Toward a Conceptualist Solution of the Grounding Problem

Iris Einheuser, ieinheus@duke.edu

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Abstract

This paper defends a conceptualist answer to the question how objects come by their modal properties. It isolates the controversial metaphysical assumptions that are needed to get ontological conceptualism off the ground, outlines the conceptualist answer to the question and shows that conceptualism is not in as bad a shape as some critics have maintained.

I. *The Problem.* A familiar argument leads to the conclusion that there are distinct yet spatio-temporally coincident objects. One version of the argument, due to Kit Fine, runs as follows:[1] Suppose we pour a portion of molten tin and a portion of molten copper into a mold thereby creating both a statue and a piece of alloy. After a few days, we destroy the alloy and with it the statue. STATUE and ALLOY coincide spatio-temporally, as they are both created and destroyed at the same time and occupy the same space at each moment at which they exist. Yet, ALLOY *would* have survived being melted down and shaped into a fire screen, a process in which STATUE would have been destroyed. Since ALLOY and STATUE differ in their modal properties, they are, by Leibniz's Law, distinct objects. So there are distinct yet spatio-temporally coincident objects. But now a puzzle arises. How *can* the objects have different modal properties? After all, they are made up of precisely the same particles arranged in precisely the same way throughout their entire history. What, then, is it about ALLOY that makes it have a

[1] See Fine [Fine, 2003]. The argument goes back to Alan Gibbard's [Gibbard, 1975] which defends the claim that objects may be merely contingently identical and David Wiggins' [Wiggins, 1968] which defends the claim that material objects of different kinds can temporarily coincide.

modal property lacked by STATUE? What *grounds* the modal difference? This is an instance of the *grounding problem*.[2]

More generally, the grounding problem is the problem of giving an account of objects' modal features in terms of their non-modal features. Consideration of coincident entities brings out some important constraints on a solution to that problem: It shows that appeal to the material nature, history or environment of the object will not suffice to explain how it comes by its modal properties. And to say that an object has its modal properties in virtue of its being an object of a particular *sort*—STATUE is a *statue* and therefore has its characteristic modal features, ALLOY is a *piece of alloy* and therefore has *its* characteristic modal features—does not help either. It merely shifts the problem, for now we ask how STATUE and ALLOY can differ in *sort*.[3]

If no account of objects' modal features in terms of their non-modal features is available we face the choice between two extreme positions: First, we may hold on to the idea that the modal must be grounded in the non-modal and conclude that objects do not have modal properties. Or, second, we may go *modal primitivist* and maintain that objects have their modal and sortal properties as a matter of brute metaphysical fact. Both positions leave us uneasy, for the intuition is that not all of an object's properties are on the same footing and that the differences in modal status have an explanation.

In this paper I will defend an explanatory strategy that steers a middle course between the two extremes and accounts for the intuition: *Ontological conceptualism*, which maintains that the source of an object's modal properties lies in our concepts. The approach is not new, but I believe that it hasn't yet been given the best run for its money. The aim of the paper is to map out the shape of a conceptualist solution, isolate the assumptions it relies on, present a basic framework for thinking about objects in conceptualist terms and address two major objections to this sort of approach: First, the objection that upon closer inspection, ontological conceptualism turns out not to solve the grounding problem after all. Second, the objection that the conceptualist's approach is incoherent.

II. *The Conceptualist Solution in Outline.* A plausible and substantive con-

[2]This is what Karen Bennett [Bennett, 2004] has recently labeled the problem. Others refer to it as the *standard objection* to what used to be the standard account of the relationship between an object and the material that composes it [Burke, 1992] or the *indiscernibility argument* against coincident objects [Olson, 2001].

[3]See Fine [Fine, 2003] and Bennett [Bennett, 2004].

ceptualism about de re modality has to walk the fine line between two rather unsatisfactory positions. On the one hand the metaphysically unexciting view that our concepts merely pick out and provide epistemic access to modally vested objects. The problem with this view is that, though plausible, it does not solve the problem. It accounts at best for how it is that our terms 'Statue' and 'Alloy' pick out their respective referents but not for how these referents manage to differ in their modal features.[4] On the other hand there is the view that our concepts project modal properties onto otherwise modally unvested objects. This view appears to imply that objects have their modal properties merely contingently. You may be necessarily a human being, but that is just a contingent fact about you, for our concepts might have projected onto you a different modal property. That seems tantamount to giving up on the idea of de re necessity.[5] To stay clear of these two positions, the conceptualism considered here maintains conceptualism not merely about modal properties but about *objects*: Concepts don't project modal properties onto objects. Objects themselves are, in a sense to be clarified, projections of concepts.

Ontological conceptualism promises a straightforward and compelling solution to the grounding problem. It goes like this: Concepts like *statue* and *piece of alloy* impose persistence criteria on portions of material stuff and thereby 'configure' objects. That is, they induce objects governed by these persistence criteria. Our concept *statue* is associated with one set of persistence criteria. Applied to a suitable portion of stuff, the concept *statue* configures an object governed by these criteria. Objects configured by the concept *statue* cannot survive being shaped into fire screens. Our concept *piece of alloy* is associated with another set of persistence criteria. Applied to a suitable portion of stuff, the concept *piece of alloy* configures an object governed by *these* criteria. Objects configured by the concept *piece of alloy* can survive being shaped into fire screens. Sometimes, two concepts associated with different persistence criteria may apply to the same portion of stuff. In this case, each configures an object, and the objects—even though coincident—are subject to different persistence criteria and thus have different modal properties. The remainder of the paper will fill in the details.

[4] Amie Thomasson's recent conventionalist defense of ordinary objects can be read along these lines. See her [Thomasson, 2007]. She does, however, suggest a deflationary reading of the claim that the objects picked out have modal properties.

[5] See, for instance, Elder [Elder, 2004] complaint about this version of modal conceptualism.

III. *The Conceptualist Background.* Every proposed solution to the grounding problem will have to make some more or less controversial assumptions and a conceptualist solution is no exception—you seldom get something for nothing. This section isolates the metaphysical assumptions of the conceptualist approach.

According to the conceptualist account envisioned here our concepts ground the modal properties of objects by 'configuring' the objects. How so?[6] There are three conditions an adequate conceptualist account of ontology must satisfy. It has to explain

(i) what the *world* contributes to what objects there are,

(ii) how our *concepts* contribute to what objects there are, and

(iii) the nature of the *objects* jointly determined by the world and our concepts.

Both the contribution of the world and the nature of objects have to be conceived in such a way as to leave room for the contribution of our concepts. To create the dialectical room needed, the conceptualist relies on two crucial assumptions, one concerning the nature of objects, the other concerning the nature of the world itself. First is the

No entity without identity assumption**.** Objects are subject to determinate cross-temporal and cross-world persistence criteria.

According to this assumption, there is for every kind of object a set of criteria that determine under what—past, future and counterfactual—conditions an object of that kind remains numerically the same; which changes involving the object are substantial and which are accidental.[7] Next is the

No built-in persistence criteria assumption**.** The world *simpliciter* does not contain items which have 'built-in' persistence criteria.

According to this assumption, the world simpliciter fails to determine the conditions required for the existence of objects. It is, as it were, 'objectually inarticulate'.[8] This second assumption is likely to raise suspicion. Does the

[6] The account given here builds on work by Alan Sidelle [Sidelle, 1989] and Peter Strawson [Strawson, 1959].

[7] The slogan 'No entity without identity' is due to W.V.O. Quine [Quine, 1969]. For a discussion of the requirement that objects be subject to determinate persistence criteria see [Lowe, 1997]).

[8] See, e.g. Sidelle ([Sidelle, 1989] and [Sidelle, 1998]) who relies on an assumption of this sort. The phrase 'objectually inarticulate' is his.

conceptualist want us to believe that the world itself is a shapeless mass of stuff? No. The conceptualist may recognize that the world simpliciter has a lot of mind-independent structure. But as far as the world simpliciter is concerned, there are no items which are governed by persistence criteria such as those we associate with familiar objects like tables, rocks and giraffes.[9] All she maintains, then, is that the world lacks mind-independent *ontological structure*. To be sure, this does not amount to a full explanation of the notion of a *world simpliciter* as appealed to by the conceptualist or a justification for the No built-in persistence criteria assumption.[10] But my aim here is relatively modest: Granting the conceptualist the notion of a *world simpliciter* as primitive and the two assumptions mentioned, I want to reconstruct a conceptualist solution to the grounding problem and explore its consequences. If the resulting account proves fruitful, this may provide motivation for clarifying and justifying the assumptions needed to generate it, much like the fruitfulness of the notion of a *possible world* provided motivation for explicating that notion further or accepting it as primitive. To fix ideas, let us assume that the world simpliciter consists of the totality of physical particles distributed over space time. To be sure, this could not serve as explication of the world simpliciter for a *thoroughgoing* conceptualist about objects: It assumes that there is at least one basic kind of object for which the world simpliciter determines persistence criteria, namely fundamental physical particles. But it would do for certain local versions of ontological conceptualism that seek merely to give an account of the nature of *some* kinds of objects, say complex physical objects or artifacts. From now on, unless explicitly stated otherwise, I will use the term 'world' to refer to the world simpliciter which is assumed to be objectually inarticulate.

The two assumptions, the No entity without identity assumption and the No built-in persistence criteria assumption, jointly provide the conceptualist with a foothold for the claim that our concepts play a role in constituting our ontology. They do so, the idea goes, by imposing the persistence criteria required for objecthood, thereby providing what we may call a *carving* of an objectually inarticulate *substratum*.

Following Strawson, call the concepts which are used to impose persistence criteria *sortal* concepts, A sortal, according to Strawson, 'supplies a principle for distinguishing and counting individual particulars which it collects. It presupposes no antecedent principle, or method, of individuating

[9] See also §2 of my [Einheuser, 2006] for a discussion of this methodological point.

[10] See, however, Sidelle [Sidelle, 1998] who motivates a position on which all there really is is unindividuated 'stuff'.

the particulars it collects'.[11] Let us say that objects which are obtained by the application of a sortal are *configured* by sortal application. The idea is this: A sortal is associated with both a set of *application conditions* and a set of *persistence criteria*. The application conditions determine the conditions under which the sortal applies.[12] The sortal then *configures* an object in the sense that it determines how the object is to be tracked. For instance, the application conditions associated with the sortal *statue* may be something like this: A solid substance shaped so as to represent a human being (or several) or an animal (or several) or both. The persistence criteria associated with the same sortal may be along the following lines: An object a that is a statue is identical to an object b if and only if a and b are spatio-temporally continuous and b represents the same entity as a. Thus, a statue ceases to exist when it ceases to represent the entity it was made to represent, e.g. when it is melted down.

To say that our concepts determine the persistence of objects across times and worlds is not to say that whether an object persists throughout an actual or counterfactual change of the world depends in no way on the world as it is independently of us. The concept determines the course of the object. But it may and often does 'outsource' some of the factors that fix the precise persistence criteria. And for some kinds of objects, such as organisms, our concepts outsource a great deal of the persistence-determining factors.[13] For example, what material a given table *is* made of is not for our concept to decide. Yet, our concept *table* may determine that tables are necessarily composed of roughly the material they are actually composed of. Given that the table in front of me is made of oak, the concept picks up on this feature and incorporates it into the persistence criteria for the table.[14]

Persistence criteria of the sort required for the conceptualist account of objects are meant to fix not just what future changes an object of a given kind can undergo *given* its actual intrinsic and extrinsic properties. They

[11] [Strawson, 1959], p. 168.

[12] In order to avoid circularity, the application conditions of a sortal must not make reference to objects of the kind the sortal is supposed to configure. That much is guaranteed by Strawson's characterization of the concept of a sortal. However, it is *not* required that we be able to *specify* the application conditions of a sortal in non-objectual terms. Sortal application conditions may be thought of as the (idealized) conditions under which concept users ought to apply the sortal. That our *specification* of these conditions involve terms that appear to pick out objects does not show that satisfaction of these conditions requires that such objects exist independently of our conceptual activities.

[13] See also Schiffer [Schiffer, 1996].

[14] See Sidelle [Sidelle, 1989] who gives an account of how necessity could be conventionally induced given that some necessities are a posteriori.

also fix in what respects the object could have been different from how it actually is. This generality allows them to determine both the cross-time and cross-world identity criteria which govern a configured object. These criteria in turn fix the object's modal properties by constraining its modal variability.

Next, I will consider two objections to the conceptualist approach. Answering the objections will provide further opportunity to clarify the proposal.

V. *Objects and Stuff: A Solution?* On the proposed solution of the grounding problem, the sortals *statue* and *piece of alloy* have overlapping application conditions, allowing them to be satisfied over the same portion of the world. If they are, they determine distinct objects because they impose different persistence conditions. Thus, on the account sketched, ALLOY has its modal properties because it is configured by application of our sortal concept *piece of alloy*. STATUE has *its* modal properties because it is configured by application of our sortal concept *statue*.

But isn't there a problem? Even granting the conceptualist story, you may wonder how this is supposed to solve the grounding problem: STATUE and ALLOY coincide spatio-temporally in virtue of occupying the same portion of the world. Let us call the content of the spatio-temporal region of the world occupied by an object the *stuff* of the object. And let us say that the stuff of an object is *carved out* by the sortal concept which configures the object. It looks like conceptualism hasn't brought us one step closer to a solution: The concepts *statue* and *piece of alloy*, though associated with different persistence criteria, sometimes carve out the same stuff. But why is stuff subject to one set of persistence criteria when carved by the concept *statue* and subject to another set when carved by the concept *piece of alloy*? The stuff is, after all, the very same. Being carved by this or that concept doesn't appear to attach any modal properties to stuff.[15] So how do objects get their modal properties?

This worry is based on a mistaken picture of how concepts configure objects, a picture motivated by the idea that a concept just, as it were, draws a circle around a portion of the world thereby making that portion into an object of the right kind. On this picture, a concept serves, cookie-cutter like, to carve out stuff and a configured object just *is* carved-out stuff. The grounding problem makes clear that this sort of account is hopeless.

[15]For criticism along these lines of 'stuff-based' ontologies see Zimmerman [Zimmerman, 1997]. Zimmerman's discussion makes clear that objects cannot be reduced to portions of stuff.

Nothing in the stuff of an object can fully account for the object's modal properties. We cannot make the world objectually articulated by doing the conceptual analogue of drawing lines on it. Rather, concepts are meant to *build in* to objects their persistence criteria. And since persistence criteria cannot be built into stuff, objects are more than their stuff. While portions of stuff are part of the world *simpliciter*, objects are not. An object is stuff conceptualized in a certain way—a *conceptually infused stuff*, as it were. Less metaphorically, material objects are determined by two things: their constituting stuff or *matter* on the one and, and their *sortal form* on the other. The sortal form of an object, in turn, is not exhausted by the physical form of its constituting stuff as the latter is entirely this-worldly and so does not determine the object's modal variability. For instance, the sortal forms associated with the sortals *statue* and *piece of alloy* differ, even though the physical forms of objects instantiating these sortals may coincide. Sortal form, then, has to be thought of as having a modal dimension as well. And since this modal dimension of an object's form cannot be mapped onto the actual stuff, material objects have to be construed as partly intensional.

It may help clarify the conceptualist picture to have some machinery at hand that allows us to represent conceptually configured objects. Let $\mathcal{S}$ be the set of (objectually inarticulate) possible worlds, of maximal portions of "worldly stuff". For each $s \in \mathcal{S}$, let s_R be the set of all space-time regions in s. In this setting, objects can be represented by functions mapping worlds into sets of space-time regions, so that for each $s \in \mathcal{S}$, the function representing a given object assigns to s a subset of s_R: These are the regions that make up the stuff of the object at s. The stuff, at s, of the object represented by function f is the maximal region in $f(s)$. If an object does not exist at a world s, then $f(s)$ contains only the null-region—the unique space-time region with zero temporal and zero spatial extension. In this model, an object-configuring sortal, together with a portion of stuff, determines a logical path through the space of "stuffy" possibilities. The object configured by sortal application from stuff s is the traveler on the path determined by the concept and the stuff.

The basic representational framework can be refined along various dimensions to accommodate additional features of our concept of object. For example, we may want to place constraints on the object-representing functions since, arguably, not just any set of persistence criteria can govern objects.[16] And once we have an account of the conceptual mechanism by which

[16]For instance, we may want to exclude spatially scattered or temporally intermittent objects.

sortals partially outsource the fixing of persistence criteria to the world, we can model the interaction between concepts and the world in determining persistence conditions.

Against the background of the framework, a sortal concept C can be seen as configuring an object o in the following way: C applies to a region R of space time in the actual world, $s_@$, which meets the application conditions of C. It induces a function f (with $R \in f(s_@)$) which determines, for each world, which spatio-temporal regions of that world the object occupies. Thus, the sortal configures an object by (i) picking up on a suitable region of space time in the actual world and (ii) controlling its two dimensions of variability, temporal (via $f(s_@)$) and counterfactual (via $f(s)$ for all $s \neq s_@$). For example, take the sortals *statue* and *piece of alloy*. In the scenario considered above, their application conditions are satisfied over the same region of space time R (say a certain spatial position on the mantelpiece on Tuesday night) in the actual world. Let f_{STATUE} and f_{ALLOY} be the object-representing functions induced by the application of *statue* and *piece of alloy*, respectively. Given the actual course of events, $f_{\text{STATUE}}(s_@) = f_{\text{ALLOY}}(s_@)$, that is, STATUE and ALLOY completely coincide spatio-temporally in the actual world. Their stuff is the same. However, since *statue* and *piece of alloy* impose different persistence criteria, there is a world s with $f_{\text{STATUE}}(s) \neq f_{\text{ALLOY}}(s)$, so STATUE and ALLOY differ modally.

IV. *Relative Existence and Relative Identity.* On the account sketched, identity is *absolute* while existence is *relative* to sortals. Since the concepts of existence and identity are closely related, one may wonder whether the relativity of existence does not carry over to identity. In fact, it might be expected that if sortals induce identity conditions, identity must end up being sortal relative.

Peter Geach is a well-known proponent of the doctrine of relative identity.[17] Any statement of the form *a is identical to b*, he believes, expresses an incomplete proposition. To obtain a complete proposition, the identity statement has to be relativized to a sortal: a may be the same F yet not the same G as b. The doctrine of relative identity has its natural home in an account of ontology that does not require that the things our terms refer to are subject to determinate identity conditions: Consider the statement

(1) ALLOY is identical to STATUE.

[17] See his [Geach, 1962].

If the terms 'Alloy' and 'Statue' pick out objects, and objects *are* subject to determinate identity conditions, then these conditions should settle, together with the worldly facts, whether the statement is true and so there is no room for a sortal to figure in the determination of the identity. On that reading, (1) *does* express a complete proposition.

But may we not develop an alternative conceptualist solution to the grounding problem, one that relativizes identity *instead* of existence? On such an account, the terms flanking the relative identity sign have to be construed as not picking out items that are subject to determinate identity conditions. That seems prima facie congenial to the conceptualist. After all, she believes that all there *really* is are ontologically inarticulate portions of stuff. Let us assume, then, that terms like 'Statue' pick out portions of stuff rather than objects and explore where the conceptualist might go from there. The first difficulty we face is saying just *what* portion of stuff a term picks out on an occasion of use, but let's set that difficulty aside. Next, we take a sortal C to determine a sortal-relative identity relation that relates portions of stuff. For instance, the sortal *statue* determines the relative identity relation *is the same statue as*. Assuming further that terms invoke, in conjunction with the context of use, sortal concepts that render some relative identity relation salient, the relative identity conceptualist can solve the grounding problem: What makes

(2) It is possible that Alloy has the shape of a fire screen

true is the existence of a possible portion of stuff that is a fire screen and that is the same piece of alloy as Alloy. What makes

(3) It is not possible that Statue has the shape of a fire screen

true is the fact that there is no possible portion of stuff that is a fire screen and that is the same statue as Statue. Finally,

(4) Alloy is the same piece of alloy as Statue, and

(5) Alloy is the same statue as Statue

are both true because Statue and Alloy pick out the same portion of stuff, a portion that is both a statue and a piece of alloy. While on this account there are no *things* that have modal properties—the only things there are are portions of stuff—modal *statements* are interpreted in terms of relative identity relations between portions of stuff and thus end up with the right truth values.

We started this section wondering about the relationship between sortal-induced identity conditions and sortal-relative identity. Now we see that relative identity relations relate portions of stuff while absolute identity relates objects. Starting from the assumption that all there really is is ontologically inarticulate stuff, the conceptualist has a choice: She can either factor sortal identity conditions right into the items that make up the ontology and thereby obtain configured objects governed by absolute identity. Or she can use the sortal identity conditions to obtain relative identity relations that govern mere portions of stuff.[18] Despite this superficial difference, relative identity conceptualism and relative existence conceptualism are closely related. A basic relative identity model $\langle P, I\rangle$ consists of a set S of possible portions of stuff and a set I of sortal-relative identity relations. We can "normalize" such a model by reconstruing its stuff ontology into an ontology of *objects*: For any portion of stuff $p \in P$ and any identity relation $i \in I$, let $[p]_i = \{p' \in P \mid p =_i p'\}$. We obtain an object model by letting its ontology consist of $\{[p]_i \mid p \in P \text{ and } i \in I\}$, that is all the equivalence classes of stuff under the relative identity relations in the relative identity model. The resulting model is an implementation of our original account, for the $[p]_i$ represent the objects that travel on sortal-induced paths through the space of stuffy possibilities. So the conceptualist can start with a stuff ontology, let sortals determine sortal-relative identity relations and normalize the resulting model to get an ontology of sortal-induced objects governed by absolute identity. In fact, this seems to be what we did in presenting the original account. Since the two conceptualist approaches are closely related and both give us a solution to the grounding problem, we might ask whether the conceptualist has reason to prefer one of the two. I think she does, even though, in the end, not much of substance hangs on the choice: The question we originally tried to answer was how objects come by their modal properties. The relative identity conceptualist tells us that there are no objects and goes on to do justice to what *appears* to be modal talk about objects. The relative existence conceptualist, on the other hand, gives us an account of the nature of objects—the very things we take ourselves to

[18] The latter seems to be the kind of account Locke had in mind in section II.xxvii.7 of his [Locke and Niddich (ed.), 1975]: "It is not therefore unity of substance that comprehends all sorts of identity, or will determine it in every case; but to conceive and judge of it aright, we must consider what idea the word it is applied to stands for: it being one thing to be the same substance, another the same man, and a third the same person, if person, man, and substance, are three names standing for three different ideas; for such as is the idea belonging to that name, such must be the identity". Thanks to an anonymous referee for pointing out the historical antecedent.

be referring to and quantifying over—and an answer to our question falls naturally out of that account.

V. *The Problem of Causation.* Many philosophers think that ontological conceptualism founders on a what Paul Boghossian has recently called the *problem of causation*:[19] Objects existed before concept users and would have existed even if concept users had never come to exist. Reasonable conceptualists must concede this. But then how is it that objects are supposed to depend on concepts? Is this not incoherent? While I regard it an open issue whether conceptualism will in the end turn out to be a satisfactory model of the nature of objects, I don't think it fails on account of the problem of causation.

As suggested above, the conceptualist approach works with a two-tiered conception of ontology: On the first tier we have the objectually inarticulate world, the worldly stuff, which comprises, let's assume, the spatio-temporal manifold on the basis of which concepts configure objects. The shape of this tier is independent of our concepts. Since an object is not exhausted by its worldly stuff, there are no objects—items subject to determinate persistence criteria—on this tier. A second tier is induced by our conceptual scheme which imposes persistence criteria on the stuff thereby configuring objects. That second tier, unlike the first, is objectually articulate and *its* shape depends both on the first tier—the world itself—and on the conceptual scheme brought to bear.

We can extend the machinery introduced above to model the conceptualist picture: As before, let $\mathcal{S}$ be the set of objectually inarticulate possible worlds, or possible "worldly stuffs". Let $\mathcal{C}$ be the set of all possible conceptual schemes.[20] An objectually *articulate* world can be represented by a pair $\langle s, c\rangle$ where $s \in \mathcal{S}$ is an objectually inarticulate world and $c \in \mathcal{C}$ is a conceptual schema. Since s and c *jointly* determine the ontology of $w = \langle s, c\rangle$, there are two ways in which an ontological fact, say the fact that there are snowballs, material objects subject to a particular set of persistence-conditions, may fail to obtain in w. First, it may fail to obtain because of the features of w's worldly stuff, say it may all be warm, or none of the snowy stuff may be packed together in just the right way. Second, it may fail to obtain because c does not contain concepts that imposed the right kind of persistence conditions to configure snowballs. Let us say that when a worldly stuff satisfies

[19] See Boghossian [Boghossian, 2006]. Others have pressed the same point, see for instance Stroud [Stroud, 1984] and Elder [Elder, 2004].

[20] For simplicity, we may assume that a conceptual scheme is a collection of sortal concepts which induce, as above, object-configuring functions.

the application conditions of a sortal concept, then it *permits* objects falling under that sortal. So according to the conceptualist, it may be that there are no snowballs in $\langle w, s\rangle$, even though s permits snowballs.

Corresponding to the two ways in which ontological facts may fail to obtain, we get two dimensions of possibility: Possibility generated by shifts of the worldly stuff and possibility generated by shifts of the conceptual scheme:

$\Diamond_s\varphi$ is true at world $w = \langle s, c\rangle$ if and only if there is an ontologically inarticulate world w' such that φ is true at $w' = \langle s', c\rangle$.

For example, it is s-possible that there are no snowballs because the worldly stuff may not have been arranged in the right way.

$\Diamond_c\varphi$ is true at world $w = \langle s, c\rangle$ if and only if there is a conceptual scheme c' such that φ is true at $w' = \langle s, c'\rangle$.

For example, it is c-possible that there are no snowballs because the conceptual schema brought to bear on the actual worldly stuff may not have imposed the the persistence-criteria typical of snowballs.

Parallel to these two dimensions of possibility, we can distinguish between two types of conditionals. One which tracks how things are in the closest ontologically articulate worlds that differ from the actual world in their worldly stuff, one which tracks how things are in the closest ontologically articulate worlds that differ from the actual world in what conceptual schema ontologically articulates them:

A *countersubstratum conditional* $P \rightarrow_{cs} Q$ is true at a world $w = \langle s, c\rangle$ just in case Q is true at every world $w' = \langle s', c\rangle$ whose worldly stuff s' differs minimally from that of w so as to make P true.

A *counterconceptual conditional* $P \rightarrow_{cc} Q$ is true at a world $w = \langle s, c\rangle$ just in case Q is true at every world $w' = \langle s, c'\rangle$ whose conceptual schema c' differs minimally from that of w so as to accommodate the conceptual situation described by P.

Since we reason about the world—how it is, was, will be and could be—from a fixed conceptual point of view, the space of possibilities we consider consists of the ontologically articulate worlds represented by $\langle s, c_@\rangle$, for variable w, that is the possible worldly stuffs conceptualized through our actual conceptual schema. As a consequence, counterfactual conditionals in natural language express countersubstratum conditionals.

With this machinery in place, consider

No Objects. If concept users had not existed, then there would not have been any objects.

This is an ordinary conditional which we read as a countersubstratum conditional and correspondingly evaluate with respect to worlds $\langle s, c_@ \rangle$ for which the substratum s does not support concept users (so that in $\langle s, c_@ \rangle$ there *are* no concept users). But of course, measuring closeness in terms of similarity of worldly stuff, the closest such worlds are worlds whose stuff hat supports all sorts of other entities and hence there are objects in these worlds, given that their ontologies are configured by our actual conceptual schema. So No Objects is false. However, I hope it has become clear that the conceptualist is not committed to the truth of No Objects. What she is committed to instead is the claim that $s_@$, the actual world simpliciter, is not ontologically articulate and that just amounts to the No built-in persistence criteria assumption. So the falsity of ordinary English conditionals like No Objects cannot be counted against the conceptualist position.

What these considerations show is that objections to conceptualism based on the problem of causation miss their target. We need to separate two questions. First, what is the correct metaphysical model of the nature of objects? Second, how is that view best expressed? In answer to the first question, the conceptualist puts forth a model of how to think about the nature of objects, a model on which the grounding problem disappears and which, as a desirable side effect, makes the problem of modal knowledge tractable. As far as the second question goes, we find that ordinary counterfactual conditionals like 'If there had been no concepts, then there would not have been any objects' fail to express the way in which conceptualists take objects to depend on concepts. Critics often dismiss conceptualist and related accounts precisely because they believe them to be committed to absurd claims like No Objects.[21] But that is a mistake.[22]

Compare the dialectical situation with that arising from a Quinean objection to de re modality: Substitution failure of singular terms in modal contexts was taken to show that the notion of de re modality is incoherent. What modal property attributions hold of an object appears to depend on the expression used to refer to the object: Eight is necessarily even but the number of planets is not necessarily even, yet the number of planets *is* eight. Therefore, modal properties are not had by objects themselves. So goes the Quinean objection. However, more careful consideration reveals that the source of the problem is not the alleged incoherence of de re

[21] See, for instance, [Stroud, 1984] and [Elder, 2004].

[22] See my [Einheuser, 2006] for a more extended discussion of this point.

modality but the semantics of the expressions involved: Substitution salva veritate in modal contexts may fail when the semantic function of at least one of the terms involved goes beyond merely picking out an object.[23] But in these cases, the statement concerned does not express a de re modal property attribution. Thus, for example, 'Necessarily, the number of planets is even' does not assert of a certain object that *it* necessarily has the property of being even. And so the fact that this statement is false does not show that the idea of an object's having some properties necessarily is incoherent. Similarly, I suggest that the falsity of ordinary counterfactual conditionals like No Objects has no bearing on the question whether ontological conceptualism is coherent. Once this is realized, the dispute about conceptualism can turn once again to more substantive issues like the question how exactly the No entity without identity assumption and the No built-in persistence criteria assumption are to be understood and justified or how exactly we are to conceive of the nature of material objects on the conceptualist account.

VI. *The conceptualist middle course.* At the beginning I said that the conceptualist solution to the grounding problem steers a middle course between modal nihilism—the view that there are no objects with modal properties—and modal primitivism—the view that nothing grounds an object's modal properties. Now we are in a position to see that conceptualism falls indeed in between these extremes, preserving both the modal nihilist and the modal primitivist intuition. On the one hand, ontological conceptualism preserves the primitivist intuition. When we try to "ground" modal properties, we are looking for a range of non-modal features of the world on which the objects' modal properties supervene. No such features are to be found on either of the two tiers: Modal and sortal properties do not supervene on "stuffy" properties—the stuff of Statue is the same as that of Alloy. And on the ontologically articulate tier, we don't find a suitable supervenience base either. Here, we find objects that appear to have their modal properties as a matter of brute metaphysical fact—Statue is *necessarily* shaped thus and so because that is part and parcel of being the object that it is. But ontological conceptualism also preserves the nihilist intuition. There *are* no objects on the "worldly" tier of the conceptualist's two-tier model of ontology, so there are, a forteriori, no objects with modal properties.[24]

[23] See, for instance, Fine [Fine, 1989].

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