The Limits of Neo-Aristotelian Plenitude (and its Conceptual Neighbors)

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Abstract

Neo-Aristotelian Plenitude is the thesis that, necessarily, any property that could be had essentially by something or other is had essentially by something or other if and only if and because it is instantiated; any essentializable property is essentialized iff and because it is instantiated. In this paper, I develop a partial non-modal characterization of "essentializable" and show it cannot be transformed into a full characterization. There are several seemingly insurmountable obstacles that any full characterization of essentializability must overcome. Moreover, these obstacles threaten other views in the conceptual neighborhood such as Counterpart Theoretic Plenitude and Conceptualist Plenitude.

1. Introduction

Here's a hard question. What are the metaphysically necessary and sufficient conditions any x and any F must satisfy in virtue of which it would be true that x is essentially F? Here's a (perhaps) slightly easier question. What are the metaphysically necessary and sufficient conditions any F must satisfy in virtue of which it would be true

that *something or other* is essentially F? Let's call the first question "The General Essentialist Question" and the second "The Special Essentialist Question".[1]

If the concept of an essential property were incoherent or empty, as the anti-essentialist would have us believe, then we could eschew these two questions altogether.[2] If the concept of an essential property were minimal so that, for example, only trivial properties that follow from logical or mathematical or conceptual truths were essential, then we could perhaps answer both questions without much fuss. And if the concept of an essential property were maximal so that every object had every one of its properties essentially, then we could perhaps answer both questions, albeit with heavy hearts.[3] But, few of us think the concept of an essential property is incoherent or minimal or maximal. Since the latter half of the last century, many people have taken certain objects to have some non-trivial properties essentially and others only accidentally. For example, many people think an organism is essentially initially constituted by roughly the matter that in fact initially constitutes it; but I doubt many think an organism is essentially *finally* constituted by roughly the matter that in fact finally constitutes it.[4]

If some things have some of their non-trivial properties essentially and other properties non-essentially, then we cannot answer The General Essentialist Question either minimally or maximally. But what about The Special Essentialist Question? Well, since some objects have some of their non-trivial properties essentially, we can't answer The Special Essentialist Question minimally. But, it turns out, even though some things have some of their properties non-essentially, that doesn't rule out a maximal answer to The Special Essentialist Question. My first cat was merely accidentally finally constituted by a particular portion of matter at the end of her life. But that doesn't mean that nothing was

essentially finally constituted by that portion of matter. That something, if it existed, would just have been distinct from my cat.[5]

Neo-Aristotelian Plenitude is one sort-of maximalist thesis according to which, necessarily, for *nearly* any property, F, F is had essentially by something or other if and only if and because F is instantiated.[6] That's a rough statement anyway. Why, one might wonder, is the thesis qualified to just *nearly* every property? Well, there are certain obvious counterexamples to a fully maximalist thesis. Consider, for example, the property of being both identical to Descartes and existing after 1649. This is a property that Descartes instantiated very briefly in 1650. So, if an unqualified fully maximalist response to The Special Essentialist Question were correct, then something would have had that property essentially. But that something couldn't have been Descartes since Descartes only accidentally existed after 1649; he might have died a few months earlier than when he in fact died. But that something couldn't have been distinct from Descartes either since anything that was essentially both identical to Descartes and existing after 1649 was identical to Descartes. For another example, consider the property of being an indoor cat. This is a property that my cat instantiates. But he does not instantiate it essentially, for he could have been an indoor/outdoor cat (and would have been had I been a less cautious pet owner). Nor, arguably, does anything instantiate it essentially since nothing that's essentially indoors could have been a cat; any particular cat who happens to be an indoor cat could have been an indoor/outdoor cat.[7]

So, it seems that the qualification is in order. But what does the qualification amount to? How should Neo-Aristotelian Plenitude be more precisely stated? Let's call any property that could be had essentially an *essentializable* property and any property that is

had essentially an *essentialized* property. Then, given that nearly every property is essentializable, Neo-Aristotelian Plenitude can be stated as the thesis that, necessarily, for any essentializable property, F, F is had essentially by something or other iff and because F is instantiated; that is, necessarily, any essentializable property is essentialized iff and because it is instantiated. Neo-Aristotelian Plenitude explains what it is in virtue of which a property is essentialized, but the explanation is empty without at least a partial and non-trivial characterization of which properties are essentializable; a partial characterization, that is, that verifies the antecedent condition that nearly every property is essentializable and, preferably, that employs only non-modal concepts. I will return to this issue later and show that this is a significant obstacle to formulating and defending a viable version of Neo-Aristotelian Plenitude. Moreover, although I will be primarily focusing on Neo-Aristotelian Plenitude in this paper, there are several other views in the conceptual neighborhood that have the same sorts potential benefits and face the same sort of obstacle as Neo-Aristotelian Plenitude. This conceptual neighborhood includes plenitudinous versions of both counterpart theory and modal conceptualism.[8]

Here's how the paper will proceed. In section 2, I explain two theories of essence and distinguish the conceptual question of what an essence is from The General and The Special Essentialist Questions introduced in this paper. In sections 3 and 4, I outline some of the explanatory work that can be done given Neo-Aristotelian Plenitude. In section 5, I return to the task of characterizing essentializable properties using only non-modal concepts and develop a series of obstacles to a full characterization of such properties. Finally, in section 6, I show that these problems are wide ranging and infect the conceptual

neighborhood around Neo-Aristotelian Plenitude, including a plenitudinous counterpart theory and a plenitudinous modal conceptualism.

2. The Shape of Things to Come

It's important to distinguish the work that's already been done from the work that's yet to come. Many philosophers, for example, endorse The Modal Analysis of Essentiality:

Necessarily, for any x and for any F, x is essentially F iff necessarily, x is F.[9]

Some dissenters have pointed out that some properties necessarily possessed by certain objects are nevertheless accidental properties of those objects. For example, the property of being a member of the singleton set containing Obama is one that Obama necessarily possesses but also, arguably, is merely an accidental property of Obama. The dissenters usually endorse something like The Real Definition Analysis of Essentiality:

Necessarily, for any x and for any F, x is essentially F iff F is part of the real definition of x.[10]

One might think these analyses *are* answers to The General Essentialist Question. And if they were, then certain logical implications of these analyses would be answers to The Special Essentialist Question. Hence, one might think, the questions asked at the beginning of this paper have already been thoroughly explored.

However, I disagree with that line of reasoning. Let me introduce a framework for thinking about these sorts of issues. An analysis is not an account of the metaphysically necessary and sufficient conditions any x and any F must satisfy *in virtue of which* it would be true that x is essentially F. And simple logical implications of such analyses will not be accounts of the metaphysically necessary and sufficient conditions any F must satisfy *in virtue of which* it would be true that something is essentially F.

An *analysis* tells us how various concepts are constitutively connected to one another. An analysis is informative insofar as the conceptual connections are opaque to us and explanatory insofar as the analyzing concepts are more conceptually basic than the analyzed concepts. But conceptual frameworks might easily vary from one possible species to another. If which concepts are conceptually basic depends on one's conceptual framework, then which analyses are informative or explanatory can similarly vary from one conceptual framework to another.

The General and Special Essentialist Questions ask for *accounts* of how certain properties and facts generate other properties and facts. Accounts are metaphysically explanatory and, in some sense, independent of conceptual framework. They will be informative insofar as they reveal connections, between properties or facts, that are opaque to us. They are explanatory insofar as they involve vocabulary that refers to (relatively) fundamental entities that together constitute (relatively) fundamental facts in virtue of which less fundamental target facts obtain. The fundamentality of properties and the explanatory connection between fundamental facts and non-fundamental facts are not dependent on conceptual frameworks and do not vary from one possible species to

another. Finally, we might hope that an account of essentiality will help us to see whether and to what extent the concept of an essential property is maximal or minimal.[11]

Neo-Aristotelian Plenitude gives us an account of which properties are essentialized using the more fundamental relation of instantiation.[12] According to Neo-Aristotelian Plenitude, the fact that an essentializable property is essentialized obtains in virtue of the fact that it is instantiated. It's worth noting that Neo-Aristotelian Plenitude is compatible with either The Modal Analysis or The Definitional Analysis of Essentiality. Given The Modal Analysis, according to Neo-Aristotelian Plenitude, for every instantiated essentializable property, there is something such that necessarily, it has that property. Given the Definitional Analysis of Essentiality, for every instantiated essentializable property, there is something that has that property as part of its real definition. For most of the remainder of this paper I will remain neutral about which analysis of essentiality is correct.

One of my goals in this paper is to show how challenging it can be to come up with a non-modal *partial characterization* of the concept of an essentializable property. A *characterization* of a concept, C, as I will understand it, is a statement of the (minimal) metaphysically necessary and sufficient conditions any object must satisfy in order for it *to be true* that it falls under C. A *partial characterization* of a concept, C, is a statement of either some (minimal) metaphysically necessary or some (minimal) metaphysically sufficient conditions an object must satisfy in order for it *to be true* that it falls under C. Characterizations or partial characterizations can be informative insofar as they reveal conceptual or metaphysical connections that are opaque to us. But characterizations do not provide explanatory conditions. Analyses and accounts, on the other hand, are meant to be

both informative *and* explanatory (analyses are conceptually explanatory and accounts are metaphysically explanatory).

3. Identity, Persistence, and Constitution

Even though no one has thoroughly explored the Neo-Aristotelian answer to The Special Essentialist Questions, some philosophers have scouted its frontiers. Before I investigate the notion of an essentializable property, I'd like to note some of the pioneers who first forged the path we are about to clear. Early explorations of Neo-Aristotelian Plenitude are closely connected to problems of identity, persistence, and material constitution. Why? Well, although not officially part of Neo-Aristotelian Plenitude, there's a *lurking idea* that whenever and wherever there's an essentializable F, there is an object, either identical to that F or co-located with that F, for as long as it is F, which is itself essentially F. Neo-Aristotelian Plenitude, when augmented with this thesis about location, is particularly well suited to deal with puzzles of identity, persistence, and material constitution.

Consider The Ship of Theseus Puzzle.[13] The Ship of Theseus was brought to the harbor of Athens and, over the course of 1000 years, each of the 1000 planks of wood that composed the ship were replaced one by one. At the end of the 1000 years, there was still a ship in the harbor, but one that was composed of completely different planks than the ship that entered the harbor 1000 years before. Moreover, at the end of those 1000 years, the old planks—which were saved—were assembled into a duplicate of the ship in the harbor. The puzzle, then, is which of the two ships present at the end of those 1000 years was The Ship of Theseus?

If Neo-Aristotelian Plenitude is correct, then (given the lurking idea) we *could* say that each of the ships in the harbor at the end of those 1000 years was *an* object in the harbor at the beginning of those 1000 years. The Ship of Theseus, on this view, was co-located with another object—in fact, many other objects—when it first entered the harbor. At least one of those objects had the essentializable property of being composed of those 1000 planks—the planks that composed The Ship of Theseus when it entered the harbor—essentially. That object, at the end of those 1000 years, was in the harbor and composed of those same 1000 planks. Another object did not have that property essentially and, at the end of those 1000 years, was in the harbor composed of 1000 replacement planks.[14] Which of these objects *was* a ship when it entered the harbor? Which of these objects *was* The Ship of Theseus when it entered the harbor? It's arguably indeterminate. We just haven't settled whether "ship" applies to the kind of object that goes where its parts go, when there is both an object that undergoes gradual replacement of those parts and an object that retains those parts. If we haven't settled whether "ship" applies to one kind of object or the other, then similarly we haven't settled whether "Ship of Theseus" applies to one of those objects or the other. And what can we know in The Ship of Theseus circumstances? We can know things that are determinate; like that each of the objects in the harbor at the end of the 1000 year period was in the harbor at the beginning of that period.

Consider The Problem of Temporary Intrinsics. A ball undergoes intrinsic change. It was blue, let's say, and now it is green. The tense, though, should drop out upon analysis. After all, tense is not a fundamental feature of the world (or so people claim). But what, then, is the proper analysis of the situation? Does the ball bear the blue-at relation to one time and the green-at relation to another? Or does the ball have some complex relational

properties, blue-at-t1 and green-at-t2? Neither of those can be right since, by hypothesis, the ball undergoes a change in intrinsic properties, not relational properties or relations. So, what is right?

If Neo-Aristotelian Plenitude is correct, then (given the lurking idea) we could say that there is an essentially blue object co-located with the ball during just those times when the ball is blue and there's an essentially green object co-located with the ball during just those times when the ball is green. We can analyze the situation by claiming that the ball changes from blue to green by being co-located with the essentially blue object at one time and being co-located with the essentially green object at a later time. The tense has dropped out.[15]

Finally, consider The Problem of Material Constitution. A statue, Goliath, is formed from a lump of clay, Lump. Goliath cannot survive certain deformations, such as flattening, that Lump can survive. So, by Leibniz's Law, Goliath and Lump are distinct objects. But how can they be distinct and how is it, given that they seem to have all the same non-modal properties, that one of them can survive flattening and the other cannot?

If Neo-Aristotelian Plenitude is true, then we can say that there are lots of co-located objects in the constitution scenario. Just as an object can be a triangle in several different ways—by, for example, being equilateral, isosceles, or scalene—so too an object can be statue-shaped by being any of a number of a narrow range of more determinate shapes. Moreover, an object can be lump-shaped by being any number of a wider range of determinate shapes. In the constitution scenario, both the property of being statue-shaped and the property of being lump-shaped are instantiated. So, by Neo-Aristotelian Plenitude, each of those shapes is had essentially by something or other; each of those essentializable

shapes is essentialized. Goliath just so happens to be one of those essentially statue-shaped objects and Lump happens to be one of those essentially lump-shaped objects. It's a brute fact that they have those essential shapes, but it is not a brute fact that some things or other have those essential shapes. Moreover, we shouldn't worry about arbitrariness or anthropocentricism; *all* of the essentializable shapes in the vicinity are essentialized.[16]

4. Modal, Temporal, and Spatial Limits

Arguably, the more fundamental issues underlying the various puzzles noted above involve the modal, temporal and spatial limits of objects. The world could have been different; some objects would have existed given certain differences whereas others would not. The world will change; some objects will persist through those various changes whereas others will not. And the world varies across space; some objects extend beyond those variations whereas others do not. Call the differences, changes, or variations that limit an object's modal, temporal, and spatial extent "substantial" and those that do not "accidental". A longstanding metaphysical problem involves demarcating the substantial differences, changes, and variations from the merely accidental ones. But we are in a position to state special and general versions of this problem. We might ask the following General Limit Questions:

➢ What are the metaphysically necessary and sufficient conditions any F and any x must satisfy in virtue of which if x had not been F, then x would not have existed?
➢ What are the metaphysically necessary and sufficient conditions any F and any x must satisfy in virtue of which x will cease to exist when it no longer instantiates F?

➢ What are the metaphysically necessary and sufficient conditions any F and any x must satisfy in virtue of which x is located only where F is instantiated?

Maximal answers to these questions are (roughly) ones according to which, for any x and any F, x's merely instantiating F is the condition in virtue of which x is modally, temporally, and spatially limited by F. All of an object's properties are substantially limiting for that object; if any object has modal, temporal, or spatial extent at all, on this view, it must be modally, temporally and spatially homogeneous. Minimal answers are ones according to which, for any x and any F, there are no conditions in virtue of which x is modally, temporally or spatially limited by F. No properties of any object are substantially limiting for that object; all objects, on this view, are necessary, eternal, and ubiquitous. Clearly, neither of these views is very plausible. So, either there are no answers to the questions above and if any property is substantially limiting to an object, then it's just a brute fact that it is so limiting, or some moderate answers are correct. But brutal or moderate responses to The General Limit Questions risk arbitrariness or anthropocentricism. Why, for example, should the property of being cat-shaped substantially limit my cat and not the property of being furry? What makes being cat-shaped special in a way that being furry is not? And why does it just so happen that my cat is substantially limited by the very properties we happen to think limit cats and not by some other properties?[17]

How might we avoid arbitrariness and anthropocentricism? We might start by answering these Special Limit Questions:

➢ What are the metaphysically necessary and sufficient conditions any F must satisfy in virtue of which *something* is such that if it had not been F, then it would not have existed?

➢ What are the metaphysically necessary and sufficient conditions any F must satisfy in virtue of which *something* will cease to exist when it no longer instantiates F?

➢ What are the metaphysically necessary and sufficient conditions any F must satisfy in virtue of which *something* is located only where F is instantiated?

Maximal answers to these questions are (roughly) ones according to which, for nearly any F, merely being instantiated is the condition in virtue of which something or other is modally, temporally, and spatially limited by F. Nearly all properties are substantially limiting for something or other. Maximal answers to The Special Limit Questions are consistent with moderate answers to The General Limit Questions. Moreover, Maximal answers to The Special Limit Questions help to defuse the charge of arbitrariness or anthropocentricism. After all, even though my cat is not substantially limited by the property of being furry, *something* is substantially limited by that property given that it's instantiated. In fact, for roughly any property instantiated by my cat, something is substantially limited by that property. It just so happens that of the many things that are in the vicinity of my cat, we are only interested in the cat. Arbitrariness and anthropocentricism are thus avoided.

Moreover, Neo-Aristotelian Plenitude nicely ties this whole package together. Given, that is, the plausible assumption that those essential properties of an object that are instantiated in modal, temporal, or spatial locations are modally, temporally, or spatially

limiting to that object. Using the language I introduced above, we can say the following: necessarily, all essentializable properties are essentialized iff and because they are instantiated; all essentialized properties are substantially limiting iff and because they are essentialized; and all the essential properties of an object are substantially limiting iff and because they are essential to that object. If we can provide a plausible non-modal characterization of essentializable properties on which it turns out that nearly all properties are essentializable, then we will have plausible maximalist answers to all of our substantial limit questions; the whole metaphysical package is tied up with a nice Neo-Aristotelian bow.

5. Essentializability

Let's return, then, to essentializability. How might we non-modally characterize or at least partially characterize the notion of an essentializable property so that nearly every property is essentializable? It cannot be that every property is essentializable for, as I mentioned in the introduction, neither the property of being both identical to Descartes and existing after 1649 nor the property of being an indoor cat is essentializable.

Yablo (1987) recognized problematic cases like the two above and his discussion strongly suggests the following partial characterization:

> Necessarily, for any property, F, F is essentialisable only if F is not a property generated by a non-trivial series of Boolean operations involving an identity property or a kind property.[18, 19]

Since the property of being both identical to Descartes and existing after 1649 is generated by a Boolean operation involving the property of being Descartes, it is excluded from being essentializable. And since the property of being an indoor cat is plausibly generated from a Boolean operation involving the kind property of being a cat it, too, is excluded.

But can it handle other, less clear, cases? Consider the property of being a father. This is a property that my brother instantiates. But he does not instantiate it essentially. Nor, arguably, does anything instantiate it essentially. For, as far as we know, anything that's *actually* a father is a biological organism and any biological organism could have existed without being a father. Is this property excluded by the partial characterization noted above? It depends on whether the property of being a father is generated by a series of Boolean operations involving a kind property. Perhaps the property of being a biological organism is a kind property and the property of being a father is generated by some series of conjunction operations involving the property of being a biological organism. But even if all fathers are biological organisms, might there have been non-biological fathers? Perhaps there could have been robotic creatures equipped to reproduce.[20] If there had been such creatures, then maybe some of them could have been fathers. Or perhaps there could have been immaterial or supernatural beings—such as gods, demigods, or angels—again, equipped to reproduce.[21] If there had been such creatures, then maybe some of them could have been fathers. If there could have been robotic fathers or supernatural fathers, then the property of being a father is not generated from the kind property of being a biological organism. Though, perhaps, it is generated by operations of disjunction and conjunction on all the possible creature kinds that could be fathers.

Unfortunately, the partial characterization noted above is incorrect and cannot be saved by taking on surprising yet not implausible commitments about the structures of various properties. Here's why. Some properties are clearly generated by a non-trivial series of Boolean operations involving identity and kind properties even though they seem to be essentializable. Consider the property of being both Descartes and human-shaped— where something is human-shaped when it has any of the possible determinate shapes that could be had by a human. This seems like an essential property of Descartes—and, hence, it is essentializable—and yet it's generated by a non-trivial series of Boolean operations involving an identity property. This is a significant problem for any characterization of essentializable properties. A good characterization must rule out the property of being both identical to Descartes and existing after 1649, while not ruling out the property of being both identical to Descartes and human-shaped.[22, 23] This is a problem I cannot solve.

Let's transition to another, independent, problem for those who wish to characterize essentializable properties. This problem is modeled after Fitch's (1963) paradox of knowability and involves two plausible principles about essential properties. First, there's "The Distribution of Essentiality":

Necessarily, for any x, F, and G, if x is essentially both F and G, then x is essentially F and x is essentially G.

Second, there's "The Factuality of Essentiality":

For any x and F, if x is essentially F, then x is F if x exists.

It's worth noting that these two principles seem plausible regardless of which analysis of essentiality turns out to be true. If the modal analysis is true, then The Distribution of Essentiality turns out to be the simple modal principle that, necessarily, for any x, F, and G, if it's necessary that x is both F and G, then it is necessary that x is F and it is necessary that x is G. Moreover, the Factuality of Essentiality turns out to be the simple modal principle that, necessarily, for any x and F, if it is necessary that x is F, then x is F. Both of these are provable given fairly minimal modal assumptions in a rich enough modal language.[24] On the other hand, given The Definitional Analysis, The Distribution of Essentiality turns out to be the very plausible principle that, necessarily, for any x, F, and G, if it's part of the real definition of x that it is F and G, then it is part of the real definition of x that it is F and it is part of the real definition of x that it is G. After all, if one were to write down the real definition of an object and include the claim that that object is both F and G, then one would thereby include the claim that it is F and the claim that it is G. The Factuality of Essentiality turns out to be the very plausible principle that, necessarily, for any x and F, if it is part of the real definition of x that it is F, then x is F if x exists. After all, an object must satisfy its own real definition.[25]

　　We can now generate properties that are not essentializable. Let's start by constructing a property and assuming, for reductio, that it is essentializable. Consider my orange cat, Wesley, who is both orange and not essentially orange. Assuming for reductio that being both orange and not essentially orange is essentializable, it follows that (1) possibly, there is an x such that x is essentially both orange and not essentially orange. From the Distribution of Essentiality it follows that (2) possibly, there is an x such that x is

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essentially orange and x is essentially not essentially orange. And from The Factuality of Essentiality it follows that (3) possibly, there is an x such that x is essentially orange and x is not essentially orange. But, by logic alone, we know that (4) there is no such possible x. And, so, our reductio assumption that the property in question is essentializable is false.

Following Tennant (1997), let's say that a property, F, is Cartesian iff the claim that something is essentially F isn't provably inconsistent using logical and conceptual truths alone. Then, the argument above suggests the following partial characterization of essentializability:

Necessarily, for any property F, F is essentializable only if F is Cartesian.

The property of being both orange and not essentially orange is not Cartesian since the claim that something is essentially both orange and not essentially orange is provably inconsistent. At least, it is provably inconsistent given the two principles, the two arguably *conceptual truths*, about essential properties. Moreover, this partial characterization is not ad hoc. There are properties it correctly rules out of being essentializable that have nothing to do with the Fitch-style argument noted above. Consider the property of being blue and not extended. The partial characterization correctly rules that property out as essentializable since it is not Cartesian; the claim that something has that property essentially is provably inconsistent (given certain conceptual truths). From the claim that something is essentially both blue and not extended, it follows by The Distribution and Factuality of Essentiality that it is both blue and not extended. But it is a conceptual truth that everything blue *is* extended. It follows that something is both extended and not

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extended. Hence, the property is not Cartesian and, by the partial characterization introduced above, not essentializable.[26]

Could we take this new partial characterization of essentializability to be a *full* characterization? I think not for two reasons. First, as we noted above, the property of being both identical to Descartes and existing after 1649 is not essentializable. But it *is* Cartesian; the claim that something has that property essentially is not provably inconsistent. Hence being Cartesian is not sufficient for essentializability.

Second, we can generate a property that is both Cartesian and *not* essentializable. Here's how.[27] Let *n* be the number of whiskers actually on Wesley's head. The fact that Wesley actually has n whiskers on his head is invariant across possibilities, but its denial is neither logically nor conceptually inconsistent. So, the property of being both orange and such that if essentially orange, then Wesley does not actually have n whiskers on his head is Cartesian. So, let's assume for reductio that being Cartesian is sufficient for essentializability. It follows, then, that (1) possibly, there is an x such that x is essentially both orange and if essentially orange, then Wesley does not actually have n whiskers. But by The Distribution of Essentiality it follows that (2) possibly there is an x such that x is essentially orange and x is essentially such that if it is essentially orange then Wesley does not actually have n whiskers on his head. By the Factuality of Essentiality if follows that (3) possibly, there is an x such that x is essentially orange and x is such that if it is essentially orange, then Wesley does not actually have n whiskers on his head. It logically follows that (4) Wesley does not actually have n whiskers on his head.[28] But, even though we have not derived an inconsistency, we have derived a falsehood. For, given our initial stipulation, (5)

Wesley does *actually* have n whiskers on his head. So, our reductio assumption is false; there are some Cartesian properties that are not essentializable.

6. The Conceptual Neighborhood

It turns out to be quite difficult to non-modally characterize the notion of an essentializable property. We have seen one failed attempt at a non-modal characterization and, perhaps, one successful attempt at a non-modal partial characterization. Moreover, we have shown that that putatively successful partial characterization cannot be a full characterization. Given our current state, we might think that Neo-Aristotelian Plenitude, which tries to explain what it is in virtue of which a property is essentialized in terms of instantiation and essentializability, is in fact *nearly* explanatorily empty; if we can't provide more than a minor partial characterization of the notion of an essentializable property, then we haven't gained much ground on The Special Essentialist Question. So, much the worse, someone might conclude, for Neo-Aristotelian Plenitude. I agree. However, I want to suggest that there are popular conceptual neighbors to Neo-Aristotelian Plenitude that have similar problems.

Suppose we adopt a counterpart theoretic approach to de re modal predication and take every de re modal claim to be relativized to a counterpart relation. Then we might say, for example, that my cat is necessarily cat-shaped under a counterpart relation, C, iff every C-counterpart of my cat is cat-shaped. Then adopting a (relativized) variant of the modal analysis of essentiality, we might say that my cat is essentially cat-shaped under a counterpart relation, C, iff every C-counterpart of my cat is cat-shaped. My cat, on this view,

is substantially modally limited, under the counterpart relation, C, by the property of being cat-shaped.[29]

We can now ask variants of the various questions we have been investigating throughout this paper and, in order to avoid arbitrariness and anthropocentricism, we should be forced to adopt maximalist responses to those questions. The result is Counterpart Theoretic Plenitude:

> For *nearly* any property, F, F is had essentially by something or other under some counterpart relation or other if and only if and because F is instantiated.

But the defender of Counterpart Theoretic Plenitude must demarcate those properties that are essentialized under a counterpart relation when instantiated from those that are not; the defender must characterize the property of being essentializable under some counterpart relation or other. Counterpart Theoretic Plenitude faces the same problem, here, as Neo-Aristotelian Plenitude.

Suppose we adopt a contemporary conceptualist approach to modality; one that can accommodate necessary truths that are not a priori, analytic, nor otherwise conceptual. A simple relativized version of this view might say, first, that all conceptual truths within a particular conceptual schema are necessary under that schema; second, some truths are necessary under a conceptual schema because they follow ampliatively, when combined with certain matters of fact, from conceptual truths within that schema. So, for example, since it's a conceptual truth that all cats are mammals under our current conceptual schema, it is also a necessary truth that all cats are mammals under our schema. And since

it is a conceptual truth under our schema that every cat has (roughly) the genetic makeup

he in fact has and it's a matter of fact that Wesley has a particular genetic makeup G, it

follows that, necessarily, Wesley has genetic makeup G under our schema. Finally, if we

adopt the modal analysis of essentiality, it follows that Wesley essentially has genetic

makeup G under our schema.[30]

We can, again, ask variants of the various questions we have been investigating

throughout this paper and, in order to avoid arbitrariness and anthropocentricism, we

should adopt maximalist responses to those questions. The result is Conceptualist

Plenitude:

For *nearly* any property, F, F is had essentially by something or other under some

conceptual schema or other if and only if and because F is instantiated.

It should be clear at this point that Conceptualist Plenitude also faces the same problem as

Neo-Aristotelian Plenitude.

It seems, then, that the defenders of Neo-Aristotelian Plenitude and the defenders of

its conceptual neighbors all need to characterize essentializable properties, preferably in

non-modal terms. If the task of characterizing such properties is a problem for one of them,

then it is a problem for all of them. If we must give up on one of them because of our

inability to characterize the properties in question, then we should give up on all of them.

And that is what I am inclined to do.[31]

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[1] These questions are obviously modeled on van Inwagen's (1990) questions about composition and closely follow the form of those questions as presented by Markosian in (1998) and (2014).

[2] This may be Quine's (1953) view.

[3] Not everyone agrees on the correct characterization of essentialism. For examples of different characterizations see Quine (1953), Della Rocca (1996), Yablo (1998) and Leslie (2011). Insofar as I see a natural division between essentialists and anti-essentialists, the anti-essentialist is someone who believes that the concept of an essential property is either incoherent or (necessarily) empty. But it may be that there is no natural division and that those who characterize essentialism differently merely have a terminological disagreement.

[4] The claim that some objects have their originating matter essentially was suggested by Kripke (1980) and was more extensively discussed by Salmon in (1979) and (1981).

[5] Although there are views in the conceptual neighborhood on which it is my cat. For example, given counterpart theory, it may be that under certain unusual counterpart relations my cat is essentially finally constituted by the matter that in fact finally constituted her. More on this in section 6.

[6] Neo-Aristotelian Plenitude is (more or less) explicitly discussed by Yablo (1987), Bennett (2004), Leslie (2011), and Inman (2014). Arguably, it is the most plausible backdrop for views discussed by Fine (1999), Paul (2002), and Brower (2010) and it is lurking in the background of Matthew's (1982) interpretation of Aristotle. Another view that goes under the name "Neo-Aristotelian Plenitude" has been discussed by Hawthorne (2006a), (2006b), and (2006c). According to Hawthornean Plenitude, for any function from world, time pairs to appropriate matter filled regions, there is an object located at just those regions, during just those times, and in just those possible worlds. Arguably, Neo-Aristotelian Plenitude is superior to Hawthornean Plenitude since Neo-Aristotelian Plenitude encompasses possible non-spatiotemporal objects as well. Inman (2014) discusses other ways in which Neo-Aristotelian Plenitude is superior to Hawthornean

Plenitude. Some version of David Lewis's (1986) counterpart theory and some versions of Alan Sidelle's (1989) conventionalism are committed to something very similar to Neo-Aristotelian Plenitude. I will discuss these views in section 6.

[7] An anonymous referee has suggested that one might plausibly believe in the possibility of essentially indoor cats. A parallel case, according to the referee, might involve what Eli Hirsch calls 'incars' (1976). One might think that an incar is an exotic type of car that is essentially inside a garage. Similarly, an indoor cat, or incat, might be an exotic type of cat that is essentially inside a house. I don't believe that there are any *cars* that are essentially inside garages and I don't believe that there are any *cats* that are essentially inside houses. There are, of course, cars that are always inside garages and we might call those things 'incars'. But those cars could leave their garages and we would simply cease to call them 'incars'. Similarly, there are cats that are always inside houses and we do in fact call them 'indoor cats'. But those cats could leave their houses and, as long as they are not merely going on a temporary and accidental sojourn to the outside world, we would simply cease to call them 'indoor cats'. Korman (2015, 128-130) makes similar claims, to which I am very sympathetic, regarding islands and incars. Maybe there are things that are sometimes *colocated* with cars and that are essentially inside garages. We might call those 'incars'. But those would not be cars. They would simply be things that are colocated with cars. Similarly, maybe there are things that are colocated with cats and that are essentially inside a house. But those things aren't themselves cats. They are merely colocated with cats. Finally, I suppose that *maybe* a car could be made of some exotic matter that could not, for whatever reason, leave a garage without completely and immediately decaying into its fundamental particles. Similarly, *maybe* a cat could be made of some exotic matter that could not, for whatever reason, leave a house without completely decaying into its fundamental particles. If there were such a thing, then it might be an essentially indoor cat. But since, in fact, there is no such exotic matter in our universe, there are no such exotic cats either.

[8] I primarily have in mind views like those of Lewis (1986) and of Sidelle (1989).

[9] A slightly more sophisticated variant of The Modal Analysis says that, necessarily, for any x and for any F, x is essentially F iff necessarily, x is F if x exists. Some of what I say in the future is significantly simplified if we work with the simple modal analysis. However, nothing I say hinges on the fact that we are working with the

simple modal analysis. See Plantinga (1974) for an exposition and defense of The Modal Analysis of Essentiality.

[10] Fine (1994) defends The Real Definition Analysis of Essentiality in light of the sorts of criticisms noted above. In response to Fine's criticisms, several philosophers have developed and defended sophisticated modifications to The Modal Analysis of Essentiality. Some of these variants—including those developed by Zalta (2006), Brogaard and Salerno (2007a) and (2007b), and Denby (2014)—would make no difference in the discussion that follows. However, Wildman (2013) and Cowling (2013) have each developed variants of The Modal Analysis that's restricted to sparse properties. Such a restriction may be pertinent to the discussion that follows. However, no defender of Neo-Aristotelian Plenitude would want such a strong restriction in the first place.

[11] Some people might endorse a modal *account* of essentiality according to which, necessarily, for any x and any F, x is essentially F iff *and in virtue of the fact that*, necessarily, x is F. Similarly, some people might endorse a real definition *account* of essentiality according to which, necessarily, for any x and any F, x is essentially F iff *and in virtue of the fact that* it is part of x's real definition that x is F. On the modal account, necessity is more fundamental than and explains essentiality. On the real definition account, real definitions are more fundamental than and explain essentiality. I will not argue against these accounts in this paper. I will merely note my opinion that, even if one of these accounts is correct, it is at best fairly shallow account. Our accounts of essentiality should not bottom out with the concept of *necessity* or with the concept of a *real definition*. It seems to me that, even if one of the above accounts is correct, there must be some further conditions in virtue which a property is had essentially.

[12] We need not take seriously the idea that there is a fundamental instantiation relation here. Instead, we might say that, necessarily, for any essentializable property, F, F is essentialized iff and because there is something that is F. Neo-Aristotelian Plenitude, then, gives us an account of which properties are essentialized using more fundamental quantificational features or reality. In this way, we can avoid Bradley's Regress. I will continue to employ the notion of 'instantiation' throughout this essay. But my use of that notion need not be taken seriously.

[13] The variant presented here was first discussed by Hobbes in *De Corpore* and later presented by Chisholm (1976). One version of The Ship of Theseus puzzle and similar puzzles related to Chisholm's Paradox are discussed by Leslie (2011), who advocates a Neo-Aristotelian solution similar to the one I suggest here. Yablo (1987) uses Neo-Aristotelian Plenitude to make sense of some notion of contingent identity. Arguably, Yablo's notion of contingent identity can be extended to encompass temporary identity and, if he were to so extend it, he would be able accept the Neo-Aristotelean solution to The Ship of Theseus Puzzle discussed above. Yablo should be able to accept Leslie's solutions to the various puzzles related to Chisholm's Paradox as well.

[14] Technically, this solution requires more than just Neo-Aristotelian Plenitude and what I have called the "lurking idea". Neo-Aristotelian Plenitude and the lurking idea will get us that there is an object that is essentially composed of the original 1000 planks which is co-located with The Ship of Theseus for as long as The Ship of Theseus is composed of those 1000 planks. Neo-Aristotelian Plenitude when combined with the lurking idea is silent about whether that object, or any object co-located with the original ship, is later composed of those 1000 planks. In addition to Neo-Aristotelian Plenitude we need some analog principle of sufficientiality. Thanks to Cody Gilmore for discussing this point with me.

[15] This is roughly the solution advocated by Brower (2010). Brower's view does not entail that the objects with which the ball is co-located are *essentially* blue and *essentially* green. However, since The Problem of Temporary Intrinsics has a perfect modal analogue, The Problem of Accidental Intrinsics, it seems that the most general solution involves co-locators that have the target properties essentially. Moreover, if the first co-locator is essentially blue, then we can easily explain why it goes out of existence when the ball ceases to be blue.

[16] Bennett (2004) extensively discusses and defends this view on behalf of the constitution theorist. It should be noted that Bennett focuses on modal properties rather than essential properties. If The Modal Analysis of Essentiality is correct, then this difference is merely terminological. This view also seems to have been foreshadowed by Sosa (1987).

[17] These kinds of questions are difficult to answer and have been discussed in the literature. I will not survey various answers to these questions. Instead I will simply outline a Neo-Aristotelian sort of response. See

Mackie (2006), especially chapters 8 and 9, to see how challenging these questions can be. Thanks to an anonymous referee for pointing me toward the Mackie reference.

[18] Yablo's (1987) claims actually suggest that something is an essentializable property only if it is neither an identity property, a kind property, nor a property generated by a series of Boolean operations involving either identity properties or kind properties. Yablo has a very interesting argument about essence inclusion that motivates this stronger partial characterization. But it seems that my cat is essentially a cat and that he is essentially the particular cat that he in fact is. But being a cat and being a particular cat are, respectively, a kind property and an identity property. So, this more robust partial characterization is incorrect.

[19] If the property of being F is either a kind property or an identity property, then I do not include properties like the property of being both F and F as properties *non-trivially* generated by a series of Boolean operations on an identity property or a kind property.

[20] Such creatures are depicted in the film *Batteries Not Included*. Moreover, in the *Star Trek: The Next Generation* episode "The Offspring", Data (an android) creates a daughter. The scenarios depicted in these stories aren't obviously incoherent and might be metaphysically possible.

[21] Such beings might be depicted in many pagan religions. For example, according to Greek mythology, Athena is the daughter of Zeus. Again, it isn't obviously incoherent that such beings exist. And though it does seem less plausible to me that such beings are metaphysically possible, I wouldn't rule it out categorically.

[22] Here's another problematic case that highlights how difficult it might be to introduce a *full* characterization of essentializable properties. Consider the property of being the son of Joachim and Jeanne Descartes. I'm not sure whether this property is generated by a series of Boolean operations involving kind or identity properties. But if it is, then since René Descartes had that property essentially, the partial characterization is mistaken. If it is not generated by a series of Boolean operations, then the more complex property of being both the son of Joachim and Jeanne Descartes and existing after 1649 is a property that is not essentializable—for any possible child of Joachim and Jeanne Descartes could have died before 1649—and yet it is not ruled out as essentializable by the partial characterization suggested above. This case makes it clear just how difficult it might be to formulate a full characterization of essentializable properties. For we want to allow that the property of being the son of Joachim and Jeanne Descartes is essentializable, since it is

essentialized, and yet we want to rule out the property of being both the son of Joachim and Jeanne Descartes and existing after 1649 as essentializable since any of their possible children might have died before the end of 1649. It's just not clear how we can get both of these results under a full characterization. An anonymous referee has suggested that we might hold onto a Yablo-style characterization of essentializable properties that's restricted to intrinsic properties and reject theses like the Essentiality of Origins. That suggestion is certainly worthy of further consideration. But, since I agree with the Essentiality of Origins, I will not consider the suggestion any further at this time.

[23] Better yet, some people seem to think it's an essential property of Descartes that he was born sometime around 1596. After all, it is a short step from certain origin essentialist principles, such as the principle that objects have their causal origins essentially, that objects essentially originate around the times during which they actually originate. If that is correct, then we must find a characterization of essentializability that rules out the property of being both identical to Descartes and existing after 1649, while not ruling out the property of being both identical to Descartes and first existing around 1596. This seems like an exceedingly difficult task. Some authors who may believe in something like the relevant principle of origin essentialism, and hence might be committed to a kind of time of origin essentialism, include Kripke (1980), Salmon (1981), and Almog (1996).

[24] For example, the language must be rich enough to express complex predicates in order to correctly capture The Distribution of Essentiality.

[25] An anonymous referee has suggested that certain impossible objects may be counterexamples to The Factuality of Essentiality. For example, it might be part of the real definition of a round square that it is both round and a square. But given that it is impossible for anything to be both round and a square, it does not follow that the round square is both round and a square if it exists. I respond that if it is part of the real definition of a round square that it is both round and a square, then it does follow that it is both round and square if it exists. Luckily, no such object exists (or even could exist). Nathan Wildman (forthcoming) has argued against a principle he calls EF, which is closely related to The Factuality of Essentiality. However, The Factuality of Essentiality is roughly equivalent to Wildman's EF*, which Wildman says avoids the problematic results associated with EF.