Immanence in Abundance

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Abstract. In this paper, I develop a theory on which each of a thing's abundant properties is immanent in that thing. On the version of the theory I will propose, universals are abundant, each instantiated universal is immanent, and each uninstantiated universal is such that it *could* have been instantiated, in which case it *would* have been immanent. After setting out the theory, I will defend it from David Lewis's argument that such a combination of immanence and abundance is absurd. I will then advocate the theory on the grounds that it accomplishes all of Lewis's "new work" while providing a gain in parsimony and a new account of fine-grained content. I will close with a discussion of how the theory also affords a new reply to two objections to uninstantiated universals: Armstrong's charge that they are inconsistent with naturalism, and a Benacerraf-Field-style objection about epistemic access.

Proponents of immanent universals hold that each instantiated universal is wholly located in each of its instances. Proponents of this view usually hold, in addition, that there are no uninstantiated universals. If these claims are true, then the property of having mass is wholly located here where my desk is, but also there where my chair is, and there is no such property as the property of being a one-thousand-story building, since there are no such buildings. Additionally, proponents of immanent universals typically maintain that

each universal is a *part* or *constituent* of its instances. Let's call this package of views *traditional immanent realism*.[1]

Proponents of traditional immanent realism claim that universals must be *sparse* rather than *abundant*. One reason for this is obvious: most proponents of abundant universals hold that there are uninstantiated universals, contrary to traditional immanent realism.[2] However, I will argue that it is possible for proponents of uninstantiated universals to embrace the view that each universal could have been immanent in the sense that (i) each of them could have had an instance, and (ii) each of them is such that, necessarily, if it has any instances, it is located in each of them as a part or constituent. Although this view still faces an objection from David Lewis, who thought it was absurd to suggest that the immanent properties of a thing were abundant, I will rebut Lewis's objection and argue that there is much to be said in favor of such a view.[3]

I will begin (§§1-2) by setting forth the theory. I will then (§3) respond to Lewis's objection. Then, in the rest of the paper, I will advocate the theory on the grounds that (§4) it does all the work of Lewis's (1983, 1986) theory, but avoids his possibilism and requires no categorial distinction between universals and properties, (§5) it provides a new treatment of fine-grained content, and (§6) it provides a gain in qualitative parsimony. Finally (§7), I will close with a discussion of two standard worries about uninstantiated universals: Armstrong's charge that they are inconsistent with naturalism, and a Benacerraf-Field-style objection about epistemic access.

1. Abundance and Immanence

As I said above, the claim that each property could have been immanent is consistent with some uninstantiated universals, namely, those that are instantiable. However, many proponents of abundance accept that there are *uninstantiable* properties. For example,

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[1] Armstrong (1978, 1989) is perhaps the most prominent contemporary defender of this view. Elements of the view are endorsed by Newman (1992), O'Leary-Hawthorne and Cover (1998), Audi (2019), and Paul (2002, 2006). See Armstrong (1978: chapter 7) for a battery of arguments for immanence, and Sider (1995: §3) for a convincing critique of these arguments. I will use 'property' for both properties and relations. Unless otherwise indicated, I will use 'universal' and 'property' interchangeably.

[2] In favor of abundant properties, see (for example) Lewis (1983: 348-351), Bealer (1993), van Inwagen (2004), and Carmichael (2010).

[3] The view I'm proposing is not unprecedented. For example, Gail Fine (1986) says that Plato himself accepted something like it in the *Phaedo*. In defense of this view, she remarks "It is sometimes thought that if forms are separate, they cannot exist in sensibles. However, separation implies only that it's possible for forms to exist whether or not any sensibles have them. That doesn't preclude immanence" (2019: 17). See also Harte (2019: 471-472). In addition, among contemporary metaphysicians, Tooley (1987:6-9, §3.1.4) and Moreland (2001: 129-130, 2013) both endorse uninstantiated universals that could have been immanent (although neither Tooley nor Moreland accepts abundance).

proponents of abundance might say that the property of being a round square is incapable of being instantiated. And they might say that the same thing about the property of being a unicorn, since, at least according to Kripke, there could not have been a unicorn.[4] If there are properties like these, which cannot have instances, then it seems that they are not capable of being immanent, since they are incapable of having an instance in which they could have been located.

Additionally, proponents of abundance usually accept the existence of properties like the property of *being unlocated*. On an abundant view of properties, this property would have instances: it would be instantiated by each uninstantiated property, for example. But, if there is such a property as *being unlocated*, it can never have instances with locations. And, if this property cannot have a located instance, then we cannot say that it is capable of being immanent in virtue of possibly having an instance with a location.

Uninstantiable properties, and properties with no spatiotemporal instances, therefore pose a problem for the sort of view I want to advocate. In the next section, I will show how to solve this problem. The key to the account is a distinction between two nonequivalent "instantiation-like" relations. The idea is that, while each property is capable of having a spatiotemporal instance, there is a second "instantiation-like" relation such that, necessarily, some universals do not stand in that relation to anything (or to anything spatiotemporal) at all. As we will see, this will provide proponents of abundance with the resources they need to fill the role of uninstantiable universals (and universals without spatiotemporal instances) in a way that is consistent with my ideas that (i) each instantiated universal is immanent, and (ii) each uninstantiated universal is capable of immanence.

2. Haecceities of Words

My account proceeds from a certain conception of words. The conception of words that I have in mind consists of three plausible claims. First, words are created by us, and would not exist without us. For example, the word 'iPhone' did not exist one billion years ago. Second, each word is capable of being either pronounced or inscribed, and words are, accordingly, capable of having a location: necessarily, a given word is located where its pronunciations and inscriptions are located. Third, according to this view of words, words have their meanings essentially.[5]

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[4] See Kripke (1972: 24, 156-158, 2013: 43-53). His view is more complex than what I just said, but these complexities don't affect the argument in the text.

[5] These ideas are suggested in Kaplan (1990). Fine (1994: 13) and Bealer (1995: §7) accept similar views. See Hawthorne and Lepore (2011) and Kaplan (2011) for further discussion.

The view I will propose also requires the idea that there are haecceities for each individual: necessarily existing, non-qualitative, instantiable properties F such that, in every possible situation where a given thing has F, that thing alone has F, it necessarily has F(-if-existent), and in no possible situation does anything else have F.[6] Given the above conception of words, and given that there are haecceities for each individual, it follows that there are such things as *word-haecceities*: for each word, there is a necessarily existing, instantiable property which that word has in every possible situation in which that word exists, and which nothing else can possibly have.

Now consider the word 'red' and its haecceity, R. And consider a red flower in a possible world where there are no language users. On the present view, in such a world, R exists (since it exists necessarily) even though the word 'red' does not. And there is a salient "instantiation-like" relation between the flower and R in such a world: I will say that the flower *holds* R (and that R is *held by* the flower).[7] One is tempted to define the holding relation like this:

> x holds F iff$_{def}$ x is such that, if an object z had F, x would have been in the extension of z.

For, in the example of the red flower, if something had R, the thing that had R would have been the word 'red', and then that word ('red') would have had the red flower in its extension, so that the flower holds R according to this definition.

However, this definition of the holding relation is not generally correct. For we may stipulatively define a word 'wordless' which is necessarily such that it is true of an object if and only if that object does not co-exist with any words. This word 'wordless' is not true of anything as things actually stand, since everything that actually exists co-exists with many words. However, given my assumptions, there might not have been any words, and, had there been no words, there would not have been such a word as 'wordless'. But the haecceity of 'wordless', call it W, would still have existed. And, intuitively, *everything* in such a world would stand in the holding relation to W. But it would not be true of anything in this wordless world that it *would* have been in the extension of 'wordless' if 'wordless' had existed. For, necessarily, if 'wordless' exists, it has an empty extension.

Given these considerations, it may be impossible to define the holding relation. Nevertheless, we can understand the notion using examples. For example, the word

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[6] Arguments for and developments of this idea can be found in Plantinga (1974, 1976), Jager (1982), Rosenkrantz (1993), Keller (2004), van Inwagen (2004), and Carmichael (2016). Bennett (2006) argues that the view is not consistent with actualism. Woodward (2011) and van Inwagen (2012) respond.

[7] I will use 'having', 'holding', and cognates quasi-technically. They have a multitude of uses in ordinary English (e.g. you can hold a stone, or have a baby) that are not intended.

'massive' *has* a haecceity M, and Jupiter *holds* M (and would have, even if the word 'massive' had never existed). In addition, Jupiter *has* the property of being massive. The property of being massive and M also stand in a salient relation: necessarily, M is held by all and only the things that have the property of being massive. When two properties are like this, I will say that they *correspond*.

By means of word-haecceities and the distinction between *having* and *holding*, we may now work out an abundant, immanent theory of properties as follows. First, there are the simple, qualitative properties, which are sparse, on the one hand, and haecceities—including word-haecceities—which are (relatively) abundant, on the other.[8] In general, as in the example of Jupiter above, the simple, qualitative properties can be *had* by various objects, but are never *held* by objects, while (again, as above) many word-haecceities are both had and held.

Now I will explain how the theory treats simple predications. Consider the simple qualitative property of being massive, call it q_m, and let the corresponding haecceity—the haecceity of the word 'massive'—be h_m. Now consider this simple predication:

> Jupiter is massive.

What proposition is expressed by this sentence? There are two possibilities, corresponding to the two predication operations we have distinguished, and the corresponding properties q_m and h_m:

> has(Jupiter, q_m)
> holds(Jupiter, h_m).

These propositions are necessarily equivalent, and, in many contexts, we may count them as one (more on this idea below). However, in some contexts, the difference may matter. For example, let Lancelot be a circus goat (a non-unicorn) with a single horn, and consider this argument:

> Lancelot is a unicorn.
> Lancelot is massive.
> Therefore, Lancelot is a massive unicorn.

[8] We also allow all of the logical combinations of these properties (conjunctions, disjunctions, etc.) that are capable of having a spatiotemporal instance.

This is plainly a valid argument. What proposition does the first premise express? Because all properties are instantiable in the proposed ontology, and (we are supposing) the property of being a unicorn would be uninstantiable if it existed, there is no such property as the property of being a unicorn; instead, we will assign to the first premise a proposition that involves the corresponding haecceity: the haecceity of the word 'unicorn', which we can call h_u.[9] But the proposition

has(Lancelot, h_u)

is clearly not intended as the content of the first premise, as it entails the obvious falsehood that Lancelot is identical to the word 'unicorn'. Rather, the content of the first premise must be:

holds(Lancelot, h_u).

Given that the first premise involves holding, then, the second premise must also involve holding, on pain of the invalidity of the argument. Thus, in this context, the second premise ('Lancelot is massive') must express the proposition:

holds(Lancelot, h_m).

This is a proposition that is true just in case Lancelot has the property of being massive, as intended.[10]

In general, then, the default interpretation of simple predications does not involve the associated simple qualitative property (if any) and the having operation, but rather the corresponding haecceity and the holding operation.[11] Meanwhile, since the haecceity of 'unicorn', namely h_u, is located in each place where the word 'unicorn' is located, it has a

[9] Is denying that there is such a property as unicornhood a rejection of abundance? No. The properties we embrace are abundant indeed, including every single property that is capable of a spatiotemporal instance, and haecceities for every possible individual. The *role* of the property of being a unicorn is played by h_u. Some (not I) might say that to play this role is to be the property. I find it implausible that 'unicorn' has the property of being a unicorn, so I do not say this.

[10] Here is a good place to mention that this view cuts propositions very finely, so that a translation of an English sentence into another language will express a distinct proposition that involves haecceities of words in the other language. I address the worry that this makes content *too fine-grained* in §5 below.

[11] Similar arguments can be offered utilizing the other standard tests for ambiguity, such as those found in Sennet (2016). There would rarely be an ordinary context in which the proposition involving *having* would be salient, but there may be such contexts. Is the sentence therefore *ambiguous*? Perhaps, or perhaps it is context sensitive, with almost no non-philosophical context favoring the unusual interpretation. I am neutral on which approach is correct, and, if the sentence is ambiguous, I am neutral on whether it is polysemous or homonymous.

location, even though nothing can possibly hold it. In short, although this property is of necessity not *held* by anything, and in that sense we can correctly affirm that *there are no unicorns*, nevertheless the property which is said not to hold of anything when we affirm this—the word-haecceity h_u—is immanent because it is located in the thing that *has* it, namely the word 'unicorn'.

What goes for planets and circus goats goes for properties themselves. For example, consider the sentence:

Redness is a property.

What proposition does this express? There are again two options:

has(redness, *being a property*)
holds(redness, h_p)

where h_p is the haecceity of the word 'property'. As before, we often will count these necessarily equivalent contents as one (again, see below on this). But, as before, and for exactly similar reasons, the default interpretation of the sentence 'Redness is a property' is the one which assigns to it the latter proposition, which involves holding.

Finally, then, consider a claim about an uninstantiated property F—perhaps F is redness in a possible world that contains no instances of redness:

F is unlocated.

This claim will express the proposition

holds(F, h_{un})

where h_{un} is the haecceity of the word 'unlocated'. In this case, F is capable of immanence, as it could have been had by objects in which it would then have been located, and h_{un} is immanent, as it is located wherever the word 'unlocated' is located—where inscriptions and utterances of 'unlocated' occur. We are thus able to maintain that each instantiated universal is immanent and each uninstantiated universal is capable of being immanent.

This theory enjoys several advantages, which I will discuss in sections §§4-6. First, however, I will answer Lewis's objection to combining immanence and abundance.

3. Lewis Against Abundant Immanence

On the basis of the claim that immanent universals are parts of their instances, Lewis (1986) contends that immanent universals must be sparse.[12] Here is the passage in which Lewis criticizes abundant immanence:

> …it is just absurd to think that a thing has (recurring or non-recurring) non-spatiotemporal parts for all its countless abundant properties! (1986: 67)

What is a "non-spatiotemporal part" in Lewis's sense? It is perhaps not wholly clear.[13] But Lewis (1986: 64) says that a charge universal is not a spatiotemporal part of a given charged particle because that universal "occupies the whole of the spatiotemporal region … that the particle itself occupies." Since there is presumably nothing special about Lewis's particular example, this strongly suggests that he thinks that immanent universals occupy the whole of the spatiotemporal region occupied by their bearers, and it also suggests that he accepts the following sufficient condition for non-spatiotemporal parthood:

(NSP) If x is a proper part of y and x occupies the whole of y's spatiotemporal region, then x is a non-spatiotemporal part of y.

Thus, the idea of Lewis's argument is that, if there were abundant immanent universals, each of them would meet this sufficient condition for being a non-spatiotemporal part of each of its bearers, so that the bearers of such universals would have abundantly many non-spatiotemporal parts, a result that he regards as absurd.

I will now argue that Lewis does not avoid the result he regards as absurd just by rejecting abundant immanence. Suppose that singletons occupy the spatiotemporal region

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[12] Interestingly, Armstrong does not give this argument. Armstrong's reason for believing that universals are sparse is epistemological; see Armstrong (1978: chapter 13).

[13] Lewis (2002: 2) says that tropes are "abstract parts" of the things they apply to, while Lewis (1986: 64) says that tropes are non-spatiotemporal parts of the things they apply to. I therefore conjecture that 'abstract part' and 'non-spatiotemporal part' are equivalent, and that Lewis refrained from using 'abstract part' in *Plurality* because of his polemic against the term 'abstract' in §1.7 of that book. Because Lewis (2002:2) contrasts abstract parts with spatial parts and temporal parts, I further conjecture that abstract parts (i.e., non-spatiotemporal parts) are parts of a thing that are neither spatial parts nor temporal parts. Plausibly, if a part occupies a proper sub-region of the whole's total spatial location, it is a spatial part, and, if a non-spatial part occupies a proper sub-segment of the whole's total temporal duration, it is a temporal part. Thus, a non-spatiotemporal part does not occupy a proper sub-region of the whole's spatial location, and does not occupy a proper sub-segment of the whole's total temporal duration. Given the truism that parts occupy a (proper or improper) sub-region of the spatiotemporal region occupied by the whole, it follows that non-spatiotemporal parts have to occupy the whole spatiotemporal region occupied by the whole. This necessary condition, together with the sufficient condition discussed below in the text, is what I suggest as Lewis's definition of 'non-spatiotemporal part'.

of their members, and suppose that composition is unrestricted.[14] Then it follows by (NSP) that each located object O shares its location with an object that has infinitely many non-spatiotemporal parts: {O}, {{O}}, …, etc. Thus, if there is something absurd about objects which have infinitely many non-spatiotemporal parts, it is not an absurdity that can be avoided just by rejecting abundant immanence; we would also have to reject either unrestricted composition or the view that singletons are located where there members are. Should we reject these views? Surely not on this basis alone. Although I myself reject this package of views for various reasons, the objection that it entails that there are (allegedly absurd) sums of objects and infinitely many non-spatiotemporal singleton-parts strikes me as less than compelling.

Perhaps Lewis would reply that although I have shown that on his view there are objects which have an infinite number of non-spatiotemporal parts—abundant sums, let's call them—nevertheless it does not follow that *all* objects are abundant sums. Perhaps it is only the claim that *every* object is like this which is supposed to be absurd. But this is a weak reply. On this view, abundant sums abound: there are abundant sums co-located with every single located object. This is plainly no less absurd than the view that all objects are abundant sums.

Another possible reply is that abundant sums in general are not a problem, but only abundant sums of objects and non-spatiotemporal parts that are *not ontologically innocent*, or that correspond to properties that are *not perfectly natural* or that are *extrinsic*.[15] But this doesn't help: singletons are plausibly not ontologically innocent, and they plausibly correspond to properties that are non-natural and extrinsic, since intrinsic duplicates can be members of distinct singletons.[16]

Finally, one could reply by suggesting that abundant immanent universals are absurd for an entirely different reason having to do with the *explanatory role* that immanent universals are supposed to play. For example, Lewis (1986: 190fn) apparently agrees with Armstrong that universals would have to be immanent in order to determine or explain the fact that a given white object is white. The idea is that, while one cannot "imagine away" a thing's relationship to *immanent* whiteness without changing the way in which one imagines the object's color, one *can* "imagine away" non-immanent whiteness with no

[14] Lewis endorses unrestricted composition in Lewis (1986: 211) and he endorses the view that singletons are where their members are in Lewis (1983: 344-345, 1986: 83).

[15] Compare Lewis (1986: 67): "[t]he most noteworthy property of this bed is that George Washington slept in it—surely this is true on some legitimate conception of properties—but it is quite unbelievable that this property corresponds to some special nonspatiotemporal part of the bed!"

[16] Lewis (1991: 87) says that singletons are not ontologically innocent; Lewis (1983: 343ff.) identifies singletons with properties, which he must regard as extrinsic and not-perfectly-natural for the reason given in the text.

impact on the way in which one imagines the color of the object.[17] From this, one might conclude that a universal is immanent only if it plays this role in explaining the character of each of its instances: a role which is revealed by the fact that a thing's relationship to such a universal cannot be "imagined away" without affecting the character of that thing. But then, one might claim, since we can "imagine away" (say) a red square's relationship to an abundant universal like *being red or round* with no effect on the character of that red square, it follows that such a universal is not immanent.

I reply that it is impossible to coherently imagine a white thing that does not instantiate whiteness. On an abundant picture of universals it a necessary truth that all and only white things instantiate whiteness. It begs the question to insist otherwise. Of course, if we imagine "immanent whiteness" as something like a coat of paint, and we imagine "transcendent whiteness" as a balloon attached to a white object by a long string, then the point holds. But these silly images have little to do with any theory that philosophers should take seriously.

However, even setting these concerns aside, the more important problem with this argument is that, in what follows, I will provide several alternative grounds for thinking that universals are immanent, which have nothing to do with explaining or determining atomic predication facts. Thus, if I'm successful, we need not depend at all on the idea that immanent universals must *determine* or *explain* facts of the form *a is F*. As a result, this version of the argument fails, since it depends on the idea that such an explanation is the key motivation for accepting immanent universals.[18] I now turn to these alternative grounds for the theory.

4. New Work

Lewis (1983, 1986: 63-69) identifies abundant properties with sets of possibilia, and he considers three options for giving an account of naturalness, which he utilizes in analyses of duplication, intrinsicality, and much else. The first option he considers is to embrace Armstrong's ontology of sparse, immanent universals alongside the ontology of abundant properties. He then suggests that the natural properties are just those sets of possibilia such that all and only the members of that set share a universal. The second option is to embrace a theory of tropes, gathering them into maximal sets of exactly resembling tropes. The

[17] Lewis approvingly quotes Armstrong (1978: vol. 1, 68): "Is it not clear that *a*'s whiteness is not determined by *a*'s relationship with a transcendent entity? Perform the usual thought-experiment and consider *a* without the Form of Whiteness. It seems obvious that *a* might still be white."

[18] Here the point is ironically bolstered Lewis's (1983: 353) rejection of the requirement that we analyze predication.

natural properties are then identified with the sets of possibilia such that all and only the members of that set instantiate a trope in the same maximal set of exactly resembling tropes. The third option is to reject both tropes and Armstrongian universals and instead take on naturalness as a primitive bit of ideology. Lewis remains undecided between these three options.

I want to suggest that my approach to properties provides a superior alternative. Specifically, on my approach, where Lewis has sparse universals, or maximal sets of exactly resembling tropes, that pick out all and only those abundant classes of possibilia that are natural, I have sparse, simple, qualitative properties that correspond to all and only those abundant word-haecceities that are natural. On this view, simple qualitative properties and the word-haecceities that correspond to them will count as natural, while the remaining properties will be (to one degree or another) non-natural. One may then produce Lewis's analyses of duplication, intrinsicality, etc., in terms of naturalness, just as he does. By contrast, Lewis's approach either takes *naturalness* as an unnecessary primitive, or it embraces two categories—*property* and either *universal* or *trope*—where we are better served to accept just one category.[19] What's more, my approach to these matters, unlike all three of Lewis's options, avoids the need to posit mere possibilia such as flying pigs and talking donkeys.[20]

I can imagine Lewis responding to these points by claiming that while my approach avoids possibilia, avoids primitive naturalness, and avoids a separate category of universals or tropes, his approach avoids my primitive *holding* relation and my ontology of haecceities. However, this is not the case. Lewis's abundant properties include both the holding relation and the haecceities that I have posited: haecceities are either unit sets or sets of each object and all its counterparts (depending on how one interprets Lewis's theory), and the holding relation is the set of all and only the pairs of word-haecceities H and objects O of which my theory says that O holds H. I see no reason to think that any version of Lewis's theory allows any definition of these things that is unavailable within my theory.

Another possible response is to argue that Lewis's theory receives a gain in parsimony from the fact that he identifies properties with sets. Since I do not make this identification,

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[19] Moreover, if tropes are of some further use, not mentioned by Lewis—see Maurin (2018) for some possibilities—then they can be simulated in my theory. For example, the conjunction of the haecceity of an electron with its property of having mass m—an immanent, singly-instantiated universal on my view—looks a lot like a mass trope, or at least it looks like it shares those features of tropes that make them potentially useful.

[20] Of course, in rejecting Lewis's possibilist modal realism, one also leaves behind his analysis of modality. I emphasized that my theory avoids possibilia because most philosophers reject modal realism. But it's worth noting that my theory is consistent with modal realism, so, if you want it, you can have it. The other points in favor of my theory over Lewis's three alternatives still hold.

Lewis could say that I am stuck with two categories—sets and abundant properties—where he only has one. On this basis, he might claim that his theory and my theory are on a par in terms of parsimony. My response is that, once we have abundant properties, there are several well-known techniques, dating back to Russell's "no-class" theory in *Principia*, for eliminating sets by paraphrase in terms of properties. For example, according to Jubien (1989a, 1989b), the null set is eliminable in favor of the property of not being anything. And the singleton of a given object is eliminable in favor of the haecceity of that object. Finally, many-membered sets are eliminable in favor of the disjunction of the haecceities of the members. In this way, abundant properties allow us to eliminate a commitment to sets, so the theory I am proposing is more parsimonious than Lewis's after all.[21]

5. Hyper-Fine-Grained Content

The present theory allows a satisfying Fregean approach to the content of language and thought, with word-haecceities in the role of Fregean senses. On this view, the haecceity of a name is a mode of presentation of the object that holds that haecceity. For example, 'Hesperus' and 'Phosphorus' will have distinct haecceities which are held by the same object, Venus. This approach produces content that is as fine-grained as you like—even as fine-grained as specific inscriptions, as these too will have haecceities to which we may similarly appeal. And the resulting theory may deal, in typical Fregean fashion, with Frege-style puzzles and with problems involving empty names.

Philosophers sometimes criticize theories of this sort for being *too* fine-grained.[22] Consider for example these pairs of sentences:

Doctors are intelligent	Physicians are intelligent
Snow is white	Nieve es blanco
There are three apples	The number of apples is three
2 is prime and 3 is odd	3 is odd and 2 is prime

We often want to treat these pairs of sentences as if they "say the same thing" or "assert the same truth." And yet, if the sentences in each pair express distinct propositions, then (the worry goes) they do not say the same thing or assert the same truth. Thus, the present view cuts propositions too finely.

[21] See Bealer (1981, 1982) and Bigelow (1990, 1993) for alternative approaches to eliminating or reducing sets by appeal to abundant properties.

[22] E.g.: Collins (2007), Merricks (2015: 29-32), and Bjerring and Schwarz (2017).

In response to this concern, I suggest that we often do not count contents by identity. Rather, we often count non-identical contents as being "the same content." This is an idea familiar in metaphysics from the work of Lewis (1976, 1993) on persistence and the problem of the many, where Lewis claims that we sometimes count by "relations of partial indiscernibility." For example, he claims that we count non-identical cat-like objects which overlap completely except for a few hairs as one and the same cat, and we count non-identical persons that perfectly overlap for the first twenty years of their lives as one and the same before they are separated by a fission operation. Whether or not he is right about these particular applications, the idea can be fruitfully applied to the present issue of content. First, we must suppose that context sometimes determines an equivalence relation between non-identical contents—perhaps necessary equivalence, perhaps *a priori* equivalence, perhaps some other equivalence relation—with different equivalence relations determined by different contexts in a way that serves the conversational needs at hand. The relevant equivalence relation partitions these contents into equivalence classes. In such contexts, we then regard non-identical contents within a given equivalence class as *the same* in that context, and count them as *one* content.[23]

For example, if we are concerned with Lois's ignorance of Superman's identity with Clark, it might be true to say that Lois believes that Superman loves her, but false to say that Lois believes that Clark loves her. In such a context, we do not count these propositions as being the same. But consider another context—one in which Superman's parents are talking about Lois, they share common knowledge that Clark is Superman, and they are concerned not with her ignorance of Superman's identity with Clark, but rather with the question whether Superman has made his feelings clear to her. In that context, they might correctly say that Lois knows that Clark loves her. Their common knowledge of the identity of Clark and Superman, and its irrelevance to the issues of concern in the context, induce a more coarse-grained count of propositions.

6. Qualitative Parsimony

The theory that universals are both abundant and immanent eliminates *necessarily unlocated properties*. In this, I believe that my theory provides a gain in what Lewis (1973: 87) calls *qualitative parsimony*: parsimony that involves minimizing the *kinds* of things that there are, as opposed to *quantitative* parsimony, which minimizes the *number* of individual things.

[23] Cf. Liebesman (2015, 2016) for some very persuasive arguments that we normally do not count by identity, together with a detailed semantic theory.

Making sense of qualitative parsimony is tricky, and arguing that it is a virtue in a theory is really beyond the scope of the present paper.[24] But I will say just a couple of things here. First, the *kinds* that are involved in this sort of parsimony cannot be just any old properties. For, if we say that every property is a kind in the relevant sense, and (as I am assuming) we embrace abundant properties, then the distinction between qualitative and quantitative parsimony collapses: each object x has the property of being identical to x, so allowing that another tomato exists will amount to allowing that another kind exists if 'kind' is understood this way.

To make sense of qualitative parsimony, then, we need some restriction on the kinds that are involved in the idea of minimizing the number of kinds. Do the *necessarily unlocated properties* form a relevant kind? I will argue that they do. First, I define the idea of an *essential property* as follows:

> F is an essential property iff$_{\text{def}}$ (i) possibly, something has F, and (ii) necessarily, if something has F, then it has F essentially.[25]

I will assume that, at least in the context of ontology, essential properties in this sense are relevant kinds. So I endorse *the principle of essential parsimony*:

(PEP) The fact that one theory postulates instances of fewer essential properties than another is a reason to prefer it.

Now suppose that (PEP) is correct. And suppose that, according to theories which accept non-immanent universals, *being a necessarily unlocated universal* is an essential property in the above sense. Then it follows by (PEP) that we have a reason to prefer the theory I have proposed, according to which there are no necessarily unlocated universals, over a theory on which there are such things.

But should opponents of my theory hold that *being a necessarily unlocated universal* is an essential property? Here is an argument for this claim:

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[24] Recently, some have expressed skepticism about at least some parsimony arguments in metaphysics. See for example Sober (2015: chapter 5), who argues that, in the case of universals, the prior probability of realism is central to any appeal to parsimony that is modelled on successful appeals to parsimony in empirical domains. Sober claims that there is no basis for an assignment of prior probability to realism, so that appeals to parsimony modelled on empirical applications fail in this case. However, see van Inwagen (2004: §1), who makes a strong case that (in effect) the prior probability of realism is low, which supports the appeal to parsimony in the text given the rest of what Sober argues.

[25] See Fine (1994, 1995a, 1995b) for a discussion of essence.

1. *Being an abstract object* is an essential property.
2. Something is an abstract object iff_{def} it is necessarily unlocated.
3. If F and G are definitionally equivalent, and F is an essential property, then so is G.
4. So *being necessarily unlocated* is an essential property.
5. *Being a universal* is an essential property.
6. Conjunctions of essential properties are essential properties.
7. So *being a necessarily unlocated universal* is an essential property.

Premise 2 is controversial. Before defending it, let me say a word about the other premises.

Premises 1 and 5 are each motivated in the same way: these are paradigm cases of essential properties which tell us *what something is* in a deep sense that is definitive or deeply explanatory of the nature of the things that have them, and which apply necessarily to the things that have them.

Premise 3 is motivated by the traditional idea that definitions formulate the essence of the thing defined. If this is so, then surely definitional equivalence preserves essence. Moreover, it is plausible that definitions express grounding relationships: if x is F iff_{def} x is G, then *being F* is grounded in *being G*.[26] Given this, my premise follows from the fact that grounding preserves essence: if x is F essentially, and *being F* is grounded in *being G*, then x is G essentially.

Premise 6 says that conjunctions of essential properties are essential. This is so according to Fine (1995b: 253). Fine here operates with a consequentialist notion of essence, according to which a thing's essential properties are closed under logical consequence, since something that has F essentially, and also has G essentially, will by virtue of the logic of conjunction have the property of being both F and G as well. I am happy to understand 'essence' as 'consequentialist essence' in this paper, so premise 6 in some relevant sense is surely true.[27]

We now come to premise 2, which is a proposed definition of the notion of an abstract object. Most of the typical definitions of this notion have received decisive criticism in the literature.[28] But I will defend a modified version of what Rosen (2017) calls the *non-spatiality criterion*, according to which abstract objects are those which fail to have spatial location. I know of two objections to this account in the literature.

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[26] This claim is true according to Rosen's (2015: 100) account of real definition.

[27] Can I take 'essence' in the sense of Fine's 'constitutive essence'? This would cause no problem: conjunctions of constitutively essential properties are plausibly constitutively essential.

[28] See Rosenkrantz (1993: Chapter 1, §VIII), Burgess and Rosen (1997: 13-25), Rosen (2017), and Cowling (2017: chapter 2). Two approaches in this literature that, to my knowledge, have not yet received critical attention are Cowling (2014) and Rosenkrantz (*op. cit.*) Unfortunately, I cannot discuss these proposals here.

The first objection is that the non-spatiality criterion wrongly classifies disembodied persons as abstract.[29] The best way to respond to this objection, in my view, is to modalize the account, so that to be abstract is no longer simply to *lack spatial location*, but to do so necessarily. I suppose that, if there were disembodied persons, then they would be *capable* of embodiment, and, if embodied, they would be located where their bodies were. Given these assumptions, the modalized version of the account avoids this first objection.

The second objection to the non-spatiality criterion is due to Burgess and Rosen (1997: 21-22), who contend that, if there are such things as abstract artifacts, some of them are located in space. For example, they claim that the corporation IBM is an abstract artifact, and that it is located on earth. And Rosen (2017) claims that chess "was imported from India into Persia in the 7th century," which suggests that chess has a spatial location. If this were right, and if these entities were correctly regarded as abstracta, then the non-spatiality criterion (whether modalized or not) would be mistaken.

My reply is that, if *chess* really does have a spatial location, then the location of *chess* is closely tied to the location the individual concrete chess sets. After all, if it is literally true that chess was imported into Persia, this is by virtue of facts about the spatial locations of individual concrete chess sets, or perhaps some other concrete particular or event, like a chess-playing or chess-learning event. Thus, chess would be located in its concrete instances. In this respect, if *chess*, the novel *Pride and Prejudice*, and other such things do indeed have spatial locations, then they are similar to immanent universals, which are also said to be located in their instances. It is of limited dialectical force to claim that the non-spatiality criterion misclassifies immanent universals, or things like immanent universals, as concrete. Perhaps immanent universals *are* concrete.[30] Thus, it is a similarly weak objection to claim that the non-spatiality criterion misclassifies such objects as *chess* or *Pride and Prejudice*. The modalized non-spatiality criterion thus survives this objection as well.

7. Response to Two Worries about Uninstantiated Universals

The theory I've proposed affords responses to two well-known objections to uninstantiated universals, namely Armstrong's naturalism-based objection and the worry that uninstantiated universals, if they existed, would be epistemically inaccessible.

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[29] This objection is due to Rosenkrantz (1993: Chapter 1, §VIII). Note that you might reasonably think that the account misclassifies disembodied persons even if you don't believe in them.

[30] Pace Lewis (1986: 83). For philosophers who classify immanent universals as concrete, see Garcia-Ramirez and Mayerhofer (2015) and Keskinen, Keinänen, and Hakkarainen (2015). Maddy (1990: 59) is similarly happy to say that, on her view, sets are not abstract objects.

7.1 Armstrong's Objection to Uninstantiated Universals

David Armstrong (1978, 1989) rejects uninstantiated universals because they run contrary to what he calls "naturalism": the view that "the world is nothing but a single, spatiotemporal system" (1978: vol. 1, 126). Why does he accept "naturalism" in this sense? His answer:

> A spatio-temporal realm of particulars certainly exists (it includes our bodies). Whether anything else exists is controversial. If any entities outside this realm are postulated, but it is stipulated further that they have no manner of causal action upon the particulars in this realm, then there is no compelling reason to postulate them. Occam's razor then enjoins us not to postulate them. (1978: vol.1, 130)

There are reasons for belief in uninstantiated universals that do not involve "causal action upon the particulars in this realm": see the works cited in note 2, which I do not have the space to review here. However, Armstrong might argue that, despite these reasons, his theory's accommodation of naturalism renders it more parsimonious than any theory that embraces uninstantiated universals.

In response, I claim that my theory is no less parsimonious than Armstrong's. He held that *all* universals are immanent: they all have instances in which they are located as parts or constituents. He therefore rejected uninstantiated universals. Thus, in comparison to the view I have advocated, his view eliminates the contingently non-immanent universals. The class of contingently non-immanent universals includes all and only those universals that have no located instance, but might have had one. This is a gerrymandered kind at best. Plausibly, elimination of such gerrymandered kinds does not provide a gain in parsimony. Given this, it is implausible that Armstrong's theory is more parsimonious, at least qualitatively, than the theory I have proposed.

Perhaps Armstrong would reply that his argument is not just an argument against uninstantiated universals, but is in fact an argument against *all* causally impotent, non-spatiotemporal entities. My view, however, is that uninstantiated universals are contingently non-spatiotemporal and contingently causally impotent. It would beg the question to reject this claim. But, if he does not reject it, it is difficult to see on what basis he can regard elimination of non-spatiotemporal things as a gain in qualitative parsimony. He cannot, for example, appeal to (PEP) in making this argument, as I did when advancing my parsimony-based argument above, since contingent properties are not essential properties.

One might suggest that Armstrong could appeal to the "Eleatic Principle" that everything must make a causal contribution to the world, and argue against uninstantiated

universals on that basis. But Armstrong (1997: 43) himself is half-hearted about this sort of principle: he confesses that it "raises some unresolved problems." Moreover, it seems question begging to insist on the principle in this context without argument, since proponents of uninstantiated universals (e.g. those cited in note 2) typically regard uninstantiated universals as earning their keep by making *non-causal* explanatory contributions in semantics and the metaphysics of modality. For this reason, I think Armstrong's argument against uninstantiated universals is at best inconclusive, pending some account of the parsimony advantage that his theory is supposed to enjoy over the theory I have proposed.[31]

7.2 Epistemic Access

In addition to the above response to Armstrong's naturalism-based worry, the theory I have proposed provides a new perspective on a standard epistemological objection to universals that are never instantiated at any time. I have in mind an objection similar to the Benacerraf-Field objection to Platonism in the philosophy of mathematics. The idea of this objection is that, if there are permanently uninstantiated universals, then they have no spatiotemporal location, so either they are unable to stand in an appropriate explanatory relationship to our beliefs about them, or at any rate it *seems* as if they are unable to stand in such a relationship. In that case, the worry goes, we are at least apparently unable to explain the reliability of these beliefs. Proponents of this objection then claim that the fact that we are unable to explain our reliability—or perhaps the fact that it *seems* that we are unable to explain our reliability—defeats our justification for belief in permanently uninstantiated universals.[32]

On the view I have defended, each permanently uninstantiated universal could have had a location (since it could have had an instance, and would have been located in its instance if it had one). For example, the property of being exactly n kilograms in mass, even if it is never instantiated, is nevertheless capable of instantiation, and would have been wholly located as a part or constituent in each object that was n kilograms in mass if there had been any such objects. Thus, on my view, we can say of this universal that it would

[31] I do agree that Armstrong's theory is more parsimonious than a non-immanent, abundant account of universals. Indeed, this is for the same reason my theory is more parsimonious than a non-immanent, abundant account: my account and Armstrong's both eliminate necessarily unlocated (i.e. abstract) universals. Cf. also van Inwagen (2004: §1), who gives an argument that, for an "'Occam's razor' sort of reason … it would be better not to believe in abstract objects if one could get away with it."

[32] See Benacerraf (1973) and Field (1989). Clarke-Doane (2017) provides a helpful discussion of the problem and some of the vast literature it has spawned. For an overview of similar problems as they arise across a broad range of different areas, see Korman (2019), whose formulation of the problem has influenced me here.

have been in location L at time t if there had been an object of n kilograms in L at t. If my view of universals is correct, then this is knowledge that we could have by way of whatever method ordinarily provides us with knowledge of counterfactuals about how the spatiotemporal world might have been. For, on my view, an uninstantiated universal would have been located in the spatiotemporal world, as a part or constituent of its instance, if it had been instantiated.

One might reply to this point by raising a Benacerraf-Field problem about knowledge of the counterfactual facts I have highlighted. The idea would be that such facts are themselves ones to which we are unable (or seemingly unable) to stand in an explanatory relationship, or whose reliability we are unable (or seemingly unable) to explain. However, if this is really a problem, it concerns general modal epistemology, and it afflicts everyone who thinks we know that I could have worn a different shirt today. It is not specific to proponents of permanently uninstantiated universals, which are my concern here.

Another possible reply is that while these sorts of counterfactual beliefs about permanently uninstantiated universals would be reliable on my view, this does not explain the reliability of the full range of important beliefs about such universals, such as beliefs about them that are logical truths (*having mass of exactly n kilograms* is self-identical), non-logical necessary truths (*having mass of exactly n kilograms* is a universal), and existential truths (*having mass of exactly n kilograms* exists). On this view, while I have explained the reliability of some beliefs about permanently uninstantiated properties, the reliability of these other beliefs remains unexplained, and this is sufficient, one might think, to undermine our belief in realism about such universals.

A few points in response. First, the counterfactual knowledge I have highlighted constitutes a significant portion of the substantive knowledge I would expect us to have about permanently uninstantiated universals given my theory. This at least *reduces* the threat from a Benacerraf-Field-style objection, even if some epistemological questions about such universals remain unanswered. Second, the basis of our knowledge of the existence of permanently uninstantiated universals is itself controversial, and it depends on which arguments for them are ultimately successful (see note 2 for some citations of such arguments). One could try to raise a Benacerraf-Field-style objection to the premises of such arguments. But such a generalization of the Benacerraf-Field objection would affect a wide range of necessary semantic, modal, and logical beliefs, since these are the sorts of premises that feature in such arguments. It would therefore no longer be an objection specifically to uninstantiated universals, but would tend to threaten knowledge of a much broader range of beliefs. This range is broad enough that, skepticism aside, we should regard the resulting problem as a puzzle to be solved rather than a serious threat to our knowledge. And, in any case, the question whether a Benacerraf-Field-style challenge

arises in these domains has been a matter of significant controversy.[33] Without resolving this controversy—a tall order, to say the least—and circumscribing the problem so that it does not threaten a very broad skepticism, the present objection falls flat.[34]

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[33] For example, see Field (2005) for an argument that the Benacerraf-Field challenge does not afflict logical beliefs; cf. Schechter (2018), who disagrees. Or, on the modal case, see Pust (2004), who defends the view that "there is no special problem explaining our intuitive reliability regarding necessity" (86); cf. Korman and Locke (2020), who criticize approaches like Pust's.

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