the case if, for example, phrases such as "the xs are arranged F-wise" can only be construed in a manner which makes use of composition, as Elder suggests. But, as I argued above, that suggestion doesn't look very plausible.

5 Conclusion

Nihilists frequently employ such phrases as "the xs are arranged F-wise," usually in order to paraphrase away commitments to Fs. The SAQ is a challenge toward those who employ such phrases to say exactly what those phrases mean. In this paper I've considered two sorts of objections to nihilism. The first was that nihilists are simply unable to answer the SAQ, while the second was that, whether or not nihilists can answer the SAQ, they can't do so without undermining a chief motivation for nihilism, or accepting otherwise objectionable logical or metaphysical commitments. I've argued that neither of these objections to nihilism are compelling. One key theme of this paper is the following: any problems faced by the nihilist with respect to answering the SAQ (if there are any such problems) will be shared

³⁴How has this point escaped Bennett's, Tallant's, and Uzquiano's notice? I suspect it has to do with the fact that nihilists (as well as almost-nihilists like van Inwagen and Merricks) are just more likely to actually use such phrases as "the xs are arranged tablewise." While someone who believes in tables will, I've been arguing, on reflection endorse the sentence "there are xs arranged table-wise" if the nihilist does, it's difficult to imagine circumstances in which he would actually need to use that sort of sentence. Nihilists, however, insofar as they bring to our attention the possibility that there aren't in fact any tables, have just the perfect opportunity to employ such phrases as "the xs are arranged table-wise," namely in the course of explaining why their view isn't as crazy as it initially sounds. (Compare: earlier I suggested that nihilists, while denying that the moon exists, nevertheless are not thereby suggesting that widespread delusions to the contrary are the result of a conspiracy theory or something of that nature – they are not suggesting, for example, that a secret Illuminati-esque cabal is promoting the myth that the moon exists. It's difficult to imagine a situation in which someone who believes the moon exists would have to say something like "I'm not suggesting that there's a secret Illuminati-esque cabal promoting the myth that the moon exists." Nevertheless, probably most people who believe in the moon would, on reflection, endorse that latter sentence.)

References

- [1] David Z. Albert. Elementary quantum metaphysics. In J. T. Cushing, A. Fine, and S. Goldstein, editors, *Bohmian Mechanics and Quantum Theory: An Appraisal*, pages 277–84. Kluwer Academic Publishers, Dordrecht, 1996.
- [2] Lynne Rudder Baker. Why constitution is not identity. *Journal of Philosophy*, 94:599–621, 1997.
- [3] Karen Bennett. Composition, colocation, and metaontology. In David J. Chalmers, David Manley, and Ryan Wasserman, editors, *Metameta-physics*, pages 38–76. Oxford University Press, Oxford, 2009.
- [4] Ross P. Cameron. The contingency of composition. *Philosophical Studies*, 136:99–121, 2007.
- [5] Ross P. Cameron. How to have a radically minimal ontology. *Philosophical Studies*, 151:249–64, 2010.
- [6] Ross P. Cameron. Why lewis's analysis of modality succeeds in its reductive ambitions. *Philosophers' Imprint*, 12:1–21, 2012.
- [7] Gabriele Contessa. One's a crowd: Mereological nihilism without ordinary-object eliminativism. *Analytic Philosophy*, 55(2):199–221, 2014.
- [8] Cian Dorr. The Simplicity of Everything. PhD thesis, Princeton University, 2002.
- [9] Cian Dorr and Gideon Rosen. Composition as a fiction. In Richard Gale, editor, *The Blackwell Guide to Metaphysics*, pages 151–74. Blackwell, Oxford, 2002.
- [10] Crawford Elder. Familiar Objects and Their Shadows. Cambridge University Press, Cambridge, 2011.
- [11] Terence Horgan and Matjaž Potrč. Austere Realism: Contextual Semantics Meets Minimal Ontology. The MIT Press, 2008.

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- [12] Saul Kripke. Naming and necessity. In Donald Davidson and Gilbert Harman, editors, Semantics of Natural Language, pages 253–355, 763–9.
 D. Reidel, Dordrecht, 1972. Revised edition published in 1980 as Naming and Necessity (Harvard University Press, Cambridge, MA).
- [13] Trenton Merricks. Objects and Persons. Clarendon Press, Oxford, 2003.
- [14] W. V. O. Quine. Ontology and ideology. *Philosophical Studies*, 2:11–15, 1951.
- [15] Jonathan Schaffer. Monism: The priority of the whole. *Philosophical Review*, 119:31–76, 2010.
- [16] Theodore Sider. Writing the Book of the World. Clarendon Press, Oxford, 2011.
- [17] Theodore Sider. Against parthood. In Karen Bennett and Dean W. Zimmerman, editors, Oxford Studies in Metaphysics, volume 8. Oxford University Press, Oxford, 2013.
- [18] Joshua Spencer. All things must pass away. In Karen Bennett and Dean W. Zimmerman, editors, *Oxford Studies in Metaphysics*, volume 7. Oxford University Press, Oxford, 2012.
- [19] Jonathan Tallant. Against mereological nihilism. Synthese, 191:1511–1527, 2014.
- [20] Amie L. Thomasson. *Ordinary Objects*. Oxford University Press, New York, 2007.
- [21] Peter Unger. I do not exist. In G. F. Macdonald, editor, *Perception and Identity: Essays Presented to A. J. Ayer with His Replies to Them*, pages 235–51. Macmillan, New York, 1979.
- [22] Peter Unger. There are no ordinary things. Synthese, 41:117–54, 1979.
- [23] Peter Unger. Why there are no people. In Peter French, Theodore E. Uehling, Jr., and Howard K. Wettstein, editors, Midwest Studies in Philosophy IV. University of Minnesota Press, Minneapolis, 1979.
- [24] Peter Unger. Empty Ideas: A Critique of Analytic Philosophy. Oxford University Press, 2014.
- [25] Gabriel Uzquiano. Plurals and simples. The Monist, 87:429–51, 2004.

- [26] Peter van Inwagen. *Material Beings*. Cornell University Press, Ithaca, NY, 1990.
- [27] Peter van Inwagen. Introduction: Inside and outside the ontology room. In *Existence: Essays in Ontology*, pages 1–14. Cambridge University Press, 2014.
- [28] J.R.G. Williams. Illusions of gunk. *Philosophical Perspectives*, 20:493–513, 2006.