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A Return to the Analogy of Being

KRIS MCDANIEL
Syracuse University

1. Introduction

Recently, I've championed the doctrine that fundamentally different sorts of things *exist* in fundamentally different ways.[1] On this view, what it is for an entity to *be* can differ across ontological categories.[2] Although historically this doctrine was very popular, and several important challenges to this doctrine have been dealt with, I suspect that contemporary metaphysicians will continue to treat this view with suspicion until it is made clearer when one is warranted in positing different modes of existence.[3] I address this concern here.

The question of when to posit ways of being is closely related to a more general question: when should one think that some philosophically interesting expression is *analogous*? Accordingly, my strategy here is as follows. First, I briefly explain my interpretation of *ontological pluralism*, the doctrine that there are ways of being.[4] Second,

[1] See McDaniel (forthcoming-1).

[2] In what follows, I will use "existence" and "being" more or less interchangeably. Some friends of ways of existence have wanted to distinguish two ways of existing, one of which they label "being", the other "existence." Although I have no quarrel with these friends, I don't think this terminological choice is helpful in this context, and so here I won't follow suit. Similarly, I do not distinguish between what there is and what has being.

[3] In McDaniel (forthcoming-1), I discuss an interpretation of Heidegger according to which Heidegger holds that there are modes of being. Along the way, Aquinas, Aristotle, Brentano, Meinong, Moore, Russell, Ryle, and others are discussed. Additionally, McDaniel (forthcoming-1) addresses some objections to the doctrine and provides contemporary applications of the theory that there are modes of being. See also Jason Turner's (ms) interesting paper in which he raises and dismantles a number of important logical and metaphysical challenges to the doctrine that there are ways of being, as well as providing an account of a logic of ways of being.

[4] In McDaniel (forthcoming-1), the view was unnamed. Jason Turner (ms) has since dubbed the view *ontological pluralism*. Since Turner's terminological choice is evocative and appropriate, I will adopt it here as well.

I introduce the notion of an *analogous* term, and show how, on most ways of implementing ontological pluralism, "existence" is analogous. Third, I discuss two sufficient conditions for when one is warranted in claiming that a philosophically interesting term is analogous. Fourth, I present a series of ontological schemes, each of which satisfies at least one of the sufficient conditions. The upshot is this: if you are attracted to one of these ontologies, you have some reason to believe in ways of being.

The careful reader will have noted the apparent modesty of my conclusion. Unfortunately, I do not believe that one could ever be rationally *required* to believe in ways of being. Still, in general a metaphysic is a live option to the extent that it is shown to be rationally permissible to believe. Since the apparent consensus among contemporary analytic metaphysicians is that believing that things can exist in different ways is silly or confused, establishing the rational permissibility of belief in ways of being is a non-trivial task. Let us begin.

2. A Primer on Ways of Being

Here are two popular views, one about "existence" and the other about existence.

View one: the meaning of "existence" in ordinary English is fully captured by the existential quantifier of first-order formal logic. The meaning of "existence", on this view, can be completely specified by saying which inferences containing the quantifier are valid. Those inferences are the ones validated by first-order logic. On this view, if you want to know what "existence" means, you need to study the logic of quantification. Call view one the *neo-Quinean thesis*.[5] View two: existence is a property, but not of individuals. Instead, existence is a second-order property of concepts, propositional functions, or properties.[6] Because nothing in what follows turns on whatever differences there might be between concepts, propositional functions, or properties, let's focus on the view that existence is a property of properties. Call this thesis the *Kant-Frege* thesis.[7] Contrary to what one might initially

[5] It is doubtful that Quine ever held the neo-Quinean thesis, since the thesis is true only if a term in one language – English – is synonymous with a term in a distinct language, the language of formal logic. But contemporary neo-Quineans abound; see van Inwagen (2001) for an example.

[6] A related view is that *existence* and the various modes of existence are second-order properties of facts or states of affairs. This view seems to be endorsed by Husserl (1901).

[7] For Kant's statement of the Kant-Frege view of existence, see Kant (1787: B628); for Frege's statement, see Frege (1980: 48-50).

think, both the neo-Quinean thesis and the Kant-Frege thesis are compatible with the doctrine that there are ways of being.

Let's focus on the Kant-Frege thesis first, according to which existence is a property. What kind of property? Not all properties are metaphysically on a par: there are properties and then there are *properties*. Following David Lewis (1983, 1986), let us distinguish between the *perfectly natural* properties and the rest. Perfectly natural properties carve nature at the joints; things are objectively similar or dissimilar to each other in virtue of the distribution of the perfectly natural properties (and relations). Being negatively charged might be a perfectly natural property, but being negatively charged or having a sister who is a brilliant lawyer certainly is not. The latter property is a merely disjunctive property. The notion of a merely disjunctive property is intimately connected with Lewis's notion of naturalness. P is a mere disjunction of Q and R only if (i) necessarily, something has P if and only if it has either Q or R, and (ii) P is less natural than both Q and R.[8]

Likewise, the notion of a merely negative property is also intimately connected with the notion of naturalness. Suppose you have two properties, P and Q, such that, necessarily, something has P if and only if it lacks Q. P and Q are incompatible properties, but in virtue of what is one of them the negative property while the other is the positive? The natural thing to say is that P is a positive property and Q is a negative property only if P is more natural than Q.

The notion of naturalness applies to any property. Accordingly, we can ask cool questions about the naturalness of second-order properties, such as "is being a property a natural property?" and "is being a natural property a natural property?" The salient question here is, "is existence a natural property?"[9]

One way to believe in ways of being is to hold that existence is *not* a natural property. Instead, there are various natural second-order properties for which existence is (something like) the mere disjunction.[10] These other natural second-order properties can then be thought of as the ways of being. Note that one can hold that existence is not a perfectly natural property without denying that existence is a second-order

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[8] In other words, P is less natural than Q and P is less natural than R.

[9] As Robert Williams has pointed out to me, we can also ask scary questions about the framework. One such scary question is this: assume that in order to avoid property-theoretic versions of Russell's paradox, we need to postulate a trans-finite hierarchy or properties. Does paradox threaten anew if we postulate that *naturalness* is a property of properties?

[10] This way of believing in ways of being is briefly discussed in section five of McDaniel (forthcoming-1).

property. So the doctrine that there are ways of being is consistent with the Kant-Frege thesis.

Although the doctrine that there are ways of being is consistent with the Kant-Frege thesis, it is not committed to it. The friend of ways of being might hold instead that (i) existence is a first-order property of individuals, and (ii) existence is not a perfectly natural property but is rather similar to a mere disjunction of more natural first-order properties, the ways of being.

Some ontological pluralists will be unhappy with these ways of characterizing their view. I have in mind Heidegger, who famously held that *being* is not *a* being.[11] Nor, on his view, should we take talk about ways of existing to be talk about existing ways: modes of being are not beings either. And this is not because Heidegger takes the term ''being'' to apply to only some of the entities he believes in. Rather, he holds that ''being'' and ''way of being'' do not stand for entities of any sort whatsoever.

Fortunately, some recent work in contemporary meta-ontology should make it clear to analytic philosophers that Heidegger is not merely huffing and puffing. Ted Sider (forthcoming) has recently defended a framework according to which we can apply the notion of naturalness to logical vocabulary, such as ''existence'', without assuming that this vocabulary corresponds to any entities. In McDaniel (forthcoming-1), I discuss how a Heideggerian can use this framework to state the doctrine that things exist in fundamentally different ways without committing oneself to *entities* that are the ways in which things exist.

Let me briefly summarize the main moves. First, Sider notes that even the nominalist ought to distinguish between *predicates* like ''is grue'' from ''is green'' or ''is negatively charged.'' The natural way to do this is take *naturalness* to apply to predicates of a language instead of to properties.[12] Second, after arguing that the notion of naturalness can apply to predicates in a language, Sider argues that there is no good reason not to go further and apply the notion of naturalness to logical expressions such as the existential quantifier. According to Sider (forthcoming), the existential quantifier is a perfectly natural expression.[13] Third, we appeal to the notion of a *semantically primitive*

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[11] See, for example, Heidegger (1927: 26).

[12] Sider's (forthcoming) preferred framework posits a two-place operator N that converts pairs of open-sentences into closed sentences. Informally, such sentences express facts of comparative naturalness, such as ''to be an F is more natural than to be a G.'' Alternatively, one could simply take ''is perfectly natural'' and its ilk to be predicates of predicates (and perhaps other expressions). As far as I can tell, nothing in what follows turns on this issue.

[13] See also Sider (2001) and (2004) for earlier statements of this doctrine.

restricted quantifier, which is a quantifier that, in virtue of its meaning, ranges over only some of what there is.[14] A semantically primitive quantifier is *not* a quantifier defined by way of the unrestricted quantifier and a restricting predicate. Although English and other actual natural languages might not have these quantifiers, we can easily envision languages that do.[15] Fourth, in McDaniel (forthcoming-1) I formulate the doctrine that there are ways of being as the doctrine that there are possible languages with semantically primitive restricted quantifiers that are at least as natural as the existential quantifier in ordinary English. According to the interpretation of Heidegger defended in McDaniel (forthcoming-1), these quantifiers are in fact *more* natural than the existential quantifier. On this view, it would be *metaphysically better* to speak one of those languages than the languages we actually speak. Modes of being are *ontological joints*, and prima facie, a language is better to the extent that its primitive notions correspond to real distinctions.

Note that one could hold this view without holding that the ordinary English word "existence" is ambiguous or that its meaning is not captured by the existential quantifier of formal logic. So the doctrine that things exist in different ways is compatible with the neo-Quinean thesis, although one could hold that things exist in different ways while rejecting the neo-Quinean thesis.[16]

So there are (at least) two ways to coherently formulate the doctrine that things exist in different ways: one that takes the notion of ways of existence ontologically seriously, and one that does not. It will be occasionally be convenient to focus on the ontologically serious formulation, but everything that matters in what follows could be recast in terms acceptable to the nominalist. Similarly, the friend of ways of being might agree with the Kant-Frege thesis that *existence* and *modes of existence* are second-order properties, or she might hold instead that they are first-order properties.[17] It will occasionally be convenient to focus on the version of the view that existence is a first-order property, but the arguments to come could be recast so as to be in line with the Kant-Frege thesis.

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[14] The notion of a semantically primitive restricted quantifier comes from Hirsch (2005).

[15] Those who think that several senses of the word "being" or "exists" or "there is" are present in ordinary English will accept this. On the doctrine that there are several senses of "being" and the relation of this doctrine to the view that there are ways of being, see McDaniel (forthcoming-1).

[16] Heidegger appears to reject the neo-Quinean thesis. See McDaniel (forthcoming-1) and Mulhall (1996) for discussion.

[17] For a defense of the view that existence is a first-order property, see Miller (2002).

3. Analogous Properties and Analogous Terms

Broadly speaking, there have been three historical motivations for ontological pluralism. We can call these motivations the *theological, phenomenological,* and *ontological* motivations.

The theological motivation for ontological pluralism stems from two worries. First, there is the worry that God is so radically different from any created thing that no literal ascription of a feature could be true of them both.[18] But of course some literal ascriptions must be true of both God and finite creatures: it is obvious that "is a God or is a finite creature" truly and literally applies to both God and finite creatures. Accordingly, a better way of formulating the doctrine that God is radically other than His creatures is that there is no literal predication of a perfectly natural feature which is true of both God and finite creatures; God and His creatures have no fundamental properties in common. Merely disjunctive or negative predicates can be truthfully predicated of both, but these predicates are never perfectly natural, and so in some sense do not ascribe *features* to God and creatures. It follows from the assumption that "is an existent" is predicated both of God and creaturely things, that "is an existent" is not a predicate standing for something perfectly natural. The way in which God exists and the way in which creatures exist are metaphysically more fundamental than existence simpliciter.

A related theological worry stems from the doctrine of divine simplicity. The classical doctrine of divine simplicity encompasses more than the claim that God is without proper parts. Rather, there are no metaphysical distinctions between God and his attributes. If God is absolutely simple, then there is no real distinction between God's essence and God's existence, i.e., the way in which God exists. Both God's essence and God's existence are numerically identical with God himself. But in creaturely things there is a real distinction between essence and existence. Moreover, although creaturely things instantiate existence, they do not instantiate God. So the existence instantiated by creaturely things cannot be identical with the existence that is numerically identical with God. So the way in which

[18] See, for example, Aquinas's *Summa Theologica* I, q. 13. I take Aquinas to be an ontological pluralist in my sense. For a defense of the claim that Aquinas believes in ways of being, see McCabe (1969: 90-91). Cross (1999: 31-39) provides a clear and accessible introduction to medieval theories concerning kinds of existence and senses of "being."

creaturely things exist must be different than the way in which God exists.[19]

A second historical motivation for ontological pluralism is *phenomenological*. On an interpretation I favor, Heidegger claimed that different ways of existing are *given to us* in experience. Heidegger embraced the Husserlian doctrine that the job of phenomenology is to describe what is given as it is given. The phenomenologist holds that more is given in experience than objects having various "sensory" qualities such as redness, hardness or shape. In addition, *essences* are given, and can be consciously attended to.[20] Husserl also held that we have intuitions of the categorical aspects of states of affairs. For example, the state of affairs in which *everything in the room is red* might be given, along with the quantificational aspect of this state of affairs, its *allness*, as it were.[21] As I understand Husserl, various logical concepts, such as the concept of *something*, or *conjunction*, or *negation,* arise from these original experiences of aspects of states of affairs. The job of the phenomenology of logic is to show which original experiences of states of affairs give rise to the various logical concepts.

Heidegger seems to agree with Husserl that aspects of various states of affairs are given, but he holds that among those aspects that are given are the *specific ways of being*. Among the ways of being that are given are *existenz* (the kind of being enjoyed by creatures like ourselves), readiness-to-hand (the kind of being enjoyed by equipment), presentness-at-hand (the kind of being enjoyed by bits of matter), and subsistence (the kind of being enjoyed by abstract objects.)[22] Somehow from these original experiences of these modes of being we have constructed the generic concept of existence that applies to everything there is regardless of its mode of being.[23] It is hard to see how this construction was brought about; therein lies the motivation for the fundamental ontological project of *Being and Time*.

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19 See, for example, Aquinas's *Summa Theologica* I, q. 3. See Stump (1999) for a brief overview and Hughes (1989) for extensive discussion. Mike Rea has pointed out to me that a contemporary way of formulating the doctrine of divine simplicity is as the conjunction of the claims that (i) some kind of nominalism is true and (ii) the truth-maker for predications of God is always God. On this *contemporary* view, the doctrine of divine simplicity might not motivate ontological pluralism.

20 See, for example, Husserl's *Logical Investigations*, vol. I, pp. 175-176.

21 See the discussion of categorial intuition in Husserl's sixth logical investigation; this appears in volume II of the *Logical Investigations*.

22 See Heidegger's *Being and Time*, pp. 67, 97-98, 121, 258-259, 285, and 382.

23 I thank Peter Simons for helpful comments here.

In a similar vein, Meinong holds that the distinction between *subsistence* and *existence* is given and apprehended immediately.[24] On this view, modes of being are *presented to us*. A proper phenomenological description of our experience will encode information about the modes of existence of those entities presented to us.

I suspect that many contemporary metaphysicians will be unmoved by both the theological and phenomenological motivations for positing modes of being. Naturalism reigns supreme and in many circles phenomenological investigations have lost their appeal. So let us explore the ontological motivation for ontological pluralism in more detail.

Let us say that a feature is *topic-neutral* if it can apply to objects from any ontological category.[25] One topic-neutral feature is self-identity: propositions are self-identical, properties are self-identical, concrete objects are self-identical, and so forth. Let us say that a feature is topic-specific just in case there is some ontological category such that the feature cannot apply to entities in that category. Presumably, being spatially located is a topic-specific feature, since no proposition is or could be spatially located.

It will be helpful to have the following notion of relative topic-neutrality: one feature F1 is *more* topic-neutral than F2 just in case the class of kinds of things that F2 can apply to is a proper subclass of the class of kinds of things that F1 can apply to. (A feature F *applies* to a kind K just in case, possibly, something that is K is F.) This account here is not fully general, since it does not allow us to compare the relative topic-neutrality of properties whose possible extensions are completely disjoint. But it will suffice for our purposes here.[26]

Whenever we have a feature F that applies to many different ontological categories (or kinds of things more generally), there is an interesting metaphysical question: is the relatively topic-neutral feature perfectly natural (or at least highly natural) or is F akin to something like a mere disjunction of more natural, more topic-specific features?

Consider *being healthy*.[27] I am healthy, my circulatory system is healthy, and broccoli is healthy. Let us suppose that there is a common

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[24] See Meinong (1910: 58) and J.N. Findlay (1933: 74) for discussion.

[25] I help myself in what follows to the notion of an ontological category. An ontological scheme is a list of ontological categories. I assume that there is one true ontological scheme, and that every object belongs to exactly one ontological category.

[26] Note that, given these definitions, properties had by nothing at all are maximally topic-specific. Although this consequence seems harmless to me, we can easily avoid it by stipulating that both topic-neutral and topic-specific features must be exemplified by something or other.

[27] See for example, Aristotle's *Metaphysics,* book IV. See also Barnes (1995b) pp. 76-77, Witt (1989), p. 45.

property that we share.[28] Even so, that in virtue of which we exemplify this common property differs from case to case. I am healthy in virtue of being a flourishing organism, my circulatory system is healthy in virtue of functioning properly, and broccoli is healthy in virtue of its contributing to the flourishing of organisms like me. Being healthy is something like a mere disjunction whose disjuncts include *being a flourishing organism*, *being a properly functioning part of an organism*, and *being something that contributes to the flourishing of an organism*. Each of these properties is more natural than being healthy. Being healthy is an *analogous* feature: each of the 'specifications' of being healthy just listed are more natural than the 'generic' feature being feature. But being healthy is not a mere disjunction: the various specifications of being healthy are related in such a way to ensure some kind of unity. (Unlike, say, *being an electron or a female sibling*.)

Analogous features are something akin to disjunctive properties, but they aren't merely disjunctive. Analogous features enjoy a kind of unity that merely disjunctive features lack: they are, to put it in medieval terms, *unified by analogy*. Unfortunately, I don't think that I can give a criterion for when a feature is an analogous feature as opposed to a merely disjunctive feature. The following remarks give barely more than the appearance of precision, but might still be of some use. Consider two functions on sets of properties. The first function takes a set of properties to the mere disjunction of the members of that set. The second function takes a set of properties to an analogous property "derived from" the members of that set. Let us call the properties from which an analogous property is derived the *analogue-instances of* that property. Mere disjunctions and analogous properties are always less natural than their disjuncts or analogue-instances. But disjunctive properties are far less natural than their disjuncts, whereas analogous properties can be almost as natural as their analogue-instances. This gives some content to the idea that some properties are "unified by analogy" whereas others are unified by nothing more than a mere list of the actual or possible things that have them.

The relation between an analogous property and its analogue-instances is also similar to the relation between a determinable property and its determinates in that analogue-instances and determinates are both "specifications" of a "broader property." But there is one key difference: arguably, all determinates of a determinable are equally natural, and any determinate of a determinable is as natural as the

[28] On many theories of properties, such as Lewis's (1986) theory according to which any set of possible individuals is a property, there definitely is such a property.

determinable. But neither need be true of analogous properties and their analogue-instances.[29]

This way of talking presupposes that properties can be necessarily coextensive yet non-identical. Perhaps a more cautious thing to say is this: some "disjunctive" properties are less "disjunctive" than others. There are equinumerous sets of properties H and P such that each member of H is as natural as some member of P and vice-versa, yet the disjunctive property consisting of the members of H is more natural than the disjunctive property consisting of the members of P.

It is good to have a rich diet of examples. Consider *being flexible* (my aunt is flexible, my rubber chicken is flexible, my schedule is flexible) and *being elegant* (the swan is elegant, the speech was elegant, the theory of general relativity is elegant). I suspect that *x is a cause of y*, *x is an explanation for y*, and *x is a consequence of y* are all analogous relations, but I won't argue for this claim here.

An example of property that is not analogous is *being a bank**. Something is a bank* just in case it is either a river bank or a financial institution. Clearly there is a difference between *being a bank** and *being healthy*, even though it is very hard to precisely state in what this difference consists. *Being a bank** is a mere disjunction, *being healthy* is analogous. The individual ways of being healthy (the *analogue-instances* of being healthy) have something importantly in common with each other that is not captured by treating *being healthy* as a mere disjunction. Likewise, even if God's way of existing and created things way of existing are numerically distinct, these two ways of existing are similar enough to ensure that *existence simpliciter* is *not* a mere disjunction of the two. If God's way of existing and creaturely ways of existing were radically unalike, it is hard to see what would make these features ways of *existing* as opposed to just two totally different features.

Consider now the identity relation. This relation is topic-neutral and appears to be neither merely disjunctive nor analogous. Instead, it is a good candidate for being a perfectly natural logical relation.

Fortunately, little in what follows will turn on the difference between disjunctive and analogous features. The key thing to note is that, if a property *F* is analogous, then *F* is not a perfectly natural property and there are properties, the *Gs*, such that (i) each of the *Gs* is more natural

[29] Recall Aristotle's dictum that *being is not a genus*. On my reading, Aristotle held that *being* is analogous, and the various modes of being (substantival being, adjectival being, etc.) are each more fundamental than *being simpliciter*. Were *being* a genus (i.e., something like a determinable for which the various modes of being are determinates) this would not be the case. On Aristotle and *being*, see Aristotle's *Metaphysics,* book IV. Frede (1987: 84-86) defends the view that Aristotle is a friend of modes of existence.

than *F*, and (ii) necessarily, anything that exemplifies one of the *Gs* is *F*. Paradigm examples of analogous properties also satisfy a third condition: (iii) each of the *Gs* applies to fewer kinds of things than *F*.[30] Those putatively analogous features of interest to ontologists will be more topic-neutral than their topic-specific analogue-instances.

On most versions of ontological pluralism, *existence* or *being* is taken to be an analogous feature.[31] (Although God and creaturely things enjoy different modes of being, these modes must have something in common that makes them both modes of *being*.) Accordingly, if we first determine the conditions in which we should think that a philosophically interesting feature is an analogous feature (or even merely disjunctive), we should then be able to determine whether *existence* or *being* satisfies these conditions.

As a test case, let us consider the *parthood* relation. The parthood relation might not be strictly topic-neutral (do numbers have parts?), but it at least enjoys a relatively high degree of topic-neutrality. Spatiotemporal regions, material objects, immaterial souls, propositions, sets, properties, and facts have all been thought of as having part-whole structure.

On my view, parthood is analogous. I am attracted to compositional pluralism: there is more than one fundamental parthood relation. The ontological scheme that I am attracted to includes spatiotemporal regions, enduring material occupants of spatiotemporal regions, properties, and facts. This scheme motivates compositional pluralism in two ways. First, focus on material occupants and regions of spacetime. Since material objects persist by enduring, they successively occupy distinct regions of spacetime. Since a material object can gain or lose parts, material objects have parts relative to regions of spacetime. But regions do not have parts relative to regions; they have parts simpliciter.[32]

Now one *could* say that there is one perfectly natural relation that is exemplified by both regions and occupants. But note that if one does

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[30] For example, this is true of being healthy. One of the specifications of being healthy (its analogue-instances) apply to fewer kinds of things than being healthy simpliciter.

[31] Hence, the name: "the analogy of being". Some ontological pluralists, especially those philosophers who distinguish between *existence* (roughly, the way in which concrete things are) and *subsistence* (roughly, the way in which abstract things are), do not explicitly endorse the view that *being* is analogous. Some of these philosophers speak as if they do not recognize a fully topic-neutral sense of "existence" or "being." Nonetheless, the view that *being simpliciter* is analogous is a natural accompaniment to such views.

[32] For further discussion of compositional pluralism, see McDaniel (2004) and McDaniel (forthcoming-2).

say this, one must hold that this perfectly natural relation is *variably polyadic* – it is sometimes fully saturated by exactly two entities, and sometimes fully saturated by exactly three entities. Moreover, this variably polyadic relation is *systematically* variably polyadic: necessarily, parthood is fully saturated by two regions, or by two material objects and one region. Let us say that a feature F is systematically variably polyadic just in case there are ontological categories O1 and O2 such that whenever some things in O1 participate in F, exactly *n* things are necessary to fully saturate F, whereas whenever some things in O2 participate F, exactly *m* things are necessary to fully saturate F (where *n* is not the same number as *m*). Being systematically variably polyadic is an ugly way for a putatively perfectly natural relation to behave.

I am not necessarily suspicious of variably polyadic natural relations in general.[33] Rather, the thought is this: when you have a highly topic-neutral feature that behaves in a fundamentally different way when applied to objects from different ontological categories, but behaves uniformly within single ontological categories, it is not unreasonable to suspect that the more natural features are the topic-specific features defined on individual categories. Surely change of *adicity* constitutes a fundamental difference of behavior!

Let us say that the "logic" of a feature consists in those necessary truths stateable using only some term, such as a predicate or a name, standing for the feature along with purely logical vocabulary. The principles constituting the logic of a feature are principles that *govern* that feature: they apply to all possible situations in which that feature is exemplified, but explicitly mention no other qualitative features obtaining in that situation. Let us say that a feature is *systematically variably axiomatic* just in case the principles governing the feature differ systematically from one ontological category to the next. Obviously, if a feature is systematically variably polyadic, it will follow that the feature is also systematically variably axiomatic. But the converse need not hold.

Focus now on regions of spacetime and facts. Both the parthood relation defined on regions and the relation defined on facts is two-placed. One *could* say that there is one perfectly natural relation that is exemplified by both regions and facts. But note that the logic of this relation is ugly. The principles of classical mereology govern how parthood applies to regions: (i) whenever there are some regions, there is a region composed of them (unrestricted summation), (ii) whenever

[33] This is not to say that there are no arguments against taking multigrade relations to be perfectly natural. D.H. Mellor (1995: 207-28) argues that multigrade relations are not "genuine universals." See also Armstrong (1997: 85).

region r1 and region r2 are composed of the same regions, then r1 and r2 are identical (extensionality), and (iii) if *r1* is a part of *r2*, and *r2* is a part of *r3*, then *r1* is a part of *r3* (transitivity).[34] But the principles of classical mereology do not govern how parthood applies to facts: neither universal summation nor extensionality hold.[35] So the "logic" of the topic-neutral parthood relation is ugly, but systematically ugly: when applied to objects of one ontological category, it behaves in one way, but when applied to objects of another ontological category, it behaves in a radically different way. The "logic" of parthood is most naturally expressed as a disjunctive list of two disjoint axiom systems, each such that the variables are restricted to objects of the relevant kinds. Parthood is systematically variably axiomatic. This is a bad way for a perfectly natural relation to behave: its behavior looks *disjunctive* at worst, less than uniform at best.

A more natural response is to deny that the topic-neutral parthood relation is perfectly natural. Instead, there are three perfectly natural topic-specific parthood relations, one for regions, one for material objects, and one for facts.[36] Each topic-specific parthood relation behaves uniformly across its field. The topic-neutral relation needn't be taken to be a mere disjunction of these three topic-specific relations: instead, it is an analogous relation, one less natural than its analogue-instances but still enjoying some kind of unity. (The various topic-specific parthood relations seem to be more like each other than, e.g., spatiotemporal distance or *being the same color as*.)

The driving intuition is that highly natural features enjoy a kind of unity across their instances. When that unity is lacking in a feature, and moreover is lacking in a systematic way, while the related topic-specific features do display such a unity, one is warranted in holding that the topic-specific features are more natural than the topic-neutral one. Insofar as we think that there is *some* unity to the parthood relation, we will be inclined to think that parthood is an analogous relation rather than a mere disjunction. If we accept an ontology of regions, enduring objects, and facts, we aren't *forced* to say that parthood is analogous. The intuitions elicited here do not constitute a deductive *proof* that parthood is analogous. But they do make the claim

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[34] Unrestricted summation, extensionality, and transitivity are taken as the three axioms of classical mereology in its formulation in Lewis (1991).

[35] If universal summation held, the mere existence of a property and an object would ensure the existence of a fact that the object has that property. If extensionality held, the fact I love you would be identical with the fact that you love me. Neither of these results is acceptable to the friend of facts. See McDaniel (forthcoming-2) for further discussion.

[36] This is the view defended in McDaniel (forthcoming-2).

reasonable, and in fact generate significant pressure to hold that parthood is analogous.[37]

There are two-fold lesson to be drawn. First: if a relatively topic-neutral feature is systematically variably polyadic, prima facie, the feature is probably not perfectly natural. Second: if the principles governing the topic-neutral feature differ systematically from one ontological category to the next, then prima facie the feature is probably not perfectly natural. In either case, insofar as we hold that there is any unity to the feature at all, we will be under significant pressure to hold that the feature is analogous. If the feature in question is of philosophical interest, it is probably analogous.

Can we apply this lesson to the case of *existence*?

4. The Analogy of Being

A reasonable ontological scheme is one that could be reasonably believed. We will address two questions. First, are there reasonable ontological schemes on which existence is systematically variably polyadic? Second, are there reasonable ontological schemes in which existence is systematically variably axiomatic? If the answer to either question is ''yes'', then there are reasonable ontological schemes according for which it would be reasonable to hold that *existence* is analogous. Accordingly, it would be reasonable to believe in ways of being, since these would be the features for which being is an analogue.

Here, I discuss ontological schemes according to which existence is systematically variably polyadic. In section 5, I discuss ontological schemes according to which existence is systematically variably axiomatic.

4.1. Temporally Relativized Existence and Atemporal Existence

Sometimes we discover that what we previously thought was an n-place property or relation is really an n^{+1}-place property or relation. We thought that simultaneity was absolute, but then we did some physics and learned that simultaneity is always relative to a reference frame. We didn't learn from physics that there are no simultaneous events; we learned that simultaneity doesn't have the logical from we thought it had.

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[37] In McDaniel (forthcoming-2), I provide a stronger argument for compositional pluralism. Briefly, I argue that, given an ontology of fact and object, the topic-neutral parthood relation is either non-transitive or lacks an irreflexive proper parthood relation. I then argue that either feature disqualifies it from being a perfectly natural parthood relation.

Since I've embraced endurantism, the view that objects persist through time by being wholly present at each moment they exist, I've gotten used to telling people that many of what they naively take to be properties are really relations to regions of spacetime.[38] For example, the shape of a material object is really a relation to a region of spacetime, not a 1-place property.

Could we learn something similar about *existence*? We can wrap our heads around the idea that existence is a property (either first- or second-order) but could existence be a *relation*? And, if so, what could the relata possibly be?

The material objects with which we are most familiar exist at some times rather than others. The abstract objects that populate Plato's Heaven – *mathematica* and their ilk – do not exist at any time at all, but rather exist atemporally. Let us explore a view that takes these statements at face value, a view according to which the kind of existence enjoyed by material things is literally *relative to a time* whereas the kind of existence enjoyed by abstract objects is not. On such a view, *existence* is a systematically variably polyadic feature: when restricted to one category, it is a relation to a time, when restricted to another, it is a monadic property.

On this view, for a material object to be at a time is for it to literally exist at that time. For a material object *to be* it must *be at sometime or other*. The kind of existence enjoyed by a material being is existence relative to a time.

One frequently sees the phrase "exists at a time" in the literature on persistence through time.[39] Now one could hold that the phrase is extremely misleading, and that it would be better to say an object is *located* at a time rather than *exists* at a time. But one is not required to say this. The fact that "exists at a time" and similar locutions have enjoyed such currency among metaphysicians suggests that they are perspicuous. The view described here takes them at face value.

This view also receives support from metaphysical considerations. Material objects are necessarily temporal. It is hard to see what could ground this necessity if the *location* relation is metaphysically distinct from *existence*. On this alternative hypothesis, there are material objects and there are times, and there is a metaphysically primitive relation

[38] This is one strategy for dealing with the so-called Problem of Temporary Intrinsics. See Haslanger (1989), HHaslnHLewis (1986), and Wasserman (2003) for discussion.

[39] This expression is extremely common, both within and outside philosophy. To see this, simply search "exists at a time" via Google.com or some other web search engine. Note that I used it myself in the second paragraph of this section. Did you even bat an eye?

linking the two.[40] On this hypothesis it is not at all clear why any material object must bear this relation to some time or other.[41] But there is no mystery if what it is for a material object to be is for it to be at some time. It is part of the very being of a material being that it is in time.

Jonathan Barnes (1972) flirts with an analogous view, according to which the primary sense of "exists" – the sense that applies to material objects – is the sense of "is somewhere."[42] If to be simply is to be somewhere or other, the primary notion must be *existence at a place*.

Barnes discusses many considerations in favor of this view; I will briefly mention two of them. First, Barnes notes that in many languages, "the phrases used to express existential propositions are locative in character." [Barnes 1972: 64] Second, Barnes discusses the hypothesis that there is a single lexeme common to "exists", "happens", and "occurs" (among others). According to this hypothesis, how this lexeme appears is determined by the kind of thing referred to by the subject term to which the lexeme is appended. This hypothesis explains why it is natural to say that an event *occurs* but unnatural to say that an event *exists*, while it is natural to say that a material object exists but unnatural to say that a material object occurs. Since *happenings* are always *happenings at places*, it would, on this hypothesis, be natural to say the same about *existings*.

An obvious way to blend these views is to hold that existence is relative to a spatiotemporal region: to be is to be some-where-when. This sort of view nicely incorporates the advantages of its predecessors. Given that we can define the notions of existence at a time (relative to a frame of reference) and existence at a place (relative to a frame of reference) in terms of existence at a placetime, perhaps we can still explain the linguistic phenomena alluded to earlier.[43] More importantly, we can explain why material objects are necessarily spatiotemporal beings: their very being is exemplified relative to some part of

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40 See Gilmore (2007), Hudson (2005), and McDaniel (2006, 2007) for explications of this picture.

41 I suspect that it is this view of the relation of material objects to times that have led some philosophers to take seriously the claim that material objects could exist in worlds without time. See Sider (2001), pp. 99-101 for an argument from "timeless worlds" against the view that material objects persist through time via enduring. This picture that motivates this argument is clearly not mandatory.

42 This view is discussed in chapter three of Barnes (1972); see especially pages 63-65.

43 Let us say that t is a *time at reference frame* F just in case t is the fusion of all spacetime points simultaneous at F. We now define existence at a time at a frame in terms of the primitive *exists at region* R: x *exists at* t *at* F just in case there is some spacetime region R such that x *exists at* R, R is a part of t, and t is a time at F.

spacetime, so of course a possible world without spacetime is a world that lacks material objects.[44]

Although for a material object to be is for it to be at some region or other, this is not true of other entities. Unless a spatiotemporal region exists at itself, we should not say the same thing about them. And more clearly, numbers, propositions, and Platonic universals exist but lack location. A natural thing to say then is that *existence* is systematically variably polyadic. Existence-as-applied to concrete material objects is two-placed; existence-as-applied to abstract objects is one-placed.[45] Since *existence* on this view is systematically variably polyadic, prima facie *existence* is analogous. The mode of being had by material objects – call it *being-there* – and the mode of being had by abstract objects – call it *subsistence* – are more natural than *existence*.

Subsistent objects are necessarily outside of spacetime. This too might seem mysterious. If *location* is metaphysically fundamental, why can't a number have a location? However, on the view we have just explored, to be located at a place is literally to exist at that place. The very being of a number or other abstract object is not relative to a place, and so, given our analysis of *location*, no abstract object can have a location.

Finally, there has long been thought to be a close connection between *being* and *space and time*. Being outside of time and space was thought to suffice for enjoying a different mode of being than those things within time or space.[46] This intuitive connection is theoretically explained by the view explored here, according to which *existence at a spacetime region* is both a locative relation and a mode of being.

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[44] Note that the view that the existence of material objects is relative to a time does not imply that no material object exists at every time. Perhaps the physical universe is a material object such that, for any *t*, it exists at *t*.

[45] Jason Turner has pointed out to me that this is the right thing to say if we are conceiving of *existence* as a property had by individuals. However, if we think of existence as a second-order relation, as many semanticists do, then we should say instead that the second-order feature defined on properties of material objects is the *three-placed* relation *having a common instance at a region*. (This relation is what is expressed by "some ___ is ____ (at R)". And we should also say that the second-order feature defined on properties of abstracta is the *two-placed* relation *having a common instance*. Even on this scheme, existence is systematically variably axiomatic.

[46] See, for example, Husserl (2005a, 2005b) who holds that only objects in time are *real*, Meinong (1983: 52) who holds that numbers and other atemporal abstracta do not *exist* but rather *subsist*, and Russell (1912: 100), who there adopts the Meinongian terminology, and argues that relations subsist rather than exist. Reinach (1982) also distinguishes between existence and subsistence; I take him to be following Husserl and Meinong as well.

The ontological scheme elucidated here is Platonic in spirit. Insofar as we are inclined to hold that it is better that one's mode of being be non-relative than relative, we will be inclined to prize the realm of subsistence (Plato's realm of *Being*) over the realm of *being-there* (Plato's realm of *Becoming*.)[47] Insofar as we are inclined to value malleability, causal interaction, and progression towards perfection, we will favor *being-there* over subsistence. As Russell (1912/1997) pointed out, our differences in temperament and outlook will determine which realm we concentrate our attention on.

We have now explored a view according to which existence is a systematically variable feature. Given such a view, there is considerable pressure hold that existence is an analogous feature, since *prima facie*, SVP-features are analogous. Let us now explore a second view with the same implication.

4.2. Being and Being-in

The previous ontological scheme was inspired by Plato. It is now appropriate that we turn to one inspired by Aristotle. According to one of philosophy's founding myths, Aristotle brought Plato's forms down to earth, reversing the ontological order. On the ontological scheme thereby birthed, *substances* enjoy ontological priority whereas *attributes* enjoy a derivative kind of being.

On this view, attributes are not "self-standing" entities. Rather, they *exist in* substances. Let us explore a view that takes the notion of *existing in* as being maximally perspicuous. According to this view, there are two ways to exist. The kind of existence had by an attribute is *being-in*: the existence of an attribute is strictly and literally relative to something else, a substance. The logical form of the mode of existence of attributes is two-placed: *x exists in y*, where any such *y* is always a substance in which *x* inheres. On this view, *inherence* need not be taken as a fundamental notion: inherence reduces to *being-in*: *y* exemplifies *x* if and only if *x* exists in *y*.

The second mode of existence recognized by this view is *absolute being*, the kind enjoyed by substances. The logical form of this mode of existence is one-placed: *x* exists *simpliciter*. The mode of being of substances is *prior* to the mode of being of attributes: to grasp fully the mode of being of an attribute one must be acquainted with the mode of being of substances.

Most friends of modes of being have held that the mode of being of a substance is distinct from the mode of being of an attribute.

[47] Plato's *Timaeus* (27d5–28a1) contains a famous statement of the doctrine of being and becoming.

According to the view articulated here, they were right to do so. For on this view, *being* is a systematically variably polyadic feature: when restricted to substances, it is one-placed but when restricted to adjectival entities it is two-placed. Systematically variably polyadic features are not good candidates for being perfectly natural: better to hold that *being* is *analogous* and that the modes of being of substances and adjectival entities are prior to *being* simpliciter. So this view captures the intuitions had by such philosophical greats as Aristotle and Aquinas.[48]

The view also explains here why attributes are necessarily dependent on the existence of substances. The very being of an attribute encodes the information that some substance exists and exemplifies it: for an attribute to be just is for that attribute to be exemplified. In the previous section, we looked at a view that grounded the necessity of a material object's being spatiotemporally located in the mode of being of material objects. In this context, it is natural to think of substances as being the locations of attributes: they are the *nexus* of inherence.[49] And so by similar reasoning, the way in which an attribute exists provides the ground for the necessary truth that modes are always "located" in substances.

4.3. Absolute and Conceptually Relative Existence

Consider the view that claims, in a vaguely neo-Kantian spirit, that some things exist relative to one *conceptual scheme* but not relative to another. This view is suggested by the following remarks made by Ernest Sosa:

> Conceptual relativism can be viewed as a doctrine rather like the relativism involved in the truth of indexical sentences or thoughts. In effect, "existence claims" can be viewed as implicitly indexical, and this is what my conceptual relativist in ontology is suggesting. So when someone says that Os exist, this is to be evaluated relative to the position of the speaker or thinker in "conceptual space" (in a special sense). Relative to the thus distinguished conceptual scheme, it might be that Os do exist, although relative to many other conceptual schemes it might rather be true to say that "Os do not exist." [Sosa 1998: 409]

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[48] The classic text in Aristotle is the *Metaphysics,* book IV, wherein Aristotle defends the view that *being* is "said in many ways." Aquinas discusses the notion that "being is said in many ways" in many places; see, for example, *De Ente et Essentia* [Aquinas (1993: 92-93)] and his *Commentary on the Metaphysics of Aristotle* [Aquinas (1961: 216-220)].

[49] See Hawthorne and Sider (2002) for a full-blooded defense of this analogy.

On one way of reading the passage above, it follows that *existence* is not a one-place property, but is rather two-place, with a hidden parameter for conceptual schemes. This way of interpreting Sosa's conceptual relativism is not *forced* on us, since *quantifier variance* seems also to explain the intuitions that Sosa and others elicit. Quantifier variance is the doctrine that there are many equally good meanings for the existential quantifier; in this context, we can assimilate quantifier variance to the doctrine that there are many perfectly natural properties equally deserving of the name "existence", one of which might be invoked by one speaker in one context, while a different speaker might evoke a different property in a different context.[50]

Nonetheless, this way of understanding conceptual relativism seems apt to capture the intuitions in play. The minimalist sees three atoms, and says there are exactly three objects in the room. The standard mereologists says there are exactly seven.[51] Who is right? The driving intuition is that in some way both answers are right. Relative to the minimalist's framework, there are exactly three, while relative to the mereologist's framework there are exactly seven. The quantifier variantist cashes this out in terms of *meanings* by saying that there are equally good things that one could mean by "there is", one of which is employed by the minimalist, while the other is employed by the mereologist. But the driving intuition did not seem to be about *the meanings of words*; rather, it is about *existence itself*. So one way – the way that most naturally captures the intuition in play here – of explicating conceptual relativism is by stating it is as a genuine relativism: *existence* itself is relative to a scheme.

But this kind of existence-relativism might seem unstable. A natural worry is that, in addition to relative existence, there must be a notion of absolute existence. For mustn't, at the very least, conceptual schemes exist absolutely?[52] And if they don't, then mustn't there at least be some fundamental substratum, some domain of *things-in-themselves*, that enjoy absolute reality? If this thought is right, then there are two ways to exist: to exist absolutely, and to exist relative to a scheme.

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50 The most prominent defender of quantifier variance is Eli Hirsch (2002a, 2002b, 2005). McDaniel (forthcoming-1, section five), argues that quantifier variantism is itself a doctrine according to which there are modes of being. Note that the quantifier variantist as understood here does hold that there are many perfectly natural meanings for the unrestricted quantifier.

51 Given standard mereology, whenever there are *n*-many atomic objects, there are 2^*n*-1 objects.

52 Perhaps conceptual schemes are Fregean senses or something similar, as suggested in Brueckner (1998). Alternatively, perhaps what exists absolutely are *persons* and *material simples*, whereas *apersonal* composite material objects exist relatively.

Conceptual relativism of this Kantian variety seems most at home with ontological pluralism.

We have explored three views that imply that existence is a systematically variable feature, and hence arguably an analogous feature. Although each of these ways is distinct from each other, I see no immediate problems with a theory that combines them. Consider a view that holds that mathematical objects enjoy absolute existence, mereological simples enjoy temporally relativized existence, composite objects exist relative to conceptual schemes, and modes exist in simples or composites. A strange package to be sure! But insofar as each part of the package can be motivated, the whole might as well. Views that imply that existence is systematically variably polyadic are well-worth pursuing.

However, it is now time to pursue a different approach: let us examine views that imply that existence is a systematically axiomatic feature.

5. The Logic of Being

The second approach to motivating modes of being is to determine whether *being* or *existence* is a feature that is systematically variably axiomatic (for short: an SVA feature). In order to determine this, we need to first address the question *which principles govern existence*?

Mereology is the "logic" of parthood. Mereology is the study of part and whole; mereological principles are just those principles that govern the parthood relation. But if compositional pluralism is true, there is more than one fundamental parthood relation, and hence, strictly speaking, there are many mereologies, not one.

What is the "logic" of being? One plausible answer is that the "logic" of being is the logic of quantification. Earlier, we said that a principle governs a certain feature if it is a necessary truth that can be stated using only logical vocabulary and some term that represents the feature.[53] The term in question might be a name or a predicate. In the case we are now considering, the bit of logical vocabulary that represents *existence* is the existential quantifier.

If the logic of quantification were to work one way when applied to objects of one kind, and another way when applied to objects of a different kind, then logic itself would display variable systematicity. Accordingly, *existence* would be an SVA feature. And, if this were the case, we would have a reason to be ontological pluralists.

In what follows, I will discuss three ontologies that each imply that existence is systematically variably axiomatic: an ontology of

[53] This is a sufficient condition, but is not necessarily a necessary condition.

intentional objects, an ontology of necessary and contingent beings, and an ontology of things and stuff.

5.1. Intentionalia and the Logic of Being

Suppose you are attracted to an ontology that includes *mere intentionalia* in addition to actual concrete objects. To be a merely intentional object is to be an object of a possible thought, but it is not necessarily to be a possible object. For among the mere intentionalia are *incomplete objects* and *inconsistent objects*. Incomplete objects are such that, for some property, they neither have it nor have its negation. Inconsistent objects are such that, for some property, they have both it and some property incompatible with it (perhaps its negation).

Don't think that this view must be unmotivated! It is a familiar point in modal metaphysics that possibilia—possible worlds and the possible objects residing within them—have a number of important roles to play in the semantics and metaphysics of modality and intentionality.[54] But it might also be true, even if understated, that impossibilia – impossible worlds and the objects residing with them – are needed as well.[55] If a modal realist view of possibilia is the best contender for the field, it might be as well that a realist view about *impossibilia* deserves a serious look.

One of the niftier developments in contemporary logic is paraconsistent logic. A logic is *paraconsistent* just in case it does not license the derivation of every proposition from a contradiction.[56] The existence of paraconsistent logic shows that one can reason sensibly about inconsistent objects, and that one can posit them without being committed to the claim that *every* object is an inconsistent object.[57]

Any ontology that includes impossibilia must hold that the topic-neutral logic is paraconsistent. But if we restrict our attention to a particular topic, specifically, the category of actual concrete objects, we can get by with classical logic, for actual objects are both complete and consistent.[58] Restricting the scope of the law of non-contradiction to actual objects is not a new move; it was flirted with by Meinong, here paraphrased by Russell:

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54 See, for example, Lewis (1986), especially chapter one.

55 This point is stressed in Lycan (1994: 38–40), although Lycan would clearly be unhappy with the realism about impossibilia suggested here.

56 See Priest (2004b) for a concise introduction to paraconsistent logic.

57 For discussions of the connections and interplays between Meinongian theories of inconsistent objects and paraconsistent logic, see the interesting essays in Priest et al. (1989).

58 I ignore here worries about the completeness of actual objects stemming from vagueness.

> Impossible objects, it is admitted, do not obey the law of contradiction; but why should they? For after all, this law has never been explicitly asserted except of the actual and the possible, and there is no reason for assuming that it holds also of the impossible. [Russell 1973: 92]

It is natural to think that natural properties ground the laws of nature: the causal profile of objects is fixed by the natural properties they exemplify. When objects exemplify fundamentally different kinds of features, they participate in different fundamental laws. On the view described here, the fundamental laws of logic are grounded in the modes of being of the entities they govern. The logic of existence is the logic of quantification: on views in which there are different ways of existing, it is not as surprising that there can be different laws of logic governing them.

Could an ontology like this be *reasonable*? According to this ontology, there are true contradictions. One might worry that, even if true contradictions are possible, they cannot be rationally believed. And so this ontology could not be reasonable.

But perhaps this worry is too quick. There are many epistemic values, that is, features of theories that make them belief-worthy. Consistency is one of them. But it is not the only one. In addition to consistency, Graham Priest (2004a: 32) cites simplicity, problem-solving ability, non-adhocness, and fruitfulness. Epistemic values are plural and competing. A theory that lacks some of these values might nonetheless be belief-worthy by virtue of the presence of a high degree of the others. It is not at all obvious that any of these values always trumps the others. An inconsistent theory that enjoys a high degree of simplicity, problem-solving ability, non-adhocness, and fruitfulness might well be worthy of belief.[59]

The view under discussion flies in the face of the Fregean dictum that, "Thought is in essentials the same everywhere: it is not true that there are different kinds of laws of thought to suit the different kinds of objects thought about" (Frege 1884: iii). But although Frege's dictum is plausible, obeying it is not mandatory. Frege's dictum is a substantive thesis about logic, not a thesis that we are forced to endorse on pain of being illogical or unreasonable. On the view explored here, entities that exist in different ways can be subject to different laws of logic, just as entities with different fundamental properties can be subject to different laws of nature.[60]

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[59] For further discussion, see Priest (2004a).

[60] The view discussed here is a *local logical pluralism* in the sense of Haack (1978: 223).

An ontology that includes impossibilia is an ontology according to which existence is an SVA-feature. And we have seen that, if a feature is an SVA-feature, there is a *prima facie* case that it is an analogous feature. This ontology is not *mandatory* – it is not unreasonable to reject it. But it is also reasonable to embrace it, and with it the modes of being that naturally accompany it.

Let us explore a second ontological scheme according to which existence is an SVA-feature.

5.2. Beyond First-Order Predicate Logic

We have said that a principle governs a feature just in case that principle can be stated using only logical vocabulary and a term standing for that feature. In what proceeded, we implicitly limited the whole of logic to a mere proper part, namely, extensional first-order predicate logic. If there is more to logic, then there might be further ways for *existence* to show itself as a systematically variably axiomatic feature.

Consider *modal logic*, the "logic" of possibility and necessity. If modal logic is properly considered as a part of logic, then "necessarily" and "possibly" are among the logical vocabulary. On this view, there are logically valid formulae that cannot be expressed using only the resources of first-order logic.

Consider now an ontological scheme that contains both necessarily existing and contingently existing concrete objects. It is clear that, on this scheme, existence is an SVA-feature, since "Everything that exists, exists contingently" is stateable using only logical vocabulary and is necessarily true when the quantifier is restricted to one ontological category but necessarily false when restricted to the other. The hypothesis that contingently existing things and necessarily existing things exist in different ways is especially compelling in this case, since on this hypothesis that one is contingent rather than necessary is grounded in one's mode of being.

Similarly, if *tense logic* is properly considered as a part of logic, then "it is always the case" and "it is sometimes the case" are among the logical vocabulary. Presumably, if something is an abstract object, it is necessarily true that it always exists, whereas there are no concrete objects (save, perhaps, a divine concrete object, if such a being exists) such that it is necessarily true that it always exists.

Of course, these arguments go through only if (i) there are real differences between genuinely logical vocabulary and other expressions and (ii) modal and tense vocabulary is genuinely logical. Both issues are thorny and difficult, and can't be addressed here. (The claim that *tense logic* is a part of logic seems to me especially precarious. For a

defense of tense logic as logic, see Geach 1980: 312-318.) But inasmuch as these claims are defensible, the views defended in this section can be motivated.

5.3. The Logic of Things and the Logic of Stuff

Some philosophers have thought that the most fundamental ontological difference is the difference between *things* and *stuff*. On their view, reality divides into entities and non-individuated matter or stuff. *Things* can be counted: whenever there are some things, it always makes sense to ask how *many* of them there are. *Stuff* cannot be counted, but it can be measured: whenever there is some stuff, it always makes sense to ask how *much* of it there is.

Some reasons cited for believing in irreducible stuff in addition to things are the apparent reference to stuffs in ordinary speech and thought [Laycock 2006], the alleged usefulness of positing stuff in solving the puzzle of material constitution [Zimmerman 1997, Kleinshmidt 2007], the allegedly different persistence conditions of things and stuff [Markosian 2004], and the alleged necessity of positing stuff for dealing with puzzles facing certain views of the nature of material simples [Markosian 2004].

One of the most explicit defenders of this sort of ontology is Ned Markosian (2004). Markosian defends what he calls a ''mixed ontology'', the official formulation of which is as follows:

> **The Mixed Ontology:** (i) The physical world is fundamentally a world of both things and stuff. (ii) Among the most basic facts about the physical world are facts about things and also facts about stuff. (iii) The most accurate description of the physical world must be in terms of both things and stuff. (iv) Thing talk and quantification over things, as well as stuff talk and quantification over stuff, are both ineliminable. [Markosian 2004: 413]

What does it mean to say that quantification over things and quantification over stuff are both ineliminable? It is clear that Markosian does not mean by this claim only that sentences in which a mass-quantifier appears cannot be systematically paraphrased via sentences in which no mass-quantifier appears. This is probably true, but this fact alone is not clearly of ontological significance. Sentences in which *plural quantifiers*—quantifiers such as *some Fs are G*—cannot be systematically paraphrased via sentences in which no plural quantifier appears. But it would be rash to conclude that sentences containing plural quantifiers are *about different entities* than sentences containing singular quantifiers. Arguably, even if plural quantifiers cannot be semantically

reduced to singular quantifiers, the *plural and singular quantifiers range over exactly the same things*.[61]

On Markosian's view, stuff quantification is not an irreducibly different way of talking about the same things quantified over via a thing quantifier. Rather, Markosian is explicit that these domains do not even overlap. Mass-quantification is as fundamental as thing-quantification: the fundamental language must include both.

Recall that one way of formulating the doctrine that there are ways of being is as the doctrine that there is more than one fundamental quantifier expression. Mixed ontologies are committed to there being more than one fundamental quantifier expression, and hence are committed to *ways of being*. On this view, stuff and things enjoy equally primordial but disparate modes of existing.

5.4. Mixed Views

Trivially, any feature that is systematically variably polyadic will be systematically variably axiomatic. But there might also be more interesting connections between doctrines that imply that existence is an SVP feature and doctrines that imply that existence is an SVA feature.

Consider, for example, the views defended in sections 4.1 and 4.2, and the views defended in 5.2. I'm inclined to hold that a substance is a necessary being only if its mode of being is non-relative. Given this principle, it will follow that no material substance is a necessary being if we accept the ontology explored in section 4.1, according to which the being of a material substance is existence at a time. So if there are any necessarily existing substances, we have a reason for holding that the mode of being of such a substance differs from the mode of being of contingent material substances. I am also inclined to hold that an attribute is a necessary being only if it does not (and cannot) exist relative to any contingent substance, but rather exists relative only to a necessary substance. If this is the case, then no attribute essentially had by a necessary being could be shared by a contingent being. If there are any necessary beings, we arrive at a view that is much like Aquinas's: the way in which a necessary being is, and the features it has, are at best only analogously like those of contingent things. This is a pleasing result.

6. Conclusion

I have argued that systematically variably polyadic features and systematically variably axiomatic features are prima facie less than

[61] This is the view forcefully defended in McKay (2006).

perfectly natural features. I then presented ontological schemes according to which *existence* is a systematically variably axiomatic feature or a systematically variably polyadic feature, thus establishing the prima facie case that existence is analogous. Although these arguments do not *conclusively show* that we must accommodate modes of being in our ontology, they suffice to show that modes of being deserve to be taken much more seriously than previously thought.[62]

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