

CHAPTER 4

Are There Essential Properties? Yes

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1. Introduction

Meghan Sullivan calls *hardcore essentialism* the thesis that there's at least one object and qualitative and discriminating property such that the object must (absolutely and without qualification) have the property if it exists. Although we have qualms about this characterization of hardcore essentialism, we ignore them in what follows, and defend hardcore essentialism as Sullivan characterises it.¹

Sullivan discusses (and rejects) some interesting but inconclusive arguments for hardcore essentialism. Each argument suggests that we should believe in essential properties because of the explanatory work they can do. But explanatory power does not ultimately provide our reason for accepting hardcore essentialism. Our reason is simply that we can't believe that we could've been poached eggs. But in some sense, each of us can believe the proposition expressed by, 'I could've been a poached egg'; we're essentially not poached eggs, but not essentially non-believers in the possibility of our being poached eggs. More on the subtleties of 'can' in section 3.

None of us could've been a buttered bagel. Nobody believes this simply on the basis of a philosophical argument. It's great if your not possibly being a glass of orange juice explains some semantic phenomenon, or partially explains your persistence conditions, or whatnot. But we don't believe that you couldn't have been a glass of orange juice *because* of what this fact might purportedly explain. And since each of us couldn't have been

a Belgian waffle, there's one property—not being a Belgian waffle—that you absolutely must have if you exist. There are many others. So, hardcore essentialism is true.

We stress this because we view the dialectical situation differently than Sullivan. We don't see hardcore essentialism as reasonable to believe only if it's a consequence of a good philosophical argument. Rather, hardcore essentialism is sufficiently plausible to be the default position. And so the onus on the hardcore essentialist is not to provide an argument for the view but is instead to merely respond defensively to arguments against the view. For this reason, we focus on Sullivan's arguments against hardcore essentialism.

2. Essences of Individuals and Essences of Entities in General

Sullivan explicitly restricts her focus on whether hardcore essentialism is true with respect to individuals rather than kinds. We'll be less restrictive, partly because there are entities besides individuals that have essential properties, and partly because it's worth determining to what extent one can have a uniform account of attribution of essential properties to entities in general rather than merely to individuals.

Consider *sounds*. You play a middle C on the piano. This particular sound has accidental features, e.g., that it's heard. But it also has essential features: in general, sounds without volumes are metaphysically impossible. Consider *holes*. This hole in my buttered bagel couldn't have existed without being a hole in something. Holes must have hosts. More exotic entities also have essential features. *Sets* must have the members that they have. *Species* essentially fall under their genera.

We do hardcore essentialism a disservice if we under-emphasise how general the notion of an essential property is, and if we fail to note the number of near obvious truths about essential properties. Not every attribution of essential properties is a near obvious truth, as we'll see in section 3. But the hard-core essentialist needn't settle the harder cases to feel comfortable in her hardcore essentialism, for there are many easy ones to be content with.

Here's why we characterize these essentialists truths as 'near obvious'. Hardcore essentialism is a view about what is absolutely necessary with respect to objects. But whether there's an intelligible notion of absolute necessity is non-obvious. Start with the idea that there are some ways in which things could've gone, and other ways thing could not have gone; this is the distinction between what is absolutely possible and absolutely impossible. Here are three views about the status of the line between the possible and the impossible. View one: it's a fundamental fact that the line is drawn

where it is. View two: it's not a fundamental fact but it's a uniquely privileged fact: there's no other way to divide up possible and impossible worlds that's at least as fundamental.² View three: it is neither fundamental nor uniquely privileged; there are alternative ways of partitioning the worlds that are as legitimate as the division in to the absolutely possible and the absolutely impossible.³ We incline to either the first or the second view, but it's not part of hardcore essentialism that either is true: the third view is also a possibility.

Here's what the hardcore essentialist is committed to: in whatever way it's absolutely necessary that $2 + 2 = 4$, that it's morally wrong to torture innocent persons for fun, and that possible worlds are not concrete objects with the same metaphysical status as this universe, it's also absolutely necessary that we're not potato pancakes.⁴ There are hard questions about absolute necessity; but these hard questions are about absolute necessity *tout court* rather than about essential properties specifically. We claim that it's about as obvious that we absolutely couldn't be glasses of chocolate milk as it is that $2 + 2$ must be 4. Perhaps there are special epistemological worries about *de re* necessity that don't have analogues in the epistemology of *de dicto* necessity, but that's consistent with there being near obvious truths about each.

Given this view of the dialectical situation, our primary job is to reply to arguments against hardcore essentialism rather than offer positive defences of it. The remainder of the paper focuses on (in section 3) Sullivan's main arguments against hardcore essentialism and then (in section 4) Sullivan's proposed replacement for genuine essential features.

3. Sullivan's Arguments against Hardcore Essentialism

Sullivan presents several intriguing arguments. We'll focus on three that seem both central to her case and most challenging to address.

3.1. *The Argument from Hard Cases*

Sullivan starts her chapter with this story about a character named 'Batra' that, according to the story, starts as a fertilized egg, then becomes a caterpillar, a chrysalis, a monarch butterfly, and finally a mounted installation partially made of a butterfly corpse and modelling clay. Sullivan's story is worth contemplating. It describes commonplace changes; it's not science fiction. This is important, since readers of stories typically are very concessive to the authors of those stories. If we tell a story in which a prince becomes a toad, the typical reader will play along even if such a change is

metaphysically impossible; the story is no fun to tell or hear if we let metaphysical scruples get in the way. But with a realistic story, we're less susceptible to simply accept what is told.

If we accept Sullivan's story as metaphysically possible exactly as it's told, it seems as if Battra is a counterexample to several views about which essential properties objects have. One view says that organisms are essentially alive. Another says that organisms are essentially composed of the same kinds of organic material throughout their timespan. Both of these appear false if the story of Battra is possible. For in the story, Battra exists after its death, and even after its original organic material is replaced by silk and clay.

But pause. The hardcore essentialist could concede that Sullivan's story is metaphysically possible exactly as it's told while denying that it's a counterexample to the two essentialist views just mentioned. For one, the hardcore essentialist could deny that Battra is an organism. On one view about persistence through time, *perdurantism*, objects persist through an interval of time T by having temporal parts that correspond to the sub-intervals of T. And, if composition is fully unrestricted, all things compose a whole, regardless of where or when they are.⁵ If perdurantism is true and composition is fully unrestricted, then there's an entity that survives exactly the changes Battra is depicted as surviving. But this entity is not an organism; it merely coincides with one for some part of its timespan.⁶

Perdurantism and fully unrestricted composition are compatible with hardcore essentialism. But in what follows, we'll make things harder on ourselves by rejecting (if only for the sake of argument) both views.

With that in mind, let's get clearer about how Sullivan's story is relevant. Is there a good argument from the Battra story against hardcore essentialism? Consider this argument:

1. Battra exists when it's a caterpillar and when it's made of silk and clay.
2. If Battra exists when it's a caterpillar and when it's made of silk and clay, then Battra is not essentially an organism.
3. If hardcore essentialism is true, then Battra is essentially an organism.
4. So, hardcore essentialism is not true.

If Sullivan's story is possible, then premise 1 is true. And in what follows, we won't challenge premise 2. Premise 3 might seem true because 'organisms are essentially organisms' is especially plausible. The hardcore essentialist presumably wants to defend some interesting *positive* proposals about the essential features of things. And one might think that this claim must be true if any essentialist claim is.

There are several possible responses.

First, we might reject premise 1 by denying that Sullivan's story is possible. Perhaps Battra goes out of existence when it stops being alive or when it stops being an organism.⁷ Either of these options is plausible.

Perhaps this option is unavailable to someone who takes naïve semantic intuitions seriously, since, according to this option, either 'Battra' refers to different entities at different points in the story, or at some time in the story, 'Battra' no longer refers to something that exists at that time. We've already emphasized that we don't take naïve semantic intuition as our guide to essence. In this context, it's not at all clear to us why anyone should. Why take intuitions about *words* as a guide rather than, for example, intuitions about the objects themselves, preferably in conjunction with detailed information gathered from the biological or chemical sciences? (Why prefer the naïve intuitions of someone doing semantics rather than those of a biologist?)

Another response is to deny premise 3. Hardcore essentialism isn't committed to any claim about which objects have which properties essentially. It's just the view that at least one object has at least one property essentially. Maybe Battra doesn't have any essential properties. Maybe Battra has some essential properties other than being organic. Both of these claims are consistent with the claim that we couldn't have been biscuits and gravy. And hence both of these claims are consistent with hardcore essentialism, so we don't have to decide which (if any) properties are essential to Battra to defend hardcore essentialism.

Even though we don't need to decide which essential properties objects have, we'll suggest two plausible views:

Origin Essentialism: everything that has an origin has its origin essentially.⁸

Category Essentialism: everything that belongs to an ontological category belongs to that category essentially.⁹

Neither of these imply that organisms are essentially alive or essentially organisms. And both are consistent with Sullivan's story. Battra never loses its origin or changes ontological category.¹⁰

Sullivan (p. 51) suggests that, 'we could tell a metamorphosis story for any candidate hardcore essentialist claims. We just need to be able to describe the object undergoing a series of gradual changes'. But it's very hard to produce a plausible metamorphosis story in which its protagonist changes its origin. In order for something to come to have a different origin than it once did, the past would have to change. And it's well known that changing the past is paradoxical. So we doubt that a story like Sullivan's could be developed that would have much intuitive force against origin essentialism. And we don't believe there are good non-story based arguments against origin essentialism either.

Changing one's ontological category is not paradoxical in the way that changing one's origin is. But it seems impossible, at least with respect to a wide variety of ontological categories. Consider this metamorphosis story:

Metamorphosis 2: Once there was a metaphysician named Elizabeth. She started out as an ordinary human organism. Then she transformed from a human into a parade—not a person in a parade, but the event itself. When she finished being a parade, Elizabeth transformed into a new species of *Felinae*: not a new individual member of this biological family, but a new species. Finally, Elizabeth became a set.

This story is much less intelligible than the story about Battra. It's absolutely impossible for an organism to become an event, or a species, or a set. We aren't relying on semantic intuitions at all; we simply can't bring ourselves to believe that Elizabeth (or anyone else) could change in these ways.

Hardcore essentialism is true if either Origin or Category Essentialism is true. No plausible metamorphosis story challenges either Origin or Category Essentialism. So, metamorphosis stories like the one involving Battra don't pose a serious challenge to hardcore essentialism.

We think that the story of Battra does raise an interesting puzzle about what essential properties the character (or characters) of that story in fact have. This is the sort of puzzle that hardcore essentialists ought to think about, and they ought to develop and defend theories that solve it. Perhaps it's an advantage of denying hardcore essentialism that it dissolves such hard puzzles rather than forces us to solve them. Our view though is that reality is sometimes puzzling.

3.2. *The Argument from Ben Franklin*

The second argument is encapsulated in the following quotation:

Here is a tempting intuition about names—they persist in referring, even when the referent of a name has undergone radical change. The simplest case of this is names for past objects. When Benjamin Franklin died of pleurisy, the name 'Franklin' did not cease to refer. Statements such as 'Franklin founded the University of Pennsylvania' continue to be meaningful and true. And without much reflection, this seems true of names: anytime a name refers, it has a referent. What's the referent of 'Franklin'? Well, it seems it is Franklin. So—if we are taking naive semantic intuitions seriously as a guide to essence—it seems that it is *not* essential to

Franklin that he be alive, since he is not alive, but is still a referent of the name 'Franklin.'

(Sullivan: 50)

Our response is multifold. First, we remind the reader that we neither rely on intuitions about semantics as our guide to essence, nor on naïve intuitions, but rather accept those intuitions about the objects themselves (rather than their names) that we believe survive critical reflection while maintaining their forcefulness.

Second, we remind the reader that hardcore essentialism does not entail that it's essential to Franklin to be alive. The conclusion of this argument is thus compatible with hardcore essentialism (and both Origin and Category Essentialism).

Third, we accept that Sullivan has presented a puzzle, since it generates several conflicting intuitions. But we also note that Sullivan has picked one of the intuitions to favour, namely, that it's not essential to Ben Franklin that he be alive, and that she has picked the intuition that's weakest and most replaceable. Moreover, when trying to solve this puzzle, we're happy to employ metaphysical considerations rather than purely semantic ones, and see no genuine motivation for relying only on semantic considerations. So we feel free to consider the B-theoretic solution that Sullivan mentions in footnote 9, for example.

Finally, since Sullivan has articulated a genuine puzzle, it's one that she faces as well. But it's hard to see how the anti-essentialist framework that she articulates in her paper solves the puzzle. More specifically, her anti-essentialist framework replaces claims about essential properties with claims about explanatorily relevant characteristics. But, in many contexts, being alive is an explanatorily relevant characteristic of Ben Franklin; how then, in those contexts, will Sullivan solve this puzzle? And in those contexts in which being alive is not explanatorily relevant, what explanatorily relevant characteristics does Franklin have? And is the possession of these features consistent with whatever preferred solution to the puzzle Sullivan accepts?

3.3. *The Context-Shift Argument*

The final argument we'll discuss is based on the idea that attributions of essential properties are context-sensitive.¹¹ The phenomenon of context-sensitivity is aptly illustrated by two of the examples she mentions on p. 59:

- (1) Gold atom g essentially moves more slowly than a photon. Well, not if special relativity is false.
- (2) Peter is essentially an organism. Well, not if he has an immaterial soul.

The worry is that each pair of sentences sounds felicitous but the hardcore essentialist must explain why these four speeches sound felicitous without undermining a major motivation for hardcore essentialism – namely that essential properties can explain our intuitions about reference in other possible worlds.

As we mentioned earlier, we don't endorse hardcore essentialism in order to explain certain semantic intuitions, but rather because there are lots of breakfast foods we simply don't believe we could've been. So we're not exactly the targets of this sort of criticism. We would, however, like to offer our explanation of the appropriateness of speeches denying true essence ascriptions, one that's entirely compatible with hardcore essentialism.

First, let's note that Sullivan's examples have the following form:

(*) P. Well, if Q, then not-P.

Second, note that the second sentence is not the negation of the first. The second sentence is a conditional whose consequent is the negation of the first sentence. If the second sentence were the negation of the first, and speeches of that form seemed felicitous, then we would reasonably suspect that a shift in context produced a change in truth value. But these two sentences are consistent. And so the felicitousness of their joint assertion does not by itself provide a reason to think that a sentence changed truth value: both sentences might be true. It's just that the first sentence is actually true, but it would have been false if certain conditions obtained.

Some instances of the form (*) have antecedents that are metaphysically impossible; we suspect that the one appearing in (2) might be one as well. Instances of form (*) with necessarily false antecedents are called *counterpossible* conditionals. Counterpossible conditionals raise philosophical issues. On one popular semantics for counterfactuals, a counterfactual conditional of the form *if P were the case, then Q would be case* is true just in case for every possible world in which $P \& \sim Q$ is true, there's a possible world closer to the actual world in which $P \& Q$ is true.¹² If a counterfactual has a necessarily false antecedent, this condition is vacuously satisfied, and hence the counterfactual is necessarily true, albeit "vacuously". If this popular semantics is correct, we've a straightforward explanation of why (4) and perhaps (3) sound felicitous: they are both true, albeit each with a vacuously true conditional. But, if counterpossible conditionals can be either false or "non-vacuously" true, this popular semantics for counterfactuals must be revised. Since it's no part of hardcore essentialism that the standard semantics for counterfactual conditionals is correct, we grant here that, e.g., (2) might be (non-vacuously) true.

This worry about context-sensitivity is similar to an argument from Sider (2011: 280-281). Some of Sider's examples have the same form as

Sullivan's and thus don't contain a sentence whose truth-value clearly shifts with context. We think Sider's best examples don't involve conditionals. Here's one:

I might say: "Johnny can go to the moon (since the technology exists), but not to Mars", whereas later I might say "Johnny can travel to Mars but not to star systems 10,000 light years away (since supraluminal travel violates the laws of nature and humans don't live to be 10,000 years old)."

(Sider 2011: 280)

In this example there's a single sentence – "Johnny can go to Mars" – that's first denied and then asserted. If both utterances are true, then that sentence has different truth values in different contexts. Since this kind of example provides stronger support for contextualism, we reformulate Sullivan's examples as follows:

- (1') Gold atom *g* essentially moves more slowly than a photon. . . . [later, in a context where special relativity's being false is a relevant possibility] Well, *g* could move more quickly than a photon.
- (2') Peter is essentially an organism. . . . [later, in a context where the falsity of physicalism is a relevant possibility] Well, he could fail to be a organism.

We'll focus on explaining why these speeches sound felicitous since we take this to be a harder challenge for the hardcore essentialist.

Note that Sullivan and Sider's examples are all about *de re* necessity. But the phenomenon that Sullivan and Sider drawn attention to is not restricted to *de re* necessity. There are similar examples involving *de dicto* necessity:

- (1'')Necessarily, nothing moves faster than light. . . . [later, in a context where special relativity's being false is a relevant possibility] Well, possibly a thing travels faster than light.
- (2'')Necessarily, human persons are organisms. . . . [later, in a context where the falsity of physicalism is a relevant possibility] Well, possibly human persons are non-organisms.

The general issue is that *modal* language is context-sensitive. The issue is not specific to *de re* modal language. We don't think that the context-sensitivity of modal language by itself provides a reason to think that there's no such thing as absolute (metaphysical) necessity. We think that there's a worry for hardcore

essentialism only if the context-sensitivity of modal talk cannot be fruitfully explained without abandoning hardcore essentialism. We believe that this is not so.

We prefer an explanation of this context-sensitivity that appeals to restrictions on the domain of possible worlds. We accept the standard connection between being possibly true and being true at some possible world; varieties of possibility and necessity are to be understood in terms of being true at some or all possible worlds of a certain sort. *Metaphysically* necessary propositions, whether they are *de dicto* or *de re*, are those that are true at every possible world. But rarely is this strictest kind of necessity invoked in contexts in which one says, “this had to be the case” or “it has to be this way”. Typically, some weaker kind of necessity is invoked, and with it a correspondingly stronger kind of possibility. For example, consider the sentence, “It’s impossible for something to move faster than the speed of light”.¹³ We think utterances of this sentence are (probably) often true.¹⁴ Perhaps they are uttered in contexts in which the relevant kind of necessity invoked is *nomological*: nomologically necessary propositions are those that are true at every metaphysically possible world where all of our laws of nature hold. If so, in those contexts, “nothing can move faster than the speed of light” expresses a truth even if there are some possible worlds in which things move faster than the speed of light.

A similar story can be told about the *de re* sentence, “gold atom *g* essentially moves slower than the speed of light”. It’s a familiar fact that we don’t always talk about all that there is, even when we use the word “all” – as witnessed by the famous sentence “all the beer is in the fridge”.¹⁵ We grant that typical utterances of “gold atom *g* essentially moves slower than the speed of light” are true, provided that “essentially” in this sentence means “at all possible worlds” and that this “all” can be contextually restricted, rather than “at absolutely all possible worlds”, which contains an expression designed to prevent “all” from being restricted. Typical uses of “gold atom *g* essentially moves slower than the speed of light” are uttered in contexts in which only some but not all possible worlds are relevant. But the truth expressed in these contexts is compatible with the truth (if it’s a truth) that there are possible worlds in which gold atom *g* moves faster than the speed of light.

Hardcore essentialism does not imply that modal talk is not context-sensitive.¹⁶ Hardcore essentialism does not deny that there are ordinary uses of “essential” that are context-sensitive, though we personally are suspicious that these uses are very common; talk of how something must be or can be, however, is very common. That said, we’d prefer to reserve “essential property” as a technical expression synonymous for “property had at absolutely all worlds (in which its bearer exists)”.

In general, shifts in contexts are often correlated with shifts in the domain of quantification. Still, though, there’s an unrestricted domain containing all

the possible worlds. A proposition is (absolutely and without qualification) necessary when it's true in every possible world. An object has a property (absolutely and without qualification) essentially when it has the property in every possible world where it exists.

This explanation of the context-sensitivity of modal language (both *de dicto* and *de re*) is entirely compatible with hardcore essentialism. It only goes so far though. So far we've explained only the context-shift in speech 1'. However, speech 2' requires a different treatment. Let's assume for the argument's sake that human persons are essentially organisms. Speech 2' says that Peter could've failed to be an organism. That claim is false as long as we're quantifying over all the possible worlds or some restricted set of them – there's no possible world where Peter isn't an organism.

One option for us is just to say that speech 2' is not entirely true, since it includes a false claim. Sullivan might ask: if it is false, why does it sound felicitous? But we don't think that speech 2' sounds felicitous; it sounds to us rather bad. Speech 2 does sound felicitous. But we feel no temptation to conflate 2 and 2', and we've already argued that the felicity of 2 poses no special problem for the hardcore essentialist.

But there's a second option for the hardcore essentialist that's more concessive. On this second option, speech 2' is true. But not because the second sentence is true when "could" is understood as "metaphysically possible". Rather, on the second option, the second sentence of this speech is best interpreted as expressing *epistemic* possibility. Moreover, they sound felicitous only when interpreted this way. An epistemic possibility is a situation that we cannot rule out. Sometimes we cannot rule out things that cannot really happen. So some propositions are epistemically possible but not metaphysically possible. Speech 2' plausibly contains an example of this phenomenon: if our evidence leaves us uncertain whether Peter absolutely must be an organism, we cannot decisively say it is true; and it's in this sense (and this sense only) that it *might* be false.¹⁷

We agree with Sullivan that the truth-value of sentences that say of some given objects that they must be such-and-such ways can vary across contexts (because, in general, sentences with modal vocabulary are context-sensitive). We also agree with Sullivan that what we're trying to explain in a given context can also play a role in determining the domain of possible worlds that in turn determine the truth-conditions for the modal vocabulary uttered in that context. For example, when we're interested in giving causal explanations, we typically restrict our attention to the nomologically possible worlds. But often further restrictions are in play. Consider the sentence "Sam is essentially earthbound".¹⁸ This sentence is true in contexts in which the only worlds invoked are those nomologically possible worlds in which Sam does not leave Earth. In general, those properties that Sullivan calls "explanatorily crucial properties" often play an important role: in many

contexts, a possible world is within the domain of quantification only if objects within it instantiate those properties that are explanatorily crucial in that context. In short, what we're interested in explaining can help shape the truth-conditions for sentences employing modal expressions in the context of explanation, and we view this as a very important insight captured by Sullivan's positive proposal. We'll have more to say about Sullivan's views on explanatorily crucial properties in the next section.

4. Explanation-Relative Essentialism

After she argues against hardcore essentialism, Sullivan considers what we should say instead about ascriptions of essential features. She rejects what she calls *pure anti-essentialism*, the view that *de re* modal claims are unintelligible. She seems to agree with the hardcore essentialist that some objects must have some properties, but she thinks that the 'must' is *relative to some parameter*, rather than absolute and without qualification. She endorses *relative essentialism*, the thesis that there's at least one object and qualitative and discriminating property such that the object must (relative to some parameter) have the property if it exists.

Next Sullivan searches for the appropriate parameter. She proposes *explanation-relative essentialism*, which claims that the relevant parameter is an explanatory framework. Here's her official statement of explanation-relative essentialism:

An object *o* is essentially *P* relative to framework *E* iff: (i) *o* has *P*; (ii) in any good explanation of type *E* which involves *o*, *o* has *P*; and (iii) there are objective norms governing explanations of type *E*.

Here Sullivan identifies the essential properties (relative to a norm-governed framework) with the explanatorily crucial properties. Interpreted uncharitably, explanation-relative essentialism changes the subject. The explanatorily crucial properties are essential only in the sense that facts about an object cannot be explained without mentioning those properties. This is not the sense of 'essential' that has been traditionally discussed in philosophy. In that sense, a property is essential to an object when the object cannot exist without having the property.

Are these two senses of 'essential' coextensive? Perhaps a thing cannot (relative to a norm-governed framework) exist without a property if and only if that property must (relative to that framework) be mentioned in any good explanation involving that object. Both directions of this biconditional strike us as implausible.

Suppose we're interested in explaining why students get the grades they do, and in particular why Jasmine has a 4.0 GPA. It turns out that Jasmine studies

very hard, and in this context, any explanation of her 4.0 GPA must mention that she studies very hard. But even relative to the framework of grade explanations, Jasmine could stop studying so hard for any number of reasons, and she wouldn't thereby cease to exist. Jasmine has a property that's explanatorily crucial in this framework, but that she could nonetheless exist without.

There are also some properties that play no crucial explanatory role, which we nonetheless cannot exist without. Everyone reading this has the property of being a non-poached-egg essentially, since none of you could've been a poached egg. But it's very hard to think of a norm-governed explanatory framework in which *every* good explanation involving one of us cites the property of being a non-poached-egg. Our non-poached-egged-ness is entirely explanatorily irrelevant in most contexts. Even when the property of being a non-poached-egg is explanatorily relevant, it's never explanatorily crucial. Thus, there's a property that we cannot exist without, even though that property plays no crucial explanatory role. This is an unsurprising result from our perspective, since we did not posit essential properties because of the explanatory role they play.

Sullivan (this volume) claims that explanation-relative essentialism can explain why certain kinds of context-shifts are appropriate and others are not. According to her, speeches (1)–(2), which we discussed in the previous section, are felicitous because they involve acceptable shifts between explanatory frameworks.

We also suspect that explanation-relative essentialism is compatible with hardcore essentialism. Explanation-relative essentialism says that some objects have some properties essentially *relative to an explanatory framework*, rather than absolutely and without qualification. But Sullivan admits that 'it may be the case that some objects must have some properties in *every* explanatory context with objective norms' (58). She calls such properties *super-essential*. We think that a super-essential property would be worth calling *absolutely and unqualifiedly essential*. If that's right, explanation-relative essentialism is compatible with hardcore essentialism.

Sullivan claims that there are three differences between her view and her opponent's:

First, harder-core essentialists typically assume that facts about essences are needed to ground explanatory norms. The explanation-relative essentialist thinks facts about explanatory norms are prior. . . . Second, the harder-core essentialists assume there is only one privileged context of explanation—the metaphysical context—which determines absolute essence ascriptions. The explanation-relative essentialist thinks the metaphysical context is (at best) one among many. . . . Third, while the harder-core essentialist may think there is a single, exhaustive essential/accidental classification of an object's properties, the explanation-relative

essentialist thinks that, outside of a context of explanation, such a classification is incoherent.

(58–59)

At best, these are differences between explanation-relative essentialism and *harder-core* essentialism. Harder-core essentialism is the conjunction of hardcore essentialism and the claim that essential properties are parts of the *real natures* of objects. We're only defending hardcore essentialism, not harder-core essentialism.

At worst, there are only differences between explanation-relative essentialism and things that 'harder-core essentialists typically assume' or 'may think'. We don't think harder-core essentialism *entails* that facts about essences ground explanatory norms, or that there's only one privileged context of explanation, or that there's a single, exhaustive essential/accidental distinction. So it seems to us that even harder-core essentialism is compatible with explanation-relative essentialism.

To sum up: we believe that Sullivan has presented several interesting challenges to hardcore essentialism, but at the end of the day, these challenges have been met. Are there essential properties? We answer, 'yes'.

Notes

1. Here are three qualms about her formulation of hardcore essentialism. First: hardcore essentialism as she formulates it is committed to properties, but this seems inessential to the view itself. And, even if we accept some properties, we might not accept negative properties. But we're confident that we're essentially not poached eggs. Second qualm: her account of qualitative properties as those properties for which it's possible that more than one thing can instantiate it seems incorrect, since this account incorrectly classifies disjunctions of non-qualitative properties as being qualitative. Consider, for example, the property of being either Kris McDaniel or Steve Steward, or being a student of Phil Bricker; the latter property is not straightforwardly disjunctive, but it's also misclassified. Third qualm: a background assumption Sullivan makes is that existence is 'univocal', but one of us denies this: see McDaniel (2009, 2013) for defenses of modes and degrees of being, respectively. Given modes or degrees of being, a more subtle account of essential properties might be apt.
2. Although Lewis (1986) does not speak in terms of fundamental facts, it would be natural to see view two as a consequence of his modal realism. (Note that modal realism is compatible with hardcore essentialism; see McDaniel [2004, 2006] for versions of modal realism that incorporate hardcore essentialism.)
3. Compare with Cameron (2009) and Sider (2003).
4. Strictly speaking, the hardcore essentialist is only committed to the claim that there's some thing and some property that this thing absolutely must have if it exists. Even if, contrary to fact, we could be breakfast foods, hardcore essentialism would still be true if we absolutely couldn't be numbers, or numbers couldn't be tropes, or tropes couldn't be regions of space, or regions of space couldn't be events.
5. Lewis (1986) defends both perdurantism and absolutely unrestricted composition.
6. We can say similar things on some non-perdurantist views; see, e.g., Steen (2010).
7. Olson (2004) discusses both disjuncts.

8. Kripke (1980) famously argues for origin essentialism.
9. Category essentialism is one variety of *sortal essentialism*, defended by Wiggins (1980). We are not aware of many discussions of category essentialism. Penelope Mackie, a devoted critic of essential properties, admits that broad categories such as *number* and *event* might be essential (Mackie 2006: 166).
10. There are two potential complications. What if *past object* and *present object* are ontological categories? Note that in this, story, Battra doesn't change from being present to being past, but at some point in the future it would. What if *actual object* and *merely possible object* are ontological categories? Then anything that exists in the actual world and in another possible world would fail to belong to all its ontological categories essentially. Both of us take at least one of these possibilities seriously; see McDaniel (forthcoming, chapters 3, 4, and 9) for discussion of whether *past object*, *present object*, *possible object*, and *actual object* are ontological categories.
11. We thank Meghan Sullivan for suggesting this argument to us.
12. A classic text on counterfactuals is Lewis (1973).
13. See, e.g., Lewis (1973: ch 1).
14. We don't really want to go out on a limb here with respect to physics or its philosophy; this sentence is offered merely as an aid to illuminate the phenomenon we're discussing.
15. We do not know when this sentence first entered the philosophical literature; but see Lewis (1986: 3) for one place.
16. The "harder-core essentialist" who believes in real natures – such as Fine (1994) and Lowe (2008) among others – might deny any context sensitivity to attributions of real natures to things. But we do not think any of Sullivan's sentences are plausibly read as ascribing real natures to the things in question, and our focus is on *de re* modality throughout.
17. In personal communication, Sullivan notes that these speeches might be read as invoking epistemic possibility, and grants that this would provide the hardcore essentialist with an explanation of the felicitousness of these speeches. But she also worries that going this route won't vindicate the semantic motivation for hardcore essentialism. Perhaps this interpretation doesn't vindicate the semantic motivation for hardcore essentialism; we're indifferent to whether it does, but also not sure she is correct. We believe that not all uses of "could" or "might" in ordinary contexts must express metaphysical possibility or some restriction thereof rather than epistemic possibility. And we still think some intuitions can guide our theorizing – the ones that retain their force after critical reflection. We just don't think the alleged intuition that "could" as used in speech 2' expresses metaphysical possibility retains its force once we see the difference between epistemic and metaphysical possibility.
18. We owe this example to Sullivan.

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