

# M E T A P H Y S I C A

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# METAPHYSICA

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## Temporal Parts and Temporary Intrinsic<sup>\*</sup>

1. This paper is concerned with a familiar problem that any account of the metaphysics of material objects must face. The problem I have in mind is what is known as *the problem of temporary intrinsics*, the problem of how objects can persist through change.<sup>1</sup> A popular line of thought, endorsed by David Lewis (1986) among others, holds that if the *Metaphysic of Temporal Parts*—or the *MTP*, for short—is adopted, then the problem of temporary intrinsics can be adequately resolved.<sup>2</sup> On this view, the problem of temporary intrinsics and the MTP are linked, at least in the following sense: the MTP provides a solution to the problem of temporary intrinsics, and so gives us reason for thinking that the MTP is true.

Despite its attractiveness, however, I think this line of reasoning is flawed. To be sure, my dissatisfaction with the MTP is not original. For example, some philosophers have objected to the MTP on the grounds that they do not know what a temporal part is, and hence, that they find the MTP incomprehensible.<sup>3</sup> Others have argued that the MTP makes genuine change impossible and is to be rejected for that reason.<sup>4</sup> However, although

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\* I'd like to thank David Hunter and Zeno Swijtink for helpful criticism and advice on previous drafts. Thanks also to Henry Laycock, who provided me with vigorous comments at the 2001 meetings of the Canadian Philosophical Association where an ancestor of this paper was presented.

<sup>1</sup> In the terminology of David Lewis (see Lewis 1986, 202). See also Haslanger (1989).

<sup>2</sup> I owe the phrase 'the Metaphysic of Temporal Parts' to Judith Jarvis Thomson (1983).

<sup>3</sup> See Thomson (1983) for a statement of this view.

<sup>4</sup> See Mellor (1981) for a statement of this view.

I am sympathetic to these objections, my objection to the MTP will take a different form. What I wish to do is consider an objection that friends of the MTP press against other solutions to the problem of temporary intrinsics and turn it against the MTP itself. Thus, I will not be arguing that the MTP must be false, nor will I be arguing that there are no arguments in favor of the MTP.<sup>5</sup> Rather, the conclusion I will draw will be conditional: if the MTP provides an adequate response to the problem of temporary intrinsics, then the MTP provides no reason to reject our commonsense view of the nature of material objects.<sup>6</sup>

2. Let me begin with the problem of temporary intrinsics. In order to adequately discuss this problem, I first need to say what an intrinsic property is. The definition of ‘intrinsic property’ that I have in mind runs as follows: a property *P* is an *intrinsic property* of an object *x* if (i) whenever *x* has *P*, *x*’s having *P* does not entail the existence of a wholly distinct object *y*, and (ii) *y*’s existence is not contingent on the existence of *x*.<sup>7</sup> So, for example, the property of being red is plausibly intrinsic, since whether or not an object is red does not entail the existence of any other object. The property of being married, on the other hand, is plausibly non-intrinsic, since whether a person *N* is married does entail the existence of an object distinct from *N*, namely *N*’s spouse. If a property is non-intrinsic, I will also sometimes say that it is extrinsic, or relational, or derivative.

It is natural to suppose that some commonsense objects persist through changes in their intrinsic properties.<sup>8</sup> I will focus on my car, which

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<sup>5</sup> Other arguments for the existence of temporal parts are the argument from Special Relativity, and the argument from Humean supervenience. For a discussion of the first sort of argument, see Rea (1998); for a discussion of the second, see again Rea (1998) and Haslanger (1994).

<sup>6</sup> I assume that our ordinary, commonsense view of the nature of material objects is that such objects are three-dimensional in nature, and that they persist by enduring. For further explanation of this terminology, see §5 below.

<sup>7</sup> See Lewis (1983) and Langton and Lewis (1998) for discussion of the proper definition of ‘intrinsic’. The notion of entailment I have in mind is the necessary truth preserving one.

<sup>8</sup> The following presentation of the problem of temporary intrinsics owes much to Haslanger (1989).

persisted through the loss of its radio, but any ordinary material object will do.<sup>9</sup> More generally, then, we have the following principle about persistence:

(P) Some commonsense objects persist through intrinsic change.

If, however, my car persisted through the loss of its radio, then it would seem to follow that my car existed both before and after the loss of its radio. After all, it is *my car* that previously had a radio and presently lacks one. More generally, then, it seems right to say that if an object persists through a change in its intrinsic properties, then that object exists both before and after the change in question:

(E) If an object O persists through a change C, then O exists both before and after C.

Now, consider again my car. My car changed by losing the property of having a radio. Hence, from (P) and (E) it follows that there is some object with which my car is identical before losing its radio, and some object with which my car is identical after losing its radio. Let us call the object with which my car is said to be identical before losing its radio ‘car-plus’, and let us call the object with which my car is said to be identical after losing its radio ‘car-minus’.<sup>10</sup> The problem can therefore be reformulated as follows: is car-plus identical with car-minus? That is, is

(ID) car-plus = car-minus

true?

There is good reason to think that it is. For by (E), my car exists before losing its radio, and is identical with car-plus; and by (E) my car

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<sup>9</sup> I will use the property of having a radio as an example of an intrinsic property. This might seem odd, as it might be objected that an object O cannot have the property of having a radio unless there exists another, distinct, object, namely the radio in question. Nonetheless, I will stick with this example in what follows. So far as I can see, nothing of substance hangs on this choice of example.

<sup>10</sup> ‘Car-plus’ and ‘car-minus’ are intended to be singular referring terms, not disguised descriptions.

exists after losing its radio, and is identical with car-minus. So by transitivity of identity, car-plus and car-minus are identical, and so (ID) is true.

On the other hand, there is also reason to think that (ID) is false. For consider: car-plus has a property, namely having a radio, that car-minus lacks. But according to Leibniz' Law, for all objects  $x$  and  $y$ , if  $x$  is identical with  $y$  then  $x$  and  $y$  share all their properties. More formally:

(LL) For all objects  $x, y$ , and for all properties  $F$ ,  $x = y$  only if  $Fx$  iff  $Fy$ .

But then, since car-plus has the property of having a radio while car-minus lacks the property of having a radio, car-plus cannot be identical with car-minus, and (ID) is false.

We have therefore derived a contradiction from our intuitively plausible principles (P), (E), and (LL): it is both the case that car-plus and car-minus are identical with each other, and the case that car-plus and car-minus are not identical with each other. The problem of temporary intrinsics is best understood, I think, as the claim that (P), (E), and (LL), each independently plausible, together form an inconsistent triad.

**3.** What is to be done? One response is to claim that (P) is false: no objects persist through change. But this response should strike us as very implausible. After all, can it really be said that if my car loses its radio I have new object? Perhaps it can. *Strictly speaking*, somebody might say, upon the loss of its radio I do indeed have a new car; while *loosely speaking* upon the loss of its radio I have my old car, albeit with different properties. On this view, the question whether to retain (P) is a case of semantic indecision: it depends on whether we wish to speak strictly or loosely. I will simply state, without argument, that this seems to me to be an unattractive way to resolve the problem of temporary intrinsics. Consequently, I think that this sort of response should be viewed as a last resort.

Another response is to deny (E). But again, it is hard to see how we could deny (E) and still maintain the intuition that objects sometimes undergo changes in their properties. After all, (E) seems to follow from the very meaning of the word 'change': for to say that something changes is to say that some thing, some one and the same thing, comes to lose or acquire a property.



Finally, we might deny (LL). But this strikes me as extremely ill advised. For do we really want to suggest that a solution to the problem of temporary intrinsics requires a rejection of a fundamental logical principle? It seems to me that we do not. Consequently, it seems to me that we really do need a solution to the problem of temporary intrinsics that retains each of (P), (E), and (LL). Is such a solution available?

4. It might be thought that such a solution is obviously available. For anybody who has thought about the problem of temporary intrinsics will realize at once that what has been ignored is time. Indeed, I presented the problem of temporary intrinsics in a largely atemporal manner: my car has a radio; my car lacks a radio; so my car both has and does not have a radio. However, it would be more appropriate to say that my car both had and does not have a radio. Moreover, it might be argued that this is all that is required to solve the problem of temporary intrinsics. For since there is arguably no incompatibility between a thing's having a property at one time and lacking it at another, it might seem that the problem of temporary intrinsics is no problem at all.

But like many others, I think that this response will not do. For merely to point out that my car had a property that it now lacks does not solve the problem of temporary intrinsics; it merely redescribes it. As David Lewis puts it,

[i]t is not a solution [to the problem of temporary intrinsics] just to say how very commonplace and indubitable it is that we have different [properties] at different times. To say that is only to insist—rightly—that it must be possible somehow. Still less is it a solution to say it in jargon—as it might be, that bent-on-Monday and straight-on-Tuesday are compatible because they are ‘time-indexed properties’—if that just means that, somehow, you can be bent on Monday and straight on Tuesday. (Lewis 1986, 204)

The question is not *whether* time should be integrated into our solution to the problem, but rather *how* time should be integrated into our solution to the problem. And the answer to this question is far from obvious.

Consider a time *t* at which the sentence ‘My car has a radio’ is true. What is the underlying logical form of this sentence? A number of different proposals suggest themselves, but I will focus on two:

- (i) My car has-at-*t* a radio.
- (ii) My car-at-*t* has a radio.

Proposal (i)—which I will call *relationalism*—holds that so-called intrinsic properties are disguised relations. According to relationalism, in other words, the property of having a radio is a two-place relation that holds between my car and a time. Thus, according to relationalism objects do not have properties simpliciter; rather, objects have properties at, or in relation to, times.

Proposal (ii), on the other hand—which I will call the *temporal part response*—holds that ordinary objects undergo changes in intrinsic properties in virtue of having as parts temporal parts which themselves have properties. Let us turn to discussion of this response.

5. The temporal part response is favored by a number of philosophers, among them Cartwright (1975), Armstrong (1980), Quine (1981), Lewis (1986), Sider (1997), and Heller (1999). Proponents of the temporal part response often explain it by saying that according to it objects *perdure* through change, but do not *endure* through change. For ease of exposition, let us adopt this terminology:

something *persists* iff, somehow or other, it exists at various times; this is the neutral word. Something *perdures* iff it persists by having different temporal parts, or stages, at different times, though no one part of it is wholly present at more than one time; whereas it *endures* iff it persists by being wholly present at more than one time. (Lewis 1986, 202)

Of course, it is one thing to talk about temporal parts and temporal stages, or about objects being wholly present at different times; it is another thing to make this talk comprehensible. Consequently, the next thing we need to do is to try to explain what a temporal part is. Unfortunately, this is by no means an easy task.

For example, it might be supposed that a part P of an object O is a temporal part of O if P is a part of O at one time and is not a part of O at another time. But consider poor Jerry, who lost his finger in a wood-chopping accident as a child. According to this definition of ‘temporal part’ Jerry’s finger is a temporal part of Jerry, since there is a time—namely before the wood-chopping accident—at which Jerry’s finger is part of him, and another time—namely after the wood-chopping accident—at which Jerry’s finger is not part of him. But I think that this is not what friends of the MTP have in mind when they talk about temporal parts.

Temporal parts are sometimes introduced on analogy with spatial parts. So, for example, just as highway 101 has different spatial parts, some located at or near San Francisco, others at or near Santa Rosa, so too it is argued that ordinary objects have different temporal parts, some located at or near some times, others at or near other times. As Theodore Sider puts it, “[a] road has spatial parts in the subregions of the region of space it occupies; likewise, an object that exists in time has temporal parts in the various subregions of the total region of time it occupies.” (Sider 1997, 197) Similarly, Mark Heller remarks that “[i]nsofar as time is just one more dimension, roughly alike in kind to the three spatial dimensions, we should expect that our claims about object’s spatial characteristics have analogues with respect to its temporal characteristics.” (Heller 1999, 314) The analogy is not perfect, of course, since *prima facie* at least, there are many ways in which the spatial and temporal dimensions diverge. For example, time appears to have a direction of flow, whereas space does not, and temporal units of measurement are quite different from spatial units of measurement. Still, we can make the spatial-temporal analogy a bit more precise if we help ourselves to the notion of a region of space, and to the notion of a stretch of time.

First, regions of space. Following Cartwright (1975), let us say that a region of space is a set of points of space. Such regions of space might also be called ‘places’. Second, stretches of time. A stretch of time  $T$  is any interval of moments of time  $t_1, t_2, \dots, t_n$  where  $t$  is a moment of time if  $t$  has no temporal duration, and where for any two moments of time  $t$  and  $t'$ , either  $t$  occurs before  $t'$  or  $t'$  occurs before  $t$ . If a stretch of time  $T$  has no temporal duration, we will say that  $T$  is a moment of time.

We can now define the predicate ‘\_\_ is a temporal part of ...’. Following Thomson (1983), let us define this predicate as follows: suppose  $y$  exists through a stretch of time  $T$  that begins at  $t_0$  and ends at  $t_n$ . Then  $x$  is a temporal part of  $y$  iff  $x$  comes into existence after  $t_0$  and goes out of existence before  $t_n$  and  $x$  occupies some region of the space occupied by  $y$  for all of the time that  $x$  exists. I will assume that such a definition, or one very much like it, is something to which the MTP is committed.

With these distinctions in hand, philosophers often go on to distinguish three-dimensionalism from four-dimensionalism. Three-dimensionalism constitutes what I take to be our commonsense view of the nature of material objects. According to it, material objects persist through time by being wholly present at every moment at which they exist. Four-dimensionalism, on the other hand, is the view that material objects persist

through time by having as parts temporal parts which exist at some times, but not at others. The MTP is therefore a version of four-dimensionalism.<sup>11</sup>

6. So much by way of stage setting; let us return to the question of how the MTP purports to solve the problem of temporary intrinsics. Recall the problem: the intuitively plausible principles (P), (E), and (LL) together form an inconsistent triad, since they appear to entail both that (ID) is true, and that (ID) is false. But according to the MTP, this is a mistake. For according to the MTP, ‘car-plus’ and ‘car-minus’ pick out different entities: ‘car-plus’ picks out one temporal part of the four-dimensional object that is my car, and ‘car-minus’ picks out a distinct temporal part of that same four-dimensional object. Thus, the MTP claims that (ID) is simply false, and hence, that no contradiction results from the conjunction of (P), (E), and (LL).

Despite the attractiveness of this solution, however, it seems to me to face serious problems. In particular, I will argue that it faces the following dilemma: either it entails that objects that have temporary properties do not have them intrinsically; or it entails that objects that have intrinsic properties do not have them temporarily. In other words, I will argue that the MTP provides a solution to the problem of temporary intrinsics only by denying that there are any temporary intrinsics. This conclusion may be something that friends of the MTP can learn to live with. I will argue, however, that they can do so only by acknowledging that a standard MTP objection to relationalism fails. In the end, then, it seems to me that friends of the MTP must either acknowledge a fundamental problem with the MTP, and with its proposed solution to the problem of temporary intrinsics, or they must acknowledge that the temporal part response to the problem of temporary intrinsics provides no reason for thinking that the MTP is true. In the next sections I will try to make these general complaints a bit more precise.

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<sup>11</sup> This terminology is not entirely free from problems, and leaves a number of issues unaddressed. For one thing, the phrase ‘three-dimensionalism’ suggests that ordinary material objects lack a temporal dimension, and this is false if it is intended to mean that ordinary material objects lack temporal extension or duration. For another thing, it is unclear what it means for an object to be wholly present at every moment at which it exists. Still, I find the terminology to be familiar and useful, and I will make use of it in what follows.

7. The conclusion that the MTP entails that there are no temporary intrinsics is best argued for, I believe, if we shift to the formal mode. Consider the following sentence-schema:

(1) O has P at t, and O lacks P at t'.

Here 'O' is a variable ranging over ordinary material objects, and 'P' a variable ranging over intrinsic properties of ordinary material objects. Thus, (1) is to be read as saying that the material object O has an intrinsic property P at one time, but not at another.

Again, any solution to the problem of temporary intrinsics must show how it is possible for some sentences having the same form as (1) to be true. Now, according to the MTP an ordinary material object O has an intrinsic property P at time t if, first, O has at t a temporal part TP; and second, TP has P. And according to the MTP an ordinary material object has an intrinsic property P at a time t1 and not at another time t2 if O has different temporal parts TP1 and TP2—TP1 existing at t1, and TP2 existing at t2—such that TP1 has P and TP2 lacks P. So according to the MTP, if a sentence having the same form as (1) is true, it must be made true by the truth of a sentence having the same form as (2):

(2) O has a temporal part TP1 at t1, and TP1 has P, and O has a temporal part TP2 at t2, and TP2 lacks P.

But it now appears that according to the MTP if some sentences having the same form as (1) are true, then no properties of ordinary material objects are intrinsic properties; or no sentences having the same form as (1) are true. Equivalently, in the material mode: according to the MTP either intrinsic properties are disguised relations, and so are not temporary *intrinsic*s after all, or no intrinsic properties are ever had temporarily, and so are not *temporary* intrinsics.

Why do I say this? To see why, let us ask what sorts of material objects the variable 'O' ranges over in (1) and (2). There are two possible options for the friend of the MTP. Either 'O' ranges over four-dimensional objects, or 'O' ranges over temporal parts. Suppose 'O' ranges over four-dimensional objects. Then if a sentence having the same form as (1) is true it follows that if an object O has a property P, P is not an intrinsic property of O. For according to the MTP, to say that an object O has a property P is to say, first, that there is a temporal part TP that has P; and second, that O

bears a certain relation to TP. In other words, a sentence like (1) can be true only if O bears some relation to a temporal part which has P. Thus, on the assumption that ‘O’ ranges over four-dimensional objects, and on the assumption that no property the having of which depends on the existence of another object can be an intrinsic property, no ordinary material object ever has an *intrinsic* property.

Suppose, on the other hand, that the variable ‘O’ in (1) ranges over temporal parts. Then although it is plausible to suppose that the properties picked out by ‘P’ in (1) are intrinsic properties, it is also arguable that all sentences having the same form as (1) are false. This is because it is arguable that no temporal part can have a property P at one time and lack P at another time. And this is because it is arguable that temporal parts are such that if a temporal part has a property at any time at which it exists, it has that property at all times at which it exists. Thus, if ‘O’ ranges over temporal parts, then no properties had by temporal parts are temporary properties.

Evidently, this objection depends crucially on the principle that temporal parts have their properties essentially, and I do not know how to defend this claim. Seizing on my ignorance, friends of the MTP will perhaps object that a temporal part *can* have a property P at one time and yet lack P at another. Perhaps; as I said, I do not know how to show that this claim is false. However, even if this assumption is granted, it is of no help in the present context. For temporal parts were appealed to in an attempt to show how it is possible for ordinary material objects to have properties at some times and lack them at others. But it is of no help to be told that what makes *this* possible is that *temporal parts* can have properties at some times and yet lack them at others. After all, that is precisely the problem we are trying to address. Is the friend of the MTP going to claim that temporal parts have temporal parts? If so, the same objections that were directed against the MTP’s original solution to the problem of temporary intrinsics can be directed against such a proposal. Is the friend of the MTP going to claim that it is a brute and inexplicable fact that temporal parts can gain and lose properties? This simply trades one puzzle for another.

The present objection to the MTP can therefore be put as follows: either the variable ‘O’ in (1) and (2) ranges over four-dimensional objects, or it ranges over temporal parts. If ‘O’ ranges over four-dimensional objects, then if any sentence having the same form as (1) is true, this can only be because no properties had by the objects over which ‘O’ ranges are

intrinsic properties. On the other hand, if ‘O’ ranges over temporal parts, then no sentence having the same form as (1) is true, since no properties had by the objects over which ‘O’ ranges are had only temporarily. Either way, the MTP fails to provide a solution to the problem of temporary intrinsics, since it denies that there are any temporary intrinsics.

**8.** So far as I can tell, there are two lines of response open to a friend of the MTP. First, she can argue that the conclusion of the above argument does not follow from its premises: contrary to what I have argued, the MTP does not entail that no ordinary object ever has an intrinsic property only temporarily. Alternatively, she can grant the conclusion of the above argument, but argue that it does not present a problem for the MTP’s proposed solution to the problem of temporary intrinsics. I will suggest that neither response is satisfactory

Let us consider the first response. How might this response proceed? It is unlikely that a friend of the MTP will take the variable ‘O’ in (1) and (2) to range over temporal parts, since what we are concerned with are ordinary material objects, and not their temporal parts (if indeed they have any). Let us therefore take the variable ‘O’ in (1) and (2) to range over four-dimensional objects. Then where I say that if an object O has a property P, O has P only derivatively, and hence, that where ‘P’ ranges over intrinsic properties of material objects no sentence of the form ‘O has property P at t’ is true, the friend of temporal parts can say that a sentence of the form ‘O has property P at t’ is true just in case O has a temporal part, and that temporal part has P. Thus, this first response amounts to the claim that all it means for an ordinary material object—here understood to be four-dimensional in nature—to have an intrinsic property P is for that object to have a temporal part which has P.

Clearly, the viability of this response will depend on answers to two questions. First, is it plausible to suppose that an object x might have a property P in virtue of a distinct object y having P? And second, is it plausible to suppose that an object x might have an *intrinsic* property P in virtue of a distinct object y having P?

First question first. I think it should be granted that the idea that an object might have a property P in virtue of another object having P is not implausible. For example, it is plausible to suppose that what makes it the case that my car has a scratch is the fact that it has a door that has a scratch. Since the door of my car is not identical with my car, this is arguably a case of one object—namely my car—having a property in virtue

of another object—namely my car’s door—having that same property. Thus, our first question should be answered in the affirmative: an object can have a property P in virtue of a distinct object having P.

What about the question whether an object might have an *intrinsic* property P in virtue of a distinct object having P? Here I think there is trouble. For on the face of it the idea that an object x might have an intrinsic property P in virtue of standing in a relation to a distinct object y that has P seems incoherent: after all, if P is intrinsic, then x should be able to have P regardless of its relation to y, or indeed to any other object. Recall our definition of an intrinsic property: a property P is an intrinsic property of an object x if x’s having P does not entail the existence of a distinct and contingently existing object y. And as we have seen, in the case of four-dimensional objects and temporal parts, a four-dimensional object can only have a property P in virtue of having a temporal part that has P. What this suggests is that if intrinsic properties are properties which can be had by an object regardless of what is the case with any other object, then the MTP does away with intrinsic properties altogether, replacing them with relations instead. Granted, these relations are not relations to times, but are instead relations to temporal parts, but the point remains the same.

I conclude, then, that this first response is unsuccessful. For on the assumption that ordinary material objects have properties in virtue of bearing relations to temporal parts, it follows that no ordinary material object ever has an intrinsic property.

**9.** Let us turn now to the second response I mentioned above. This second response allows that the MTP entails that ordinary material objects do not have intrinsic properties, but insists that the sense in which this is true is not objectionable and hence, that the MTP is not objectionable as a solution to the problem of temporary intrinsics.

In order to evaluate this response we need to compare the temporal part response with relationalism. As I am using the term, relationalism is the view that objects have properties in virtue of being related to different times. So, for example, some objects are-at-t red; others are-at-t’ red; and so on.<sup>12</sup> And what this means is that the property of being red is not a one-

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<sup>12</sup> Again, recall that relationalism is the view that the instantiation relation is relativized to times. I don’t mean to suggest, however, that according to relationalism expressions like ‘is-at-t red’ are fused predicates, that they have no semantic or



place relation that takes a single object as argument, but is rather a two-place relation that takes as argument both an object and a time. Now according to the MTP, relationalism is objectionable as a solution to the problem of temporary intrinsics because it counts properties as two-place relations. David Lewis, for example, remarks that according to relationalism,

all [temporary intrinsics] must be reinterpreted as relations that something with an absolutely unchanging intrinsic nature bears to different times. The solution to the problem of temporary intrinsics is that there aren't any temporary intrinsics. This is simply incredible, if we are speaking of the persistence of ordinary things... If we know what shape is, we know that it is a property, not a relation. (Lewis 1986, 204)

Mark Hinchliff echoes Lewis, saying that relationalism “denies our intuition that the shapes are properties. Any sort of change on this theory involves relations not properties... In effect, [relationalism] denies that an object can undergo any sort of change in its properties.” (Hinchliff 1996, 121) So according to Lewis and Hinchliff, relationalism entails that so-called properties are really disguised relations, and so denies the possibility of genuine change.

As against this, however, there are two things to be said. First, despite what Lewis and Hinchliff say, I intuit no such thing about the nature of properties. That is, I do not know that shape is a property rather than a relation. This is not to say that I have no intuitions about the nature of properties so-called. For I do have the following intuition: if *being bent*, say, is an  $n$ -place relation, then *being more bent than* is an  $n+1$  place relation. That is, while I do not have any strong intuitions about whether or not *being bent* is a property or a relation, I do have the intuition that *being bent* is a fewer-placed relation than is *being more bent than*. And this, I suggest, is all we have to go on.

It is true, of course, that in natural language we distinguish properties from relations: we call *being bent*, *being round*, *being red*, and so on, properties; and we call *being more bent than*, *being rounder than*, and *being more red than* relations. However, this settles nothing as it stands. For we can agree with this observation and maintain both that *being bent*,

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syntactic structure. I simply want to emphasize the fact that according to relationalism, the instantiation relation is what is being temporally modified.

*being round, being red, and so on are relations, and that they are different from being more bent than, being rounder than, and being more red than.* For we can insist that what we ordinarily call a property is simply a two-place relation, and that the difference between properties and relations so-called is that for any so-called property you take, and for any so-called relation you take, the so-called property will always be a fewer-placed relation than the so-called relation in question. So the first thing to be said in response to Lewis and Hinchliff is that their intuitions are merely that.<sup>13</sup>

The second, and more important, thing to be said against Lewis and Hinchliff is this: suppose that Lewis and Hinchliff are right, and that if we know what shape is we know that it is a property, not a relation. How is this supposed to help the friend of the MTP? It will help the friend of the MTP only if the MTP entails that shape is a property, and not a relation. But if, as I have argued, the MTP also entails that shape is a relation, then this objection to relationalism applies equally well to the MTP. Again, a dilemma presents itself: either it is incredible to think that shape is a relation, or it is not incredible to think that shape is a relation. If it is incredible to think that shape is a relation, then the MTP is open to the same objection that relationalism is open to. And if it is not incredible to think that shape is a relation, then Lewis's and Hinchliff's observation does not constitute an objection to relationalism in the first place.

**10.** Faced with this dilemma, I think it is clear that friends of the MTP should insist that relationalism's characteristic claim—that an object's having a property depends on its being related to a time—is objectionable in a way that the MTP's claim that an object's having a property depends on its being related to a temporal part is not. Our definition of 'intrinsic' went as follows: a property P is an intrinsic property of an object x if x's having P does not depend on the existence of a distinct and contingently existing object y. So we can ask: is a temporal part TP of an object O distinct from O? And relatedly, does the MTP really make properties into disguised relations? If these two questions are answered in the negative, then there will be reason to think that the MTP is not objectionable as a response to the problem of temporary intrinsics.

Consider the question whether a temporal part TP of an object O is an object which is distinct from O. Temporal parts, although not identical

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<sup>13</sup> I am not claiming that either Lewis or Hinchliff intends this observation to be a knockdown refutation of relationalism. Intuitions are, after all, only intuitions.

with the four-dimensional objects of which they are parts, are yet not discrete from those objects either. Rather, one is quite literally a part of the other. So although it is true that the MTP entails that ordinary objects have properties in virtue of being related to temporal parts which have properties, it might be thought that the relation between the object and its temporal parts is sufficiently intimate to temper the charge that the MTP makes properties into relations.

Nonetheless, I think that this response will not do. Recall Lewis's remark that the problem with relationalism is that according to it temporary intrinsics 'must be reinterpreted as relations that something with an absolutely unchanging intrinsic nature bears to different times'. But equally, it would seem that according to the MTP temporary intrinsics must be reinterpreted as relations that something with an absolutely unchanging intrinsic nature bears to different temporal parts. According to the MTP, a four-dimensional object acquires and loses the property of being red, say, in virtue of gaining and losing a temporal part that is red. Again, it is hard to discern any important difference between relationalism and the MTP on this count.

To this it might be objected that this objection misconstrues the relation temporal parts bear to the objects of which they are a part. For it might be argued that if TP is a temporal part of an object O, then *necessarily* TP exists and is a part of O. For if an object O is a sum of temporal parts, then O depends for its existence on that sum of temporal parts and thus, if O exists, then necessarily its parts exist. And given our definition of 'intrinsic property', namely, that a property P is an *intrinsic property* of an object x if x's having P does not depend on the existence of a distinct and contingently existing object y, it might be thought to follow on the MTP that ordinary objects *can* have intrinsic properties. But again, it seems to me that this objection is misguided. For it is not clear that if TP is a part of an object O, then TP is *necessarily* a part of O. For consider some candidate four-dimensional object, say Descartes.<sup>14</sup> On this view, Descartes could not have existed for a shorter period of time than he did exist for. For suppose Descartes could have existed for a shorter period of time than he did exist for. According to the MTP, this could only be because a temporal part that was in fact a part of Descartes might not have been a part of him. But if objects have their temporal parts necessarily, then Descartes could not have lacked any temporal part that he in fact had,

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<sup>14</sup> The following argument was suggested by van Inwagen (1990).

and so could not have existed for a shorter period of time than he did exist for. And this strikes me as highly implausible.

What about the question whether the MTP makes properties into disguised relations? I have been arguing that since the MTP entails that an ordinary object's having of a property depends on that object's bearing a relation to a temporal part, the MTP entails that so-called intrinsic properties of ordinary material objects are in fact relations. But there is an obvious response to this claim, viz., that while it is perhaps true that the MTP entails that the properties had by ordinary material objects are relations, this is compatible with the claim that the properties had by temporal parts are intrinsic. For example, if temporal parts have their properties essentially, then they have those properties regardless of their relations to other objects. And this means that those properties are intrinsic properties of the temporal parts. So it might be thought that the MTP is compatible with the existence of intrinsic properties after all.

I should note at the outset that it is unclear why the claim that temporal parts might have intrinsic properties would make us less worried about the nature of the properties had by ordinary material objects since, after all, what we are primarily concerned with are ordinary material objects and their properties. Still, if we set this worry aside, this seems to be a fair objection. Unfortunately, I'm not sure how to respond to it, since as I've said, I'm not sure how to answer questions concerning the modal properties of temporal parts. For example, consider a temporal part TP which comes into existence at a time  $t$  and goes out of existence at a later time  $t'$ , and which is gray and square. Could TP have come into existence at a time earlier than  $t$ ? Could TP have existed for a longer or shorter stretch of time? Could TP have been red and circular instead of gray and square? I have no idea about how to begin addressing these questions.

Moreover, this sort of response is open to the following rejoinder. One would naturally assume that if an ordinary material object  $O$  has a property  $P$  in virtue of having as a part a temporal part TP which itself has  $P$ , then the property  $P$  had by  $O$  is the same property as that had by TP. But on this response, this assumption is mistaken. For the property  $P$  had by  $O$  is a relational property, whereas the property  $P$  had by TP is an intrinsic property, and it is hard to see how one and the same property could be both intrinsic and relational.

Perhaps this is not a genuine worry; perhaps it merely points to an ambiguity in the language we use to attribute so-called properties to objects. For example, it might be argued that when we use the predicate 'is

red' to attribute an intrinsic property to an ordinary material object O, what we attribute to O is instead a relation, whereas when we use the predicate 'is red' to attribute a property to a temporal part TP, we succeed in attributing a genuine intrinsic property to TP. This sort of hybrid view doesn't strike me as obviously wrong, but it does strike me as being very unattractive. For the predicate 'is red' does not appear to be ambiguous in the way in which the predicate 'is a bank' is ambiguous.

Although these remarks are inconclusive, I nonetheless conclude that this second response fares no better than the first. For since the MTP entails that an ordinary object's having a property involves that object bearing a relation to a temporal part, the MTP entails that the properties had by ordinary objects are relational rather than intrinsic. And the observation that temporal parts can have properties non-derivatively would not appear to affect this fact.

**11.** Where does this leave us? I first argued that the MTP faces a dilemma: either the MTP entails that no ordinary material object ever has a property only temporarily, or the MTP entails that the properties had by ordinary material objects are disguised relations, and so are not intrinsic. I then suggested that there are two responses open to friends of the MTP: either they can deny that the MTP entails that properties are disguised relations; or they can grant this, but argue that this is not a problem for the MTP. The first sort of response was found unconvincing, given our definition of 'intrinsic property'. And the second response was also rejected on the grounds that the MTP fares no better than relationalism on this score.

But the question remains: what *is* an adequate solution to the problem of temporary intrinsics, and what would such a solution tell us about the nature of material objects? The answers to these questions will depend on whether one thinks that properties can be relations. If you are of the opinion that any view that counts properties as relations must be false, then it seems to me that you must reject relationalism along with the MTP, and look for some other solution to the problem of temporary intrinsics. On the other hand, if you are not convinced that turning properties into relations is in and of itself reason to reject an account of the metaphysics of material objects, then you are free to endorse either relationalism or the MTP.

For the reasons given above, I am not convinced that turning properties into relations is sufficient reason for rejecting an account of the

metaphysics of material objects. However, I incline towards the view that ordinary material objects are three-dimensional in nature, that they persist by being wholly present at every moment at which they exist, and that they gain and lose properties by bearing relations to different times. Granted, this requires the rejection of some pre-theoretical views about the nature of material objects; but the MTP also forces us to abandon certain of our pre-theoretical views. For in addition to committing its proponents to the existence of temporal parts, the MTP also entails that properties are disguised relations. In the end, then, it seems to me that the MTP forces us to abandon too many of our pre-theoretical intuitions about the nature of material objects, and so represents a misguided account of the metaphysics of ordinary material objects.

There are a number of important issues that I have not addressed in this paper. My aim, however, has not been to consider every argument for or against the MTP. Rather, my aim has been to suggest that the MTP provides a solution to the problem of temporary intrinsics only by denying the existence of properties that are both temporary and intrinsic. And the conclusion I drew from this was conditional: if the MTP provides an adequate response to the problem of temporary intrinsics, then the MTP provides no reason to reject our commonsense view of the nature of material objects. Thus, it seems to me that we are better off looking away from the MTP, and towards some version of three-dimensionalism, for an account of the nature of material objects.

#### **ABSTRACT**

The problem of temporary intrinsics is the problem of how objects can persist through change. A popular line of thought holds that if the *Metaphysic of Temporal Parts*—or the *MTP*, for short—is adopted, then the problem of temporary intrinsics can be adequately resolved. On this view, the problem of temporary intrinsics and the MTP are linked, at least in the following sense: the MTP provides a solution to the problem of temporary intrinsics, and so gives us reason for thinking that the MTP is true. In this paper I argue this line of reasoning is flawed. I consider an objection that friends of the MTP press against other solutions to the problem of temporary intrinsics and turn it against the MTP itself. The conclusion I draw is therefore conditional: if the MTP provides an adequate response to the problem of temporary intrinsics, then the MTP provides no reason to reject our commonsense view of the nature of material objects.

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## Cambridge Change and Sortal Essentialism

### I.

In his recent attempt to deal with a putative conflict between Cambridge change and sortal essentialism put into focus by Chrysippus's puzzle Jim Stone has the following claims<sup>1</sup>. First, the “brittle” form of essentialism which Burke deployed previously in his approach is implausible since it entails that trivial changes in the relational properties of objects can lead to the destruction of these objects. In the puzzle, for example, Theon, the proper part of man Dion consisting of all of Dion except Dion's left foot is destroyed according to Burke by being separated from that foot by amputation.<sup>2</sup> Burke's reason for Theon's destruction is that if it continued to exist it would become indiscernible from man Dion and so it would begin to satisfy the substance sortal “an” undergoing thus a “sortal change”. However, no survival under another sortal is permitted by sortal essentialist insights. As Stone sees it, accepting that such merely relational changes, i.e. Cambridge changes have lethal effects for the objects would reduce essentialism to absurdity. Second, he claims that one can avoid such unwelcome consequences by making appeal to the constitution relation granting thereby the survival of Theon as a constitutor of Dion. This suggestion, though it is irrelevant as a solution of Chrysippus's puzzle, as Stone admits, still, its main advantage is that the constitution relation mitigates the effect of Cambridge changes for sortal essentialism.

Stone writes:

Once we shift to the view that post-amputation Theon merely constitutes Dion, however, the brittle form of essentialism that Burke deploys becomes less implausible. As it is false that Theon becomes a man if it survives the separation from Dion's foot, Theon is not destroyed by a mere relational change after all. Now we can insist, without reducing essentialism to absurdity, that no proper part of a man can survive by becoming a

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<sup>1</sup> Stone, J. (2002: 216., 222)

<sup>2</sup> see Burke (1994:134)

whole man. In effect, the constitution relation provides a protective buffer between sortal essentialism and Cambridge change. [later] Burke's alternative ... without the constitution relation as a buffer, is rendered untenable by Cambridge change. (Stone 2002: 222)

In what follows I shall point out that the constitution relation cannot serve as a protective buffer between sortal essentialism and Cambridge change for the following reason: Theon's putative survival in whatever form, say, what is made possible by constitution, presupposes that an *essential property of Theon is lost by Cambridge change*. For, as I will argue, being a proper part of a man is essential to Theon. It loses that feature by the amputation, although that feature does not make a substance sortal. And the loss of an essential property while the thing continues its existence is denied by any form of essentialism.<sup>3</sup>

If sound, what this shows is that it is time to revise the standard picture according to which Cambridge changes are too insubstantial to play a role in essentialist considerations. My argument does not presuppose the disapproval of appealing to the constitution relation: I do not take a stand on this issue between Burke and Stone or the rest of the philosophical community. All I am presupposing is this: pre-amputation Theon *was* a proper part of a man, *hence* it was a *non-man essentially* which is clearly accepted by both Burke and Stone. Theon loses by the amputation its property of being the proper part of a man, as no one denies.

Before coming to my claims, the locution “being the proper part of a man” needs to be addressed briefly. Burke (1994: 129) states his argument in terms of persons, not men; Stone (2002:217) reformulates the argument in terms of men admitting that “nothing of philosophical importance hangs on the simplification”. Again, Burke (2004: forthcoming) spells out his premises in terms of “proper parts of men” while characterising Dion as “a whole-bodied, human person” whose “part is Theon”. In view of these formulations I take it that the suggestion is the following: Theon as a proper part is to be identified by reference to the person Dion in virtue of the latter’s having a human body. Since unity is traditionally ascribed to persons, presumably it is more appropriate to talk about proper parts of men than to talk about proper parts of persons.

Here I shall show, first, that being the proper part of a man is an essential property of Theon, second, I will explore the consequences of the

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<sup>3</sup> I am grateful for valuable comments and criticism of an earlier draft of this paper to Robert Kirk, Stephen Barker and Robert Black.

loss of an essential property for the connection between Cambridge change and essentialism.

## II.

While agreeing on the pre-amputation phase, Burke and Stone diverge on the post-amputation phase, along the lines that I have already briefly indicated. My point will be that no survival is possible for Theon but not for the reasons given by Burke. Let us see first more closely how Burke and Stone conceive the problem. According to Burke if Theon survived the operation, it would survive it as a person since by becoming qualitatively and compositionally identical to the person Dion, personhood could not be denied of it. But Theon's survival is overridden by sortal essentialism according to which the general sort of a thing is essential to its identity and, as a consequence, if a thing ceases to fall under a general sort marking out its essence, it ceases to exist.

Now the change suffered by Theon qualifies as a sortal one in Burke's view, but the reason he gives does not focus on what is actually lost by the change; but rather, it is explained counterfactually as to what *would be* gained by a "sortal change". Evidently, the change cannot be a sortal one according to what is actually lost since Theon, the "torso" not falling under the form Man, belongs to the *complement* of the essential substance sortal Man. Clearly, complements of substance sortals are not themselves substance sortals; therefore things in that range have no substance sortal, though they have the property of falling under the complement of a substance sortal essentially, due to the essentiality of the general sort. So "sortal change" with Theon can only be explained counterfactually: he would acquire substance sortal Man if he continued to exist.<sup>4</sup> Since no substance sortal can be acquired, then, true to sortal essentialist insights, Theon is done in by a Cambridge change.

Stone rejects the supposition that Theon is a man after the surgery if he survives, and considers as an option Theon's survival by appealing to the constitution relation: thus Theon survives as a mere constitutor of man

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<sup>4</sup> Burke explains 'sortal change' in the given case as follows: 'I say that Theon undergoes a "sortal change" (a change in sort) because the change it undergoes is one that would result in its beginning to satisfy, if it continued to exist, the substance sortal "person"; (3) in saying that the relational change results in a sortal change, I am relying on my third assumption that Theon is a person after the surgery, if it exists after the surgery, as well as on my first assumption, the maximality of person, which provides the basis for denying that Theon is a person before the surgery.' (Burke 1994: 138 footnote 20)

Dion. (This option is not available to Burke for he rejects coincident objects.) By invoking the constitution relation Stone purports to mitigate both the extreme brittleness of sortal essentialism and the *force* of Cambridge change; so, in his solution Theon is not done in by a Cambridge change after all. In Stone's version of essentialism which he calls "relaxed essentialism" "men are essentially men" expresses the thesis that nothing in the set S of things having the feature of being explained by the form Man can become a member of the complement of that set and survive. For example, if a man suffers brain damage and loses thereby his mental abilities he will be a man "in name alone" since he is no longer explained by the form Man. Its proper place will be in the complement of the set Man as a "non-man". By the same token, members of the complement of the set determined by the form Man cannot survive under the form Man. For, "non-men are essentially non-men" "expresses the thought that nothing in the complement of S can become a member of S and survive".<sup>5</sup> So, a "torso" cannot become a whole man by amputation and survive.

Stone's version of sortal essentialism "requires no exception for proper parts of men", as he says; so, proper parts of men are members of the complements of sets determined by substance sortal Man and presumably the same applies to proper parts of other things falling under a substance sortal.<sup>6</sup>

So, Stone seems basically to accept, with the above qualifications, premises 1) and 2) of Burke's reconstructed argument, that are:

"(1) The concept of a man is maximal; proper parts of men are not men."

"(2) Men are essentially men (thus non-men are essentially non-men)".<sup>7</sup>

Stone rejects only premise (3): "If Theon survives the separation from Dion's foot, then Theon will be a man".

Before coming to my reading, I suggest a restriction as to what counts as "essentially non-men" since negative properties have always been found suspect. Philosophers from Duns Scotus through McTaggart up to D.M. Armstrong refused them for various reasons. One worry may be particularly acute with *essential negative properties*: how do they contribute to the characterisation of things which is part of the duty of essential properties? Fortunately, Stone provides us with a clue as to what counts as

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<sup>5</sup> See (Stone 2002: 220)

<sup>6</sup> See (Stone 2002: 221)

<sup>7</sup> See (Stone 2002: 217) and Burke's repeated suggestion of these premises: Burke(2004:2)

“essentially non-man”; we just have to spell it out explicitly in the form of a restriction.

The restriction is plausible and has a bearing on my argument. It is that *only proper parts* of men are to be taken as members of the complements of sets determined by the form Man *plus* cases of whole men being man “in name alone” for some reason or another. Without this restriction the notion of an essential negative property would become trivialised. For example, every animal except men in the domain of animals have the property of being non-man and, by the essentiality of the sort, have this negative property essentially. Also, every animal of a given sort lacks essentially the property of belonging to any other sort of the domain: so, for example, a dog is essentially non-cat, essentially non-horse, etc. Moreover, if we take a wider domain with medium-size macroscopic concrete objects both animate and inanimate then, clearly, objects of that domain will have a host of essential negative properties that are supposed to play a role in their characterisation, as essential properties typically do. To avoid such counter-intuitive consequence and also to be in line with the use of “complement of general sort” in the given context by both Burke and Stone, I take it that only proper parts of things falling under a general sort plus the whole thing which is literally “whole” but fails to satisfy the general sort for some reason qualify as members of the complement.

### III.

My reading of how Cambridge change affects essentialism focuses not on the post-amputation phase; rather, it focuses on what property of Theon is *lost* by the change. If Theon survives the amputation in whatever form it does, this very fact casts a new light on its property of being the proper part of a man, hence its property of being essentially non-man. For now, after the amputation it is the case that it *was* a proper part of a man but it lost this property. Clearly, no one denies this step.

Now the crucial point of my argument is this: the property of being the proper part of a man *is an essential property*; and if it is lost by a change then an essential property is lost by a change. Further, if the object is supposed to continue its existence, this contravenes the basic essentialist insights. To support my contention we can proceed by observing that Theon's being a proper part of a man is the property *in virtue of which* it is essentially non-man. This seems to be uncontroversial again on the basis of Burke's premises 1) and 2). So, Theon's being a proper part of a man is its

essential property, though not a sortal one. This is its essential property lost by a Cambridge change while the object continues to exist under whatever form it does. But this is clearly unacceptable on essentialist grounds, because no thing can survive the loss of an essential property.

So Theon perishes in a Cambridge change; and this result of mine matches with Burke's result. However, the essentialist consideration I deploy to this conclusion is different from Burke's consideration; and it has, perhaps, the advantage that it cannot be challenged by invoking the constitution relation. For, as I have argued, once an essential property of a thing is lost, no survival is conceivable under any form.

My argument partly vindicates Burke's point to the effect that Cambridge change actually affects Theon's essential property; however, what it affects is not a new substance sortal putatively acquired after the change; and this point has to be conceded to Stone.

But this is not the end of the story: we have to be able to exclude other reasons for Theon's being essentially non-man; otherwise we cannot prove that its being the proper part of a man was *the* essential property. For example, since I claimed in section II. that only proper parts *and* defective wholes are in the complements of essential substance sortals, the question arises whether Theon could survive as a defective whole, preserving thus the property of being essentially non-man. This would be a possible way of avoiding my conclusion. However, Theon could not turn into a defective whole by the change, and thus qualifying again, after the amputation, as essentially non-man, since Dion with the same defect does not qualify as such either.

A further possibility to undermine my approach would be the following. Theon survives the operation as our commonsensical intuition would demand, so that we do not have to face the challenge of Cambridge change for sortal essentialism as I insist. The survival, however, is grounded in the fact that Theon is an aggregate of mere flesh and bones, blood, cells, etc. This aggregate can be individuated solely by reference to such parts and the intrinsic properties involved in having such parts. Since Theon remains the same after the surgery in terms of this individuation, nothing actually happens to it in a Cambridge change. Theon's principle of individuation is always different from Dion's principle of individuation: while Theon is individuated mereologically, Dion is individuated by sortal essentialism. So, having a head, two arms, a body, but only one leg, etc. are essential to Theon's identity; whereas the having of exactly these parts or any other ensemble is not essential to Dion, the man. So Theon's being a non-man,

and being essentially a non-man are explained by the fact that what are essential to its identity are not essential to a man's identity. This suggestion has been made to me by Stephen Barker.

Now I do not think that Theon's being essentially non-man can be explained in this way; i.e. its being an entity individuated mereologically without reference to such relational property as being the proper part of a man. My reasons for denying this option are the following.

1. If Theon could be individuated mereologically the implication of this would be that Theon's identity would become extremely fragile. Mereological individuation brings with it excessive rigidity: if, for example, Theon loses a drop of blood during the operation which is very much conceivable, Theon dies *qua* the entity mereologically individuated in terms of the parts it *actually* has and the intrinsic properties involved. Even if the surgery is carried out in ideal conditions, Theon with its biological functions is in constant flux as to its metabolism, breathing, etc. As a biological entity, it dies in every moment and it is born in every moment if its identity is viewed from a mereological perspective. Mereological individuation may work well with abstract entities, like sets and classes but it is not the best guide to the individuation of living organisms or functionally organised entities, artefacts, for example. Therefore, Theon cannot qualify as essentially non-man by being mereologically individuated. My point is supported also by Burke.<sup>8</sup> On the mereological approach, then, Theon would die in every moment; on my approach, it would die only once.
2. There is also a positive reason as to why Theon should be identified by reference to its relational property of being the proper part of a man. The insight is this: although Theon performs many of the biological functions that humans do perform, its essential feature cannot be being a man, only a non-man. For, if exception were made for proper parts, then, clearly, instead of one man there would be a host of men: all-of-me-but-my-pinky-tip would be me as a man; all-of-me-but-one-hair-plucked-out would be me as a man, etc. Or, what Burke coins as the "many-thinkers problem", proper parts of human thinkers would themselves be human thinkers which is clearly far from the "commonsensi-

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<sup>8</sup> Burke in (2004) footnote 6. states explicitly that Theon is not mereologically rigid. Here he considers another part of Dion called Adam. What the latter actually is, is irrelevant for the present concern; what is relevant is that Burke says: "Adam (unlike Theon) is mereologically rigid"...

cal view". Therefore, to de-occamise the identity of such entities would be highly counterintuitive; mereological individuation is not a good option either, as we have seen. So the best available option is to individuate Theon as a proper part of a man and the main contentions are nicely captured in Burke's premises 1) and 2), underwritten also by Stone.

So I take it that Theon's being a proper part of a man was its essential property; and it was essentially non-man in virtue of this property.

Now to grant its survival with the loss of this property would amount to serious problems. Consider: if Theon can lose its property of being essentially non-man, this means, from the perspective of its diachronic identity, that having this property only in one phase of its career, the property qualifies only as a phase-property (though not a phase-sortal). But phase-properties are had contingently: so Theon *contingently* has the property of being *essentially* non-man (since it has it only in one phase but not through its whole career). Uncomfortable as it is, there are two options at this point. One can make concession to the time-relative reading of essential properties; but this is to make a drastic enough revision in essentialist commitments. Or, alternatively, one can argue that since Theon only contingently has the feature of being a non-man after the amputation it must have had it contingently in the pre-amputation phase as well. That is, Theon is contingently a non-man through its whole career; but this is to produce an even more scandalous damage to essentialism. For if members of the complement of the set Man are members there only contingently, then, members of the set Man itself will be members there only contingently; and this violates the essentiality of falling under a general sort. These are the complications if survival is supposed under any form.

So the upshot is this: if a proper part of a substance ceases to be its proper part, say, as a result of a Cambridge change, then, under whatever form it survives, it loses its essential property of falling into the complement of the set determined by the substance sortal. And this clearly conflicts with the basic essentialist conviction that no essential property can be either lost or acquired while the object continues to exist. The only possible option left for admitting the survival of Theon say, under the constitution relation, would be to embrace a time-relative notion of essential properties; but I am not sure whether this is the kind of relaxing essentialism that Stone has in mind.

Let me note here that the post-amputation phase with Theon's surviving as a constitutor of Dion is not problematic on essentialist grounds. Evidently, pre-amputation Theon was not a constitutor of Dion as a whole, for



the latter was more than Theon. The move of becoming the constitutor of Dion by amputation causes no problem for sortal essentialism, because any object is only contingently related to its actual constitutor and contingent properties, including relational ones, are permitted to be acquired or lost without the destruction of the object. *What is not permitted, however, is to lose, in a Cambridge change, the property of being essentially non-man, and acquire instead the property of being the constitutor of a man contingently.* Therefore the constitution relation is *not* “a protective buffer between sortal essentialism and Cambridge change”, contrary to Stone's claim.

Cambridge changes raise an interesting issue about essential properties being affected by change. It is widely held that such changes are relational changes that are not real alterations in the intrinsic properties of the subject.<sup>9</sup> Such changes are typically located in the “other” relatum: for example, Sam's becoming envied by his neighbours consists in changes in the psychological attitudes of his neighbours towards him. Since it is difficult to ascribe such events to the substance, to Sam in this case, some authors try to dispense with Cambridge events. As Brand remarks, “one way to proceed in these cases is to distinguish between relational and non-relational changes, and restrict events to non-relational changes”. (Brand 1975: 147)

It seems to be a natural suggestion that Cambridge changes, since they do not involve the constituting properties of the substances, cannot be essential to the substances. If Cambridge-changes are located in the “other” relatum, they do not affect the constituting properties of the substance. But, then, how do they affect the substance at all? How is Sam as an individual substance affected by the growth of his neighbours' envy towards him? As we have seen Cambridge changes can still have important metaphysical consequences: they can incur sortal changes.

The main difficulty in the very notion of Cambridge changes is that while being essentially *relational* they are viewed from the perspective of a substance as the bearer of a set of monadic properties. Typically, predication with monadic properties ascribes a special role to the subject; while Cambridge changes are located in the other relatum. As relations, Cambridge changes supervene on one relatum, while being expressed from the perspective of the other relatum they do not supervene on. The envy supervenes on the neighbours' psychology but the event is expressed from the

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<sup>9</sup> About "real change" and "intrinsic property" see (Vallicella 2002)

perspective of the passive partner, Sam.<sup>10</sup> Still, as we have seen, Cambridge changes can be evaluated modally from the point of view of the relatum they do not supervene on, as we have seen with the case of poor Theon.

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<sup>10</sup> Perhaps, a finer distinction can be made within Cambridge events to cope with the cases when they supervene on both relata, although they do not equally concern both relata. For example, Xanthippe's widowing does not supervene only on Socrates death but also, as a presupposition, on Xanthippe's being a female married to Socrates as her last husband. This example is due to Geach.

FRANK HOFMANN

## Substrate

### Abstract

This paper aims at a defense of the substratum theory, according to which there are concrete particulars which do not have any properties as constituents – called ‘substrata’ or ‘bare particulars’. The first and longer part of the defense will consist in rejecting three important objections against the substratum theory: the incoherence objection, the objection from bearership, and the objection from the missing grounding of property possession. In the course of criticizing these objections, the basic features of substrata will come to light. They are particulars that instantiate properties (universals), even though they do not have properties as constituents. Substrata may, however, instantiate certain properties essentially. The second part consists in a more ‘positive’ elaboration of the substratum theory. The hypothesis that will be put forward is: the space-time points are the ideal candidates for being the substrata of our world. Accepting this hypothesis brings with it a lot of explanatory potential and, in particular, it allows us to explain the phenomenon of qualitative change in a way that is superior to both perdurantism and endurantism.

### 1 Einleitung

**I**n diesem Aufsatz möchte ich die Idee untersuchen, dass es letzte Einzeldinge – Substrate, die oft auch als ‘nackte Einzeldinge’ (*‘bare particulars’*) bezeichnet werden – gibt, die keine Eigenschaften als Konstituenten oder Teile haben (und auch keine anderen Einzeldinge als Konstituenten oder Teile). Diese letzten Einzeldinge oder Substrate sind gänzlich einfach; sie haben keinerlei ‘innere Struktur’, weder mereologische Konstituenten - Teile - noch nichtmereologische, insbesondere aber eben keine Eigenschaften als Konstituenten. Die Frage, auf die eine Theorie der Substrate antwortet, lautet: Was sind die letzten konkreten Einzeldinge? Mit ‘letzten’ ist dabei gemeint, dass es sich um diejenigen Einzeldinge handeln soll, die - wenn es solche gibt - nicht mehr aus anderen Einzeldingen aufgebaut sind, keine anderen Einzeldinge als

Konstituenten haben. Fünf Ansätze konkurrieren derzeit miteinander im Hinblick auf diese Frage: die Bündel-Theorie (mit Universalien: Russell; mit Eigenschaftsinstanzen: Simons), die Theorie der Leibnizschen individuellen Essenzen (Plantinga), die Substrat-Theorie (Bergmann, Moreland) und die Neo-Aristotelische Substanz-Theorie (Loux, van Inwagen). Außerdem könnte man natürlich die gewöhnlichen Einzeldinge selbst, wie z.B. Berge und Lebewesen, als die nicht mehr aus anderen Entitäten aufgebauten ‘letzten’ Einzeldinge ansehen. Ich möchte hier die Substrat-Theorie verteidigen, indem ich zuerst drei Einwände gegen sie ausräume, die von D. Armstrong, M. Loux und J.P. Moreland vorgebracht beziehungsweise diskutiert worden sind, und dann ein ‘positiveres’ oder ‘konkreteres’ Bild der Substrat-Theorie vorlege, nach dem die *Raumzeit-Punkte* die Substrate unserer Welt sind und alle anderen konkreten Einzeldinge Raumzeit-Punkte als Konstituenten haben. Im Zuge der Kritik an den drei Einwänden werde ich nach und nach die verschiedenen Merkmale der Substrate entwickeln, deren wichtigste schon einmal genannt werden können: Erstens sind Substrate einfache, d.h. nichtkomplexe Einzeldinge. Zweitens sind sie die letzten konkreten Träger oder Exemplifizierer von echten Eigenschaften (die als Universalien verstanden werden können). Drittens ist es nicht ausgeschlossen, und manches spricht dafür, dass Substrate bestimmte reale Eigenschaften wesentlich exemplifizieren (instanziiieren). Das positive Bild der Raumzeit-Punkte als letzter Substrate unserer Welt soll helfen, der Substrat-Theorie zu größerer Plausibilität zu verhelfen. Eine Theorie der Substrate, die keinen Vorschlag dazu unterbreiten könnte, welches plausiblerweise die Substrate unserer Welt sind, könnte wohl nur als blutleer oder (im schlechten Sinne) abstrakte Option angesehen werden. Da wir aber ohnehin eine überzeugende Ontologie der Raumzeit brauchen und ganz unabhängig von den ‘abstrakten’ Argumenten für die Substrat-Theorie (die nicht von der Annahme Gebrauch machen, dass die Raumzeit-Punkte die Substrate sind) gute Gründe dafür bestehen, die Raumzeit als ‘substantiell’ oder als eine Mannigfaltigkeit von Raumzeit-Punkten anzusehen, haben wir hier den glücklichen Fall einer Konvergenz der Argumentationslinien vorliegen. Beide Argumentationslinien sprechen dafür, die Raumzeit-Punkte als Substrate aufzufassen. Da ich schon aus Platzgründen hier nicht auf die Auseinandersetzung zwischen Relationalismus und Absolutismus in Bezug auf die Raumzeit oder gar die ganze Diskussion um die richtige Ontologie der Raumzeit eingehen kann, nehme ich hier ohne Argumente anzugeben an, dass es gute Gründe für den Absolutismus gibt, d.h. die These, dass die Raumzeit nicht bloß in Form von Relationen existiert, sondern auch in Form von Raumzeit-Punkten. Gute Argumente für diese

Position wurden von John Earman (1970), Tim Maudlin (1990) und Michael Tooley (1997) vorgelegt. Ich kann sie hier aus Platzgründen nicht wiedergeben, glaube aber, dass sie insgesamt größere Kraft haben als diejenigen Argumente, die für den Relationalismus sprechen. Es ist aber anzumerken, dass die Ausräumung der drei Einwände gegen die Substrat-Theorie in keiner Weise von den Argumenten für oder gegen den Relationalismus abhängen. Insofern sind die ersten drei Abschnitte, die sich mit den drei Einwänden befassen, unabhängig vom letzten Abschnitt, der sich mit der Theorie der Raumzeit-Punkte beschäftigt.

Das noch breitere Bild, innerhalb dessen ich die Substrate ansiedeln möchte, besteht aus einer dreiteiligen Ontologie, die neben den konkreten Substraten von Universalien (realen Eigenschaften) und Tatsachen ausgeht. Tatsachen sind dabei, so ähnlich wie bei D. Armstrong (1997), Instanziierungen von Universalien durch Substrate, aufgefasst als eigene Entitäten.<sup>1</sup> Es besteht meines Erachtens die Hoffnung, dass mit einer solchen dreiteiligen Ontologie eine umfassende ontologische Theorie unserer Welt erzielt werden kann. Alle echten oder realen Eigenschaften sind Universalien, wobei auch nichtinstanziierte Universalien existieren können (und wahrscheinlich auch existieren) und nicht jedem Prädikat eine Universalie entsprechen muss. Außerdem können Universalien selbst Universalien instanziiieren. Auf Momente (*'tropes'*) kann verzichtet werden, da Instanziiierungen von Eigenschaften durch Tatsachen gegeben sind. Auch Ereignisse und Prozesse sind nicht zusätzlich erforderlich, weil sie als (eventuell kausal verknüpfte) Abfolgen von Tatsachen angesehen werden können. Ein konkretes Einzelding lässt sich analysieren als eine Vielzahl von Raumzeit-Punkten, die bestimmte Eigenschaften (inklusive Relationen) aufweisen, also über Substrate, Universalien und Tatsachen. Zahlen lassen sich vielleicht à la Bigelow (1988) als Universalien auffassen. Dieses noch umfassendere Bild geht in die Argumentation gegen die drei Einwände nicht ein und ist insofern nicht vorausgesetzt. Für die Verständlichkeit und Plausibilität der Substrat-Theorie ist es jedoch meiner Ansicht nach durchaus förderlich, wenn sie in eine umfangreichere ontologische Theorie eingebettet werden kann. Ich werde es mir daher gelegentlich erlauben, auf ein solches umfassenderes Bild hinzuweisen.

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<sup>1</sup> Armstrong nennt die Substrate *'thin particulars'* und verweigert ihnen den Titel von *'bare particulars'* (vgl. Armstrong 1989, p. 95; Armstrong 1997, p. 154). Dies ist aber nur eine terminologische Angelegenheit, weil Armstrong mit *'bare'* einfach meint, dass diese Einzeldinge überhaupt keine Eigenschaften instanziiieren. Der Sache nach handelt es sich bei Armstrongs *'thin particulars'* um nichts anderes als um Substrate, wie auch Moreland festgestellt hat (vgl. Moreland 2001, p. 94; Moreland 1998, p. 258).

Neben den drei Einwänden, die in den folgenden drei Abschnitten behandelt werden, gibt es noch einen ‘klassischen’ epistemologischen Einwand, der die *bare particulars* ablehnt, weil sie unerkennbar seien. Diesen Einwand werde ich hier nicht weiter verfolgen. Er scheint mir wenig aussichtsreich, weil er höchstwahrscheinlich ganz einfach von ungerechtfertigten empiristischen Skrupeln abhängt.<sup>2</sup> Die vermeintliche Unerkennbarkeit der *bare particulars* ergibt sich jedenfalls nach den klassischen Versionen des Einwands, wie sie sich in der Auseinandersetzung zwischen Russell (1940), Allaire (1963) und Bergmann (1967) finden lassen, aus einer fragwürdigen empiristischen Prämisse, die ein Prinzip der unmittelbaren Vertrautheit (*‘acquaintance’*) zum Inhalt hat. Meines Erachtens kann dieses Prinzip nach dem heutigen Stand der Epistemologie nicht mehr aufrechterhalten werden, und deshalb lasse ich diesen Einwand beiseite.

## 2 Der Inkohärenz-Einwand

Die Substrat-Theorie behauptet, dass es letzte Einzeldinge gibt - ‘Substrate’ oder *‘bare particulars’* genannt -, die einfach, d.h. nichtkomplex sind. Sie haben keinerlei Entitäten als Konstituenten, weder Eigenschaften noch Einzeldinge (noch Tatsachen noch sonstige Entitäten), und zwar weder als mereologische Konstituenten (Teile) noch als nichtmereologische. Für die Diskussion der wichtigsten Einwände gegen die Substrat-Theorie kommt es jedoch vor allem darauf an, dass die Substrate keine *Eigenschaften* als Konstituenten haben. Dass sie außerdem keine Einzeldinge (und auch keine Tatsachen oder sonstigen Entitäten) als Konstituenten haben, trifft natürlich auch zu, spielt aber im Folgenden keine weitere Rolle, weil dieser Umstand nicht als problematisch betrachtet wird.<sup>3</sup> Fragwürdig scheint es den Kritikern der Substrate vielmehr, dass diese Einzeldinge keine Eigenschaften als Konstituenten haben sollen. Dies scheint die Substrate zu irgendwie merkwürdigen oder gar absurden

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<sup>2</sup> Eine kurze Diskussion und Kritik dieses epistemischen Einwands findet sich in Moreland (2001), p. 154, und Moreland (1998), pp. 255-6. Auch Loux hält den epistemischen Einwand für wenig aussichtslos, da er auf einem „outmoded empiricism“ beruhe (Loux 1998b, p. 239).

<sup>3</sup> Die Frage, ob ein Substrat sich selbst als Konstituenten hat, scheint mir müßig. R.B. Davis will darin ein großes Problem für den Substrat-Theoretiker sehen, wenn er zeigt, dass Substrate sich selbst als Konstituenten hätten. Vgl. Davis (2003), pp. 546-7. Aber man könnte leicht umdefinieren: Substrate haben keine anderen Entitäten als sich selbst als Konstituenten.

Entitäten zu machen, so die Kritiker. (Dabei sollen hier und im Folgenden auch mehrstellige Relationen zu den Eigenschaften gezählt werden, und nur der Einfachheit werden meist einstellige Eigenschaften diskutiert.)

Diesen Eindruck versucht der Inkohärenz-Einwand zu präzisieren und zu einer Widerlegung der Substrat-Theorie auszubauen. Der Inkohärenz-Einwand lautet wie folgt: Die Idee eines Substrats (*bare particular*) ist die Idee einer Entität, die keine Eigenschaften hat; zugleich sollen Substrate aber die (wörtlichen) Exemplifizierer oder Träger von Eigenschaften sein (und vermutlich soll jedes Substrat mindestens eine Eigenschaft exemplifizieren); die Substrate haben also Eigenschaften, und sie haben keine Eigenschaften – Widerspruch.<sup>4</sup>

Michael Loux hat auf diesen Einwand eine interessante Reaktion präsentiert, die es sich kurz zu diskutieren lohnt. Er weist darauf hin, dass dem Einwand ein Missverständnis unterliegen könnte. Was den Substraten fälschlicherweise zugeschrieben wird – dass sie keine Eigenschaften hätten –, ist ein Missverständnis des zutreffenden Umstandes, dass die Substrate keine Eigenschaften *an sich* haben sollen. Dies wiederum soll bedeuten, dass sie keine Eigenschaften *wesentlich* (essentiell) haben sollen. Substrate haben also sehr wohl Eigenschaften, nur eben keine wesentlich. Nach diesem Verständnis entsteht kein Widerspruch.<sup>5</sup>

Loux weist nun jedoch darauf hin, dass ein solches Verständnis von Substraten ein gravierendes Problem aufzuwerfen scheint. Es erscheint nämlich intuitiv recht plausibel, dass Substrate sehr wohl manche Eigenschaften wesentlich haben oder haben könnten. Loux nennt einige Kandidaten, die dafür in Frage kommen. Z.B. könnten Substrate die Eigenschaft, keine Eigenschaft wesentlich zu haben, wesentlich haben; oder die Eigenschaft, ein möglicher Träger von Eigenschaften zu sein; oder die Eigenschaft, mit sich selbst identisch zu sein; die Eigenschaft, rot oder nicht rot zu sein. Ähnliche Beispiele ließen sich zahlreich finden. Angesichts dieses intuitiven Belegs für die Annahme, dass Substrate doch Eigenschaften wesentlich haben, zieht daher Loux seine Reaktion auf den Einwand zurück. Wir sollten seiner Meinung nach akzeptieren, dass Substrate manche Eigenschaften wesentlich haben, und daher kann der Einwand nicht auf die Weise ausgeräumt werden, wie es die genannte

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<sup>4</sup> Vgl. Loux (1998a), p. 115; Loux (1998b), p. 239.

<sup>5</sup> Vgl. Loux (1998a), p. 115. Auch in Loux (1998b), p. 240, stellt Loux die Substrat-Position so dar, als hieße ‚bare‘, dass die Substrate keine Eigenschaften wesentlich instanziierten. Bei Bergmann ist es umstritten, ob er mit ‚bare‘ nur meint, dass keine wesentlichen Eigenschaften instanziiert werden (wie Hoffmann und Rosenkrantz 1994, p. 49, Fn. 34, meinen) oder dass überhaupt keine Eigenschaften instanziiert werden (wie Moreland 1998, p. 254, ihn interpretiert).

Reaktion beinhaltet (vgl. Loux 1998a, pp. 115-116). Loux möchte schließlich auch gar nicht die Substrat-Theorie vertreten, sondern eine Neo-Aristotelische Theorie der Substanzen. Der Inkohärenz-Einwand bleibt also nach Loux bestehen.

Angesichts dieses ersten Versuchs einer Aufklärung dessen, was Substrate und ihre zentralen Charakteristika sind, stellt sich die wichtige Frage, welche Auffassung von Eigenschaften wir vertreten wollen. Einiges hängt davon ab, und an dieser Stelle greifen also Eigenschafts- und Einzelding-Ontologie ineinander. Dies ist auch nicht weiter verwunderlich. Letztlich kommt es darauf an, eine möglichst schlüssige umfassende Ontologie aufzustellen, und daher lässt es sich vernünftigerweise wohl gar nicht vermeiden, auch bei der Diskussion der Frage letzter Einzeldinge auf Annahmen über die Natur von Eigenschaften zurückzugreifen.

Eine erste Annahme über die Natur von Eigenschaften betrifft ihr Verhältnis zu Prädikaten. Ich denke, dass es gute Gründe für die Annahme einer sparsamen Eigenschafts-Ontologie gibt, wonach nicht alles, was vielleicht auf den ersten Blick eine Eigenschaft zu sein scheint, auch tatsächlich eine Eigenschaft ist. Eine solche sparsame Eigenschafts-Ontologie hat in letzter Zeit vor allem David Armstrong populär gemacht und argumentativ zu untermauern versucht.<sup>6</sup> Demnach ist es zentral, zwischen wahren Prädikationen und echten, realen Eigenschaften zu unterscheiden. Dass ein Prädikat wahrerweise von einem Ding ausgesagt werden kann, bedeutet noch lange nicht, dass es eine Eigenschaft geben muss, die von diesem Prädikat bezeichnet wird und die das Ding dann eben hat. Nicht jedem Prädikat entspricht eine eigene Eigenschaft. Das Verhältnis zwischen Eigenschaften und Prädikaten ist keine Isomorphie.

Diese Auffassung können wir nun zur kritischen Diskussion des Problems auf die Louxsche Reaktion einsetzen. Dort wurde behauptet, dass es viele Kandidaten für wesentliche Eigenschaften von Substraten gebe, wie z.B. die Eigenschaft, keine Eigenschaft wesentlich zu haben, oder die Eigenschaft, mit sich selbst identisch zu sein. An all diesen Kandidaten fällt jedoch bei genauerer Betrachtung auf, dass es sich um irgendwie 'dürftige' oder 'formale' Eigenschaften handeln müsste, wenn man sie einmal mit den 'soliden' physikalischen oder natürlichen Eigenschaften vergleicht. Eine Masse von einer bestimmten Quantität zu haben, oder eine Ladung oder eine bestimmte Farbe usw., das sind 'solide' natürliche Eigenschaften, im Vergleich zu denen die Eigenschaft, mit sich selbst identisch zu sein, irgendwie blass und formal abschneidet. Auch die

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<sup>6</sup> Vgl. z.B. Armstrong (1997), ch. 3.4. Auch Mellor (1991) argumentiert für eine Nicht-Isomorphie zwischen Prädikaten und Eigenschaften.



Eigenschaft, keine Eigenschaft wesentlich zu haben, oder die Eigenschaft, ein möglicher Träger von Eigenschaften zu sein, haben denselben ‘formal-ontologischen’ Charakter. Wir müssen daher vorsichtig sein und können nicht aus der Tatsache, dass ein bestimmtes Prädikat auf ein Substrat wahrerweise zutrifft, darauf schließen, dass es eine entsprechende Eigenschaft gibt, die das Substrat hat. So einfach ist es nicht. Andere Intuitionen und Argumente sind gefragt, wenn man aus einer wahren Prädikation auf eine Eigenschaft schließen will. Im Fall der von Loux genannten Kandidaten scheint es nun intuitiv einleuchtend, den ‘blasseren’ oder ‘formalen’ Charakter der Prädikate als Hinweis dafür zu nehmen, dass hier keine eigenen Eigenschaften bezeichnet werden. Jedenfalls scheint dies nicht nötig zu sein. Denn als Wahrmacher für die wahren Prädikationen können einfach die Substrate selbst dienen. Das Substrat macht es wahr, dass es das Prädikat ‘ist mit sich selbst identisch’ erfüllt, und ebenso, dass es das Prädikat ‘ist möglicherweise ein Träger von Eigenschaften’ oder ‘hat keine Eigenschaft wesentlich’ erfüllt. Somit kann auch ein Wahrmacherprinzip aufrechterhalten werden, ohne hier Selbstidentität oder mögliches Tragen von Eigenschaften zu eigenen Eigenschaften zu machen.<sup>7</sup> Auf diese Weise kann das Problem, das Loux für seine Reaktion auf den Inkohärenz-Einwand aufwirft, aufgelöst werden. Die genannten Aussagen stellen zwar wahre Prädikationen dar, aber das belegt noch lange nicht – und es trifft auch nicht zu –, dass wir es hier mit Eigenschaften zu tun haben, die die Substrate wesentlich haben sollen.

Ich halte diese Auflösung des Problems für angemessen. Dennoch möchte ich den Inkohärenz-Einwand selbst, um den es hier eigentlich geht, nicht auf eine Weise ausräumen, die sich auf Loux’ Reaktion stützt. Es erscheint mir nämlich durchaus zutreffend, dass Substrate bestimmte Eigenschaften – eben echte Eigenschaften – sehr wohl wesentlich haben können. Der Grund dafür liegt nicht darin, dass wir bestimmte notwendige Wahrheiten von ihnen aussagen können. Dies wäre eine schlechte

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<sup>7</sup> Ein Wahrmacherprinzip besagt, dass jede Wahrheit einer bestimmten Klasse eine Entität als Wahrmacher erfordert. Wahrmacherprinzipien unterscheiden sich in der Klasse der Wahrheiten, für die dies gilt. (Gilt es z.B. auch für notwendige Wahrheiten?) Ein Wahrmacherprinzip wird vor allem von J. Bigelow (1988) und D. Armstrong (1997) vertreten, aber auch Lewis hat neuerdings Sympathie für die Grundidee hinter dem Wahrmacherprinzip geäußert, unterstützt tentativ aber nur ein ähnliches Prinzip, das in einem entscheidenden Punkt von den Wahrmacherprinzipien, wie ich sie gerade formuliert habe, abweicht. Vgl. Lewis (2001a), (2001b). Eine ausführliche Diskussion und Kritik von Lewis’ Position findet sich in Hofmann (2004).

Schlussfolgerung von (notwendigen) Prädikationen auf (notwendige) Eigenschaften. Der Grund ist vielmehr ein direkterer und intuitiver: Substrate sind Träger von Eigenschaften, und es spricht intuitiv nichts dagegen, dass sie auch manche Eigenschaften wesentlich haben können. Wie wir gleich sehen werden, kann der Inkohärenz-Einwand auf eine Weise ausgeräumt werden, welche die Option eröffnet, dass Substrate manche Eigenschaften wesentlich haben. Solange intuitiv und argumentativ kein Grund vorliegt, die Möglichkeit, dass Substrate manche Eigenschaften wesentlich haben, zu verwerfen, sollten wir sie offen lassen. Dies führt auf die folgende Diagnose in Bezug auf den Inkohärenz-Einwand: Der Einwand ist nicht deswegen falsch, weil er davon ausgeht, dass Substrate keine Eigenschaften wesentlich haben; der Fehler muss woanders liegen.

Ich komme nun zu meiner Kritik am Inkohärenz-Einwand. Der Fehler im Inkohärenz-Einwand liegt meines Erachtens in einer Ambiguität des Ausdrucks ‘eine Eigenschaft haben’. Zum einen kann damit gemeint sein, dass ein Substrat eine Eigenschaft *instanziiert* (exemplifiziert), zum anderen aber auch, dass es eine Eigenschaft *als Konstituenten hat*. Dies ist der entscheidende Unterschied, den der Inkohärenz-Einwand überspielt. Substrate haben Eigenschaften in dem Sinn, dass sie sie instanziiieren; aber sie haben keine Eigenschaften als Konstituenten. Der Einwand beginnt mit der Idee, dass Substrate keine Eigenschaften als Konstituenten haben, aber dann fährt er fort mit der Idee, dass sie Träger von Eigenschaften sind, also Eigenschaften instanziiieren. Beides wird dann zum vermeintlichen Widerspruch ineinandergeschoben, dass sie Eigenschaften haben und auch nicht haben. Es ist aber widerspruchsfrei möglich, Eigenschaften zu instanziiieren, ohne sie als Konstituenten zu haben. Das im Inkohärenz-Einwand vorgelegte Material zeigt in keiner Weise, dass dies nicht möglich ist.

Dem Inkohärenz-Einwand lässt sich also durch die grundlegende Unterscheidung zwischen Instanziiierung (Exemplifizierung) einer Eigenschaft und dem Haben einer Eigenschaft als Konstituenten begegnen. Zugleich haben wir noch gesehen, dass es zumindest eine offene Frage ist, ob Substrate nicht doch manche Eigenschaften wesentlich haben (und dass vielleicht sogar einiges für eine positive Antwort spricht).<sup>8</sup> Wir sollten also darauf hinarbeiten, in unsere Theorie der Substrate für die Möglichkeit Platz zu schaffen, dass Substrate manche Eigenschaften wesentlich haben.

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<sup>8</sup> Moreland, ein Substrat-Theoretiker, hat zu dieser Frage seine Meinung geändert. Früher dachte er, dass Substrate wesentliche Eigenschaften haben (vgl. Moreland 1998, pp. 257-8), jetzt glaubt er, dass sie keine wesentlichen Eigenschaften haben (Moreland, Pickavance 2003, p. 8).

Dies wird dann in der Tat auch von dem Vorschlag, die Raumzeit-Punkte als die Substrate unserer Welt anzusehen, den ich im letzten Abschnitt noch genauer ausführen werde, gut erfüllt: Raumzeit-Punkte instanziiieren bestimmte natürliche, physikalische Eigenschaften – welche genau muss uns letztlich die Empirie sagen –, aber es scheint plausibel, dass sie manche davon auch wesentlich haben könnten, z.B. bestimmte geometrische Eigenschaften. Entscheidend für die Behandlung des Inkohärenz-Einwands war es aber einzusehen, dass das grundlegende Charakteristikum von Substraten nicht lautet, keine wesentlichen Eigenschaften zu instanziiieren (und schon gar nicht, keine Eigenschaften zu instanziiieren), sondern darin liegt, keine Eigenschaften als Konstituenten zu haben. Substrate sind eben simple, nichtkomplexe Entitäten, und das heißt, dass sie auch keine Eigenschaften als Konstituenten haben.<sup>9</sup>

### 3 Der Einwand der Trägerschaft

Die Möglichkeit offen lassen zu wollen, dass Substrate bestimmte Eigenschaften wesentlich haben (instanziiieren), setzt die Substrat-Theorie einem zweiten Einwand aus, dem Einwand der Trägerschaft. In diesem Einwand wird zunächst also davon ausgegangen, dass Substrate manche Eigenschaften wesentlich instanziiieren. Dann versucht der Einwand daraus abzuleiten, dass es keine Substrate geben kann.

Der Einwand der Trägerschaft kommt in zwei Versionen vor. Die erste davon lautet im einzelnen wie folgt. Angenommen, Substrate instanziiieren bestimmte Eigenschaften wesentlich. Wenn sie diese Eigenschaften wesentlich haben, dann ist aber ihre Identität oder Essenz nicht unabhängig

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<sup>9</sup> Ein vierter (nicht epistemischer) Einwand neben den drei in den Abschnitten 2 bis 4 besprochenen, der dem Inkohärenz-Einwand ähnlich ist, findet sich bei Loux (1998a), pp. 116-7. Dieser vierte Einwand wurde von Oaklander und Rothstein (2000) überzeugend ausgeräumt und zugleich kritisch gegen Loux' eigene Neo-Aristotelische Substanztheorie gewendet. Was hier gelernt werden kann, ist: Bloß zu postulieren, dass das Individuations-Problem durch bestimmte Universalien – Art- oder Substanz-Universalien – gelöst werde, ist Wunschdenken, wenn Universalien das strikt Gemeinsame sind. Denn dann können sie alleine die Individuation nicht leisten. Loux scheint die Annahme, dass Universalien das strikt Gemeinsame seien, aufgeben zu wollen, indem er annimmt: “[E]very kind is a universal whose multiple exemplification is by itself sufficient to ensure the existence of a plurality of substances.” (Loux 1998b, p. 242) Hier stellt sich aber eben gerade die Frage, wie Universalien dies leisten können sollen (und natürlich auch die Frage, wie sich die Art- oder Substanz-Universalien von den anderen genau unterscheiden sollen).

von diesen Eigenschaften, und daher haben sie diese Eigenschaften als Konstituenten. Also müsste es andere Entitäten geben – Substrate niedrigerer Stufe –, die die wörtlichen Exemplifizierer derjenigen Eigenschaften sind, welche die ursprünglichen Substrate wesentlich haben sollten. Für diese Substrate niedrigerer Stufe ergibt sich dann aber wiederum genau dasselbe Problem, sofern auch sie bestimmte Eigenschaften wesentlich instanziiieren. Die Einführung von Substraten niedrigerer Stufe löst also das Problem nicht. Substrate haben doch Eigenschaften als Konstituenten, egal auf welcher Ebene. Also kann es keine Substrate geben.<sup>10</sup>

Wenden wir uns diesem Einwand gleich kritisch zu. Der entscheidende Umschlagspunkt in dem Einwand betrifft den Übergang von der Abhängigkeit zur Konstitution. Und hier genau liegt der Fehler: Aus dem wesentlichen Instanziiieren einer Eigenschaft folgt vielleicht so etwas wie eine bestimmte Art der (ontologischen) Abhängigkeit. Aber es folgt keine Konstitution. Wesentliches Instanziiieren muss von Konstitution unterschieden werden, und aus wesentlichem Instanziiieren folgt keine Konstitution. Dass ein Substrat eine Eigenschaft wesentlich instanziiiert, impliziert nicht, dass es diese Eigenschaft als Konstituenten hat. Der Einwand zeigt diesbezüglich nichts.

Diese Kritik an dem Einwand kann noch weiter erläutert werden, indem genauer beschrieben wird, was Konstitution ist. Glücklicherweise benötigen wir jedoch an dieser Stelle keine vollständige Theorie der Konstitution. Einige wichtige Annahmen und Beispiele genügen, um hinreichend genau zu charakterisieren, was es bedeutet, dass eine Entität aus anderen konstituiert ist. Damit ist ein hinreichendes Verständnis von Konstitution gegeben, und vor dem Hintergrund dieses Verständnisses kann man ganz gut erkennen, warum der Einwand von der Trägerschaft scheitert. Im Folgenden versuche ich nun, die wichtigsten Annahmen und Beispiele für Konstitution kurz zu skizzieren und zu erläutern.

Konstitution ist entweder mereologisch oder nicht-mereologisch.

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<sup>10</sup> An diesem Einwand könnte man zunächst einige ‚Details‘ monieren. Es wäre zu fragen, ob alle Substrate mindestens eine Eigenschaft wesentlich haben sollen. Unklar ist des Weiteren, ob man Identität und Essenz so gleichsetzen kann, wie es im Einwand geschieht. Substrate sollten vielleicht eine Identität unabhängig von ihren Eigenschaften haben, aber auch eine Essenz? Und es ist zu fragen, ob der Einwand im Grunde sein Ziel schon erreicht hat, sobald die Aussage erreicht wurde, dass die Substrate Eigenschaften als Konstituenten haben. In all diesen Punkten möchte ich aber großzügig sein und mal zugestehen, dass sich akzeptable Verbesserungen und Ergänzungen finden lassen. Selbst dann ergibt sich noch ein fundamentales Problem, wie ich zu zeigen versuche.

Zunächst zur mereologischen Konstitution.<sup>11</sup> Eine Eigenschaft, die ein mereologischer Konstituent einer Entität *x* ist, ein Teil von *x* also, ist etwas ganz anderes als eine Eigenschaft, die *x* instanziiert. Wenn *x* die Eigenschaft *E* instanziiert, dann impliziert dies keinesfalls, dass *E* ein mereologischer Konstituent von *x* ist. Interessanter wird es bei der nicht-mereologischen Konstitution. (Gemischte Fälle betrachten wir später.) Hier wird es schwieriger, weil wir zum einen keinen Konsens darüber haben, ob es überhaupt eine nicht-mereologische Konstitution gibt, und weil es zum anderen noch ungeklärt ist, welche Arten von nicht-mereologischer Konstitution es vielleicht gibt. Manche, wie z.B. David Lewis, lehnen sie ab und lassen nur mereologische Konstitution zu.<sup>12</sup> Andere dagegen, wie z.B. Peter Forrest und David Armstrong, akzeptieren nicht-mereologische Konstitution und sprechen ihr sogar eine große Bedeutung zu. So sind etwa Armstrongs Tatsachen – ‘*states of affairs*’, wie er sie nennt – aus Einzeldingen (‘*thin particulars*’) und Universalien konstituiert, und zwar auf nicht-mereologische Weise. Die Tatsache, dass *a* *F* ist, ist keinesfalls bloß die mereologische Summe von *a* und *F*. Die gibt es ja auch, wenn *a* nicht die Eigenschaft *F* instanziiert. Tatsachen sind also nach Armstrong ein klarer Fall von nicht-mereologischer Konstitution, was Armstrong auch sehr wohl bewusst ist.<sup>13</sup> Nun ist unschwer zu erkennen, dass aus der Tatsache, dass eine Entität *x* die Eigenschaft *E* (wesentlich oder nicht wesentlich) instanziiert, keinesfalls folgt, dass sie diese Eigenschaft auf die Weise als Konstituent hat, auf die eine Tatsache eine Eigenschaft als Konstituenten hat. Nehmen wir den Fall, dass *x* eine Tatsache ist. Dann folgt aus der Tatsache, dass die Tatsache *x* eine Eigenschaft *E* (wesentlich oder nicht wesentlich) instanziiert, natürlich nicht, dass *E* ein (oder der) Eigenschafts-Konstituent von *x* ist. Dass eine Tatsache selbst eine Eigenschaft instanziiert, ist etwas ganz anderes, als dass sie eine Eigenschaft als Konstituenten hat. Und das gilt alles sowohl für den Fall des wesentlichen Instanziiierens, wie für den Fall des nicht-wesentlichen Instanziiierens. Es ist nun unschwer zu erkennen, dass auch für gemischte Fälle von Konstitution gilt, dass aus dem (wesentlichen) Instanziiieren einer Eigenschaft durch eine komplexe Entität keinesfalls folgt, dass sie diese Eigenschaft als Konstituenten hat. Wenn z.B. eine mereologische Summe von Tatsachen eine Eigenschaft (wesentlich) instanziiert (sofern so etwas

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<sup>11</sup> Sehr gute Darstellungen und Diskussionen der Mereologie sind Simons (2000) und Lewis (1991).

<sup>12</sup> Vergleiche Lewis (1998) gegen die nicht-mereologische Konstitution für Tatsachen und Lewis (1986a) gegen die nicht-mereologische Konstitution bei strukturellen Universalien.

<sup>13</sup> Vgl. Armstrong (1997), p. 122.

möglich ist), dann ist diese Eigenschaft deswegen noch lange kein Teil der Summe und auch kein nicht-mereologischer Konstituent in einer der Tatsachen. Somit kann man insgesamt nach den gängigen Prinzipien für Instanziierung und Konstitution zu dem Ergebnis kommen, dass aus wesentlicher Instanziierung nicht Konstitution folgt. Sollte dies für eine spezielle Art von Konstitution doch gelten, dann müsste dies erst noch gezeigt werden.

Der Einwand der Trägerschaft kann in der ersten Version nicht aufrechterhalten werden. Dies ist jedoch noch nicht das Ende der Argumentation. Eine interessante Fortsetzung findet der Einwand in einer zweiten Version, die wohl auch als die größere Herausforderung angesehen werden kann. Sie lautet wie folgt: Angenommen, Substrate instanzieren bestimmte Eigenschaften wesentlich. Wenn sie diese Eigenschaften wesentlich haben, dann ist aber ihre Identität oder Essenz nicht unabhängig von diesen Eigenschaften, *und daher können sie nicht mehr die Rolle der Individuatoren spielen*, für die sie vorgesehen waren. Denn das, was die numerische Verschiedenheit zweier qualitativ identischer Einzeldinge erklären sollte, waren die beiden ihnen zugrundeliegenden Substrate. Diese Substrate müssen aber schon individuiert sein, schon ihre eigene Identität mit sich bringen, wenn sie für die numerische Verschiedenheit der beiden qualitativ identischen Einzeldinge aufkommen sollen. Wenn sie aber bestimmte Eigenschaften wesentlich instanzieren, ist ihre Identität doch nicht unabhängig von diesen Eigenschaften. Als die wörtlichen Träger (Exemplifizierer) von Eigenschaften sollten die Substrate aber eine Identität aufweisen, die von ihren Eigenschaften unabhängig ist. Daher können die Substrate nicht die wörtlichen Träger von Eigenschaften sein. Also müsste es andere Entitäten geben – Substrate niedrigerer Stufe –, die die wörtlichen Exemplifizierer derjenigen Eigenschaften sind, welche die ursprünglichen Substrate wesentlich haben sollten. Für diese Substrate niedrigerer Stufe ergibt sich dann wiederum genau dasselbe Problem, sofern auch sie bestimmte Eigenschaften wesentlich instanzieren. Die Einführung von Substraten niedrigerer Stufe löst also das Problem nicht, sondern verschiebt es immer nur um eine Stufe weiter, so dass auf keiner Stufe eine Erklärung erzielt wird, was einen schädlichen unendlichen Regress darstellt. Also kann es keine Substrate geben.

Bei Michael Loux hört sich die zweite Version des Trägerschafts-Einwands so an:

“One might suppose that substrata have various attributes essentially, incorporate that insight into their description of substrata, and go on from there. Unfortunately, things are not so easy; for it can be argued that if substrata are not

bare [i.e., have essential attributes], they cannot play the roles the substratum theorist attributes to them. Substrata are supposed to be the ultimate subjects for attributes. What led us to the idea of an underlying subject for attributes was the view that the literal possessor of an attribute must have an identity or essence that is independent of that attribute. This view, however, forces us to conclude that a substratum cannot be the literal possessor of any attribute essential to it. But, then, just as we were forced to postulate substrata to be the literal possessors of the attributes associated with concrete objects, so, it would seem, we are forced to postulate new entities, constituents in substrata themselves, to serve as the literal possessors of the attributes essential to our original substrata. Unfortunately, things will not stop here; for our new, lower-level substrata will themselves have many attributes essentially, so we will need new, still lower-level substrata to be the subjects for those attributes; and so on ad infinitum. Once we admit that nothing is bare, we find that the project of identifying what the substratum theorist takes to be the ultimate bearers of attributes can never be carried out.” (Loux 1998a, p. 116)<sup>14</sup>

Hier kommt der Kern der Argumentation recht deutlich zum Ausdruck: Die Träger-Rolle der Substrate (die Voraussetzung für ihre Individuatoren-Rolle ist) setzt eine Identität unabhängig von den Eigenschaften voraus, was aber nicht gegeben ist, wenn Substrate Eigenschaften wesentlich instanziiieren.

Wie ist dieser Einwand zu beurteilen? Viel hängt hier von dem Thema *ontologische Abhängigkeit* ab. Um den Einwand angemessen einschätzen zu können, müssen wir einige Überlegungen zur ontologischen Abhängigkeit anstellen, die möglichst eine gewisse Allgemeinheit aufweisen sollten, so dass wir nicht Gefahr laufen, uns auf *ad hoc* Annahmen einzulassen. Freilich können wir dieses Thema hier aus Platzgründen nur anreißen.

Eine Form der ontologischen Abhängigkeit, mit der wir beginnen können, ist die einfache *existentielle ontologische Abhängigkeit* (EOA). Sie liegt vor, wenn eine Entität nicht existieren kann, ohne dass eine andere existiert. Genauer können wir dies so definieren:

(EOA) Eine Entität *x* ist von der Entität *y* existentiell ontologisch abhängig genau dann, wenn *x* nicht mit *y* identisch ist und es nicht möglich ist, dass *x* existiert und *y* nicht existiert.<sup>15</sup>

<sup>14</sup> Derselbe oder ein ähnlicher Einwand findet sich in Hoffmann, Rosenkrantz (1994), p. 51.

<sup>15</sup> Vgl. Simons (1999), p. 23. Simons fügt in seiner Definition von ‚*strong (ontological) dependence*‘ noch die Bedingung hinzu, dass *y* kein Teil von *x* ist. Für die gegenwärtigen Zwecke können wir diese Bedingung aber ruhig weglassen. Kit Fine nennt die EOA ‚*existential construal of dependence*‘ (Fine 1995, p. 270) und

Die existentielle ontologische Abhängigkeit (EOA) kann für verschiedene Arten von Modalität konzipiert werden. Bei metaphysischer Modalität (oft auch ‘logische Modalität im weiteren Sinne’ genannt) liegt eine metaphysische EOA vor, bei anderen Arten von Möglichkeit dann entsprechende Arten von EOA. Am wichtigsten für die vorliegenden Zwecke dürfte wohl die metaphysische EOA sein, auf die ich mich im Folgenden beschränken werde. Plausible Beispiele für eine metaphysische existentielle ontologische Abhängigkeit wären etwa: Die Menge, die genau Sokrates enthält, hängt existentiell ontologisch von Sokrates ab; die Tatsache, dass a die Eigenschaft F hat (instanziiert), hängt existentiell ontologisch von a und von F ab und es ist eben der Fall, dass ein Einzelding b existentiell ontologisch von seinen wesentlichen Eigenschaften abhängt. Denn wenn b die Eigenschaft F wesentlich instanziiert, dann ist es nicht möglich, dass b existiert und F nicht existiert. Hier haben wir also genau die Art von Abhängigkeit erfasst, die für unseren Fall der Substrate, die wesentliche Eigenschaften haben, relevant ist.

Nun müssen wir die Frage untersuchen, ob die Träger-Rolle der Substrate eine (metaphysische) existentielle ontologische Unabhängigkeit der Substrate von ihren Eigenschaften voraussetzt. Tut sie es, dann kann es keine Substrate geben, die die Träger-Rolle spielen können (immer alles hier unter der Annahme, dass Substrate bestimmte Eigenschaften wesentlich haben). Tut sie es nicht, dann spräche noch nichts dagegen, dass die Substrate die Träger-Rolle übernehmen können. Meines Erachtens lautet die Antwort auf die Frage schlicht: Nach allem, was bisher gesagt worden ist, setzt die Träger-Rolle der Substrate keine (metaphysische) existentielle ontologische Unabhängigkeit der Substrate von ihren (wesentlichen) Eigenschaften voraus. Denn warum sollte ein Substrat nicht ontologisch abhängig sein von einer Eigenschaft? Dazu könnten die folgenden Überlegungen weiterführen.

Die Hypothese, dass es in unserer Welt ‘echte’ – d.h. metaphysische

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argumentiert überzeugend, dass nicht jeder Fall von ontologischer Abhängigkeit einfach als EOA verstanden werden kann. Er versucht dann, eine essentialistische Konzeption dieser Fälle von ontologischer Abhängigkeit zu entwickeln. Dies sind sehr interessante Überlegungen von Fine, aber für die gegenwärtigen Zwecke genügt es, sich auf die EOA zu beschränken, da sie die gegenwärtig gängige Form von Abhängigkeit darstellt. Ansonsten müsste in dem Einwand erst noch klar dargelegt werden, von welcher anderen Form von Abhängigkeit die Rede ist. Aber selbst für die Fineschen Fälle von ontologischer Abhängigkeit vermute ich, dass Abhängigkeit weder die Träger- noch die Individuatoren-Rolle untergräbt.



existentiell ontologische – Abhängigkeit zwischen verschiedenen Entitäten gibt, hat sehr viel für sich. Wenn z.B. die Naturgesetze metaphysisch notwendig sind, wie es die Position des Essentialismus in Bezug auf Naturgesetze besagt und wofür vieles spricht, dann können bestimmte Tatsachen nicht vorkommen, ohne dass andere Tatsachen vorkommen.<sup>16</sup> Die Naturgesetze erzwingen den Ablauf der Prozesse. Ist die Modalität der Naturgesetze die metaphysische, so gibt es metaphysische EOA in unserer Welt. Aber auch wenn der Essentialismus für Eigenschaften zutrifft, d.h. die Hypothese, dass manche Dinge manche Eigenschaften wesentlich haben, gibt es metaphysische EOA. Auch die Mereologie könnte ein Feld für metaphysische EOA sein, nämlich sobald angenommen wird, dass die Teile einer mereologischen Summe für sie wesentlich sind (dass die Summe nicht existieren kann, ohne dass jeder ihrer Teile existiert). Außerdem ist die bereits erwähnte Beziehung zwischen Einermengen (*'singletons'*) und ihren Elementen ein guter Kandidat für eine metaphysische EOA: die Menge, die genau Sokrates enthält, kann nicht existieren, ohne dass Sokrates existiert. (Eventuell gilt auch das Umgekehrte, wie z.B. Kit Fine (1994) meint.) Es spricht also vieles dafür, dass es in unserer Welt echte, metaphysische EOA gibt. Es müsste schon ein besonderer Grund dafür vorgelegt werden, warum ein Substrat nicht von einer seiner Eigenschaften ontologisch abhängig sein kann, um die Träger-Rolle erfüllen zu können. Das Substrat kann nicht existieren, ohne dass diese Eigenschaft existiert.<sup>17</sup> Um als Träger von Eigenschaften fungieren zu können, muss aber doch vor allem gewährleistet sein, dass die Träger klar individuiert sind. Es muss ein klarer Unterschied bestehen zwischen dem Vorliegen eines Trägers und dem Vorliegen zweier oder mehrerer Träger. Dies ist aber für die Substrate voll und ganz erfüllt. Die Substrate sollen ja gerade Einzeldinge sein, deren numerische Verschiedenheit und Identität als Grundfaktum mitgegeben ist. Ihre numerische Verschiedenheit und Identität wird vom Substrat-Theoretiker als primitiv und unerklärt angenommen.<sup>18</sup> Das war auch schon von

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<sup>16</sup> Für die These, dass Naturgesetze den modalen Status metaphysischer Notwendigkeit haben, wurden in letzter Zeit vor allem von S. Shoemaker (1980), C. Swoyer (1982), E. Fales (1993), J. Bigelow, B. Ellis, C. Lierse (1992), C. Lierse (1996), und B. Ellis (2001) starke Argumente vorgetragen.

<sup>17</sup> Und eventuell gibt es eine weitere EOA zur Tatsache, dass das Substrat diese Eigenschaft instanziiert. Dies setzte voraus, dass es eine solche wesentliche Tatsache gibt, als eigene Entität, was nicht selbstverständlich ist, aber auch nicht absurd. Für die vorliegenden Zwecke können wir die Frage zum Glück offen lassen.

<sup>18</sup> Die Bündeltheorie, die mit Universalien arbeitet, versucht Partikularität (Individuation) als abgeleitet wegzu erklären, die Substrat-Theorie gerade nicht. Vgl.

vorneherein bekannt und kann nicht überraschen. Solange aber die numerische Verschiedenheit und Identität der Substrate gegeben ist, ist kein Grund ersichtlich, warum ein Substrat nicht von einer Eigenschaft ontologisch abhängig sein können sollte (im Sinne der metaphysischen EOA). Dieses Substrat könnte eben nicht existieren, ohne dass diese Eigenschaft existierte. Aber dieser Umstand verhindert es nicht, dass es diese Eigenschaft instanziiert, und auch nicht, dass es noch andere Eigenschaften (teils wesentlich, teils nicht wesentlich) instanziiieren kann.

Natürlich ist die wesentliche Eigenschaft nicht konstitutiv für das Substrat, und darf es auch nicht sein, denn sonst sähe es in der Tat so aus, als könnte das Substrat die Eigenschaft nicht instanziiieren – und als müsste dann ein Substrat niedrigerer Stufe als eigentlicher Exemplifizierer einspringen. Aber dies wäre ja der alte Fehler einer Verwechslung von Konstitution und Instanziiierung, den wir in der ersten Version des Einwands oben schon aufgedeckt haben. Substrate instanziiieren Eigenschaften, und daraus folgt nicht, dass sie sie als Konstituenten haben, auch nicht, wenn es wesentliche Instanziiierung ist. Solange wir den alten Fehler nicht begehen, ist kein Grund dafür ersichtlich, dass die Träger-Rolle mit der wesentlichen Instanziiierung inkompatibel ist. Solange wir von wesentlicher Instanziiierung nicht zu Konstitution überwechseln, kommt der Einwand also an dieser Stelle an eine entscheidende Annahme, die sich nun als unbegründet herausstellt, nämlich die Annahme, dass die Träger-Rolle der Substrate eine (metaphysische) existentielle ontologische Unabhängigkeit der Substrate von ihren Eigenschaften voraussetzt. Der Einwand liefert keinen Grund dafür, dass der Substrat-Theoretiker diese Annahme akzeptieren sollte, und er kann sie daher getrost ablehnen.<sup>19</sup>

Als Fazit unserer Überlegungen können wir noch einmal die wichtigsten Merkmale der Substrate zusammenfassen, die sich bisher herauskristallisiert haben. Substrate instanziiieren Eigenschaften, sie sind die wörtlichen Träger (Exemplifizierer). Manche dieser Eigenschaften instanziiieren sie wesentlich, oder jedenfalls ist dies eine offene Option.

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Loux (1998b), pp. 234-235; vgl. Moreland (1998), p. 258.

<sup>19</sup> An anderer Stelle spricht Loux davon, dass die Substrate so beschaffen sein müssten, dass ihr Sein keine Eigenschaften involvieren dürfe, da sie sonst diese Eigenschaften als Konstituenten haben müssten: „[T]hey must be bare particulars, particulars or individuals whose being the things they are involves no properties.“ (Loux 1998b, p. 236) Hier ist dann der Ausdruck ‚Eigenschaften involvieren‘ mehrdeutig: Sofern es um wesentliches Instanziiieren einer Eigenschaft geht, ist die Forderung noch unbegründet; geht es um Konstitution, ist die Forderung in Ordnung, aber für den Substrat-Theoretiker unproblematisch. Dass aus wesentlichem Instanziiieren Konstitution folge, ist wieder nicht gezeigt worden.

Zugleich übernehmen sie die Rolle der Individuatoren für Einzeldinge, eben kraft der ihnen als primitiv zugesprochenen numerischen Individuation. Aus dem wesentlichen Instanzieren von Eigenschaften folgt eine echte ontologische Abhängigkeit, die man genauer als metaphysische EOA fassen kann. Diese ontologische Abhängigkeit ist aber durchaus mit der Träger- und Individuatoren-Rolle der Substrate verträglich, so dass sich hier keine Inkohärenz in der Substrat-Konzeption ergibt. Solange wir nicht den Fehler begehen, wesentliche Instanzierung mit Konstitution zu verwechseln, scheitert auch die zweite Version des Trägerschafts-Einwandes, da sie eine unbegründete Prämisse verwendet, die der Substrat-Theoretiker ablehnen kann. Die Substrate sind die simplen, nichtkomplexen Eigenschafts-Träger.

#### **4 Der Einwand der fehlenden Fundierung des Eigenschaften-Habens**

Ein dritter Einwand gegen die Substrat-Theorie findet sich im Umkreis der Frage, wie man sich das Instanzieren einer Eigenschaft durch ein Ding vorzustellen hat. Hier meinen die Kritiker der Substrat-Theorie, ein Defizit erkennen zu können, das sich im Einwand der fehlenden Fundierung des Eigenschaften-Habens zum Ausdruck bringen lässt. Er lautet folgendermaßen: Substrate sollen Eigenschaften haben, und zwar im Sinne von Instanzierung. Aber ein Substrat kann nicht einfach eine Eigenschaft instanzieren. Denn sonst wäre es vollkommen unerklärlich, warum es die Eigenschaften haben kann, die es hat. Um erklären zu können, warum es genau diese Eigenschaften haben kann und nicht andere (oder gar keine), müssen wir annehmen, dass das Substrat eine Art innere Struktur oder Disposition (oder eine 'Kapazität' oder ein inneres 'Potential' oder etwas Derartiges) hat, die als Grund oder Fundierung für das Instanzieren einer Eigenschaft dient, etwas, kraft dessen das Substrat in der Lage ist, die Eigenschaft zu instanzieren. Dies bedeutet aber nichts anderes als dass das Substrat letztlich doch eine (andere) Eigenschaft als 'inneren' Konstituenten haben muss (wo diese fundierende Eigenschaft eben den Charakter einer Disposition oder 'Kapazität' hat). Und daher kann es kein Substrat ohne Konstituenten geben.

Dieser Einwand ist nicht so leicht zu greifen wie die anderen beiden. Vielleicht ist die Intuition, die hier ausgedrückt werden soll, schwerer zu formulieren, und es ist mir vielleicht nicht gelungen, sie in der bestmöglichen Weise zu fassen. Aber eine ungefähre Eingrenzung dieser Intuition, die gegen die Substrat-Theorie anläuft, ist mir hoffentlich geglückt. Eine andere Formulierung des Einwandes, die sich bei J.P.

Moreland findet, sei hier zur Ergänzung wiedergegeben:

“[W]hen a bare particular has a property, this is grounded in a capacity for that property contained within the inner nature of the bare particular. For example, when a bare particular has a property that is ‘inhering in’ it, this fact must be grounded in the further fact that the bare particular has the property of being such that properties can inhere in them.” (Moreland 2001, p. 153; vgl. Moreland 1998, p. 258)

(Mit ‘*bare particular*’ meint Moreland hier nichts anderes als Substrate.)

Die beste Erwiderung auf diesen Einwand besteht wohl darin, ihn aus dem Grund zurückzuweisen, dass er eine unbegründete Anforderung beinhaltet, die ein Substrat-Theoretiker nicht zu akzeptieren braucht. Diese Forderung betrifft die Fundierung des Eigenschaftens-Habens durch eine Art innere Disposition oder Struktur. Letztlich wird in dem Einwand gefordert, dass ein Substrat eine innere Disposition oder Struktur aufweisen muss, um eine Eigenschaft instanziierten zu können. Das Substrat muss die Eigenschaft haben, so zu sein, dass es die betreffende Eigenschaft instanziierten kann, wie Moreland es ausdrückt. Das Instanziierten einer Eigenschaft muss durch etwas ‘im’ Substrat fundiert sein. Das ist die Fundierungs-Forderung, von der der ganze Einwand entscheidend abhängt.

Die Fundierungs-Forderung könnte als eine direkt durch Intuition oder durch Argumente gestützte Annahme vorgetragen werden. Die Aussichten, sie als direkt durch eine Intuition gestützte Annahme präsentieren zu können, scheinen mir eher gering. Gibt es wirklich eine Intuition mit einem derartigen Inhalt? Ich tendiere dazu, mit Nein zu antworten, aber sicherlich werden sich einige Philosophen finden lassen, die für ein Ja stimmen. Hier kommen wir kaum voran.

Welche Argumente könnten die Fundierungs-Intuition rechtfertigen? Oder welche Argumente gibt es gegen eine solche Forderung? – Hier drängt sich vor allem der Eindruck auf, dass die Forderung aus dem Grund abzulehnen ist, weil sie einen *schädlichen unendlichen Regress* loszutreten scheint. Das Argument gegen die Forderung würde also ungefähr wie folgt lauten: Eine Fundierungs-Forderung kann nicht allgemein vertreten werden, weil dann jedes Instanziierten einer Eigenschaft E1 durch ein Einzelding x1 eine andere Eigenschaft E2 erfordert, die das betreffende Einzelding x1 als Konstituenten hat. Damit diese Eigenschaft E2 aber als Konstituent im Einzelding x1 auftreten kann, muss sie durch irgendeine Entität x2 instanziiert werden (wobei x2 in einer geeigneten Beziehung R zu x1 stehen muss). Diese Instanziiierung von E2 durch x2 muss nun wiederum fundiert werden, durch ein E3 und ein x3, und immer so weiter.

So kommen wir zu einer unendlichen Kette von Fundierungen. Diese Kette ist aber schädlich, weil sie auf keiner Stufe eine Erklärung des Instanzierens durch eine Fundierung liefert.

Dieses Regress-Argument ist jedoch problematisch und kann so nicht aufrechterhalten werden. Problematisch ist es nicht aus dem Grund, dass Dispositionen keine echten Eigenschaften sind und nicht instanziiert werden könnten wie echte Eigenschaften. Dispositionen werden von manchen Autoren wie etwa D. Armstrong (1997) zwar als echte Eigenschaften – und das heißt für Armstrong: als Universalien – abgelehnt, aber es gibt sehr gute Argumente von B. Ellis, C. Lierse und J. McKittrick für die Annahme, dass es manche echte dispositionale Eigenschaften gibt.<sup>20</sup> Wir müssen also vermutlich gar nicht so skeptisch sein bezüglich der Annahme von Dispositionen als echten Eigenschaften, die instanziiert werden können. An diesem Punkt das Regress-Argument aushebeln zu wollen, wäre daher ziemlich riskant.

Problematisch ist das Regress-Argument vielmehr aus einem anderen Grund. Es nimmt nämlich an, dass die Eigenschaft E2, die als fundierende Eigenschaft für das Instanzieren von E1 dienen soll, durch irgendeine Entität  $x_2$  *instanziiert* werden muss. Genau an diesem Punkt wird aber der Vertreter des Einwandes der fehlenden Fundierung zu Recht protestieren. Die dispositionale fundierende Eigenschaft E2 soll ja eben gerade nicht instanziiert werden, sondern in einem anderen Verhältnis zu  $x_1$  stehen, nämlich ein *Konstituent* von  $x_1$  sein. Und dass E2 dazu durch ein  $x_2$  instanziiert werden muss, wurde in keiner Weise gezeigt. Ergibt sich aber keine weitere Instanzierungs-Konsequenz, so kommt auch kein schädlicher Regress in Gang.

Wir sehen nun, welchen Preis die Vermeidung eines schädlichen Regresses hat: Es muss ein ganz anderes Verhältnis zwischen Einzelding  $x_1$  und Eigenschaft E2 angenommen werden als das der Instanzierung, nämlich die Konstitution. Damit aber untergräbt der Einwand insgesamt seine Schlagkraft. Der Einwand steht vor einem Dilemma: Entweder die Fundierungs-Forderung führt in einen schädlichen Regress, nämlich wenn die fundierende Eigenschaft selbst instanziiert werden muss; oder die Fundierungs-Forderung ist eine bloße, unbegründete Forderung. Denn warum sollte ein Substrat-Theoretiker die Annahme machen, dass Instanzierung durch Konstitution fundiert werden muss? Er will ja die Substrate gerade als Entitäten ohne Konstituenten ansehen, und solange nicht gezeigt worden ist, dass man ohne Konstitution nicht auskommen kann, hängt die Fundierungs-Forderung gänzlich in der Luft. Sie stellt eine

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<sup>20</sup> Vgl. B. Ellis, Lierse (1994), Ellis (2002), Ellis (2001), J. McKittrick (2003).

*petitio principii* dar, solange sie nicht weiter argumentativ untermauert wird. Ein Argument für die Fundierungs-Forderung fehlt aber noch und ist nicht in Sicht.<sup>21</sup>

## 5 Raumzeit-Punkte als Substrate

Die bisherige Argumentationslinie lief darauf hinaus, die Existenz von Substraten zu plausibilisieren. Sie bemühte sich um eine Ausarbeitung der Substrat-Konzeption und befasste sich mit Einwänden. Es fragt sich nun, welches die Substrate unserer Welt sein könnten. Eine Antwort auf diese Frage würde der bisherigen, eher ‘abstrakten’ Argumentationslinie deutlich mehr ‘konkrete’ oder inhaltliche Momente hinzufügen. Zu dieser Frage erteilt uns nun glücklicherweise eine andere Argumentationslinie die entscheidende Auskunft, die die Ontologie von Raum und Zeit betrifft. Die Hypothese, die ich im Folgenden vorstellen und zumindest ein Stück weit verteidigen möchte, lautet: *Raum und Zeit existieren in Form von Raumzeit-Punkten, und diese Raumzeit-Punkte sind die konkreten Substrate unserer Welt.* Diese Ontologie hat einen demokritischen Zug, da sie Raum und Zeit einen gewissen eigenständigen, ‘substantiellen’ Charakter zugesteht. Raum und Zeit sind nicht bloß Relationen zwischen den Körpern, die die konkreten Eigenschafts-Träger sind, sondern sie sind selbst – in Form von Raumzeit-Punkten – Träger von Eigenschaften (wie immer inklusive Relationen).<sup>22</sup>

<sup>21</sup> Morelands Kritik an dem Einwand ist ähnlich. Er sei „question begging“, sagt Moreland (2001, p. 153), wobei Moreland allerdings auf das zweite Horn des Dilemmas – die Regress-Problematik – nicht eingeht.

<sup>22</sup> Diese Position ist nicht zu verwechseln mit dem, was Lewis ‚Humean supervenience‘ nennt: „It [Humean supervenience] is the doctrine that all there is to the world is a vast mosaic of local matters of particular fact, just one little thing and then another. ... [W]e have an arrangement of qualities. And that is all. There is no difference without difference in the arrangement of qualities. All else supervenes on that.“ (Lewis 1986b, p. x; vgl. Lewis 1986, p. 14) Die Humesche Supervenienz-These umfasst eine Unabhängigkeits- oder Lokalitäts-Annahme („local matters of particular fact“, meine Hervorh.), die nicht Bestandteil des hier vorgeschlagenen Substrat-Absolutismus ist. Hinter der Humeschen Supervenienz-These verbirgt sich die Humesche Rekombinations-These, also die These, dass alle distinkten Entitäten modal separierbar sind. Dies ist alles nicht im Substrat-Absolutismus enthalten. Der Substrat-Absolutismus entspricht aber dem, was Lewis an anderer Stelle als eine von zwei möglichen ‚monistischen‘ Konzeptionen von Raum und Zeit anführt: „There are two ... monistic conceptions. One of them does away with the occupants as separate things: we have the parts of spacetime, and their distance relations are the only spatiotemporal relations. The properties that we usually ascribe to occupants of spacetime – for instance, properties of mass, charge, field strength – belong in fact to parts of

Raum und Zeit selbst als eine Mannigfaltigkeit von Punkten anzusehen, wird oft als ‘Substantialismus’ oder ‘Absolutismus’ bezeichnet. Die erste Bezeichnungsweise – ‘Substantialismus’ – ist jedoch unscharf, da sie nicht zwischen Substrat-Theorie und (Neo-)Aristotelischer Substanz-Theorie unterscheidet, und ich werde daher bei der Bezeichnung ‘Absolutismus’ bleiben. Der Absolutismus besagt: Raum und Zeit existieren (auch) in Form von Einzeldingen und nicht (nur) in Form von Relationen. Demgegenüber nimmt der Relationalismus im Anschluss an Leibniz an, dass Raum und Zeit ausschließlich in Form von Relationen existieren. Die Auseinandersetzung zwischen Absolutismus und Relationalismus ist umfangreich und komplex, und schon deswegen kann ich sie hier nicht in Angriff nehmen. Ich glaube, dass es gute Argumente für den Absolutismus gibt und dass insgesamt der Absolutismus mindestens genauso gut abschneidet wie der Relationalismus. Selbst wenn diese Diskussion derzeit noch nicht abgeschlossen ist, ist es sinnvoll, einmal zu überlegen, wie der Absolutismus weiterentwickelt und eingesetzt werden kann. Dazu will ich hier beitragen.<sup>23</sup> Naheliegender ist es, die Raumzeit-Einzeldinge, die der Absolutismus annimmt, als Substrate aufzufassen. Die Raumzeit-Einzeldinge sind nichts anderes als die Raumzeit-Punkte, und diese sind Substrate, simple Einzeldinge, die als Träger von Eigenschaften (inklusive Relationen) dienen.<sup>24</sup>

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spacetime themselves.“ (Lewis 1986b, p. 76, Fn. 55) Die ‚Teile‘ der Raumzeit wären nach meinem Vorschlag die Raumzeit-Punkte, aufgefasst als Substrate.

<sup>23</sup> Eine der größten Herausforderungen für den Absolutismus stellt wohl das *Hole Argument* von Earman und Norton dar. Vgl. Earman, Norton (1987), Norton (1987), Earman (1986). Die Diskussion um die Gültigkeit und die Bedeutung dieses Arguments ist derzeit noch im Gange. Eine sehr gute Kritik an Earmans und Nortons Argument findet sich in Maudlin (1990). (Maudlin benutzt den Ausdruck ‚bare particular‘ anders als ich hier. Für ihn sind damit Einzeldinge gemeint, die keine wesentlichen Eigenschaften haben. Vgl. Maudlin 1999, p. 545, 554.) Man sollte im Auge behalten, was Bartels hervorgehoben hat: „[F]ür den Raumzeit-Realismus [= Absolutismus] spricht in der ART [Allgemeinen Relativitätstheorie] so viel, daß man diese Möglichkeit nur ungern auf Dauer blockiert sähe.“ (Bartels 1994, p. 295)

<sup>24</sup> Zu den Eigenschaften zählen hier, wie immer, auch die Relationen. Hervorzuheben ist, dass es nach dem Absolutismus auch raumzeitliche Relationen gibt, nämlich die raumzeitlichen Abstände. Diese benötigen wir, weil ja, wie Newton bemerkte, gilt: „[T]imes and spaces are, as it were, the places as well of themselves as of all other things. All things are placed in time as to order of succession; and in space as to order of situation.“ (Newton 1966, p. 8, zitiert nach Maudlin 1990, p. 544) Außerdem ist zu betonen, dass es nicht darauf ankommt, dass die Raumzeit-Substrate tatsächlich Raumzeit-Punkte sind, also ausdehnungslose Entitäten. Es könnten genauso gut Raumzeit-Regionen sein, oder sogar diskrete Raumzeit-Einheiten – Raumzeit-Quanten, die vielleicht mathematisch als Knoten von Graphen beschreibbar sind, wie

Räumlichkeit und Zeitlichkeit gelten schon immer als Grundcharakteristikum des Konkreten. Die Hypothese von den Raumzeit-Punkten als Substraten unserer Welt erlaubt es uns nun sogar zu sagen, dass Raum und Zeit das Konkrete schlechthin sind. Denn die Annahme von Materie oder Körpern als Substrate, zusätzlich über die Raumzeit-Punkte hinaus, ist überflüssig. Das Vorhandensein von Materie und Körpern kann nämlich über Materie-Eigenschaften und ihre Instanziierung durch Raumzeit-Punkte erklärt werden. Das einzige Konkrete unserer Welt sind letztlich die Raumzeit-Punkte.

Damit ist schon das erste Argument angesprochen, das für die Hypothese der Raumzeit-Punkte als Substrate spricht, das *Argument der Erklärung materieller Objekte*. Die Frage lautet: Wie ist es zu verstehen, dass sich an einem bestimmten Ort ein materielles Objekt befindet? Die Annahme, dass es Raumzeit-Punkte gibt, die Eigenschaften instanziiieren, erlaubt es uns, eine überzeugende Antwort auf diese Frage zu liefern. Die materiellen Objekte sind nichts Zusätzliches, was in einer Lokalisierungs- oder Okkupationsrelation  $R$  zur Raumzeit oder ihren Teilen steht. Dass an einem bestimmten Ort ein materielles Objekt vorliegt, besteht vielmehr in nichts anderem, als dass die Raumzeit-Punkte an diesem Ort bestimmte materielle Eigenschaften aufweisen: Sie instanziiieren Masse- und elektromagnetische Feld-Eigenschaften, und vielleicht noch andere Eigenschaften. (Welche Eigenschaften dies genau sind, ist letztlich eine Frage empirischer Forschung. Wir können die betreffenden Eigenschaften einfach summarisch als '(grundlegende) materielle Eigenschaften' bezeichnen.) Selbst ein (relativ zu einem Inertialsystem) ruhendes Objekt wird dabei in der Regel eine innere Dynamik aufweisen, da sich das elektromagnetische Feld bei den vielfachen Wechselwirkungen praktisch permanent ändert. Dies ändert aber nichts daran, dass das Vorliegen eines materiellen Objekts nichts anderes als eine Instanziierung eines (im Regelfall extrem komplexen) materiellen Eigenschaftsmusters durch eine Pluralität von Raumzeit-Punkten ist. Auf diese Weise lassen sich mit Hilfe der Raumzeit-Punkte als Substrate materielle Objekte reduzieren.<sup>25 26</sup>

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es die so genannte *Loop Quantum Gravity* Theorie besagt, die u.a. von Lee Smolin vertreten wird (vgl. Smolin 2004). Allein der Einfachheit halber werde ich im Folgenden immer nur von Raumzeit-Punkten sprechen.

<sup>25</sup> Ich nehme hier an, dass die Rede von Pluralitäten oder Vielheiten keine zusätzliche ontologische Verpflichtung mit sich bringt, keine ‚addition of being‘, wie Armstrong (1997) es nennt. Zwischen der Pluralität (dem Einen) und den Vielen liegt einfach plurale Identität vor. Zu dieser ‚deflationären‘ Auffassung von Pluralitäten vergleiche Lewis (1991).

<sup>26</sup> Hier könnte man auf die Frage kommen, was genau denn nun das materielle Objekt



Ein zweites Argument für die Hypothese der Raumzeit-Punkte als Substrate lässt sich bei der Behandlung des *Phänomens der qualitativen Veränderung* finden. Die Frage lautet hier: Wie ist die qualitative Veränderung eines Dings, das zur Zeit  $t_1$  die Eigenschaft  $F$  hat und zur späteren Zeit  $t_2$  nicht mehr die Eigenschaft  $F$  hat, widerspruchsfrei zu verstehen? Eine mittlerweile weit verbreitete Position – der sogenannte *Perdurantismus* – versucht, diese Frage mit Hilfe der Zeitstadien (*‘stage’*, oder Zeitschnitte, *‘time slices’*) zu beantworten. Dabei wird angenommen, dass die Träger der Eigenschaften letztlich Zeitstadien der gewöhnlichen Dinge sind. Zu jedem Zeitpunkt (oder zu jeder kleinsten Zeiteinheit) existiert ein Zeitstadium, und das frühere zu  $t_1$  instanziiert  $F$ , das spätere zu  $t_2$  instanziiert nicht  $F$ . Der Widerspruch wird also aufgelöst, indem die Träger der Eigenschaften feiner individuiert werden – eben genauso fein wie die Zeit.<sup>27</sup>

Die perdurantistische Lösung ist attraktiv, aber leider nicht ohne Schwierigkeiten. Zunächst muss sie sich dem Vorwurf stellen, keine qualitative Veränderung erklärt zu haben, weil es nicht mehr ein und dasselbe Ding ist, das mal die Eigenschaft  $F$  hat und mal die Eigenschaft  $F$  nicht mehr hat. Die beiden Zeitstadien sind ja schließlich nicht numerisch identisch, und somit hat sich auch nicht das *eine* Ding verändert. – Dieser Vorwurf geht jedoch davon aus, dass für qualitative Veränderung nicht nur eine Selbigkeit in irgendeinem Sinne, sondern eine *strikte, numerische Identität* erforderlich ist, eben die des sich verändernden Dings.<sup>28</sup> Wenn wir aber sagen, dass es *‘dasselbe Ding’* oder *‘das eine Ding’* ist, das vorher  $F$  war und später nicht mehr, dann können wir das auch so verstehen, dass es sich nicht um strikte, numerische Identität handeln muss. Gehen wir von Zeitstadien aus, dann könnte die Zugehörigkeit zu einem zeitlich ausgedehnten Ding durchaus ausreichen, um sagen zu können, dass zwei Zeitstadien *‘dasselbe Ding’* sind.<sup>29</sup> Dies zieht allerdings ein Folgeproblem nach sich, nämlich das Problem anzugeben, was es ausmacht, dass zwei

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nach dieser Theorie sein soll. Die Pluralität der Raumzeit-Punkte? Oder die Pluralität der Tatsachen (wobei Tatsachen als Instanzierungen von Eigenschaften durch Raumzeit-Punkte aufzufassen sind)? Oder beides zusammen? Oder was sonst? – Mir scheint, dass die Frage etwas müßig ist, da nichts weiter davon abhängt, welche dieser Antworten gegeben wird. Entscheidend ist, was es gibt und was notwendig und hinreichend dafür ist, dass ein materielles Objekt existiert. Und dies wird klar beantwortet.

<sup>27</sup> Vgl. Lewis (1986b), pp. 202-204. Eine sehr gute neuere Darstellung und Verteidigung des Perdurantismus findet sich in Sider (2001).

<sup>28</sup> Dies fordert z.B. Mellor (1998), p. 89, der dementsprechend auch Endurantist ist.

<sup>29</sup> Vgl. Armstrong (1997), p. 100.

Entitäten, die Zeitstadien sind, die Zeitstadien von demselben zeitlich ausgedehnten Ding sind. Zur Beantwortung dieser Frage wird üblicherweise auf raumzeitliche Nachbarschaft, Ähnlichkeit und kausale Beziehungen verwiesen, die die Zeitstadien eines Dings ‘zusammenhalten’, aber es ist nicht ganz klar, ob dies ausreicht, da es ja auch viele kausale Beziehungen zwischen ganz verschiedenen Dingen (bzw. ihren Zeitstadien) gibt und raumzeitliche Nachbarschaft und Ähnlichkeit nicht notwendig scheinen. Hier sind wir mitten in einem schwierigen Abgrenzungsproblem.<sup>30</sup>

Sehen wir von diesem Problemkomplex einmal ab, so bleibt noch eine andere Schwierigkeit übrig. Diese Schwierigkeit ist gewissermaßen die Grundschwierigkeit des ganzen Perdurantismus. Der Perdurantist postuliert Zeitstadien als Träger von Eigenschaften. Dies reicht aus, um den drohenden Widerspruch zu vermeiden. So weit, so gut. Aber ist es unabhängig davon irgendwie plausibel anzunehmen, dass es solche Zeitstadien gibt? Diese Frage könnte vielleicht als eine *petitio principii* eingestuft werden, und dann stellte sie natürlich keinen Einwand dar. Aber es scheint hier doch vielleicht einiges in der Luft zu liegen, was einem zu denken geben könnte. Man könnte nämlich die Frage aufwerfen, warum es denn ‘merkwürdigerweise’ gerade so ist, dass die Objekte genau so fein individuiert sind wie die Zeit. Nehmen wir an, dass die Zeit aus (instantanen) Zeitpunkten aufgebaut ist, dann wären die Zeitstadien instantane Zeitpunktstadien, und jedes Zeitpunktstadium existiert genau zu einem Zeitpunkt. So weit ergibt sich das für den Perdurantisten zwingend. An dieser Stelle tut sich aber wiederum das Lokalisierungsproblem auf, das wir oben schon angesprochen haben. Ein Zeitstadium ist genau an einem Zeitpunkt lokalisiert und es hat genau dieselbe zeitliche Ausdehnung. Aber warum? Was ist die Beziehung der ‘Lokalisierung’ (oder ‘Okkupation’)? Zeitpunkt und Zeitstadium sind numerisch verschieden und es liegt auch keine Teil-Ganzes-Beziehung und kein Überlapp vor. An dieser Stelle davon zu sprechen, dass das Zeitstadium der ‘Inhalt’ des betreffenden Zeitpunkts (an dem betreffenden Ort, sei es ein Raumpunkt oder eine räumliche Region) sei, hilft auch nicht viel weiter. Denn ‘Inhalt’ und Zeitpunkt sind und bleiben numerisch und mereologisch distinkt, und es fragt sich immer noch, wodurch ein ‘Inhalt’ so ausgezeichnet wird, dass er der ‘Inhalt’ des betreffenden Zeitpunkts ist. Wir können also feststellen, dass der Perdurantist nicht nur den Preis der

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<sup>30</sup> *Locus classicus* für eine Diskussion der Beziehung, die verschiedene Zeitstadien zu einem persistierenden Ding zusammenfügt, ist Lewis (1983), der die Beziehung ‚*I-relation*‘ nennt. Für eine kurze Diskussion der hier genannten Schwierigkeiten vergleiche Armstrong (1997), Kap. 7.23.

Einführung neuer Eigenschaftsträger – eben der Zeitstadien – und einer nicht leicht zu erklärenden Selbigkeitsrelation zu zahlen hat, sondern zudem noch den Preis der Einführung einer unerklärten Lokalisierungsbeziehung. Und sobald wir dies festgestellt haben, wird der Eindruck nur noch drängender, dass wir vielleicht lieber auf Zeitstadien von Objekten zu verzichten versuchen sollten.

Nun müssen wir glücklicherweise nicht zum Endurantismus zurückkehren. Denn die Theorie der Raumzeit-Punkte als Substrate erlaubt eine andere Lösung, die eher in Richtung des Perdurantismus liegt, diesen aber in gewisser Weise überbietet. Die Reduktion von materiellen Objekten auf Raumzeit-Punkte und deren Instanziierung von materiellen Eigenschaften, die ich oben schon zur Lösung des (unzeitlichen) Lokalisierungsproblems vorgeschlagen habe, erlaubt es uns auch, ohne Zeitstadien auszukommen. Das Phänomen der Veränderung stellt im Grunde ‘nur’ eine Erweiterung des Lokalisierungsproblems um die zeitliche Dimension dar, jedenfalls vor dem perdurantistischen Hintergrund betrachtet. Wenn wir einmal in Richtung des Perdurantismus losmarschiert sind, ist es nur folgerichtig, auch den nächsten Schritt zu machen und die Zeitstadien herauszukürzen und die Raumzeit-Punkte als die eigentlichen Träger der materiellen Eigenschaften anzusetzen. Die konsequente Durchführung des Perdurantismus führt gewissermaßen in die Konzeption der Raumzeit-Punkte als letzter Substrate. Die Vorteile liegen auf der Hand: Neben den Raumzeit-Punkten, die der Perdurantist ohnehin annehmen muss, benötigen wir keine ‘merkwürdigen’ Zeitstadien mehr und auch keine unerklärte Lokalisierungsbeziehung. Aus diesem Blickwinkel erweist sich der Perdurantismus als ein instabiles Übergangsstadium.<sup>31</sup>

Ich hoffe, dass durch die bisherigen, zugegebenermaßen unvollständigen Ausführungen die Attraktivität der Substrat-Theorie anklingen konnte. Die Raumzeit-Punkte sind die Träger der (grundlegenden) materiellen Eigenschaften; sie nehmen den Platz der Zeitstadien ein und erlauben somit ein Verständnis von qualitativer Veränderung. Auf diese Weise gewinnt die Substrat-Theorie eine konkrete Gestalt und wächst zu einem

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<sup>31</sup> Ein weiteres Argument für die hier vorgeschlagene Raumzeit-Punkte-Ontologie ergibt sich im Zusammenhang des Lokalisierungsproblems für Tatsachen. Die Frage ist, in welcher Weise die Zeit in die Tatsachen eingeht. Der Perdurantist kann die Zeitstadien als Konstituenten der Tatsachen nehmen und so die zeitliche Lokalisierung der Tatsache über die ‚Subjekt-Stelle‘ der Tatsache erfolgen lassen, aber stattdessen können die Raumzeit-Punkte genauso gut diese Rolle spielen. Eine endurantistische Lösung, die von Hugh Mellor (1998) vorgeschlagen worden ist, ist dagegen nicht haltbar, wie ich in Hofmann (2005) darlege.

überzeugenden ‘positiven’ Bild an. Weit davon entfernt, inkohärent zu sein, kann die Substrat-Theorie sogar zu sehr grundsätzlichen Fragen, wie z.B. der Frage, was konkrete materielle Objekte sind, aussichtsreiche Antworten liefern. Wenn sie zutrifft, ist die konkrete Welt eine Vielzahl von Raumzeit-Punkten, die ein höchst komplexes Eigenschaftsmuster instanziiieren.<sup>32</sup>

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JEFFREY GRUPP

**Compreence is a Bundle  
A Problem for the Bundle Theory of Objects**

**ABSTRACT**

I discuss compreence: the relation or tie that holds properties together according to the bundle theory of objects. Compreence is widely held to be a special primitive relation or tie. But I find that compreence must be a special bundle: a bundle that has the function of bundling properties.

*1. Introduction*

**B**undle theorists hold that physical things and minds are reducible to bundles of properties. Bundled properties are connected or held to one another by a special relation that is typically called compreence, togetherness, co-instantiation, consubstantiation, collocation, and so on. In this article, (for convenience) I will use the word “compreence”.<sup>1</sup> Many varieties of the bundle theory (BT) have been discussed and developed by philosophers since the time of Berkeley, Hume, and Mill, including such early and mid 20<sup>th</sup> century notables as Bertrand Russell, D. C. Williams, A. J. Ayer, Nelson Goodman, Hector-Neri Castañada, and Keith Campbell,<sup>2</sup> and recent thinkers such as Doug Ehring,<sup>3</sup> Kristopher McDaniel,<sup>4</sup> Dean Zimmerman,<sup>5</sup> John O’Leary-Hawthorne and Jan Cover,<sup>6</sup> James Van Cleve,<sup>7</sup> Albert

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<sup>1</sup> The word “compreence” is often associated with Russell, but it shows up earlier, at least as far back as Husserl, in *Logical Investigation III*, Chapter 1, Section 5 (J. N. Findlay translation, Routledge).

<sup>2</sup> Campbell, 1990, 1981.

<sup>3</sup> Ehring, 2001.

<sup>4</sup> McDaniel, 2001.

<sup>5</sup> Zimmerman, 1997.

Casullo,<sup>8</sup> William Vallicella,<sup>9</sup> Peter Simons,<sup>10</sup> John Lango,<sup>11</sup> Arda Denkel,<sup>12</sup> Francesco Orilia,<sup>13</sup> and Jonathan Schaffer.<sup>14</sup> But few accounts of the special bundling relation (compresence) have been presented or discussed. In this paper, I restrict my focus to this special relation. I do not address the commonly discussed issues in the debate about BT, such as the problem of individuation, the problem of identity over time, the controversy about the identity of indiscernibles, or whether the properties of a bundle are universals or tropes. I want to be clear: I am not discussing issues to do with the nature of the *properties* that are compresent, which is widely discussed.<sup>15</sup> Rather, I discuss *compresence*, which is responsible for bundling properties.

Determining the nature of compresence is important since, as I will discuss, compresence is integral to BT, needed to avoid infinite regresses. I will find that, despite the fact that bundle theorists have told us that compresence is a relation or tie, *compresence is a bundle*. To get to this conclusion, I will argue that compresence is not an ordinary member of a bundle (section 2), compresence apparently must have properties (section 3), and if compresence has properties but is not itself bundled, then on the bundle account, compresence is itself a bundle (section 4). I will also discuss in

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<sup>6</sup> O’Leary-Hawthorne and Cover, 1998.

<sup>7</sup> Van Cleve, 2001.

<sup>8</sup> Casullo, 2001.

<sup>9</sup> Vallicella, 2002.

<sup>10</sup> Simons, 2000.

<sup>11</sup> Lango, 2002.

<sup>12</sup> Denkel, 1997.

<sup>13</sup> Orilia, 1998.

<sup>14</sup> Schaffer, 2003.

<sup>15</sup> For a comprehensive and clear discussion of the criticisms bundle theory, see O’Leary-Hawthorne and Cover, 1998. Also see Van Cleve, 2001.



the conclusion that if compresence is a bundle, BT might involve a few hitherto unnoticed problems.<sup>16</sup>

## 2. *Compresence is not Bundled*

First I will investigate whether or not compresence is an ordinary member of a bundle: a property, such as a polyadic property (relation), as is commonly maintained by many bundle theorists. Loux (a substance theorist) writes:

“The account bundle theorists provide invariably involves... appeal to a *special* relation tying all the attributes in a bundle together... *But however it is labeled, the relation is treated in the same way. It is taken to be an unanalyzable or ontologically primitive relation*, but it is explained informally as the relation of occurring together, of being present together, or being located together...”<sup>17</sup> (Emphasis added.)

Loux calls compresence a “tying *relation*”. In this section, I will argue that compresence is not a polyadic property (relation), since if it were a polyadic *property*, it would be *bundled* (it would be *a member of a bundle*), which requires that it be *compresent with properties of a bundle*. If compresence is compresent with the properties of a bundle, then the following infinite regress would ensue: the statement “Properties F and G are compresent” describes a bundle L, where if compresence, call it compresence<sub>1</sub>, was an ordinary member of the bundle, compresence<sub>1</sub> would be *compresent with* F and G, where the italicized “compresent with” denotes compresence<sub>2</sub>. Compresence<sub>2</sub> would bundle F, G, and compresence<sub>1</sub>, and compresence<sub>3</sub> would be needed to bundle compresence<sub>2</sub>, ad infinitum. Ehring has discussed this issue that I am addressing:

...[T]he properties included in the bundle are co-instantiated or compresent. The co-instantiation relation, *C*, is not a member of the bundle [i.e., the co-instantiation relation is not compresent with the properties of the bundle it bundles]... If we include *C* without modifying the formulation, then *C* itself is co-

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<sup>16</sup> Some bundle theorists may assert that this paper is not needed since compresence is *primitive*. I rejoinder that it is harmless to simply ask this question: *What is compresence?*, and I assert that if compresence is primitive, my attempt to answer this question will merely reveal the primitivism of compresence.

<sup>17</sup> Loux, 1998, p. 99.

instantiated with the remaining tropes [properties]: co-instantiation is co-instantiated with the [bundle] FGH. But that either makes no sense or lead to infinite regress. An alteration of the original formulation is necessary...<sup>18</sup>

I do not see a way out of the problem addressed by Ehring if compresence is in fact an ordinary member of a bundle (such as an ordinary relation). Phillips straightforwardly discusses why there is a problem with this sort of regress:

The regress is set up by treating the relation [compresence relation] as a term, as the same sort of thing, logically, as its relata [i.e., relata are also n-edic properties]. Without an argument that a relation is a different sort of critter, it seems that if a third thing is required to relate two things, then the third thing requires equally a fourth and fifth to tie it up with the first two, ad infinitum. The regress is vicious: unlike an infinite series of causes that does not undermine the notion that a preset  $x$  has  $y$  as its cause, the relation regress does undermine the work proposed for the relator. *The relator, the third thing, cannot relate the two items without help from the fourth and fifth things (ad infinitum) needed to tie it up with the first two.* We can accept, on the other hand, a causal infinite series without threatening the notion that  $y$  has caused  $x$ : our ability to trace the series will simply flag at some point.<sup>19</sup> (Underlining added.)

For reasons given in this section, compresence is apparently not bundled, and thus cannot be a polyadic property (relation), since properties must be instantiated (bundled) if they are properties of particulars. This is my first point in arguing the conclusion that compresence is a bundle.<sup>20</sup> (I

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<sup>18</sup> Ehring, 2001, 165.

<sup>19</sup> Phillips, 1995, 23.

<sup>20</sup> Some bundle theorists, like Russell, assert that compresence is merely *collocation*—merely being in the same place at the same time. But I think “collocation” is not entirely appropriate to describe compresence, since it appears that, on the BT account, properties might in fact be *held* together, rather than merely located in the same place, as Russell might say. If mere *collocation* is all that is involved in BT’s compresence, as Russell appeared to indicate, one might wonder what *holds* properties together, as they do indeed appear *held*, in some sense, for the following reasons. When a lion (bundle) runs through a savanna; all properties move in a uniform manner wherever the lion is moving. It is not the case that when the lion starts running, some properties are left behind: when the lion begins running, the properties *goldenness* and *felinity* move with the motile lion bundle, whereas other properties, such as the properties *having a mane*, *hunger*, or *sublimity*, are left behind. Thus it appears that there might be a

will hereafter refer to compresences as a non-relational tie, rather than a relation (polyadic property).)

### 3. Does Compresence have Properties?

In this section, I will argue that if the compresence tie exists, it apparently has properties. If compresence does not have properties, it is unclear that compresence can exist.<sup>21</sup> If compresence is not bundled, and *does not* have properties, then the statement “the compresence that bundles F and G *is a bundler* of F and G”, is meaningless, a category mistake, truth-valueless, necessarily false, or perhaps contradictory, since “is a bundler” in the statement denotes a *property* of compresence. The correct statement, if compresence does not have properties, would apparently be “the compresence bundling F and G is propertyless” (where “is propertyless” *somehow* does not denote the property, *propertylessness*). For these reasons, the philosopher who denies that compresence has properties would have to accept that there are *propertyless* entities—*bare* entities. Accordingly, it is *not* true that the compresence *is a bundler*. And without a bundler, *compresence* cannot be a bundler holding F and G together, and it is not true that F and G are compresent.

For these reasons, I will accept that compresence obviously *does have properties* (such as the property, *bundler of properties*), which is my second point in arguing the conclusion that compresence is a bundle.

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*holding*, or *tying*, of the properties that make up the lion. Such a *holding* would require that compresence is *not merely* collocation, but rather compresence might be responsible for there being a sort of “bonding” or “tying” of some sort of the properties. If this were the case, Russell’s description does not involve a *bonding*, *holding*, or *tying* of properties, since “collocation” only denotes spatial unseparatedness, and does not tell us why properties are *held* together. This may leave some philosophers wondering why, according to Russell’s description, *all* the properties move together in an apparently uniformly fashion, as when, for example, the lion runs across the savanna. Considering compresence as a *bonder* (as the word “tie” appears to denote), might be a better way of describing compresence than mere *collocatedness*.

<sup>21</sup> It is standard for philosophers to maintain that entities that do not have properties do not exist. Moreland writes: “...[N]othingness is just that—nothing. Nothingness has no properties whatever. Things that do not exist have no properties.” (Moreland, 2001, 139)

#### 4. *Compresence is a Bundle*

If compresence is not bundled (is not an n-adic property, is not a member of a bundle), which I concluded in section 2, and if compresence has properties, which I concluded in section 3, then in this section I will argue that *compresence* apparently can only be a *bundle*.

Examples of a few properties possessed by compresence might be the properties *spatial locatedness*, *temporality*, the property, *bundles F and G*, and so on. If, as I have argued, compresence is not bundled, and compresence has properties, then compresence appears to fit the definition of a bundle, describable by the complete proposition: “an entity constituted of compresent properties (a maximal compresence of properties) and which is not borne by another entity.”

Typical characteristics of a bundle can be applied to the compresence bundle. For example, the compresence bundle can change in time: For a bundle L, where L=lion, at time t, the compresence responsible for bundling L’s properties has both of the contingent properties, *located where L is located*, and *bundling L’s properties maleness and eating zebra* (compresence’s property is italicized, and properties of L are both italicized and underlined). And at t\* compresence has both the contingent properties, *located where L is located*, and *bundling L’s properties maleness and drinking water*, where the second property has been replaced from time t to time t\* (assume that t and t\* are twenty minutes apart).

If the reasoning to this point in the paper is correct, an ordinary physical object would be, on the bundle account of ordinary objects, composed of

- (a) a collection of properties that are each interconnected via compresence, and
- (b) compresence, which is a bundle (a *compresence bundle*).

Two sorts of bundles compose an ordinary physical thing (bundle), such as lion L: an *ordinary bundle* (L), which is not a bundler of properties, and which is a physical object; and a *compresence bundle* (call it B<sub>C</sub>), which bundles the properties of ordinary bundle. An ordinary object is a group or congeries of properties (L) bundled by a compresence bundle (B<sub>C</sub>).

## 5. Conclusion

If my preceding arguments are sound, then compresence is not an ordinary member of a bundle (compresence is not bundled), and compresence itself is a bundle.

This may lead to problems in BT, however, since if L's compresence bundle  $B_{C1}$  also requires a compresence bundle,  $B_{C2}$ ,  $B_{C2}$  requires  $B_{C3}$ , and so forth, and a regress that is vicious may ensue, for the following reasons.

If any bundle is bundled by another bundle, at every stage of the regress, the bundle at one stage is held together by another compresence bundle at the next stage, and each bundle stage depends on the *next* bundle stage of the regress. A bundle is only a bundle because of the existence of a second bundle, where the second bundle is only bundled due to the existence of a third bundle, *ad infinitum*. If properties of any stage of the bundles regress are bundled by the next bundle in the regress, never in the regress is there a point where the properties that are bundled are *not* dependent on other bundles. The lion can be considered the *first* bundle stage in the bundle regress (the lion is the only bundle in the regress that does not bundle another bundle). At any stage, a bundle is composed of infinite compresence bundles, where none of the bundles can be described as being a *last bundling* in the regress.

It appears there may not be a point in the regress at all where bundling occurs since this regress appears to be an infinite regress that attempts to complete a task by an infinite sequence of steps, where the "completion" "at infinity" in fact never occurs. Chisholm considers this sort of regress vicious; Moreland lucidly writes about Chisholm's position:

There are at least three forms of infinite regress arguments... [One form] involves claiming that a thesis generates a "vicious" infinite regress. How should "vicious" be characterized here?... Roderick Chisholm says that "One is confronted with a vicious infinite regress when one attempts a task of the following sort: Every step needed to begin the task requires a preliminary step". [Chisholm, 1996, p. 53.] For example, if the only way to tie together any two things whatever is to connect them with a rope, then one would have to use two ropes to tie the two the two things to the initial connecting ropes, and use additional ropes to tie them to these subsequent ropes, and so on. According to Chisholm, this is a vicious infinite regress because the task cannot be accomplished.<sup>22</sup>

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<sup>22</sup> Moreland, 2001, p. 24. In the passage from Phillips above, Phillips also lucidly argues this same point.

If the bundles regress is not completeable, there may be reason to wonder how a regress of compresence bundles is coherent. Each stage of the regress depends on the coherence of a compresence bundle at the next stage, *ad infinitum*. But if there is no last stage, there is no point in the regress that one can point to where that bundle at that stage is clearly bundled in some way.<sup>23 24</sup>

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<sup>23</sup> Analogous reasoning to the reasoning I have given in this paper might apply to the exemplification tie of the non-bundle substance theory of ordinary objects, where properties are not tied to one another, but rather are tied to (exemplified by) an enduring particular (or, some may say, properties are tied to a perduring particular). On this account, the exemplification tie, which is not itself exemplified, must have properties if it exists. (If the exemplification tie were exemplified, it would have to be exemplified by exemplification tie<sub>2</sub>, where exemplification tie<sub>2</sub> would have to be exemplified by exemplification tie<sub>3</sub>, *ad infinitum*.) If the exemplification tie has properties, but is not itself exemplified, then it appears that, on the non-bundle substance account of ordinary objects, the exemplification tie of non-bundle theory of substance can only *also be a substance*. If the exemplification tie is a substance, it would be a substance responsible for tying properties to particulars, and this would give rise to an infinite regress analogous to the one I described to do with bundles in section 5 of this paper. If the exemplification tie of non-bundle substance theory is a substance, then there would be another exemplification tie<sub>2</sub>, that is responsible for tying together the properties of exemplification tie, and an infinite regress would ensue. (There are other problems with the exemplification tie of non-bundle theory of substance which might strengthen the point I am making in this endnote. See Grupp, 2003, 2004, and forthcoming.) (Quinnean nominalism does not avoid the criticisms of property possession given in this paper and in this endnote, since Quinnean nominalism involves the *instantiation* of the polyadic property, *set membership*.)

If the predicating ties of both the bundle theory of substance and the non-bundle theory of substance each were impossible, this would result in fatal problems for the metaphysics of property possession, and for metaphysical realism. If this is the case, then it appears that one of two conclusions would ensue:

1. There are no properties that are possessed by particulars, and blob theory would be the correct theory of reality (blob theory is the theory that there are no properties, or no instantiated properties, and reality is entirely without structure, see Moreland, 2001, 74).
2. Reality is not a blob, but rather there must be an *alternative* to metaphysical realism which provides an alternative explanation of our experience of properties and of our experience of structure in nature, such as, for example, the account given in John Dilworth's recent paper (Dilworth, 2003). (Dilworth clearly points out on page 216 of his article that he is not attempting to show that his theory *replaces* metaphysical realism, but rather his theory is a mere possible

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*alternative* to metaphysical realism. But if my reasoning in this paper and in this endnote is correct, it provides evidence for the position that only theories *other than* metaphysical realism could be correct, and thus theories, such as Dilworth's, are much more than mere possible alternatives to metaphysical realism: my reasoning could give evidence that they could be the needed replacement for metaphysical realism.)

<sup>24</sup> I am grateful to Quentin Smith and William Vallicella for helpful comments on the writing of this paper.

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SIMON BOSTOCK

## Internal Properties and Property Realism

Realism about properties, standardly, is contrasted with nominalism. According to nominalism, only particulars exist. According to realism, both particulars and universals exist, and properties (and relations) are universals – entities which can be wholly instantiated by more than one particular at a time. Most realists are *sparse* realists. They deny that all predicates pick out a corresponding property and that all properties are picked out by a corresponding predicate. For even if physicalism is false, and even if universals are part of a non-spatiotemporal realm rather than constituents of the spatiotemporal world, there seems little reason to think we can have knowledge of what universals there are simply from a consideration of language.

Perhaps the most popular principled way of distinguishing between mere predicates and properties, though by no means the only one, is *scientific* realism: only those predicates our scientific theories will make reference to at the hypothetical end of enquiry pick out properties. Some realists, such as Armstrong, accept this together with the claim that certain conjunctive predicates – those with conjuncts which pick out properties – also pick out properties.

There is a tension, however, between sparse realism and its proponents. It is this: sparse realists just can't help talking in a way that appears to involve existential commitment to properties which it would seem a sparse realism would want to deny.

Take a molecule of H<sub>2</sub>O. It is natural for the realist, in reply to certain questions, to say that it has the following properties: *having three parts, having two parts which are hydrogen atoms, having a part which is an oxygen atom, having a part which has a mass m, having two parts which are hydrogen atoms and one part an oxygen atom*, and so on. Suppose, for example, that the realist endorses scientific essentialism, and so take laws of nature to derive from the essential properties of natural kinds. What are the essential properties of H<sub>2</sub>O in virtue of which members of that kind

behave the way they do? A molecule of H<sub>2</sub>O only behaves the way it does because, amongst other things, it has two parts which are hydrogen atoms and one part which is an oxygen atom. So it seems that the essentialist, responding to this question, should take *having two parts which are hydrogen atoms and one part an oxygen atom* to be an essential property of H<sub>2</sub>O – i.e. a property all members of that kind must have.

Realists rarely state their views with enough care to avoid apparent commitment to such properties. But ‘mature science’ is unlikely to admit the existence of the aforementioned properties alongside the basic properties of the *parts* that make up a H<sub>2</sub>O molecule. Nor are any of the aforementioned properties conjunctive and composed of those properties mature science would endorse; there are no conjuncts in the above examples that are likely to form part of science’s basic inventory. And nor does it seem that any reasonable sparse realism – one motivated by ontological economy – would endorse the existence of such properties.

What, then, is the sparse realist to say?

Let us define ‘questionable properties’ as those putative properties – such as the aforementioned – that a consideration of ontological economy seems to rule against, and yet which (a) are naturally talked about as though they are properties, and which (b) are instantiated in virtue of the nature of their bearer.

The standard realist response to the tension I have highlighted is to construe talk involving questionable properties as ‘loose’ – a shorthand way of pointing out certain *truths* about particular objects. To say, for example, that the H<sub>2</sub>O molecule has the ‘property’ of having three atoms is to say no more than that the molecule has three atoms. Consequently, there is no ontological commitment to questionable properties.

In this paper I set out an alternative realist response which allows that *there are* such questionable properties, but which does so without ontological cost. Realism, I shall argue, can accept many properties which are not universals and which have no bearing on its ontological commitments. My strategy has its roots in recent debate concerning the idea that what supervenes is ‘no ontological addition’, but the route I take from this idea to the acceptance of questionable properties is, insofar as I am aware, previously uncharted.

To endorse the position I have in mind, one needs to do three things:

## Step 1: Endorse the Ontological Free Lunch

Armstrong has argued that internal relations are not “an addition to the world’s furniture”, and that only external relations are “the ontologically important relations” (1997; 87). This follows from what he calls the Ontological Free Lunch, which amounts to the following claim:

(OFL)      Whatever supervenes is no ontological addition.

Since the existence of an internal relation supervenes on the existence of its relata, internal relations are not an ontological addition. Other philosophers (e.g. Campbell (1990), Heil (1999, 2003)) have made essentially the same claim.

To begin to see what sort of metaphysics can underpin the Free Lunch, let us look more closely at the internal / external relation distinction. I shall help myself to Armstrong’s distinction between a thin and thick particular: a thin particular being an object shorn of the universals it instantiates, a thick particular being an object with the universals it instantiates. Armed with this, we can define what it takes for a relation to be either internal or external. For all  $x$  and all  $y$  :

A relation,  $R$ , of  $x$  and  $y$  is **internal** iff  $x$  being  $R$  to  $y$  supervenes on  $x$  and  $y$ , which are either thin or thick particulars.<sup>1</sup>

An external relation is usually taken simply as a relation which isn’t internal, but let me flesh this out a little for the purposes at hand:

A relation,  $R$ , of  $x$  and  $y$  is **external** iff  $x$  being  $R$  to  $y$  does not supervene on  $x$  and  $y$ , which are thin or thick particulars.

The supervenience relation might be defined, roughly, as non-causal determination. However, this in itself doesn’t allow us to see how what supervenes is no ontological addition. Suppose  $F$  supervenes on  $G$ . On the face of it, this seems to amount to the existence of *entity*  $G$  determining the existence of *entity*  $F$ . But if it does, and  $F$  is an entity separate from  $G$ , then surely it is an ontological addition: we have an extra entity aside from  $G$ . True, we can say (using the creation metaphor) that God only has to create  $G$  in order for  $F$  to exist. But that doesn’t make  $F$  ‘no ontological addition’. It just means that if you have  $G$ , you have  $F$ . And this isn’t the ontological

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<sup>1</sup> I will ignore here the possibility of relational truths made true by just one of the relata.

equivalent of ‘buy one, get one free’; it’s the ontological equivalent of ‘buy one, buy one more at the same price’.

What, then, do Armstrong and others have in mind? I suggest that the only way to ensure that what supervenes is no ontological addition is by construing supervenience claims as disguised truthmaker claims.

Internal relations supervene. Take, as an example, the fact that shoe a is dirtier than shoe b. This supervenes on the existence of a and b, making *is dirtier than* an internal relation – one which can thereby itself be said to supervene on a and b. If we take the supervenience of the shoe fact to amount to the claim that the existence of a and b make true the claim ‘a is dirtier than b’, we can begin to see how there might be no ontological commitment to *is dirtier than*. How would this go? Well, since ‘a is dirtier than b’ is true, it is a truth (or fact, if you like) that a is dirtier than b. This truth or fact is not a further entity aside from a and b; there is a truth or fact here simply because there is a possible statement ‘a is dirtier than b’ which is true. From this we can say that just as a and b ground this truth, which is not an entity, together a and b also – given what it takes for a relation to be internal – ground the truth that there is an internal relation of *is dirtier than* between a and b. This truth is no entity either, and neither is *is dirtier than*. The only entities here are a and b. Therefore, endorsing the supervenient *is dirtier than* relation does not commit one to an ontological addition.

Contrast internal relations with external relations. Spatial relations, quite plausibly, are external. Suppose the ball is exactly one metre away from the net. This fact doesn’t supervene on the ball and the net, because the ball and the net could have possessed the same intrinsic properties and have been some other distance apart. Putting the matter in terms of truthmakers, we have the following: ‘the ball is one metre from the net’ is not made true by the ball and the net. But then what does make the distance claim true? Answer: the truthmaker here will need to involve *is one metre from* as a constituent entity of some state of affairs that is the ball being a metre away from the net.<sup>2</sup>

I take this to be the only metaphysical story regarding supervenience available to those realists seeking to endorse (OFL). But note how there is no reason why the realist *about relations* should be refused this free lunch.

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<sup>2</sup> That is, given relationism about space. Given absolutism, the relation of *is one metre from* would be internal, and in the example given it would supervene on two relational states of affairs: the ball’s occupation of space-time point *s* and the net’s occupation of space-time point *s+1m*. The relation of spatial occupation would be external.

Accepting that there are internal relations, and that these are not entities over and above their relata, does not make one a nominalist about such relations, i.e. someone who tries to construe them as reducible to or identical to particulars.

## Step 2: Extend the Internal / External Distinction to Properties

Given what I have said about realism, relations and (OFL), there seems a parallel distinction to be made by free-lunch-embracing realists about *properties*.<sup>3</sup>

Here are definitions analogous to those given for internal and external relations:

A property, P, of object x is **internal** iff x being P supervenes on x, which is either a thin or thick particular.<sup>4</sup>

A property, P, of object x is **external** iff x being P does not supervene on x, which is either a thin or thick particular.<sup>5</sup>

We have seen how the realist can avoid ontological commitment to supervening relations. Let us now consider how commitment to supervening properties can be avoided.

Internal properties supervene, and questionable properties are internal properties. The H<sub>2</sub>O molecule, a, has three atoms. This fact supervenes on the molecule taken as a thick particular. But we can say that all this supervenience claim amounts to is that ‘the H<sub>2</sub>O molecule, a, has three atoms’ is made true by thick a. Because of what it is to be an internal

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<sup>3</sup> As far as I am aware, no-one has extended the internal and external distinction regarding relations in the way I am suggesting. The term ‘internal property’, of course, isn’t new. G.E. Moore used it (1919; 50) for what Kit Fine (1993) calls an essential property, whereby P is an essential property of object a iff  $x=a$  entails Px. But the notion of an essential property is not equivalent to my definition of an internal property, as I point out in what follows.

<sup>4</sup> One qualification: a necessary condition for P to be an internal property of thick x is that P must not be an external property of thin x. Without this, all external properties of thin x would count as internal properties of thick x.

<sup>5</sup> These definitions do not tell us what counts as P. Realists need to decide this on the basis of the sparse realism they endorse and the properties they take to be supervenient. If they accept (OFL), I claim there will be a suitable P for each true statement ‘x is P’ made true by x.

property, the thick molecule also makes true ‘*having three atoms* is an internal property of molecule a’, and so we can say that *having three atoms* supervenes on the molecule. But *having three atoms* is not an entity. The molecule is the only entity here. Therefore, endorsing the supervenient *having three atoms* property does not commit one to an ontological addition.

External properties, on the other hand, do not supervene. According to scientific realism and other plausible sparse realisms, the fundamental properties of the most basic entities of science – such as having mass  $m$ , having charge  $c$ , having spin up – are fairly safe candidates for external properties. Pick an electron. It has charge  $c$ , but this fact doesn’t supervene on the electron as thin particular, since the thin particular could have had the properties of a proton. What, then, makes it true that the particular has charge  $c$ ? The only candidate for the realist is a state-of-affairs entity involving the thin particular and *having charge  $c$* . The property of *having charge  $c$* , in other words, is a constituent entity of the state of affairs: a *universal*.<sup>6</sup>

The definitions I have given do not tell us whether conjunctive properties are internal or external. It is true that a *being  $P$*  and a *being  $Q$*  is enough for a to be  $P\&Q$ , but whether we treat *being  $P\&Q$*  as supervening on  $P$  and  $Q$ , rather than as identical to  $P$  and  $Q$ , is an open question. The same for structural properties, such as *being  $H_2O$* .

My account of the metaphysical underpinnings of supervenience relies on the notion of truthmaking. I have no positive account to propose here of what truthmaking is, or what sorts of entities can be truthmakers. But I will say that I do not take the relation between existence of truthmaker and truth to be one of entailment, since that would make the existence of any object the truthmaker for any necessary truth; and while my being human may be a necessary truth, it is certainly not made true by the existence of the computer keyboard in front of me now. Taking the truthmaking relation to be entailment would also collapse the distinction between essential and internal properties, yet I want to admit the possibility of essential properties which are not internal properties: i.e. admit that some  $x$  may

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<sup>6</sup> If one takes universals to be irreducibly dispositional entities – i.e. to make true various counterfactuals about how objects bearing them would behave in certain circumstances, and given the instantiation of certain other universals – then one can also take certain dispositional properties (e.g. *being soluble*) and ‘law properties’ (e.g. *necessitating  $G$ , given  $H$* ) to be internal.

have an *external* property P in all x-containing possible worlds.<sup>7</sup> Roughly, then, and perhaps not very perspicuously, I characterise the truthmaker for any statement of the form ‘x is P’ as that *in virtue of which, because of its intrinsic nature*, the statement is true.

### Step 3: Defend Internal Properties

Even accepting the metaphysical evaluation I have offered of (OFL), realism plus (OFL) does not entail an acceptance of internal *properties*. One might only endorse an internal and external distinction between *predicates*, and take such talk as ‘a has property P’, where P is internal, to mean simply that ‘is P’ is truly predicated of a, and that ‘a is P’ is made true by a.

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<sup>7</sup> The notion of an internal property is also very similar to at least two other notions in the literature.

First, Molnar’s 2003 notion of the *derivative* property, whereby P is a derivative property of object x iff it is *ontologically dependent* on the parts of x or on other properties of x. (A basic property is one which is not dependent in this way.) The difference between this and the internal property definition is only that ontological dependence is specifically taken to be a relation between entities. Molnar does not construe the relation in the way I am construing the supervenience relation: i.e. as a relation parasitic on the relation between truth and truthmaker.

Second, Armstrong’s 1997 notion of a *third class* property, whereby P is a third class property of a particular x iff P is not a universal and P is such that, when truly predicated of x, the resultant truth is a necessary one. Armstrong’s example is *being identical with a*, a property which particular a has necessarily. Let us allow that x can be either a thin or thick particular. That there is a difference between the third class and the internal property can be brought out with the statement ‘x is longer than y’, where x and y are thick particulars, including as components the state of affairs of x being 6ft long and y being 3ft long. This statement would seem to be necessarily true, in the sense that in any world containing x and y the statement is true (just as in any world containing a, a is identical with itself). Therefore *being longer than y* is a third class property. But the existence of x does not ground the truth of the length statement – it is the existence of x and y together which do this – and so it is not an internal property. If one cashes out truthmaking in terms of classical entailment, then the existence of x *does* entail that (and so grounds the truth that) x is longer than y, since the existence of anything entails a necessary truth. But as Armstrong endorses an account of truthmaking which is not entailment (2003), as do I, *being longer than y*, in this example, is third class but not internal.

What's more, realism – as I indicated from the outset – is standardly defined as follows:

(REALISM1) All properties are universals.

By endorsing only internal and external predicates, realism's standard definition remains intact. Realism plus internal properties, on the other hand, necessitates an amendment:

(REALISM 2) All *external* properties are universals.

Despite this, the case for accepting internal predicates and not properties does not seem particularly strong. One reason which might be offered is that by denying there are internal properties, realism can hold onto (REALISM 1). But this will not do. The claim that all external properties are universals is still recognisably realist, and to endorse it rather than (REALISM 1) is neither to accrue any theoretical disadvantage nor to diminish one's realist credentials.

A second possible reason is ontological parsimony: properties, unlike predicates, swell one's ontological commitments, and so should be minimised. But this is to forget that internal properties are not ontological additions if one endorses (OFL). One might go further, and claim that anyone accepting internal properties will be committed to disjunctive properties and negative properties; but again, since these are not ontological additions either, it isn't clear why they should be problematic. And besides, wholesale acceptance of properties of these kinds is not as obviously forced upon the realist as it might appear. Disjunctive properties could be ruled out by restricting the truths made true by truthmakers to the minimum; a being P makes true 'a is P or Q', but minimally it only makes true 'a is P'. And while it seems those negative properties incompatible with any of a's universals must be accepted as properties of a, this is not the same as saying that for each negative truth about a, there is a negative property of a. Perhaps it is the world as a whole which grounds some of these negative facts.

The case for internal properties is built on at least two considerations. The first of these is that questionable properties end up being accommodated rather than explained away. We talk about them as properties – they are properties. They're not part of some misleading way of talking about truths. This accommodation is an important theoretical advantage which, all else being equal, gives internal properties the edge over merely internal predicates.



The second consideration in favour of internal properties is this. The property definitions I have given are analogous to a perfectly respectable pair of relation definitions. (OFL)-endorsing realists seem happy to talk about internal relations without taking this, even on reflection, to be loose talk; but the only difference between internal relations and internal properties is that the latter are monadic, rather than polyadic, so if it is reasonable to deny that internal relation talk is loose, it is reasonable to deny that internal property talk is loose as well.

I claim that it is indeed reasonable to deny that internal relation talk is loose. Suppose I say that one of my eyes has the internal relation of *is more bloodshot than* to the other, and metaphysical enquiry then informs me that there is no entity ‘out there’ as a constituent of the world which is the *is more bloodshot than* relation. Does that show there is no internal relation, and that I am really talking about something other than that relation? I think not. We do not have an entity corresponding to the relational term ‘is more bloodshot than’. But that does not show that there is no internal relation of *is more bloodshot than*, since what it takes for there to be that internal relation, according to the story I have told, is for ‘eye a is more bloodshot than eye b’ to be true and made true by a and b. We can, in short, take the statement ‘eye a bears the relation of *is more bloodshot than* to eye b’ to be (a) literally true, and made true by a and b (since a and b make true ‘eye a is more bloodshot than eye b’), rather than (b) simply a loose way of stating the fact that eye a is more bloodshot than eye b.

Do internal relations and internal properties ‘exist’? Are they ‘real’? Well, they are neither universals nor tropes, according to the (OFL)-friendly metaphysics I am proposing. They are not *entities* of any shape or form. If by definition that rules them out from existing, and being real, then so be it. But I have claimed that we can say truly, and non-loosely, that *there are* internal relations and internal properties, and many will think that existence follows from this. And internal relations and internal properties figure in various objective truths concerning the world around us; one might think that the extent of the real is determined by all objective facts, not just all states of affairs with entities as their constituents.

## Conclusion

I have shown how realism, by endorsing the definitions I have given of what it takes for a property to be internal or external, can take some properties to be entities, and some properties not to be entities. Given (OFL), internal properties are no ontological addition. Such properties are perfectly consistent with realism. True, it turns out that only some properties – external ones – are universals, i.e. *entities* instantiated by objects. But this only means that realism needs to be characterised by (REALISM 2) instead of (REALISM 1).

The realist is now free to construe questionable properties as these ontologically innocuous internal properties. Sparse realism, motivated as it is by ontological economy, is concerned only with limiting the number of external properties – property universals – that it posits. As a result, the sparse realist can talk truly, and literally, about any number of internal properties, and do so without ontological cost.

## ABSTRACT

The sparse realist often appears to endorse properties that it would seem a principled sparse realism would want to deny. One way of dealing with such property-talk is to take it as ‘loose’, possessing only the appearance of existential commitment. Another way is to deny that such properties are in fact ruled out by sparse realism. I look at a way of pursuing this second course of action which involves both extending the internal / external distinction amongst relations to properties and amending the standard definition of property realism.

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AMIHUD GILEAD

## How Many Pure Possibilities are There?

Independently or regardless of any actualization or actuality, possibilities are pure. Suppose that pure possibilities or *possibilia* are not possible worlds but individual, concrete possibilities. How many pure possibilities are there? As I would like to show in this paper, although no answer can be given to such a question, it does not mean that this non-answerability endangers or challenges realism of pure possibilities or any possibilist realism, notwithstanding Nicholas Rescher's critique (Rescher, 1999; Rescher, 2003).

To show that “the currently fashionable *realism* of possible worlds is deeply problematic and needs to be replaced by a suitable—and ontologically more modest—version of *conceptualism*” (Rescher, 1999, p. 403), Rescher raises the question of how many possible worlds are to be identified, individuated, and counted (*ibid.*). Since no answer can be given to such a question, Rescher suggests replacing a possibilism that is substantively oriented (*de re*) by one that is proportionately oriented (*de dicto*).

In spite of Rescher's report, apart from possible worlds realism (such as David Lewis's), possibilism is not at all currently fashionable and actualism is in vogue instead. Moreover, as the representative selections of the views taking part in the debate over actualism and possibilism clearly show,<sup>1</sup> although many actualists adopt the idea of possible worlds, all of them explicitly reject the existence of purely possible individuals or particulars. Hence, at the moment, possibilism needs a strong defense against various attacks, actualist and otherwise.

Rescher argues that ostensive confrontation as regards to *possibilia* is lost and that the purely descriptive individuation of nonexistent (that is, nonactual) individuals is an “altogether impractical project” (Rescher, 1999, pp. 403 and 411). In what follows, I will show that individuation and reference can be independent of description. If this indeed is the case, is the individuation of *possibilia* altogether impractical project?

What I termed “eka-fallacy” (Gilead, 2003, pp. 65–70) is sufficient to indicate overwhelming counterexamples, which would make Rescher's argument against possibilism groundless. The phenomenon of predictable,

yet nonactual, chemical elements enabled Mendeleev and others to fully identify and to exhaustively describe possible, though actually missing, chemical elements. The places of such eka-elements in the periodic table could or can, yet must not, be occupied by actual elements. Even today, chemists predict the existence of many possible chemical elements that so far we have no evidence of their actual existence. The list of eka-elements is not exhausted and it is still open, yet the identification and the description of any eka-element are practical, possibly useful, heuristic, and fully satisfy all we need from identification and description. The description under consideration is by no means schematic, and no person is entitled to describe it as a “mere scenario,” for it provides all the needed chemical details. This kind of possibilism thus obviously gains a scientific standing and yet is entirely incompatible with Rescher’s critique as above.

Even when the predictability of any eka-element is rendered actual, the identity, reference, and description of such an element are entirely independent of any such actualization. Having been found actual, the chemical properties of the element do not change; the only change lies in the name of the element. All eka-elements thus meet the requirement needed for possibilities to be pure. Indeed, eka-elements are pure chemical particular possibilities. Each of which has its particular place in the periodic table, however open and expandable; owing to that openness or expandability, radioactive elements, unknown at Mendeleev’s time, are arranged in rows later added to the table. This open nature of the table is entirely compatible with that of the realm of pure possibilities. By contrast, the particular, individual status of any eka-element as a pure possibility is clearly incompatible with Rescher’s view about the ontological furniture of the world, possible or actual (*ibid.*, p. 408). Eka-elements, particular fictions, or pure possibilities in general must not be abstract objects, mere schemata for possible individuals, or mere thought-instruments (to borrow from *ibid.*). They can supply some ontological furniture, for instance, in chemistry as a realist scientific theory. What they cannot provide is the actual ontological furniture, which only experience and observation can provide. In other words, the actual ontological furniture is empirically acquirable alone. Yet other, no less real, ontological furniture exists, consisting of pure possibilities. As I see it, each eka-element satisfies the condition that Rescher puts to particularity, namely, particularity demands identification (*ibid.*, p. 409). Any eka-element qualifies as an identified particular, and not a general schema for an element. Hence, arguing that “hypotheses enable

individuals to be discussed in the abstract but not to be identified in the concrete” (ibid.), Rescher commits what I have entitled “the eka-fallacy.”

Suppose that we accept Rescher’s stance according to which “only a description that is saturated and complete could possibly manage to specify or individuate a merely possible particular individual. For any genuinely particular individual must be property-decisive, and a nonexistent possible individual can obtain this decisiveness only through the route of descriptive saturation” (Rescher, 2003, p. 378). Eka-elements precisely meet even such a demand for their decisive physical and chemical properties are entirely sufficient to secure identification as well as endlessly recurrent re-identification. If the demand from any possible individual “cannot be vague or schematic but must issue a committal yea or nay with respect to every property whatsoever” (ibid.), each eka-element has perfectly met that demand. We have all the descriptive saturation we need from the periodic table to secure perfect identification of an element as purely possible or actual. From the epistemological point of view, at least, such identification should not raise real problems. After all, identification and re-identification are epistemological issues.

As for the ontological-metaphysical background, chemical elements, as participating in the periodic table, are chemical pure possibilities, like notes on a musical scale, which are independent of actualization. If you assume that the periodic table is merely a picture or representation of the actual chemical reality, you are missing the whole point, especially as far as eka-elements are concerned. Like any natural science, chemistry has its own theoretical basis, which consists of pure possibilities and their relationality. As much as the mathematical foundations of any natural science are pure possibilities and not actualities, so are the chemical possibilities arranged in the periodic order. The possibilities-identities and their relationality are there, completely, in the table. As such, they are clearly existents, they are obviously real, by no means Rescher’s nonexistents. They are not just “verbally or mentally intended referents” but real referents. They are not merely “de dicto” possibilia, but possibilia de re. Our thought and language do not invent or create them, but rather capture them as discoveries of chemical pure possibilities. No eka-element has been invented or created; it has been merely discovered as a pure possibility.

We are not entitled to compare any eka-element to, for instance, the philosopher’s stone, which is a “putative item” or a “suppositional being ... the [linguistically engendered] artifact of an interpersonally projected supposition or assumption,” “a pseudo-object that is no object at all” (ibid.,

p. 379). The metaphysical-ontological status of any chemical element as a particular, concrete pure possibility is well established. These pure possibilities constitute a part of the ontological furniture of the world of chemistry as a scientific theory. Whether the chemical elements in the periodic table are merely eka-elements or actual elements, their well-established identification is beyond any doubt. At least for the time being, their chemical and physical description is complete or saturated enough, quite sufficient for all the theoretical and practical needs of chemistry as a scientific theory and absolutely sufficient for any chemical identification. The qualifications “enough” and “for the time being” are needed because the future of chemistry, like that of any other science, is beyond our present knowledge.

Yet at this point a serious, one might say unsolvable, problem arises for a possibilist view that excludes multiple actualization of any pure possibility, for each chemical element (eka or not) has innumerable actualities or “tokens.” Is an eka-element a pure possibility singly actualizable? The case appears to be just the contrary, and, if so, we cannot meet, as it were, Rescher’s demand of uniqueness: “where only a single unique realization is possible” (1999, p. 413; I would prefer “unique actualization”). To solve this problem, we should distinguish between the particular chemical possibility-identity of an element (eka or not) and the chemical *name*, as a part of the *language* or *terms* of chemistry. Name and identity are by no means identical. Any name, as taking part in a language, is general, as no language is private. As much as the proper name “James” is general, serving as a common name for all persons named “James,” so Germanium is the common name of all existing atoms or pieces of Germanium, each of which has a single, unique possibility-identity. Under such a nominalist view, every genus, species, kind, or type is merely a name, which is general. Thus, the element of Germanium in the periodic table serves as a double meaning or significance: as a name and as an assemblage of possibilities-identities sharing an intrinsic similarity that all the atoms of Germanium have. Each actual atom of Germanium shares the same name with any other atom of Germanium, each of which has an exclusive pure possibility-identity. The periodic table secures for each of these pure possibilities-identities the common locus, serving as a general name, in the table. To recognize a piece of matter as Germanium is to entitle it with a general name, shared by all the Germanium atoms, but the identification, like any identification, is particular: *This* piece of matter, *here and now*, is a piece of Germanium.



As for eka-elements, the distinction between name and possibility-identity is even simpler or more manifest. As long as chemists use eka-elements in the periodic table, no evidence appears to the actual existence of any of these elements, and hence only a single representative possibility-identity in each case of those eka-elements has to be referred to (or mentioned in the table), whereas the name in each case is general (even though no single actual case is known yet). Thus, prior to the actual discovery of Germanium, its pure possibility-identity was named as eka-silicium. This name, like any other, was general, yet the possibility-identity mentioned was individual, indicating the locus of each identity-possibility of each atom of Germanium, all of which are intrinsically similar. And this locus has been secured since the advent of Mendeleev's periodic table. In this way, each pure possibility-identity has only "a single unique" actualization ("realization" in Rescher's actualist term). The pure possibility-identity of Germanium, known before its actual discovery by the name "eka-Silicium," satisfies all of what Rescher demands of identification or individuation although, under that name or independently of actualization, it is merely a pure possibility! In any event, no eka-element can be considered as abstractly general, for it could not be abstracted from anything actual.

Finally, no eka-element can be considered *ens rationis*, a mere thought-object or thought-entity, such as the equator or the north pole (which Rescher mentions on p. 414). Since the reality of each eka-element is necessitated by the periodic law, which excludes possible gaps or vacancies in the periodic order or system, no eka-element is treated as *ens rationis*, which is the ontological standing of mere fictions or conventions, none of which is treated as real, let alone as necessary. The reality of any eka-element as a pure possibility is necessitated, whereas no *ens rationis* is ontologically necessitated.

Arguing that "the actual identification and introduction of ... *possibilia* is effectively impossible" (ibid., p. 403), Rescher appears to commit a fallacy, especially concerning the introduction of pure particular possibilities. I would like to name that fallacy after Jules Verne—the Verne fallacy. In *Paris in the Twentieth Century* (written in 1863 yet published in 1994), many years before the advent of any actual fax machine, Verne introduces a possible fax apparatus, explicitly naming it "facsimile," without relying on anything actual (except for electricity and electric conductivity). He thus most effectively introduces, identifies, and describes the pure possibility of such a device in full detail, without relying upon any actual

device, for no such invention, in fact, existed at that time. As it is well known, in *Twenty Thousand Leagues Under the Sea*, Verne introduces another novel pure possibility—that of a submarine. He introduces, identifies, and describes such a possibility quite independently of any related actuality. Such counterexamples, I believe, are quite sufficient to render Rescher's arguments against possibilism *de re* invalid or groundless. Many similar examples exist of the introduction and identification of pure possibilities, *possibilia* in Rescher's term, which are quite practical and effective for various purposes.

Could Rescher argue that such counterexamples are fictions? First, if not misleading, fictions can do great service for us in searching for new discoveries, many of which are strictly scientific. Second, no matter how we discover novel possibilities, what is decisive at this point is that prior to their actual existence and quite independently of it or of anything actual, as pure possibilities alone, they were discovered by scientists, thinkers, writers, and the like. Thus, Verne introduced, identified, and described a fax device and a submarine many years before their actual appearance. He referred then to these objects as pure possibilities; he substantively oriented toward them. To characterize such a reference (or "orientation") adequately, we certainly need a possibilism *de re*, very much contrary to Rescher's view.

Another counterexample of Rescher's view is the numerical series. Allegedly following Plato's *Republic* VII, Rescher mistakenly considers numbers abstract things (*ibid.*, p. 404, note 1; cf. 2003, p. 376: "*abstracta* such as numbers"). First, Plato does not consider Ideas, mathematical or metaphysical-dialectical, as abstract entities, although it is quite true that they are exempt from processuality and, hence, from dispositional character. On the contrary, for Plato, sensible entities are *abstracta*, which are copies or mere reflections-participants of more real, substantial, concrete beings—Ideas. Sensible or actual entities thus depend upon their Ideas, and not the other way round, which is the case of anything abstract. In Plato's philosophy, numbers clearly belong to the realm of the mathematical Ideas, which manifestly makes them non-abstract. Second, altogether independently of Plato's philosophy, as pure possibilities, numbers are not *abstracta* at all. Instead, they are concrete beings. To argue that numbers are *abstracta*, as if numbers were abstracted out of actual things, Rescher takes an actualist stance, despite his manifest efforts not to do so.

Since we regard numbers independently of any actualization or actual entities, and since their existence is exempt from any spatiotemporal and causal conditions, we should consider numbers as pure possibilities and not

actual entities. Yet the identity, reference, and description of numbers is undoubtedly altogether practical. Though no end exists to the number of numbers, no philosopher is entitled to argue on the basis of this indisputable truth that numbers are not real enough. No realism about numbers is endangered by the argument that the question—How many numbers are there?—is unanswerable. Numbers can be considered quite real, although they are not actual beings but merely pure possibilities and there is no end to their number. As pure possibilities, numbers are substantively oriented, practically referable, fully individuated, satisfactorily describable, and subsumable to ostensive confrontation. Contrary to Rescher's view, possibilism concerning numbers is both quite meaningful and committed to substantively oriented (*de re*) pure possibilities. No need exists to replace it with any "more modest" version of conceptualism.

As for the more recent version of Rescher's view (2003), the crucial problem that he confronts is: what does fix the identity of an individual? Is this an actual factor or not? What appears to be Rescher's answer is that it must be an actual factor that fixes the identity of an individual (*ibid.*, p. 368). For instance, "the Hubert Humphrey we know and love" is an actual individual, whose identity has been fixed or settled "irrespective of what worlds or what descriptions may be involved" (*ibid.*, p. 367). Indeed, such is the case: Humphrey's identity is independent of all these. The problem remains: what does determine his identity? What secures its persistence or survival of various contingencies and changes in his life? As I see it, the identity of an individual has not to do with possible worlds, transworld identity, or actual reality. We have to face the same problem whether we identify a pure possibility, say, an eka-element, or an actuality: what alterations or modifications can  $x$ , purely possible or actual, undergo and still retain its (or his or her) identity? To identify a member in a symmetrical mathematical group, which is altogether purely possible and not actual, or to identify the actuality of the subatomic particle omega-minus, requires no recourse to anything actual. Rather the contrary: in both cases, the purely mathematical and the physical-actual, we rely upon theoretical criteria, which are purely mathematical or purely physical possibilities and not actualities.

We have to face the same problem: the problem of reference and identification, while referring to a pure possibility and identifying it or to an actuality and identifying it. An ostensive identification is equally applicable to a pure possibility ("this member of this mathematical group") or to actuality ("this is the trajectory of omega-minus" or "this is the mark of

omega-minus”). Contrary to Rescher’s view (*ibid.*, p. 374), spatiotemporal positioning is not a necessary condition for ostensive identification. Hence, we can ostensibly identify pure possibilities, although they are exempt from any spatiotemporality and causality and are not actualities subject to experience, experiment, and observation. We can point to them as much as we can point to actualities. To identify or to refer to something, we can do without reference to actualities or to the actual world, just as we do while identifying numbers, members of mathematical groups, eka-elements, and so on.

Similarly with numbers, Rescher treats fictional objects as mere *abstracta*: “Fictional ‘objects’ are abstractions and not concrete *possibilia*” (Rescher, 1999, p. 408). Again, we are not entitled to consider Verne’s fictions as *abstracta*, for they are quite independent of actual reality and by no means abstracted from it. Second, they are not schematic but quite concrete *possibilia* within Verne’s texts. As for literary fictional characters, Rescher is also wrong. Hamlet, Madame Bovary, Anna Karenina, Swann, and many other fictional figures in fine literature are by no means abstract objects, schemata, pseudo-individuals, and the like. Such are the mark of literary failures or bad literature. Although we do not normally treat any of these characters as actual, we certainly relate to them as concrete, as individuals bearing the mark of singularity and genuineness. Their ontological status is not in short of that of actual individuals, although it is quite different. Fictional characters may affect us no less than actual beings, sometimes even more. They can be very real, especially for us, and by no means as abstract but, rather the contrary, as concrete and particular as much as possible. There is a necessity about real fictional figures in literary works of art, which no actual being can have. Aristotle points out such a necessity in artistic tragedies, contrary to an actual history that may be contingent.<sup>2</sup> Supposedly, Rescher would not agree with such an Aristotelian idea, which enables us to realize what is the special nature of great works of literary art and especially what is meaningful and significant about them. Rescher does not ignore meaningful discussions and reasoning of “merely possible states of affairs and scenarios” or stories (2003, p. 380). Yet he leaves them to “abstract generality” alone (*ibid.*). Such is not the case as I see it. Literary masterpieces deal with concrete, particular pure possibilities as well as with the necessity for them. I will discuss below the necessity of pure possibilities in literary works of art.

But worse is yet to come. Rescher leaves “merely possible individuals and worlds viewed as particulars” without the “disposal of our latter-day

modal realists” (ibid.). Instead, the infinite depth of the requisite details of such possibilities “confines them to the province of God alone” (ibid., p. 381). Thus, “only God can realize the idea of nonexistent particularism” (ibid.). Such is not the case at all. Literary artists, theoretical scientists, mathematicians, and the like have discovered particular pure possibilities over the years, because no infinite depth of a complete description has been needed at all for this purpose. All they have needed has been their capability of discovering new particular pure possibilities, which are within the reach of human beings who are imaginative enough, who are not enslaved to the actual. However confined or limited, the freedom from the actual is in our nature and at our disposal. Equally, the capability of relating to pure possibilities as existents, although obviously nonactual, is very much in our nature as conscious psychological beings. Possibilia are undoubtedly within the reach of our psychological and intersubjective or interpersonal life, moreover, such life consists of them. Unless we confine all there is to the actual alone, but then nothing would be left of psychological or intersubjective reality.

As I see it, Rescher appears to miss the point of the identification of fictional characters. He asks whether the mysterious stranger in the first chapter of a novel is the same person whose corpse is mentioned in the fifth chapter. They are one and the same person, he answers, “only if the author says so—there are no facts of the matter apart from those our novelist specifies. In the absence of such specification all that can be said about the issue of identity is—absolutely nothing” (ibid., p. 370). Indeed, no actualities, no facts of the matter exist to provide us with an answer. Nevertheless, and this is the point that has been missed, if the novel has been written in a masterly way, everything relevant is necessarily there and the relations between the specific details are as necessary as they are. Thus, even if the narrator says absolutely nothing about such identification, the reader, following the inner necessity of the novel, may find the answer by herself. Nothing is arbitrary about such identification, and no recourse to contingent actualities is needed to realize it. Readers can supply the missing parts for themselves.

Contrary to Rescher’s view, we do not arbitrarily assume, postulate, or suppose pure possibilities as “objects that are projected in discussion” (ibid.). Although no facts of the matter determine the existence or reality of pure possibilities, they are not arbitrarily postulated or assumed. Just as in pure mathematics, in logic, in fine literature, nothing is arbitrary about pure possibilities. Contrary to Rescher’s view (ibid.), they have independent characteristics that we have to discover, as much as eka-elements have had

them. The modal metaphysics that I have introduced (Gilead, 1999 and 2003) attempts to show precisely this. It is an actualist fallacy to assume that only given facts are discoverable and that “nonexistent [i.e., non-actual] possible ... individuals are never given to us” (ibid., p. 376); pure possibilities are as discoverable and as given as actualities. They are given in a different way from the way that actualities or facts of the matter are given. For we discover actualities by empirical means; and these cannot capture pure possibilities.

In the final account, Rescher relies on the prominent manifesto of actualism, namely, Quine’s “On What There Is” (Rescher, 1999, p. 413, note 9; cf. Rescher, 2003, p. 376). Undoubtedly, the following is an actualist view: “Thought and language move off in their way, and existence and reality go off on their way, and only where there is actual *adequatio ad rem* do they come together” (Rescher, 2003, p. 379). Actual reality or existence does not exhaust reality as a whole. Thought and language have realities of their own and they exist as much as actual reality exists, although in different senses. Thought exists psychically, subjectively, or privately; language exists intersubjectively or interpersonally; and actual reality exists objectively or publicly. To ascribe reality only to the latter is what actualism is all about. To consider pure possibilities as nonexistents or to state that there is “no way to identify and individuate nonexistent [nonactual] possible individuals” (ibid., p. 376) is a manifest actualism.

Rescher leaves us one choice: “all or nothing: either a (distinctly problematic) metaphysical realism of self-subsistent possibilities or else a (somewhat unappealing) nominalism of mere verbal possibility talk, of possibility not as a matter of genuine fact but merely the product of an imaginative fictionalizing by linguistic manipulations” (ibid., p. 381). I entirely accept the first alternative, yet my view is a nominalist realism of pure particular possibilities in the following sense: what is general about pure possibilities is only their relationality. Furthermore, our imagination is capable of utilizing various illuminating fictions (“real fictions”) to *discover* new pure possibilities, which are as real as actualities, although in a different sense. Real fictions thus do for us what no telescope can (to allude to Kripke’s metaphor that is mentioned ibid., p. 377 and mistakenly ascribed to David Lewis). Verne’s literary fictions provide us with one kind of example; eka-elements—with another. Let us leave linguistic manipulations to rhetoricians, copywriters, propagandists, preachers, and the like. Owing to an insightful metaphysics, philosophers can be realistically possibilists without being linguistically manipulated.

To limit or reduce possibilism to conceptualism or conceivability is to limit and confine the realm of pure possibilities unnecessarily. Possibilities, such as a round circle and  $\sqrt{2}$  that is not a fraction, may exist beyond our current conceivability. To the extent that our current conceivability is concerned, they are deemed “impossibilities.” Yet although we cannot conceive, at least at the moment, such possibilities, which are incompatible with our current logico-mathematical knowledge, we can nevertheless relate to them. We should not accept any restriction of the realm of pure possibilities to the limits of our current conceivability or to those of our current logico-mathematical knowledge. For this reason, I do not accept the idea that metaphysical possibility is “less expansive than narrow logical possibility” (Gendler and Hawthorne, 2002, p. 5). Nor can I accept the view that conceivability or conception and possibility are coextensive or congruent. As I see it, conceivability, conception, imagination, employing fictions, and the like are the ways in which we discover pure possibilities, which are new for us. These possibilities are ontologically or metaphysically independent of the ways in which we discover them. Hence, the conceivable (or the like) and the possible are not identical.

Rescher is quite right in arguing that the description of any real thing is in principle inexhaustible (*ibid.*, p. 405), but this is all the more valid for pure possibilities. Dispositional characterization aside, the infinitude and inexhaustibility of the relationality of any pure possibility to all the others must be beyond any doubt. Each pure possibility is different from any other pure possibility, for no two identical pure possibilities can exist. The law of the identity of the indiscernibles is especially valid for pure possibilities. Since each pure possibility is different from all the others, each pure possibility necessarily relates to all the others. Hence, its relationality is infinite and inexhaustible. This holds particularly for numbers. The open nature of the realm of pure possibilities as a whole is strictly compatible with infinitude and inexhaustibility concerning such possibilities. As Rescher states, “Endlessly many true descriptive remarks can be made about any actual physical object” (*ibid.*), but this also holds for Verne’s facsimile or submarine. The readers of Verne’s works of fiction in the 19<sup>th</sup> century, much before the advent of actual facsimiles or submarines, could inexhaustibly imagine, describe, and refer to these purely possible objects. Moreover, each of Verne’s readers could imagine them under different conditions and circumstances, in the same way as the observers of the actual objects mentioned by Rescher. In both cases, of

pure possibilities and of actual things, no end exists to “the perspectives of consideration that we can bring to bear on things” (ibid.).

The trouble is that stating this, Rescher has only actual things in mind. Yet an endless variety of cognitive viewpoints equally holds for pure possibilities and actual things. Pure possibilities enjoy descriptive perspectives as much as actual things do. Hence, Rescher’s assumption that “*fictional* particulars ... are of finite cognitive depth” (ibid., p. 407) is simply groundless. Rescher’s precommitment to description-transcending features, essential to our conception of any real, concrete object (ibid., p. 406), is certainly valid not only for actual objects but equally for pure possibilities. Owing to the infinite relationality of any pure possibility to all the others, its description is never exhaustive. However fictional a figure in a novel may be, there is an infinity of ways of relationality to it, and, hence, an infinity of possible descriptions. The more artistically rich and profound a novel, the more classic its nature, and we can realize more clearly that it is subject to more various interpretations or descriptions, the number of which has no end. Any fictional figure means or signifies different things for different readers, the numbers of which is indefinite. Novelties always wait for interpreting and describing the fictional as much as for the actual.

Rescher rests identification on the basis of description, and, given that no complete description of any particular is possible—the descriptive incompleteness or inexhaustibility—he concludes that we cannot distinguish any individual from all other possible or imaginable individuals (ibid., p. 410). As I see it, this is not the case at all. In principle, we can distinguish any individual, as a pure possibility, from all the others independently of description or relationality. No matter how we conceive them, no two pure possibilities can be identical, which means that we, as a matter of course, distinguish between any pure possibility and all the others. We do not need any description or relationality to distinguish any pure possibility, but the other way round. Distinguishing pure possibilities one from the other is the most primary or primitive act of the mind. Such is the mind’s accessibility to any pure possibility. The reference to pure possibilities is direct as much as the reference to actualities is direct, and both kinds of direct reference are independent of description (Gilead, 2003, pp. 56–58). Finally, since the identification of pure possibilities can be independent of any world, possible or actual, I do not accept Rescher’s postulate that the “only feasible way to identify a possible individual would be with reference to the world to which it belongs” (ibid., p. 412).



We can do without the dispensable idea of possible worlds. Instead, we are entitled to postulate the open realm of all pure possibilities, in which no two possibilities can be identical. As a prior or primary mental act, identification of, or reference to, pure possibilities is independent even of this realm too.

Direct reference—reference independent of description, interpretation, or narrative—is possible not only for actual referents but also, and even primarily, for purely possible referents, each of which is an individual, whether particular or singular. Ostension to pure possibilities is possible and practical like ostension to actualities, given that pure possibilities are discoverable as are actualities. As necessarily atemporal, pure possibilities are discoverable and, in the last account, cannot be created, contrived, or invented (contrary to Rescher, 2003, p. 364). Each individual pure possibility exists independently of its discovery, descriptions, narratives, interpretations, or significance, but obviously not the other way round. We can point out pure possibilities, as much as actual referents, independently of any description. Literary works of fiction may begin with direct reference to, or with introduction of, pure possibilities that the reader can easily follow.

At the very beginning of *Anna Karenina*, Tolstoy writes, “Everything had gone wrong in the Oblonsky household. The wife had found out about her husband’s relationship with their former French governess and had announced that she could not go on living in the same house with him” (Tolstoy, 1969, p. 13). In these two opening sentences, three direct referents are introduced and pointed out for the first time, all of which belong or relate to the same household: Oblonsky, his wife, and the governess. Given that the relations existing between the referents must not be confounded with descriptions of any sort, no description whatsoever is needed to refer to those fictional referents, which are not actualities but merely pure possibilities, entirely independent of their description and of any actualization as well.

Equally direct or independent is the reference or the ostension at the very beginning of Kafka’s “Before the Law”: “Before the Law stands a doorkeeper on guard. To this doorkeeper there comes a man from the country who begs for admittance to the Law” (Kafka, 1961, p. 61). You can easily think of many other examples, not necessarily literary or fictional, including mathematical or theoretical examples. Writers can introduce, directly refer to, or point out fictional persons or objects and fix their names, independently of description whatsoever. Nothing should be

schematic or hypothetical about these fictional figures; they can be particular or concrete. Nothing of contingency is left about them in a genuinely literary piece of art. All we have to know about them is necessarily there. All other questions that have nothing to do with such a necessity should not be asked about them. They are quite different from actualities, the basis for answering questions about which is necessarily empirical.

We can introduce or directly refer to fictional characters or objects, not only independently of any description but also of any narrative. Narrative may be the means to capture or discover these possibilities. Literary fiction serves us well in touring the land of pure possibilities, existing independently of our discovering them by narratives or by other means. Narrative, like description, may help us discover, capture, or find out pure possibilities, to which we may directly refer, on the ground that each of them is an individual possibility, different from any other possibility in the entire realm of pure possibilities. Furthermore, you can directly refer to or point out any of your personal, private, subjective possibilities, with or without naming them. While naming them, you intersubjectively refer to your personal pure possibilities. In this case, you utilize language and other means of communication, which does not render this reference indirect, given that it remains strictly independent of any description, interpretation, or narrative and directly accessible to you.

Asking with Rescher, how many lumps of coal lay in Sherlock Holmes's grate, we appear to have no fact-of-the-matter answer (Rescher, 1999, p. 407). Indeed, relying on the text alone, the reader cannot answer such a question, for these lumps are not subject to his or her observation or experience. But this fact of uncountability does not render their reality less real, although they are real in a non-actual sense. As fiction, they are as real as actual things, otherwise they are senseless, meaningless, or insignificant for the readers. If Sherlock Holmes lights his pipe by means of a lump of coal, at least one such lump exists in his grate. If he says, "Not even a lump of coal remains in my grate, how can I light my pipe then?"—this would mean or signify something different for the reader, yet it would make sense as regards this text. As for property-decisiveness (*ibid.*, p. 408), it depends on the significance or meanings that the particular item has in the text, in the interpretation, or under the description that the reader has in mind. Second, do no actual, concrete, or particular things exist that are not property-decisive? For instance, the spatiotemporal properties of

electrons are clearly indecisive, and yet the existence of electrons is beyond any doubt.

But the most significant flaw in this argument by Rescher is of not distinguishing between two kinds of description: that of actualities and that of pure possibilities. Description or interpretation of actualities decisively meets such questions that Rescher suggests, owing to the contingent nature of actualities. Because of this nature, we must rely upon experience and observation to answer such questions. The case of pure possibilities is quite different. Describing or interpreting them, we should relate to the necessity about them. In a good “piece” of pure possibilities, for instance, in a literary work of art, in a scientific system such as the periodic table of elements, or in a mathematical system, a necessity determines each detail that makes a difference. If the question about the number of the lumps of coal lying in Sherlock Holmes’s grate makes any difference as regards the text, if it has meaning and significance in the context of the story, we are entitled to ask it, and a decisive answer should be found in the text, if and only if it is artistically well made. If not, the question in this context is about an “external” contingent fact that is entirely irrelevant as regards this text, since it does not make a difference or bear significance in it, since no necessity about it can be found within this text.

Consider Kafka’s “Before the Law” again. This concise fable is entirely free from any superfluous detail and it does not give rise to any distinction that does not make a difference. Suppose that the reader may ask, nevertheless, for distinctions and details that the fable does not mention at all. For instance, it mentions the fleas in the doorkeeper’s fur collar, which the man from the country asked for helping him persuade the doorkeeper to change his mind and to allow him admittance to the Law (Kafka, 1961, p. 63). Does it make sense to ask how many fleas are there? Or, how many fleas the man has asked for help? The answer to these questions must be negative, for such questions do not make any sense, insofar as such a literary piece of art is concerned. To raise such questions means to ask for a distinction that makes no difference, at least insofar as the fable is concerned. That is, such a distinction is not necessary at all and, insofar as the fable goes, this distinction or detail is merely contingent, playing no role or bearing no meaning and significance within it. The number of the fleas makes no difference to the fable’s significance and meanings. The reality that the fable depicts is not actual, whereas such questions make sense and are valid or legitimate only when we address them to actual reality, in which contingencies naturally occur.

Necessity about pure possibilities is what I have entitled “determinism of pure possibilities” (Gilead, 2003, pp. 137–141, 146–147), which means that nothing about such possibilities remains undeterminable or contingent, provided that we deal with their significantly relevant relationality. Hence, within the context of a literary work of art or within a psychical reality each pure possibility and its relationality are necessarily determined. As a result, contrary to Rescher, no “ontology of schematically fuzzy, descriptively undetermined possible worlds and individuals” (Rescher, 1999, p. 417) should have any room within such contexts. Within them, each pure possibility, which is a real, concrete individual, is necessary, determined, and descriptively decisive.<sup>3</sup> My view of fine stories or illuminating fictions is quite different from Rescher’s or other actualists’ views of fictions and stories. Questions about actualities are quite different from questions about pure possibilities, for the first deal with contingencies and the second with necessities.

As for practical innumerability, the number of all existing atoms, say, hydrogen atoms, is not practically countable, the same holds for the number of all existing electrons, subatomic particles, and the like. They are not practically numerable as much as the lumps of coal in Holmes’s grate, although for different reasons. Moreover, we cannot meaningfully discuss their numbers. Indeed, Rescher himself mentions meaningful discussion concerning unanswerable questions about the number of individuals who lived thousands of years ago (*ibid.*, p. 415). Though unanswerable in practice, such questions concern significant facts in the history of human evolution (*ibid.*). By contrast, the number of all existing atoms or that of the lumps of coal as above makes no significance, sense, or meaning at all, for it makes no difference at least insofar as our knowledge or understanding is concerned. Such questions are unresolved as well as meaningless.<sup>4</sup>

Like many other actualists (to begin with Quine), declared or in fact, Rescher has one kind of existence in mind—actual existence. Against this background, he wrongly employs the distinction between possibility *de dicto* (“it is possible for individuals”) and possibility *de re* (“there are possible individuals”). Discussing the proposition, “it is possible for spiders to weigh 80 lbs.”, Rescher writes, “this does not mean that there is somewhere—in the ‘realm of possibility’—some there-actual spider that has achieved this weight” (*ibid.*, 417). Of course, in the realm of possibilities no such *actual* spider exists, but there certainly is a pure possibility of such a spider, since it is not identical with any other

possibility, which is all we need to individuate it practicably. Unlike Rescher's view, the concept of reality bears two senses—actual and possible. Equally, *de re* too bears two different senses—actual and possible but Rescher, like any actualist, does not make such differences at all, on the contrary—he reduces them to the actualist alternative.<sup>5</sup>

As a pure possibility, such a spider exists *de re*, although obviously not in the actual sense. *Possibilia* are as real as actualities, and certainly, contrary to Rescher (*ibid.*, p. 418), we have practicable ways of identifying or individuating particular pure possibilities, as long as they are not identical one with the other. Contrary to Rescher (*ibid.*, p. 417), possible individuals are not “just like” actual individuals “in nature but merely different in content,” for pure possibilities are ontologically and epistemologically independent of actualities. The case of eka-elements clearly demonstrates this.

We are absolutely entitled to commit ourselves to ontological realism of pure possibilities, *possibilia*, or possible beings, to possibilism *de re*, which Rescher explicitly excludes (*ibid.*, p. 420). Such possibilism is not conceptualism, which reduces possibility to conceivability. Pure possibilities are independent even of our conceivability of them. We discover them; we do not invent them. Insofar as pure possibilities are concerned, “invention” is indeed a personal discovery. As a result, I do not accept Rescher's *de dicto* possibilism or conceptualism—the “ontology” of conceptualizable possibilities (*ibid.*)—for it reduces or limits possibilism to mere conceptualism.

In sum, Rescher's ironic question—How many *possibilia* are there?—is as senseless as the question: How many numbers are there? This inescapable uncountability of numbers by no means renders them unreal or lacking individuality or identification, and the same holds for other *possibilia* or pure possibilities. Indeed, what we cannot individuate we cannot count (and Rescher is right on this point), but not everything that we can individuate can we count.

**ABSTRACT**

Independently or regardless of any actualization, possibilities are pure. Are such possibilities real? I attempt to defend a realism of individual pure possibilities challenging Nicholas Rescher's and other actualist views. For this purpose, I suggest some counterexamples that appear to render such views groundless. Indeed, no answer can be given to the question: How many pure possibilities are there? Yet, notwithstanding Rescher's critique, such non-answerability does not endanger or challenge realism of pure possibilities or any possibilist realism. Non-answerability is also valid for genuine literary works of art, in which only what makes a difference is necessarily there and subject to our questions. Such works of art maintain a sort of necessity, exclusively pertaining to pure possibilities and their relationality, all we have to know about which is necessarily there. Pure possibilities are as real as actualities, although in a different sense.

**NOTES**

1. See Loux, 1979; Fitch, 1996; Tomberlin, 1998; and Gendler & Hawthorne, 2002. In a more recent paper, Rescher states that "the metaphysics of possibility has been a growth industry in recent years" (Rescher, 2003, p. 363).
2. *Poetics* 1451a25–b11, b34–35, and 1454a34–38.
3. Contrary to Rescher's "pseudo-individuals," putative individuals, or fictional particulars.
4. Contrary to Rescher's idea of perfectly meaningful, yet unresolved, questions (Rescher, 1999, p. 415).
5. The same holds for the distinction between the possible/contingent and the purely possible/necessary and for that between realization/actualization as well.

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DANIEL VON WACHTER

**The Ontological Turn Misunderstood:  
How to Misunderstand David Armstrong's Theory of Possibility**

‘**T**here has been an “ontological turn”, states Fraser MacBride at the beginning of his article ‘Could Armstrong Have Been a Universal?’ (1999). He is referring to the fact that even in circles where there once has been a ‘linguistic turn’, or where metaphysical problems have been treated as problems of semantics, now again metaphysical theories of things and properties are developed. (For a survey of such theories see Oliver 1996.) Such theories are used in philosophical analyses of, e.g., causation or modality. MacBride argues that these analyses, and in particular David Armstrong’s theory of possibility, are ‘flawed’: ‘The concepts of particular and universal such analyses presuppose are not properly understood. The ontological turn has proceeded hastily without the required proper examination of these concepts’ (MacBride 1999, p. 471). I shall argue that MacBride has proceeded hastily without the required proper examination of these metaphysical theories. Discussing MacBride’s misunderstanding of Armstrong I shall suggest that there is a greater gulf between semantics and metaphysics than many think.

MacBride’s aim is to show that theories of modality such as David Armstrong’s, which are supposed to be reductionist, fail to be reductionist because the concepts of particular and universal which they employ are ‘suffused with modality’ (p. 472). Let me first explain how MacBride understands Armstrong’s theory, how he criticizes it, and how he misunderstands it. Then I shall discuss the relationship between metaphysics and semantics and show how MacBride’s misunderstanding results from a confusion of the two. MacBride’s criticism is supposed to be ‘a fully general critique’ (p. 474) of a whole family of theories, but I shall concentrate on MacBride’s criticism of Armstrong’s theory of possibility.

*1. MacBride’s Description of Reductionist Theories of Modality*

MacBride takes Armstrong’s theory of modality to run as follows. There are particulars and universals. There are no merely possible entities, only

actual entities. There are no real possible worlds, although representations of possible worlds can be admitted as ‘possible worlds surrogates’. They ‘depict worlds that combine existing particulars and universals in different ways’ (MacBride 1999, p. 475). Or one can say that possible worlds ‘exist according to a fiction in which genuinely existent particulars and universals are recombined to form novel instantiations’ (MacBride 1999, p. 475). For example, if in the actual world the properties F, G, and H are instantiated but nothing instantiates all three, then there is another possible world in which a particular instantiates all three.

According to MacBride, Armstrong’s theory then proceeds as follows: Modal sentences are ‘translated into a language where, roughly, necessity is expressed by universal quantification over possible worlds, possibility by existential quantification’ (MacBride 1999, pp. 476f). Now ‘a semantics is provided for the possible worlds language by treating its quantifiers as ranging over possible worlds surrogates’ (p. 476). So MacBride takes the aim of Armstrong’s theory to be to provide in this way ‘truth conditions’ for modal sentences. He takes the aim of Armstrong’s theory to be to translate modal sentences into possible worlds language, to say they are true if and only if the possible worlds are so-and-so, and to say what possible worlds are. Assume, for example, in the actual world there is a particular *b* which instantiates the property N and not the property F, which is instantiated by other particulars. Take the sentence S ‘*b* could have been F instead of N’. According to MacBride, Armstrong’s theory translates S into S\* ‘There is a possible world in which *b* is F but not N’. Further, the theory states that S\*, and hence S, is true if and only if there is a fiction of a certain kind according to which *b* is F instead of N.

Now we come to the bit which is most important for MacBride’s criticism. Armstrong calls his theory of modality ‘reductionist’. MacBride spells this out as follows.

[A] modal reduction must, on any account, be capable of specifying non-modal truth conditions for sentences that contain modal vocabulary. [...] This means that a reductive theory of modality must satisfy (in principle) the following two constraints. First, the theory must be *extensionally adequate* (EA). Each specification of a truth condition that the theory associates with a modal sentence must be materially equivalent to the sentence for which it specifies a truth condition. Second, the theory must be *non-circular* (NC). Each specification of the truth condition of a modal sentence that the theory provides must be expressed (perhaps at infinite length) using only non-modal vocabulary. (MacBride 1999, p. 474)

So, according to MacBride, Armstrong's theory aims to provide 'non-modal truth conditions' for modal sentences, that is, it aims to transform sentences that express modal claims or that contain modal vocabulary into sentences that express no modal claims and that contain no modal vocabulary.

## 2. MacBride's Criticism of Reductionist Theories of Modality

MacBride's criticism is *that Armstrong's theory, contrary to what Armstrong claims, is not reductive*. Armstrong fails because his theory commits him to some irreducibly modal sentences. 'The concepts of particular and universal dictate that if particulars and universals exist a range of modal sentences are true [...]. Combinatorial theories cannot be reductive because they cannot provide truth conditions for these sentences that simultaneously satisfy (EA) and (NC).' (MacBride 1999, p. 477) So MacBride wants to show that there are modal sentences for which Armstrong fails to provide non-modal truth conditions. The truth conditions Armstrong provides are *prima facie* non-modal but they contain concepts which have modal ingredients.

I think MacBride is right so far: the sentences which he puts forward as examples against Armstrong are (insofar as they are meaningful) irreducibly modal. Let me give three examples.

(1) Necessarily, nothing is both 5 kg and 1 kg in mass. (p. 478)

A defender of a combinatorial theory of modality could hold that, as any combination of properties is possible, (1) is false. This theory would be open to the objection that it fails to satisfy (EA). But Armstrong takes (1) to be true. MacBride argues that then Armstrong has to specify which fictive possible worlds contain only *possible* combinations of properties. This cannot be done without the use of modal vocabulary. Hence Armstrong has to admit that there are true modal sentences which are either themselves irreducibly modal or for which he cannot provide truth conditions without the use of modal vocabulary. Hence Armstrong's theory does not satisfy (NC).

Further, MacBride explains that Armstrong is committed to certain modal principles about particulars and universals and that hence again

(NC) is violated. For example, Armstrong rejects the possibility of non-instantiated universals. So he is committed to

(2) Every universal is necessarily instantiated. (p. 485)

But no totally non-modal truth conditions for (2) are given. So Armstrong's theory violates (NC). Another example is:

(3) Necessarily, particulars only instantiate universals. (p. 487)

Armstrong takes instantiation to be a non-symmetrical relation between particulars and universals. So he is committed to the truth of (2). Armstrong does not, and cannot, provide truth conditions for (2) without using modal vocabulary. Hence again Armstrong's theory violates (NC). So MacBride is right in holding that 'the concepts of particular and universal' are 'suffused with modality' and that Armstrong's theory does not satisfy (NC), i.e. it does not provide for every modal sentence 'truth conditions' which can be 'expressed using only non-modal vocabulary' (p. 474).

### 3. *Armstrong's Theory Restated*

However, MacBride misunderstood Armstrong's claim that his theory of modality is 'reductionist'. A theory that is reductionist in Armstrong's sense does not need to satisfy (NC). Let me sketch Armstrong's theory (cf. Armstrong 1989 and 1997, ch. 10): There are particulars and universals. Universals, i.e. properties, are instantiated by particulars. If two particulars, *a* and *b*, have the same property *F*, then the *F*-ness of *a* is identical with the *F*-ness of *b*. Which universals there are is not to be discovered *a priori* but only *a posteriori*. Universals are not the meanings of predicates, and there is no one-to-one correlation between predicates and universals. A predicate may apply in virtue of one or of several universals. Different predicates may apply in virtue of the same universal, and a predicate 'F' may apply to *a* because *a* instantiates the universal *L* and to *b* because *b* instantiates the universal *M*. A particular together with a universal (or several universals) which it instantiates, i.e. an entity of the form *a's being G*, is called a state of affairs. Every universal is instantiated at least once. Everything there is is either a state of affairs or composed of states of affairs or a constituent of a state of affairs.

There are true statements about what is possible and about what is necessary, e.g. ‘Nothing can be both 1 kg and 5 kg in mass’ or ‘There could be a man 5 m tall’. The aim of Armstrong’s theory of modality is to ‘give some account of the nature of possibility’ (Armstrong 1989, p. 3), and to answer the question ‘What truthmakers can our ontology supply for modal truths?’ (Armstrong 1997, p. 149).

Armstrong’s theory of modality is *reductionist*, or ‘deflationary’, in the sense that it entails that ‘necessary and merely possible states of affairs are not required. The contingent states of affairs are to provide truthmakers enough’ (Armstrong 1997, p. 172). Let us clarify this by stating what a *non-reductionist* view would be like. Consider the following line of thought. ‘Raising the arm entails that the arm goes up, but the arm’s going up does not entail that the arm was raised. In the same way, what is actual is possible, but what is possible need not be actual. As a result, just as we ask what must be added [...] to the arm’s going up to yield raising the arm, so we are tempted to ask what must be added to something merely possible to yield its actuality.’ Giving in to this temptation leads to a non-reductionist view, because one who asks ‘What must be added to something merely possible to yield its actuality?’ grants some ontological status to the merely possible. The non-reductionist believes ‘that there are two sorts of states of affairs: the actual ones and those that are merely possible’ (Armstrong 1997, p. 148). According to the non-reductionist view, the statement that there could be a man 5 m tall is made true by a merely possible state of affairs consisting of a particular instantiating the universal *being 5 m in length* and all the universals which something needs to instantiate to count as a man. The reductionist resists this temptation. He claims that there are only actual entities and that true modal claims are made true just by the actual entities.

A slightly different line of thought which might lead a philosopher to a non-reductionist view springs from the principle that for each true statement there is a state of affairs corresponding to it, which is the object of the statement and which makes the statement true, and different statements correspond to different states of affairs. Recognising that there are true modal statements one is thus led to the recognition of merely possible states of affairs. Anyway, the creed of the reductionist is that there are no such things as merely possible entities.

Here is the rest of Armstrong’s theory of modality in a nutshell: For any two properties (universals) that are wholly distinct, any particular can

instantiate both of them, one of them, or none of them. Properties are ‘compossible’. Any combination of properties, as long as they are wholly distinct from each other, is possible. So all the combinations of particulars and properties ‘that respect the form of atomic states of affairs constitute the possibilities for [...] states of affairs’ (Armstrong 1997, p. 160).

Only wholly distinct properties are compossible. Two universals can have common parts, they can overlap. Universals which overlap cannot be instantiated by the same particular (at the same time). Also, a universal cannot be instantiated by a particular twice. (These are basic principles on whose defence Armstrong spends much time. See Armstrong 1989, ch. 6; cf. Armstrong 1997, p. 155 and p. 174.)

Armstrong’s conception of ‘possible worlds as fictions’ is, at least in his more recent writings, not an essential part of his theory of modality. In his *A World of States of Affairs* (1997) they do not play the role any more which they played in his *A Combinatorial Theory of Possibility* (1989). He now writes that his theory ‘does not go *through* fictional possible worlds’ although they may ‘be admitted as useful fictions’ (Armstrong 1997, p. 172).

All true modal statements are made true just by the actual contingent universals and particulars. No merely possible states of affairs and no necessary states of affairs are needed as truthmakers. Let us see for some examples of modal statements how this view can be upheld.

Next, a statement like ‘There is nothing which has just the properties F, G, and H, but there could be such a thing’ is true (if it is true) because F, G, and H exist and are wholly distinct (and hence compossible). It is made true by the universals F, G, and H.

A statement like ‘Nothing can be both F and G’ is true (if it is true) because F and G are not wholly distinct universals. It is made true by F and G.

Finally, why is it true, according to Armstrong, that ‘every universal is necessarily instantiated’? I think Armstrong would say that this is true because of the essential nature of universals. (He speaks about ‘the essential nature of universals’ e.g. in his 1997, p. 127.) It flows from the essential nature of universals that they are promiscuously repeatable, that they cannot exist without being instantiated, etc. We reached the bedrock here. And that is just what the theory wants to do: say how things are at the ontological bedrock.

#### 4. *What is Wrong with MacBride's Criticism?*

It is of course a matter of dispute whether Armstrong's theory is true, and many elements of it can be, and are, disputed. One can dispute Armstrong's ontology, one can dispute the claim that wholly distinct properties are always compossible, one can dispute the claim that properties can overlap, etc. MacBride disputes that the theory achieves its objectives. The trouble is that the objectives he expects the theory to achieve are not the objectives which the theory is designed to achieve. He expects the theory to provide 'non-modal truth conditions for sentences that contain modal vocabulary' (p. 474) and hence to satisfy (EA) and (NC). I take it that that means that the theory should explain how modal sentences can be translated into sentences which are materially equivalent to the original sentences, but which are not modal.

Take again the example 'Nothing can be both 1 kg and 5 kg in mass'. What does Armstrong's theory have to say about this example (which Armstrong discusses in his 1989, ch. 6)? Can we see from this what the aim of Armstrong's theory is? The theory says about this example, first, that it is true, and, secondly, that it is true because the universals to which the predicates '1 kg' and '5 kg' refer overlap. In general, the theory states that a statement of the form 'Nothing can be both F and G (at the same time)' is true if and only if the universals in virtue of which the predicates 'F' and 'G' apply are not wholly distinct. *Armstrong does not attempt to translate modal statements into non-modal statements.* He does not attempt to translate anything. He does not attempt to provide what MacBride calls 'truth conditions'. Hence there is nothing to satisfy or violate (EA) and (NC). Armstrong's theory makes a general claim about the ontic structure of this world and about the combinability of universals. One may argue that this whole project of describing the ontic structure of this world and of the nature of possibility is doomed to failure. But one has to recognise that this *is* Armstrong's project.

There is no need to argue at length, as MacBride does, that Armstrong is committed to irreducibly modal statements, i.e. that his theory violates (NC). It is clear in everything Armstrong writes that he thinks that there are such true statements. Otherwise he would not have to be worried about what their truthmakers are. The modal statements (1), (2), and (3) mentioned above which MacBride's presents as counter-examples to Armstrong's theory, are statements which also Armstrong would take to be examples of true irreducibly modal statements. MacBride's criticism is

misplaced because his assumption that Armstrong wants to deny that there are such statements is wrong.

### 5. *Semantics and Metaphysics*

We have here an example of a misunderstanding of an interesting type. There are philosophers who think that semantics has an important role in philosophy. They not only think that semantics is an interesting field, but they think that many traditional philosophical problems, e.g. problems about modality, have to do with semantics or are to be solved by ‘providing a semantics’. They think that much of philosophy is about providing ‘truth conditions’ for certain sentences.

But there are other philosophers who do not share this enthusiasm for semantics. They are rather puzzled by the fact that some of their colleagues always ask them to specify ‘truth conditions’ for certain statements, in order to solve certain philosophical problems. They think that most traditional philosophical problems, or those problems which they think are philosophical and important, are not problems of semantics, because, at least as they understand it, semantics is concerned with *meaning*, and most philosophical problems are not about meaning. The theories they put forward, e.g. of causation, or of properties, or of modality, do not say much about semantics and truth conditions. These philosophers might make claims about ‘truthmakers’, but they do not see why what their colleagues call ‘truth conditions’ is relevant for the problem. Let us call the former sort of philosophers S-philosophers and the latter sort of philosophers M-philosophers.

Armstrong is an M-philosopher and MacBride is an S-philosopher. Armstrong sees it as one of his tasks in his theory of modality to provide truthmakers for certain sentences. MacBride, however, writes in a footnote about an attempt of Armstrong to provide truthmakers for a certain type of modal statements: ‘He [Armstrong] offers a corresponding account of their truth-makers [...]. But a provision of truth-makers does not make for a specification of truth conditions.’ (1999, p. 480, note 5) So we have the S-philosopher telling the M-philosopher ‘A provision of truthmakers does not make for a provision of truth conditions’, and the M-philosopher telling the S-philosopher ‘A provision of truth conditions does not make for a provision of truthmakers’.

What is the difference between providing truth conditions and providing truthmakers? Truth conditions are propositions or sentences; that



is, they are meaning entities. For example, the proposition that the stone has a mass of 5 kg is a meaning entity, whereas the stone is not a meaning entity. The proposition is true or false, whereas the stone is neither true nor false. That truth conditions are meaning entities is also implied by what MacBride says about a reductive theory of modality: ‘Each specification of a truth condition that the theory associates with a modal sentence must be materially equivalent to the sentence for which it specifies a truth condition.’ (p. 474) Only a meaning entity can be materially equivalent to a sentence. A truthmaker can be described or referred to by a meaning entity, but it cannot be materially equivalent to a meaning entity (except in the rare case where a meaning entity is a truthmaker). Also MacBride’s statement of the claim that a reductive theory of modality must be non-circular makes clear that truth conditions are meaning entities: ‘Each specification of the truth condition of a modal sentence that the theory provides must be expressed [...] using only non-modal vocabulary.’ (p. 474) Only meaning entities can be expressed. You can express, using certain vocabulary, the proposition that the stone has a mass of 5 kg, but you cannot express a stone or a universal.

Truthmakers, on the other hand, as Armstrong wants to provide them, are not propositions and not sentences, they are not meaning entities at all. For example, according to Armstrong, the truthmaker of the sentence ‘The stone has a mass of 5 kg’ is a certain state of affairs, i.e. a certain individual instantiating certain universals. A stone, for example, is a state of affairs, one involving quite many universals. A truthmaker can fall on your foot and hurt you. No danger of that with a truth condition. The truthmaker of the modal sentence ‘There can be a thing that is red and 5 kg in mass’, according to Armstrong, are the universals in virtue of which the predicates ‘is red’ and ‘is 5 kg in mass’ apply. These are not the meanings but the objects of the predicates. For example, one of these universals is that in the stone which makes it behave in a gravitational field in a certain way.

Therefore providing truthmakers is different from providing truth conditions. MacBride misses the point of Armstrong’s theory of possibility when he says that Armstrong’s ‘provision of truth-makers does not make for a specification of truth conditions.’ (1999, p. 480, note 5) This is an example of an S-philosopher failing to understand what the project of M-philosophers is, and even failing to recognize that M-philosophers pursue a different project than S-philosophers.

It is very difficult for the S-philosophers and the M-philosophers to understand each other. Some realize that there is another camp but do not understand what the aim and the method of those in the other camp is. Some find that some of their colleagues put things in a strange way but do not realize that these other philosophers are pursuing a different project. I have argued that MacBride misunderstands Armstrong in the latter way. That is why MacBride refers to Armstrong's theory as 'the proposed semantics' (p. 477), although Armstrong does not propose a semantics at all.

The two projects need to be disentangled. In the linguistic turn one of them swallowed the other. Some will say that both projects are worthwhile and depend on each other. I am sceptical about this peaceful solution, but in this article I have argued only that we have to distinguish the two.

#### ABSTRACT

Armstrong says of his theory of possibility that it is 'reductionist'. Fraser MacBride has argued at great length that it fails to be reductionist because for some statements it fails to provide non-modal truth-conditions. I argue that MacBride misunderstands Armstrong's theory because its aim is not to provide truth-conditions. This illustrates how great a gulf there is between semantics and metaphysics, and between those whose aim is to provide truth-conditions and those whose aim is to provide truth-makers.

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## An Ontology of Dignity<sup>1</sup>

The idea that dignity is inherent to the human person resonates as intuitively true, yet we have been unable to adequately articulate a common-sense definition of dignity that is simple and clear, and that does not presuppose knowledge of other concepts or entities in order to be understood. At best, we point to examples to explain what dignity means, or we resort to other terms that either presuppose dignity or are its close conceptual neighbors, such as esteem, worthiness, decorum, honorableness, suitability of appearance or behavior, and so on. But often, the meaning of dignity is just assumed to be understood or too obvious to require an explanation. The 1948 Universal Declaration of Human Rights, for example, refers to dignity as an inherent property of mankind as if this assertion were self-explanatory. Can we indeed say, and not merely show, what is dignity? In this essay, I will argue that an ontology of dignity will help us precisely to do this.

Before proceeding with this task, it shall be important to review what has already been presented in the literature on this subject. The accounts of dignity advanced to date can be divided into three types. The first type is what we shall call the ostensive definition, since it offers only an implicit expression of a definition for dignity. Compared to the other two categories, the ostensive definition is undoubtedly the wallflower of the party, for it goes largely unnoticed despite its longevity and, according to some, its universality across time and cultures. The second type is the rationality criterion, and it is the most recognizable of all three. Although the rationality criterion emerged in the modern period, it is still indeed the dominant position today. The third type, the social account, is the trendiest of all three because it enjoys much favor today inside and outside the

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<sup>1</sup> Originally published in German as “Eine Ontologie der Würde” in Ralf Stoecker (ed.), *Menschenwürde: Annäherung an einen Begriff*, öbv&hpt, Wien 2003, pp. 175-191.

academy. The social account has been embraced in contemporary discussions as the rival to the rationality criterion. Let us examine each of these separately in what follows.

### *The Ostensive Definition*

The chief feature of the ostensive definition is that it presupposes the infallible intelligibility of human dignity. The defenders of this position would say that the warrant for this presupposition lies in the nature of each human person to experience the intersubjective recognition of a shared transcendental connectedness to an eternal being.<sup>2</sup> Accordingly, human dignity is founded on the eternal being of the divine person in whose likeness human persons have been created. In paragraph 1700 of the Catechism of the Catholic Church, we find that “the dignity of the human person is rooted in his creation in the image and likeness of God.” The truth of this proposition would be settled by pointing to any individual human person as evidence. If the existence of God is accepted, then the above proposition is ostensively true; hence, the name for this type of definition.

The strength of any ostensive definition depends on the subject’s apprehensibility of the example employed as the instance of the referent. Suppose that we wish to define the color red to a particular subject. Since *red* is a primitive word—i.e., it is not derived from any other word—we cannot articulate a definition other than an ostensive definition. Accordingly, the standard dictionary definition of red provides only examples, such as the color of a ripe tomato. Let us now suppose that the subject is blind. In this case, we cannot merely point to a vine of ripe tomatoes as an exemplification of the color red. A similar problem arises with an ostensive definition of dignity consistent with the Christian

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<sup>2</sup> This is basically the phenomenology of interpersonal religious experience. In the fifth of the *Cartesian Meditations*, Husserl explains that intersubjectivity is the constituted ego community. Rees Griffiths writes, “A theology may be a hypothesis, but religion is always an immediate experience and a living personal faith,” in *The A Priori Elements of Religious Consciousness*, T & T Clark, Edinburgh, 1931, p. 4. To dispute this, he adds, is to deny that “man has, from the early beginnings of which we any record, viewed the world in a religious setting and linked his individual and tribal life with an invisible divine being.” *Ibid*, pp. 25-26.

tradition. If the subject has no knowledge of God and his existence, then an ostensive definition will be ineffective for the subject.

It may very well be the case that dignity is a primitive term. If this is indeed the case, then the ostensive definition is weak, for it presupposes the infallible intelligibility of dignity based on a special kind of knowledge (of God) that is empirically demonstrable to be neither uniform across religions, nor universal in the history of mankind; hence, its intelligibility is most certainly fallible.

In the case of the ostensive definition, it is precisely its approach of making the epistemic matter of the knowledge of God its central focus that has made it so assailable by verification objections. A better strategy would be to set aside this particular epistemic matter in order to tackle first the scientific enterprise of examining and describing real states of affairs that manifest dignity in the world in order to show how these descriptions correspond to or reconcile with intuitions about the intrinsic intelligibility of dignity. Additionally, fallibilistic knowledge is a firmer epistemic terrain upon which to rest an ostensive definition of dignity. There are some important contributions that have vigorously exploited this avenue in the sphere of philosophy of religion, although these have not yet been imported to the arena of ethics in which the mainstream secular discussions on the matter of dignity are being presently adjudicated.<sup>3</sup>

### *The Rational Criterion*

The foremost exemplar of the rational definition is Kant's ethical account of dignity. Kant's distinctive concern is to vindicate the authority of reason. A person, he observes, possesses dignity because he is rational and

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<sup>3</sup> Arguably, Gustav Bergmann paved the way for the fallibilistic *apriorism* revival; see "Synthetic A Priori," *Logic and Reality*, University of Wisconsin Press, 1967. The contemporary giants of theistic fallibilistic *apriorism* are Richard Swinburne and Alvin Plantinga. For the former see, *The Existence of God*, Clarendon Press, 1979. For the latter, see *Warrant and Proper Function*, Oxford University Press, 1993. Non-theistic versions of fallibilistic *apriorism* have also been advanced. See Barry Smith's "In Defense of Extreme (Fallibilistic) Apriorism," *The Journal of Libertarian Studies*, Vol. 12, no. 1, 1996, pp. 179-192; and Laurence Bonjour, *In Defense of Pure Reason: A Rationalist Account of the A Priori*, Cambridge University Press, 1998.

autonomous.<sup>4</sup> It is the mark of humanity to have the ability to choose ends and to pursue them strategically. The reasoning about ends is for Kant the highest form of rationality because it leads the person to what is good, and it also causes him to desire that which is good and thus to pursue what *ought to be* pursued. The rationality criterion reveals the two fundamental ingredients in the Kantian moral framework: the good and the duty to pursue the good. These make possible for man to self-legislate his own moral life. Autonomy arises in the context of man's moral self-legislation, which is to act accordingly to those maxims that can be consistently willed as universal law. Kant calls this rational directive the categorical imperative. We are free to accept or to reject the categorical imperative, but only when we accept it do we freely follow our own law of pure practical reason and, thereby, acquire autonomy.

But Kant still needs to explain how dignity is apprehensible by all rational and autonomous persons. For this, he brings his metaphysical framework to bear on this epistemic investigation. When Kant introduced the expression *synthetic a priori* into the philosophical vocabulary, he circumvented the matter of defining the membership conditions for those judgments in the *synthetic a priori* category and, instead, took on the task of investigating how *synthetic a priori* judgments could be possible. He observed that we may find *synthetic a priori* propositions in mathematics, but he insisted that it is impossible for sensible beings like us to have direct knowledge of mathematical objects, since these are not perceivable by the senses. How, then, could mathematical objects conform to our *a priori* judgments of them?

Contrary to the view that we have direct access to things-in-themselves, Kant insisted that our sensible awareness of things-in-themselves is contingent on the structure that we impose on them as representations of what they are, and these representations are the only objects of our experience. We are thus able to have *a priori* knowledge of the objects of experience, and not of things-in-themselves. In virtue of the categorical imperative, we are able to transcend to this realm of objects of experience because this realm is governed by laws of reason. Our

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<sup>4</sup> Immanuel Kant (original publication 1797), *The Metaphysics of Morals*, Cambridge University Press, 1996.

apprehension of dignity in other persons results, then, from the recognition of their rational nature as members of this realm. And since, for Kant, man's rational nature is an end in itself, he can say that man's value does not depend on external material ends and, thus, his dignity is intrinsic, unchanging, and eternal.

It is quite plausible to suppose that this formal account of dignity is built around two axioms from which everything else is derived. Axiom 1: Persons will strive to achieve their ends. This axiom is not problematic, since the pre-empirical assumptions underlying this axiom appear intuitively obvious—e.g., persons choose, persons act. But the second axiom gives rise to a problem. Axiom 2: Reason directs persons to the good as an end. Kant's prototypical exemplar of humanity is the discerning person who recognizes the good and desires it for its own sake. It is not disputable to say that persons often recognize the good and, arguably, that persons have the faculty for recognizing the good.<sup>5</sup> Yet, it is equally undisputable to say that persons often fail to recognize the good. Sometimes, persons knowingly choose what is wrong and participate in evil deeds with much delight.<sup>6</sup> Reason does not, then, necessarily direct persons to the good. In fact, reason is often used as a tool for justifying wrongdoings. Consequently, reason could potentially be employed to disguise evil.

We must consider, too, the possibility that our knowledge of the good may be obtainable by non-deliberated means. We need only consider any immediate apprehension of beauty, or any immediate recognition of injustice, to find instances in which reason or any sort of deliberation does not mediate our knowing something. If the good is indeed intelligible to man, then it is quite plausible that its intelligibility requires no mediation at all. Kant's formalism also prevents him from entertaining material considerations, such as particular cases where there are cognitive or psychological obstacles in which the good is either difficult to grasp or not apprehensible at all.

A question jumps to mind. Why assume the noble and duty-bound model of humanity and not the indecorous and self-centered model of

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<sup>5</sup> This is the position of Thomas Aquinas.

<sup>6</sup> John Crosby, "How Is It Possible Knowingly To Do Wrong?" *American Catholic Philosophical Quarterly*, Vol. 74, 2000, pp. 325-333.

humanity? It would seem that the latter model would lead to greater considerations of universalizable maxims. Laws, for example, are inspired by undesirable behavior and so they direct behavior to more desirable ends. In fact, laws exist because transgressions are assumed. Kant's account breaks down at every exception of the person whose will is determined by reason to pursue the good. In a possible world constituted only by transgressors, a prison for example, is the dignity of any prisoner diminished because his misguided use of reason did not lead him toward the good? More fundamentally, how is it that the prisoner comes to recognize the good in order to desire it? This question is significant, since according to the Kantian metaphysics we could only know the good as an object of experience and not the good in itself. The good as such is nothing more than a construct of the mind. It is conceivable, then, that the prisoner in whose entire life the good was excluded as an object of experience would not ever know or recognize the good in order to desire it. His mind's constructs could not shape a *noumena* in which the good is an object of experience. Here, Kant's metaphysics betray his moral philosophy because reason in the latter has a quasi realism that stands in the face of his idealism in the former.

Finally, the rationality criterion of dignity does not recognize the dignity of infants, children, the elderly suffering from dementia, and the mentally ill, since no person by this description is either fully rational or autonomous and they are, therefore, excluded by the general rule. It is important to point out that this exclusionary problem does not arise only with the rational account of dignity, but that it is present in the very old description of man's essential nature as a rational, individual substance. I have argued elsewhere that we can eliminate this problem by simply saying that the *potential* for rationality is an essential feature of the person.<sup>7</sup> This application of the Aristotelian framework indeed solves the exclusionary problem of man's feature of rationality. But let us recall that the Kantian account makes dignity dependent on rationality, which may be characterized as discovering the good, choosing the good as an end, and striving to achieve the good. So if we were to apply this solution to the

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<sup>7</sup> "What is Economic Personalism? A Phenomenological Analysis," *Journal of Markets & Morality*, Vol. 4, no. 2, 2001, pp. 151-175.



rational account of dignity, at best we could say that infants and children have the potential to be vested with dignity when their rationality is actualized, and that senile and mentally ill persons are not vested with dignity, since they have either lost or never gained their rational faculties, respectively. This is counter-intuitive and, consequently, it has no practical usefulness.

### *The Social Account*

There are several variations of the social account, but it would be fair to say that their common feature is the view that dignity arises in the encounters between persons. The two *relata* in the social process are the conceiver, on the one hand, and the other persons who constitute a social framework, on the other. The relation works like this: the conceiver's sense of dignity is dependent on the recognition of his personhood by other persons (the social framework) and on the corresponding attitude of regard and compassion from the persons in the social framework toward him as a member of the same kind. But the case may be different, since the conceiver's dignity may be diminished or strengthened by the responses of other persons in his social framework. The social conception of dignity is, then, putative because dignity is given in beliefs.

The chief difference between the ostensive definition and the social account is that the latter allows for many beliefs, even disparate ones. It is precisely this feature that renders the social definition suspect. And the sources of the differences in beliefs are not limited to culture or some other kind of formation; they also include perspectival variations in an individual. We could imagine instances in which the dignity of some persons is not honored in the same way as some other persons. The Nazis, for example, only honored the dignity of the so-called Arians, and not that of anyone else. This emphasis on beliefs, whether temporally enduring or dependent on circumstances, does not help to clarify what dignity is. In virtue of its underlying assumption that there are many beliefs, the social account must inevitably confront those cases of disagreement and unmet expectations. These cases will reveal instances of failure on the part of some to honor the dignity of others, and this exposure may lead to prescriptive analyses useful for applied ethics.

Another problem of the social account is that it does not recognize the dignity of Robinson Crusoe cases. Most especially, the social account neglects the instantiation of dignity in individuals with autism who cannot fully belong in the human social world even when they are physically a part of it. Yet, our common sense understanding of dignity suggests that persons belonging to any of the categories excluded in this account are fully vested with dignity.

The more perverse consequence of the social account is that it falls prey to relativism. If the dignity of any one person is grounded, either in whole or in part, upon societal consensus, then we can imagine the absence of consensus in a homogeneous society toward persons of a different culture, appearance, language, and so on. The weakness of relativism is that it does not recognize error, our making mistakes, and our just being plain wrong. False judgments are part of the everyday human experience, and the social account makes dignity too susceptible to wrong beliefs. This account is, then, fundamentally unsatisfactory.

### *Importing the Tractarian Sachverhalt to a Gestalt Structure*

Let us now steer the examination toward a new direction: the structure of Wittgenstein's Sachverhalt. In the *Tractatus*, Wittgenstein describes Sachverhalte as thinkable configurations of objects that stand in a determinate relation to each other.<sup>8</sup> The possible configurations of objects are many, but these possibilities are not accidental.<sup>9</sup> Every possibility of an object's occurrence in a Sachverhalt is contained in the nature of the object from the beginning.<sup>10</sup> A speck must have some color, a tone some pitch, and an object of the sense of touch some hardness.<sup>11</sup> Wittgenstein points to Sachverhalte as entities that are distinct from objects.<sup>12</sup> He tells us that Sachverhalte are facts that make up the world, and that objects are simple. But he does not really give an explicit description of either from which we

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<sup>8</sup> Ludwig Wittgenstein, *Tractatus Logico-Philosophicus*, (original publication in 1921), Routledge, London and New York, 1974, 2.0272, 2.031, 3.001.

<sup>9</sup> *Ibid*, 2.012.

<sup>10</sup> *Ibid*, 2.0121, 2.0123.

<sup>11</sup> *Ibid*, 2.0131.

<sup>12</sup> *Ibid*, 2.02, 2.0231, 2.0271.

could distinguish, for example, a real state of affairs from an event, or a Wittgensteinian object from an individual object found in ordinary experience.

We shall ignore the puzzles presented by his enigmatic simple objects, how these are entities distinct from Sachverhalte, and any inquiries about negative Sachverhalte, for the attempt is not to remain faithful to Wittgenstein. Rather, my attempt is more modest: to borrow Wittgenstein's insight about the material necessity of objects in a Sachverhalte and apply it to a structure of a person and his dignity as a two-object Gestalt. His insight is this: Sachverhalte are subject to definite laws of constitution that are written, so to speak, in the nature of the objects therein. This is the only property of the Tractarian Sachverhalt that we shall apply in our examination, for the attempt here is to provide a realist account of dignity. We shall call this modified Sachverhalt, a *personhood Gestalt*. It very well may be that the Tractarian account must necessarily exclude those objects of experience that Wittgenstein deems mystical simply because he does not advance an ontology of Sachverhalte.<sup>13</sup>

For the most part, analytic philosophers "see Sachverhalte as involving both individuals and universal properties."<sup>14</sup> There is, however, a different view proposed by Mulligan, Simons, and Smith, who interpret states of affairs as "involving individuals alone, linked together by relations of foundation."<sup>15</sup> In their words, "some objects are such that, in virtue of their form, they call for others as a matter of necessity..."<sup>16</sup> The necessary coming together of these objects in a Sachverhalt, as interpreted by Mulligan, Simons, and Smith, arises from the relations of dependence

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<sup>13</sup> See Barry Smith, "Logic and the Sachverhalt," *The Monist*, Vol. 72, no.1, 1989, pp. 52-69. Smith writes that what Wittgenstein lacks "is an ontology of Sachverhalte of the sort that would allow him to also provide an account of the ways in which such entities are related to our everyday thinkings and other cognitive activities (for example to those acts of seeing that in which our judgments get verified)," *ibid*, p. 65.

<sup>14</sup> According to Mulligan, Simons, and Smith, some philosophers have been constrained to resort to views of this kind because "analytic-philosophical interpreters of the *Tractatus* have standardly lacked a theory of lateral foundation relations, relations which may bind together individual objects." See, Kevin Mulligan, Peter Simons, and Barry Smith, "Truth-Makers", *Philosophy and Phenomenological Research*, Vol. 44, 1984, pp. 287-321.

<sup>15</sup> *Ibid*, p. 310.

<sup>16</sup> *Ibid*, p. 310.

between these objects. A tone, for example, is dependent on a particular pitch. But there is no reverse relation of dependence, so a pitch is not dependent on a tone.

There are, then, dependent objects and independent objects. Dependent objects are the independent object's individual accidents or moments.<sup>17</sup> Mulligan, Simons, and Smith borrow the notion of individual accident from the *Categories*, where Aristotle describes it as a property that "cannot exist separately from what it is in."<sup>18</sup> Motion, for example, cannot exist independently from a moving ball; hence, motion is an individual accident of the ball when it is moving. In this realist account, then, motion is not a universal that is exemplified in the moving ball. Rather, it is a particular object present in the moving ball, but motion is not a *part* of a moving ball.

Let us suppose that the sentence "This man possesses dignity" is made true—à la Mulligan, Simons, and Smith—by a personhood Gestalt constituted by two objects: this man and dignity as this man's individual accident. On the one hand, there is an individual substance—this man—and on the other hand, there is a particularized individual accident—his dignity. These two objects are configured in a personhood Gestalt such that the latter is *in* the former. In other words, dignity is in this man. The same applies for the sentence "This man has a headache." The headache is in this man, but it is not a part of him. Accordingly, his headache cannot exist separately from him. This man's dignity, too, cannot exist independently from him.

Why is dignity a particularized individual instead of a universal, or an essential property? An individual is a substance that endures through time and changes in its relations to other individuals. This appears befitting to dignity. When a person ceases to exist, the intuition is that his dignity is not bound up with his existence. The importance of proper burials across time and cultures suggests that man is capable of discerning the

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<sup>17</sup> Individual accidents or moments are different names for the same thing, but we shall employ the former hereinafter. Descartes, Locke, and Hume refer to individual accidents as modes. Tropes as moments appear in a variety of trope theory advanced by Peter Simons that builds on Husserl's foundation relations. See "Particulars in Particular Clothing: Three Trope Theories of Substance," *Philosophy and Phenomenological Research*, Vol. 54, 1994, pp. 553-575.

individuated dignity of a particular person from the person himself. The survival of a person's dignity past the person's death is indicative that dignity cannot be an essential property of the person. Moreover, our recognition of a person's dignity apart from the person himself (especially after death) also puts into question the possibility that dignity is a universal. If this were the case, it would be difficult to explain how the instantiation of dignity in a particular person would carry on when this bearer ceases to exist. We could say that a particular person's dignity is somehow transferred from an existent bearer to a non-existent bearer, but then we would have two distinct substances to complicate the matter even further.

The possible quibble that may be raised is that if dignity is an individual accident, then this makes it dependent on the existence of a particular substance person. Let us consider this objection from a common-sense perspective. It is not the cadaver that continues to instantiate the particular person's dignity that he enjoyed while alive. We honor the memory of deceased persons; we honor their work posthumously; we honor their belongings, reputation, and so on. All of these characterize a particular person's dignity as a particularized individual that endures even when its bearer ceases to exist. A particular person's dignity is thus not identical to any other person's dignity, since dignity is bound up not only with a particular person as such, but also with his legacy and other people's memories of that particular person in a way that is wholly distinct from any other. This suggests that dignity, as an individual accident, may be a necessary (but not sufficient) condition for numerical identity, and numerical identity does not expire when a person ceases to exist. There is only one Einstein, only one Picasso, only one Mozart, and we continue to identify each of them distinctly after their death not because of their notoriety—for we individuate the personal essence of each of our loved ones who are deceased in the same way—but because the particular dignity of each person survives his death by attaching to our remembrance of his individual achievements, his respective contributions, his being the way that he was.

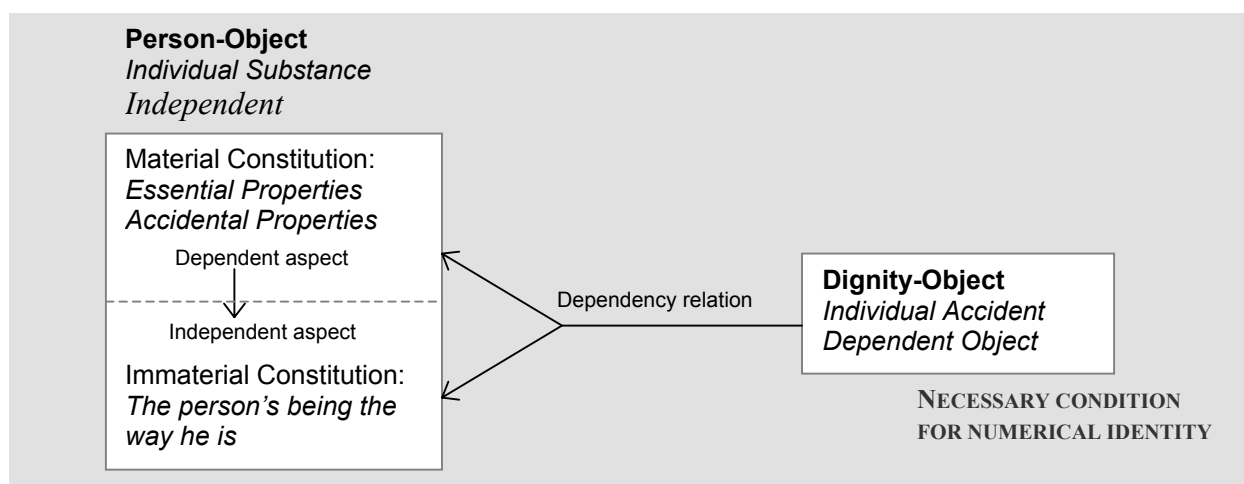
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<sup>18</sup> Aristotle, *Categories*, 1a 20.

What, then, does it mean to say that dignity is an individual accident? The ordinary intuition is that dignity is present in every person. The Christian understanding of dignity and Kantian ethics, too, support this intuition. The description offered here is that dignity is an individual accident that is the dependent object in a two object personhood Gestalt. The independent object in this personhood Gestalt is the object-person. This personhood Gestalt is necessarily, and not accidentally, configured such that there are two objects necessarily present: dignity, as an individual accident, and an object-person. And this necessity of the dignity-object in such a Gestalt is a *de re* necessity because it is not possible for the object-person to exist without this individual accident. In other words, dignity is a particularized property and it is in its nature to be present in the personhood Gestalt with the particular object-person to which it corresponds. The object-person is a particular with the essential and accidental properties of personhood that make up his unique material constitution. This individuated human person also may be broadly understood as a numerically distinct continuant that comes into being as an independent substance.<sup>19</sup> All of these relations between the person-object and the dignity-object are consistent with our intuitions. Let us now take a look at an illustration of the ontological structure we have described so far:

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<sup>19</sup> It is important to clarify that the beginning of personhood does not coincide, by necessity, with the beginning of human life, for personhood requires the status of independent substance whereas human life does not. According to Barry Smith and Berit Brogaard, a person's independent substance status occurs sixteen days after the coming into being of human life. See, "Sixteen Days," *The Journal of Medicine and Philosophy*, Vol. 28, No. 1, 2003, pp. 43-78.



Graph 1: Personhood Gestalt

The ontological structure that we have erected thus far is not yet sufficient for an adequate account of dignity. It is crucial to address now the epistemic correlate of this ontological structure in order to address the issue that dignity may be affected by beliefs. We often hear comments to the effect that the dignity of the person must be preserved, thus suggesting that dignity is something that could be intentionally diminished. Comments like these arise especially as a concern for the dignity of those who cannot claim it for themselves, such as children, the mentally impaired, the elderly, and the subjugated in any form. Epistemically speaking, then, dignity can be perceived as either present in varying degrees or absent in a person. But there are two points of view to consider.

The first point of view is that of one's own sense of dignity. The awareness of one's sense of dignity may be either immediate or mediated. An immediate awareness can be either positive or negative. In the case of the latter, we can imagine this experience as the recipients of, for example, an act of emotional violation. In the case of the former, we can imagine the immediate sense of one's own dignity one obtains when displaying moral integrity or an appropriate appearance. The awareness of one's sense of dignity may be also recalled in memories of these situations. But even when one is proudly aware of one's sense of dignity with a confidence grounded in one's personhood, the beliefs of other persons to the contrary may diminish one's sense of dignity. In this case, our attention is pulled

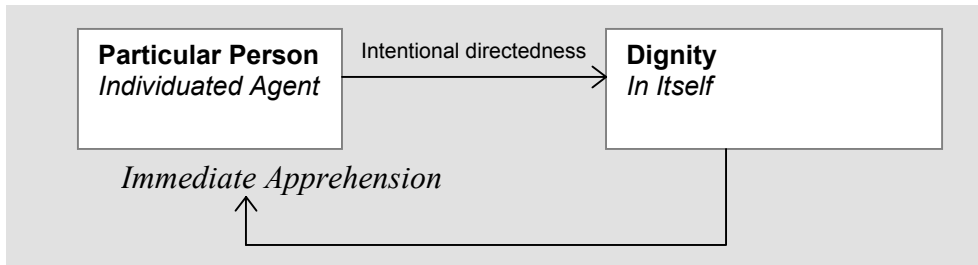
away from an immediate awareness of dignity in itself—i.e., the particularized dignity-object that corresponds to our personhood—toward an awareness of dignity that is filtered by our perceived responses from others. Instead of apprehending dignity in itself, we apprehend dignity as an intentional phenomenon shaped by the social world around us.

Our sense of dignity is, then, mediated by how we are perceived or treated by others. One could be mistaken, of course, as error in one's judgments about other persons is always the risk in virtue of our human condition of imperfect knowledge, linguistic ambiguity, psychological issues, or emotional fragility. I could be deluding myself, for example, that I am admired and honored by every member of my social world. Or, I could convince myself that my social world finds me dispensable or disqualifies me as a member of the human species. If my latter judgment is correct, however, then this perception becomes an obstacle to my apprehension of dignity in itself. This problem is not very harmful, since one is capable of recognizing one's epistemic obstacles and steering judgment toward dignity in itself. It is thus important to distinguish our sense of dignity and its vagaries due to circumstances on the one hand, and the particularized dignity-object that corresponds to our personhood on the other. The latter is enduring and unaffected by beliefs.

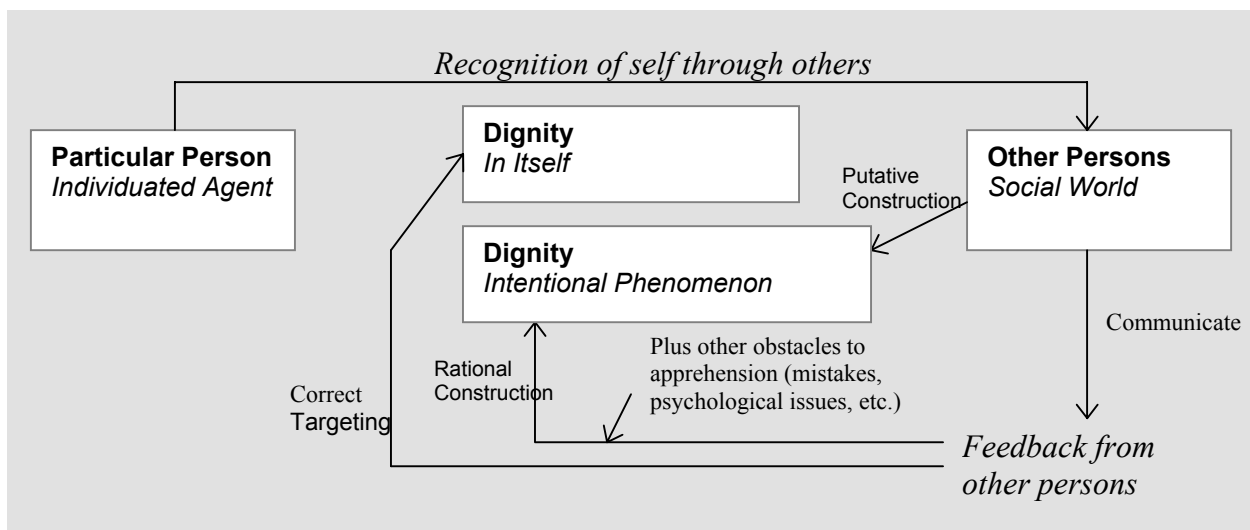
This brings us to the second point of view: that from the perspective of the social world. The social world's intentional construct of one's dignity is potentially dangerous if this construct is a denial of our dignity, and the danger lies not only in our becoming convinced that the social construct of one's dignity is accurate. The more perverse outcome of this is that one may fall prey to the uncritical measures taken by a powerful social world with respect to our existence. The Nazi extermination of Jews, the Chinese army's massacre of Tibetans, the genocide of natives of North and South America by the hands of European settlers, and the segregation of African-Americans in the southern United States are all examples of the harmful consequences of a powerful society's failure to apprehend the dignity of each person that, by consensus, this society deems dispensable. The only possible explanation of this perverse belief, other than mere insanity, is that the aggressors perceive the victim as not human and, thereby, lacking in dignity.



Putting together the foregoing observations, the epistemic account of dignity may be illustrated as follows:



GRAPH 2: A PRIORI KNOWLEDGE OF DIGNITY



GRAPH 3: FALLIBILISTIC KNOWLEDGE OF DIGNITY

There are two additional observations that we may draw from the last illustration. The first is that persons do not infallibly and predictably grasp the meaning of dignity all of the time. The second is that the intentional construct of dignity is ontologically subjective—i.e., it is dependent on the perception of subjects for its existence. Barring Robinson Crusoe cases, persons have the occasion to immediately and directly recognize dignity—i.e., in *a priori* knowledge—as a sense of their own nature that is

inexorably connected with all other persons. This human connectedness makes itself manifest in instances of intersubjective transcendence, such as when we experience a visceral response of pain in the face of human suffering, or of loss when confronted with the knowledge of tragic deaths, even if we have no personal acquaintance with the victims. Intersubjective connectedness also is manifest in those instances in which one feels or observes in others the particular elevation of the human spirit and character that inspires awe and reverence toward mankind and what is higher. These kinds of experiences may serve as the occasion for our acquiring a tacit knowledge of the particularized property of human persons that we call dignity, a property we find difficult to articulate explicitly.

### *Defining Dignity*

The mystery of dignity is no different than the mystery of the color red or the mystery of love. Each is a primitive term that is not derived from any other, which makes each impossible to define. Nonetheless, the quest for knowing dignity more profoundly is not illusory because there is much to be obtained from an investigation of the relations of foundation between dignity and persons. The following is a preliminary list from which we may start further investigations:

1. Dignity belongs to metaphysics—more specifically, to the ontology of personhood—and not to ethics. According to the Hungarian philosopher Aurel Kolnai, the presence of dignity provokes responses that are in line with moral approval.<sup>20</sup> Nonetheless, dignity is not, itself, a moral quality and the examination of dignity does not fall in the province of ethics. To say that a human person possesses dignity is to describe a state of affairs with two objects: a person, and dignity as this person's individual accident in virtue of which the person merits no moral status.
2. The epistemic correlate of dignity is every person's sense of dignity. This sense is not a part of any sort of moral behavior. We can be either right or wrong about our own sense of dignity. The truth or

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<sup>20</sup> Aurel Kolnai, "Dignity," *Journal of Philosophy*, Cambridge University Press, New York, 1976, pp. 251-271.

falsity of our beliefs about our sense of dignity is settled by dignity in itself as presented in point one above.

3. What affects our moral agency are those deliberate actions directed at either preserving or diminishing our sense of dignity, or that of others. The former are morally meritorious actions, and the latter are morally reprehensible actions.
4. Indignation is a third-party response to the lack of recognition of a person's dignity on the part of another. But indignation also occurs as a first-person experience. In either case, indignation is a judgment directed at a complex personhood Gestalt that is constituted by one or more individual personhood Gestalten.

In short, dignity is the primitive individual that unifies the material constitution of the person with his being the way he is and, when this person ceases to exist, it continues as the individual accident of his being the way he is. Dignity thus brings about a Gestalt unity to the complex material and immaterial constitution of personhood.

#### ABSTRACT

Dignity has been understood either in the context of Kant's formal ethics or, more ordinarily, as a mystical property that is given in man but that can also be stripped from him in social interactions. This paper examines three accounts of dignity: the ostensive definition, the rational criterion, and the social account. As an alternative, I offer an ontological account of dignity as a constitutive part of what I call a *personhood Gestalt*. More specifically, I argue that dignity is neither a universal, nor an essential property of a person. Rather, dignity is an individual substance because it endures through time and changes in its relations to other individuals. And this is consistent with our ordinary intuition that a person's dignity is not bound up with a person's real existence, for else we would not have the practice of burials for deceased persons, the erection of memorials honoring fallen heroes, or other expressions of honor we display toward the dead. Moreover, I also argue that dignity is an individual accident dependent on a particular object-person whose constitution has a material aspect as well as immaterial aspect. I describe the immaterial aspect of an object-person in a common-sensical way as the person's being the way he is, although this can also be understood as the person's soul. Dignity thus brings about a Gestalt unity to the complex material and immaterial constitution of personhood.



## KENNETH WILLIFORD

### Moore, the Diaphanousness of Consciousness, and Physicalism\*

#### *I. Introductory*

In his seminal 1904 statement of neutral monism, “Does Consciousness Exist?”<sup>1</sup> William James quoted a passage from G. E. Moore’s 1903 “The Refutation of Idealism”<sup>2</sup> in order to give an example of yet another thinker who “...suppose[s]...one to have an immediate consciousness of consciousness itself.”<sup>3</sup> The famous sentences James reproduced are still worthy of reproduction:

...[T]he moment we try to fix our attention upon consciousness and to see *what*, distinctly, it is, it seems to vanish: it seems as if we had before us a mere emptiness. When we try to introspect the sensation of blue, all we can see is the blue: the other element is as if it were diaphanous. Yet it *can* be distinguished if we look attentively enough, and if we know that there is something to look for.<sup>4</sup>

With Moore’s assertions in his scope, James remarked, “I believe that ‘consciousness,’ when once it has evaporated to this estate of pure

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<sup>1</sup> Reprinted in James 1912: 1-38.

<sup>2</sup> Reprinted in Moore 1965: 1-30.

<sup>3</sup> James 1912: 6.

<sup>4</sup> Moore 1965: 25.

diaphaneity, is on the point of disappearing altogether. It is the name of a nonentity.... Those who still cling to it are clinging to a mere echo, the faint rumor left behind by the disappearing ‘soul’ upon the air of philosophy.”<sup>5</sup>

I would maintain, however, that Moore was correct to insist upon the diaphanousness of consciousness *as well as* its phenomenological distinguishability vis-à-vis its typical objects, whether or not this conflicts with neutral monism, as James seemed to think. Presumably James thought it a difficult idea that consciousness should be reflectively distinguishable yet diaphanous. But, as we will see, via a discussion of Moore, this diaphanousness extends only to certain properties. I will offer a description of the central features of Moore’s characterization of consciousness in “The Refutation of Idealism” and in his little-known 1910 “The Subject-Matter of Psychology” and then go on to consider critically some of its implications.<sup>6</sup>

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<sup>5</sup> James 1912: 2. It is a curious fact that in his 1890 *Principles of Psychology* James championed the very idea he is here criticizing in Moore. See James 1918: 185, “The word introspection need hardly be defined—it means, of course, the looking into our own minds and reporting what we there discover. *Every one agrees that we there discover states of consciousness.* So far as I know, the existence of such states has never been doubted by any critic, however skeptical in other respects he may have been. That we have *cogitations* of some sort is the *inconcussum* in a world most of whose other facts have at some time tottered in the breath of philosophic doubt. All people unhesitatingly believe that they feel themselves thinking, and that they distinguish the mental state as an inward activity or passion, from all the objects with which it may cognitively deal. *I regard this belief as the most fundamental of all the postulates of Psychology*, and shall discard all curious inquiries about its certainty as too metaphysical for the scope of this book.” Emphasis in the original. I regard the *Principles* as the high point of James’s philosophical career.

<sup>6</sup> This discussion is not intended to be a complete account of Moore’s views in their historical context. I am here primarily interested in certain philosophical points highlighted by some of Moore’s remarks. Given the importance of the problem of the diaphanousness of consciousness in contemporary philosophy of mind, this emphasis is justified. Moreover, a discussion of Moore’s unjustly neglected “The Subject-Matter of Psychology” might inspire someone to undertake an adequate, historically sensitive investigation of Moore’s views in this regard.

## II. *Diaphanousness, Externalism, and the Subject of Consciousness*

### II.1 *Externalism and Diaphanousness*

By ‘externalism’ I mean ‘content externalism’ in one of its contemporary senses. What are now called externalist theories of content correspond, in a certain way, to what were once called *object* (as opposed to *content*) theories of intentionality; for, according to the theories picked out by both terms, the *metaphysical* individuation conditions for an intentional state or act<sup>7</sup> make ineliminable reference to objects that are not themselves identical to nor, strictly speaking, parts or properties of the intentional state or act in question (with the possible exception of self-referential states or acts). Externalists, like object theorists, do not think that intentional states or acts can be *metaphysically* individuated apart from their relation to what they are *of* and thus, typically, what they are *not*. Internalists, like content theorists (in the more narrow, older sense of ‘content’), think they can be so individuated, though only in principle.<sup>8</sup> The terminological shift (whereby the very word ‘content’ has come to be neutral with respect to internalist and externalist theories), I suggest, was a consequence of the shift away from theories of the intentionality of *consciousness* and toward theories that begin (and sometimes end) with non-conscious content.<sup>9</sup>

If one does not keep this terminological development in mind, one will no doubt balk when I assert, as I am now, that G. E. Moore was a content externalist. One will only so balk if one is tempted to define the

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<sup>7</sup> I am fully comfortable with neither term, but here prefer ‘act.’ Also given the subject matter of this paper it makes more sense to use ‘act.’

<sup>8</sup> For similar characterizations of the internalism/externalism distinction (in the theory of content), see McGinn 1989: 1-117 and McCulloch 1995: 184-224. McGinn’s discussion, in particular, is of very high quality. For a different and important discussion of the distinction see Fumerton 2003: 259-265. It is more common to characterize the distinction in terms of “supervenience” conditions instead of individuation conditions, but the characterizations are equivalent. On the impossibility (in practice) of individuating contentful states in this way, cf. Fodor on the “radical inexpressibility” of narrow content, Fodor 1987: 50.

<sup>9</sup> See Williford ms. for arguments to this effect.

internalism/externalism controversy in the theory of content by reference to notions like consciousness or direct acquaintance.<sup>10</sup> On the definition of the controversy advocated here, it is controversy about the metaphysical (and not epistemological) individuation conditions for an intentional state or act. As such, the internalist/externalist distinction cuts across the conscious/unconscious divide and is neutral, at least definitionally, with respect to any doctrine about epistemic access to content.

G. E. Moore's leaning toward content externalism (in the sense just defined) is clear enough in his sadly neglected 1910 paper, "The Subject-Matter of Psychology." He writes:

The first...[way in which acts of consciousness can differ from one another] is the difference which merely consists in the fact that one act of consciousness is a consciousness *of* one entity, where as another act of consciousness is a consciousness *of* a different entity. For instance, when I see a blue colour, I am conscious of a different entity from that of which I am conscious when I see a red one. And my seeing of the red certainly does differ from my seeing of the blue, in respect of the fact that whereas the one is a consciousness of the red, the other is a consciousness of the blue: the mere fact that one is of the red and the other of the blue *is* a difference between them. ...[T]he two acts certainly differ in respect to the fact that one is *of* the one entity and the other *of* the other, whether they also differ in other respects or not. There is no kind of difference between mental acts more universal than this. We are all of us, in the course of our lives, conscious of millions of different entities, and our consciousness of each differs from our consciousness of all the rest, in respect of the fact that it is a consciousness *of* the entity of which it is, and not of any other different entity. But this kind of difference does not seem to me to be *itself* a mental difference.<sup>11</sup>

No content internalist would deny that intentional acts or states that are about different objects therefore differ from one another. But their view is that it is an internal difference in the act that determines that an act be about one object as opposed to another, even though that difference is unspecifiable *in practice* without making reference to an object. Moore is here suggesting that it is the other way around, that the typically *non-mental* differences among objects determine the differences between acts. As far as the *phenomenology* is concerned, consciousness, as it appears in

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<sup>10</sup> See, for example, Fumerton 2003.

<sup>11</sup> Moore 1910: 46-47.



different acts is always diaphanous; the only introspectively detectable differences among acts are differences of object (bracketing now differences of “attitude,” e.g., desire, belief.)<sup>12</sup>

Lest there be any doubt about this interpretation of Moore’s words, consider his doubtful remarks about a necessary component of “content” (internalist) theories:

...[T]he second sort of difference, which there might be between mental acts, *would*, if there were such a difference, undoubtedly be a mental one; only I am not sure that there is any such difference.... It seems, namely, to be held by some philosophers that any mental act which differs from another in respect of the fact that whereas one is the consciousness *of* one entity, the other is a consciousness *of* a different entity, must or does always *also* differ from the other in some *other* respect—in some *internal* respect: that wherever there is that difference of relation, which consists in the fact that two mental acts have different *objects*, there must also be some other *qualitative* difference between the two—beside the difference of *objects*, *also* a difference of “*content*.”<sup>13</sup>

Moore is not sure that there are such internal (he says “mental”) differences, differences in intrinsic quality, between acts of consciousness because there seem to be no phenomenological considerations in support of this.<sup>14</sup> He writes, “My *consciousness* of [different objects] seems to me to be exactly the same in its nature. And so, too, when I think of St. Paul’s Cathedral, or think of the Crystal Palace, all that I am able to be certain of is that, in the two cases, I am conscious of different entities—not that, in

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<sup>12</sup> Moore considers these to be mental differences internal to the act. See Moore 1910: 48-51.

<sup>13</sup> Moore 1910: 48.

<sup>14</sup> Addis (1989: 51-56) seems to regard the difference in object, a difference that is phenomenologically evident, *just as* a difference in an intrinsic, monadic property of the act. But one might argue that this is to *interpret* the relevant phenomenological data in terms of concepts arrived at through dialectical considerations. And if so, then there is here no genuinely *phenomenological* appeal in support of the theory. As far as the phenomenology is concerned, we are given only differences of object (and mode or attitude). One must *infer* that these given differences correlate with differences of intrinsic property.

each case, my consciousness has a further difference—a difference of quality.”<sup>15</sup>

It should be noted that Moore is not here considering theories according to which the contentfulness of an act *consists in* its having some intrinsic property or other, he is only considering whether acts must have such an internal difference *in addition* to their having different objects. As such he is only doubting a necessary *component* of an internalist theory.

But Moore is well aware that there are *dialectical* (as opposed to purely phenomenological) considerations that could reasonably lead one to adopt some form of content internalism. Considering the fact that thoughts of different objects can lead to different effects, whether or not the objects of the thoughts exist, Moore concludes that “...it cannot be the different objects which produce the different effects; and therefore there seems to me some force in the argument that there must be some internal difference in my consciousness of the one and of the other, although I can discover none.”<sup>16</sup> Note that the argument Moore considers leaves open the question whether the feature in virtue of which different acts of consciousness have different effects is identical to the feature in virtue of which they are of different objects. For the argument to favor internalism, one must make this identification.<sup>17</sup>

The important point, however, is that one must *argue* that acts of consciousness have this intrinsic feature. As far as the *phenomenology* is concerned, consciousness itself seems to be the same across acts; there seem to be no internal differences between acts of consciousness *qua* acts of *consciousness*. An act does indeed *not seem* to be any of the objects it is of, but it does not seem to have any phenomenologically discernible intrinsic properties of its own (save perhaps attitudinal properties).

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<sup>15</sup> Moore 1910: 55.

<sup>16</sup> Moore 1910: 56.

<sup>17</sup> There are, of course, good reasons for making this identification. If one is a realist about folk-psychological explanation, then one will certainly want it to be the case that a difference in narrow content can, in some cases, be *the only relevant* difference in a given folk-psychological explanation of behavior. One will either have to identify the narrow content with the causally relevant feature or *postulate* an internal feature that is systematically correlated with the narrow content and that is causally responsible for the behavioral difference. The latter move is, of course, theoretically inelegant.

Finally, it ought to be added that the argument of “The Refutation of Idealism” simply will not work without the thesis of content externalism. The following famous passage includes an unequivocal statement of the doctrine:

...[W]henever I have a mere sensation or idea, the fact is that I am then aware of something which is equally and in the same sense *not* an inseparable aspect of my experience. The awareness which I have maintained to be included in sensation is the very same unique fact which constitutes every kind of knowledge: “blue” is as much an object, and as little a mere content, of my experience, when I experience it, as the most exalted and independent real thing of which I am ever aware. There is, therefore, no question of how we are to “get outside the circle of our own ideas and sensations.” Merely to have a sensation is already to *be* outside that circle. It is to know something which is as truly and really *not* part of *my* experience, as anything which I can ever know....<sup>18</sup>

This passage implies that (once again, excluding self-referential cases) having an awareness of *x* *consists in* one’s having an act intentionally related to *x* where *x* is not (or need not be) a property or part of consciousness and is not itself *that awareness*. Without this premise, there can be no move from the having of an awareness to the existence of something other than that awareness. And without that move, the famous argument of “The Refutation of Idealism” fails.

Notice that the phenomenological diaphanousness of consciousness is crucial here. Consciousness *as such* is the same in all of its acts; the objects of consciousness differ. Consciousness reveals to itself no internal or intrinsic properties whereby it is *of* one object as opposed to another; all the difference seems to be solely a matter of the object. When one focuses on the consciousness involved in each different act, one sees the self-same diaphanousness.<sup>19</sup> Because consciousness as such remains the same as its objects vary and is distinguishable from each of them, consciousness cannot be identified with any of those objects. Therefore, consciousness, by its very nature, reveals *what it is not*. Therefore, something *other than*

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<sup>18</sup> Moore 1965: 27.

<sup>19</sup> Cf. Moore 1910: 57, “...the fact that I am conscious of one object...is certainly always different from the fact that I am conscious of another object, even though my consciousness of the one may be exactly similar, internally, to my consciousness of the other.”

consciousness must exist, and this is the very condition for there being any consciousness at all. Or, at least, so the argument goes.<sup>20</sup> The point to note for the present purposes is that without the claim that consciousness is phenomenologically diaphanous, the content externalism needed for the main argument of “The Refutation” is put into question.<sup>21</sup>

## *II.2 Diaphanousness and the Subject of Consciousness*

Moore’s project in “The Subject-Matter” was, in a reasonable sense, an anglophone version of Brentano’s project in Book II, Chapter 1 of his 1874 *Psychologie vom empirischen Standpunkte*, the famous chapter entitled (in translation of course) “The Distinction between Mental and Physical Phenomena.”<sup>22</sup> (This was, to be sure, no accident.)<sup>23</sup> Like Brentano, Moore was attempting to determine what things among all the objects of our knowledge are properly called mental. Also like Brentano, Moore concludes that conscious, intentional acts are paradigmatically mental. But what about the self that supposedly has or is the subject of those acts? Is that subject of consciousness properly called mental as well? Moore writes:

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<sup>20</sup> The “ontological proof” of Sartre’s introduction to *Being and Nothingness* is essentially the same as Moore’s argument in “The Refutation,” as Butchvarov has pointed out. See Butchvarov 1979: 248-255 and 1998: chapters 1-2. See Sartre 1956: xlv-lxvii.

<sup>21</sup> In the preface to his 1922 collection, *Philosophical Studies*, Moore said of “The Refutation,” “This paper now appears to me to be very confused, as well as to embody a good many down-right mistakes...” (Moore 1965: viii). This has led some to wonder if the claim that consciousness is diaphanous might be one of the mistakes. For what it is worth, I think that the main “mistake” has to do with Moore’s inference from the presence of sense-data to consciousness to the claim that something non-mental in fact exists. Moore always held that sense-data are *possibly* non-mental, but in order to genuinely refute idealism, Moore needed to be able to infer that they are *in fact* non-mental. Securing their distinctness from consciousness itself is not sufficient to secure the claim that they are non-mental. I surmise that Moore recognized this. See Butchvarov 1998: 24-25 and 163.

<sup>22</sup> Brentano 1995: 77-100.

<sup>23</sup> Moore was familiar with Brentano’s work and with much of the work of the “Brentano School,” see, e.g., Künne 1990.

What I do doubt about, in the case of my mind, is what sort of an entity it is: in particular, whether it is an entity of one of the kinds which I have already described [viz. acts, attitudinal properties of acts, and unified series of acts]; or whether it is a new kind of entity different from any of these, and which is also “mental” in a different sense from that in which any of them are “mental.”

...I am, in fact, much more sure that there are such things as my mental acts, than that there is any entity distinct from these, which could be called my mind. And if...[Hume’s] view *were* a true one, if my mind does consist merely in the sum of my mental acts, it would, of course, merely be an instance of the third kind of entity, which I recognised as undoubtedly mental: it would be a collection of acts of consciousness, having some kind of unity.

In favor of this [Humean] view I have to urge the difficulty that I find in discovering any entity, other than my mental acts, which could be my mind.<sup>24</sup>

Moore points out that the Humean view of the self has two important problems: when we attribute mental states to ourselves we do not seem to *mean* that those states are parts of a certain bundle of acts, and, given Humean philosophical resources, there seems to be no way to rule out what we might call anomalous bundles or selves; that is, if the bundling involved is something as weak as mereological summation, then there would seem to be no restriction on bundling what we would normally call “my” acts with what we would normally call “yours,” thus making at least three selves out of two.<sup>25</sup>

The conclusion about the subject of consciousness to which Moore comes deserves careful consideration. He writes:

I think, therefore, there is something to be said for the view that *I* am an entity, distinct from every one of my mental acts and from all of them put together: an entity, whose acts they are; which is that which is conscious when I am conscious; and that what I mean by calling them all “mine,” is that they all of them are acts of this same entity. But even if I am such an entity, it does not follow that it is a mental entity. There is still another hypothesis, against which I can find no conclusive arguments: namely, that this entity which hears and sees and feels and thinks is some part of *my body*. I cannot see anything conclusive against Locke’s view that matter may be capable of being conscious; and hence that it may be my body which is conscious whenever I am conscious. If this were so, then, I should say we could not identify my self with “my

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<sup>24</sup> Moore 1910: 52. See also Moore 1959: 46-52.

<sup>25</sup> Moore 1910: 53-54.

mind.” I myself should not, then, be a mental entity: I should be my body. Whereas anything that is properly to be called “my mind” must, I think, be allowed to be “mental.” But we might combine this view with Hume’s view by saying that “my mind” was the collection of my mental acts; and that what made them all “mine” was not any direct relation they had to one another, but the fact that they all had a common relation to my body.

The view, therefore, that “my mind” is a mental entity, distinct from any one of my mental acts and from all of them, seems to me to be only one among several possible alternatives....<sup>26</sup>

Though Moore very briefly considers the possibility that the subject of consciousness might be, in a special sense of ‘mental,’ a mental entity (i.e., he says “...something, *not* the body, *of* which certain mental acts were the acts...” e.g., a Cartesian thinking substance),<sup>27</sup> the very fact that he allows that it might be the body or some part of the body that is conscious whenever one is conscious is important. It is important because it means that Moore recognized that the nature or ontological status of the *subject* of consciousness is *not* phenomenologically given and therefore cannot be decided on those grounds.

Also quite telling is Moore’s claim that if the subject of consciousness is something non-physical, then the sense in which it is mental is quite different from the sense in which acts of consciousness are mental. This indicates Moore’s appreciation of the following point: if an act is called mental only because it is *of* something, then we cannot call the subject of consciousness mental in *that* sense. It is not that which has a certain act that is *of* an object. The act of consciousness is what is constitutively *of* the object. The subject has the act. If one identifies the subject with what is *of* some object, then, because the identity of an act varies with its object, one is left with, at best, a Humean self. Moore has told us that consciousness *as such* does not vary across acts, but this then can only be interpreted to mean that it is the *ofness* relation itself that remains invariant. When one focuses on that relation (supposing that to be what it is), one finds only diaphanousness; one does not find that the relation is a self or is the subject of consciousness. Thus if the self is *mental*, it is not to be so called because it is *of* anything.

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<sup>26</sup> Moore 1910: 54.

<sup>27</sup> Moore 1910: 55.

Because consciousness is not to be identified with the subject or self, and because consciousness is phenomenologically silent about the nature of the self, Moore maintains that, as far as we can tell, the self might be something physical; and if it is something mental, it is so in a sense quite distinct from that in which acts are properly called mental.

### *III. Implications*

#### *III.1 Externalism*

Moore was well aware that the relational, act/object analysis of consciousness faces the problem of non-existent objects. How can an act be or bear a relation to something that does not exist? This worry was a motive for adopting certain versions of the internalist theory of content. The hope was that by adopting such a theory one would not only secure the intrinsic differences between acts needed to explain their casual differences, but one would also avoid postulating a relation that relates something existent to something non-existent. On the internalist view of the kind here in question acts differ because they have different *monadic* intentional properties, properties that are, by their very nature, *about* something. But is this move a great theoretical improvement over a more Moorean view? I am not so sure.

If, according to the view, acts are intentional not because they themselves are *about* their objects but because they have special intentional properties that are *about* objects, then they effectively admit a version of externalism; it does not help to postulate the intrinsic property and then to hold that the metaphysical individuation conditions of the property are essentially relational. That is simply to relocate one's externalism.<sup>28</sup>

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<sup>28</sup> If one thinks it is better to say that it then only *would be about* such an object, then so be it; that is merely a reaffirmation of the fact that what the thought is about does not exist. Moreover, the counterfactual thought itself must be understood to be *really about* the non-existent object that, it says, the initial thought would be about were the object to exist. Were this not the case, then the counterfactual would not be able to do the theoretical work it is supposed to do. And let us not forget that understanding counterfactuals involves understanding what is *not* the case. Going counterfactual only relocates the original difficulty: how do we think about what is *not*? See, e.g., Addis 1989.

The internalist is faced with a serious problem. Internalists (of the sort in question) do believe the following claim: *Necessarily*, if the object of a contentful state or act does in fact exist, then a special relation (the “intentional connection” according to Addis, and a relation of “correspondence” according to Fumerton) obtains between the act or state and the object.<sup>29</sup> If the object does not exist, then the relation does not obtain, though the act or state will still *have the capacity* to bear that relation to the relevant object (existent or not).

From solely the logical form of their claim, one cannot see what grounds the necessity involved here. Consider:

$$(\exists x)(Px) \ \& \ (\exists y)(Sy) \ . \supset \ . \ (\exists x) (\exists y)(x \ R \ y)$$

Let us suppose that  $x$  is the thought that  $p$  and that  $y$  is the state of affairs the obtaining of which  $p$  asserts. Let  $R$  be the “aboutness” or “correspondence” relation. It may indeed be correct to claim that this conditional is necessarily true, but the logical form of the claim is not by itself sufficient to indicate this. One can easily construct counter-examples to show this.

But we can rule out the claim that the relation (again, given the existence of the relevant contentful act or state and the relevant object or state of affairs) obtains only contingently. If that were so, then, for all we know, the *thought* that grass is green might not correspond to the *fact* that grass is green. It might correspond to something else, and then we would not know the contents of our own thoughts. Or it might correspond to nothing at all. Or it might correspond some of the time and fail to at other times. The same considerations apply, *mutatis mutandis*, if one construes contentful states in a *de re* mode. If we allow that the relation, when it obtains, obtains only contingently, then, one is tempted to maintain, whatever the relation might be, it is not that of “aboutness” or “correspondence.”

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<sup>29</sup> See Addis 1989: 95-122 and Fumerton 2003: 257-265. I will speak loosely of a contentful state, act, or thought being “about” or “corresponding to” an object or state of affairs. Addis, unlike Fumerton, allows for genuinely *de re* intentional states; Fumerton reduces all intentional contents to propositional or *de dicto* contents and reduces all intentionality to “correspondence” or the *capacity* to correspond (supposing the relevant state of affairs not to obtain). The points I make will hold on either version of internalism. In the background here is the work of Gustav Bergmann on intentionality, see, e.g., Bergmann 1959: 3-38 and 1964: 3-44 and 85-97.



If the relation, given the thought and the state of affairs (or act and object) it relates, must obtain, then we still want to know what it is in virtue of which this is the case. Presumably, one will have to hold that it is an *essential* feature of the contentful state or act that it have this capacity to correspond to (or be about) precisely the state of affairs (or object) in question. But then this implies that the identity of the state or act is, in part, defined by a relation (even if only a potential relation) to its object and typically to something it is *not*. And this, again, is simply the core thesis of *externalism*. The internalist faces a trilemma: either admit that the “aboutness” or “correspondence” relation holds only contingently, or admit that the relation they have defined has nothing to do with intentionality, or embrace the core thesis of externalism.

The important lesson here is that one cannot avoid the ontological problems posed by the nature of intentional states simply by identifying intentional states with monadic properties of the mind. As Moore points out in “The Refutation,” even if an act of consciousness presenting something phenomenally blue is itself phenomenally blue, this in no way explains how the blueness is presented.<sup>30</sup> More generally, property exemplification is not by itself the right relation in terms of which one can understand the conscious presentation of something.<sup>31</sup> At the very best,

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<sup>30</sup> Moore 1965: 26, “Whether or not, when I have the sensation of blue, my consciousness or awareness is thus blue, my introspection does not enable me to decide with certainty: I only see no reason for thinking that it is. But whether it is or not, the point is unimportant, for introspection *does* enable me to decide that something else is also true: namely that I am aware *of* blue, and by this I mean, that my awareness has to blue a quite different and distinct relation. It is possible, I admit, that my awareness is blue *as well* as being *of* blue: but what I am quite sure of is that it is *of* blue....”

<sup>31</sup> Notice that this counts as well as a criticism of any view according to which consciousness is to be regarded as a monadic property of its objects. (See Butchvarov 1979: 248-255 and 1998: 35-55.) Whether the objects of consciousness are properties exemplified by it or consciousness is a property exemplified by its objects, the relation of property exemplification is, by itself, insufficient to explain *presence of \_\_\_ to \_\_\_*. There is some sense to be made of the fact that different philosophers have been tempted to treat qualia as intrinsic properties of consciousness, on the one hand, and consciousness as a property of its objects, on the other. Both views are equally plausible, given the phenomenology. If one wishes to reduce qualia to properties of consciousness, then it will not be clear how to avoid doing the same for the intentional objects of consciousness (at least if we are to respect the phenomenology); we will then be led to something like Berkeley’s or (perhaps) Husserl’s idealism. On the other

one would have to posit a very special class of properties that consciousness exemplifies, and one would have to regard these as primitive. That is, one would have to say that somehow by being phenomenally blue an act of consciousness comes to have something phenomenally blue presented as its object. This would be a postulation, not an explanation of anything. And when it comes to objects more complicated than phenomenal colors, it becomes hard to see how this account is coherent at all. It is hard to imagine how one could become conscious of a table, say, by literally exemplifying tablehood, even if only formally, as on an Aristotelian sort of view. Here one might tell a different story and restrict the properties literally exemplified to simple qualitative ones. But phenomenologically, in any case, the *presentation* (as such) of a table is not different from the *presentation* of blueness; there seems, phenomenologically, to be only a difference in object. And even if we allow that there is a non-phenomenological difference, on the strength of dialectical considerations, the original point holds: exemplification by itself is not an explanatory relation in this regard. If one posits that this is a special sort of exemplification or the exemplification of a special sort of property, the kind of property that somehow includes an awareness of the

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hand, if one wants to give qualia (and the self) the same status as intentional objects, and is, in one way or another, an externalist about these objects, then consciousness will appear to be nothing more than a bare revealing (to no one but perhaps to itself) of these objects. Then consciousness will be conceivable as something like a monadic property of these objects. In both cases there is no explanation of presence; property exemplification is too generic a relation to do any explanatory work, no matter what we take to be exemplifying what. Nevertheless, I should note that there is an important grain of truth in the idea that consciousness is like a monadic property of its objects. Acts of consciousness *are like* properties in the Fregean sense; they are, in their nature, *unsaturated*. The specification of their objects is *something like* the specification of the particular that it would take to “saturate” a certain property. Acts of consciousness have a nature that is like the predicative nature of properties. This is, in fact, just another way to state the externalist thesis. On the Fregean view properties are by their very nature unsaturated; speaking loosely, in virtue of their essential structure they “make reference to” the objects that might exemplify them. Likewise, consciousness, by its very nature, “makes reference to” the objects it is of. Just as forgetting about the predicative nature of properties can lead one to conceptual and ontological mistakes (at least if Frege is to be believed), so too, forgetting about the inherently relational nature of consciousness can lead one to mistakes. To my knowledge Johannes Daubert (though not mentioning Frege, of course) was the first to make something like this important point. See Schuhmann and Smith 1985: 769-773.

property, one effectively admits that exemplification alone is not an illuminating relation to posit here.

I should add that the argument that there must be some difference on the side of consciousness if different thoughts are to have different causal consequences and thoughts about non-existents are to have any at all, is in fact already taken care of by the externalist view. Remember, the view is that the very identity of an act is a function of what it is about. Sometimes what it is about does not exist. One can think about many *different* non-existents (Don Quixote, mermaids, canals on Mars, etc.) as well as many different existents. The difference in object determines the difference in act; this determination of difference *is not causal*; it is constitutive. Non-existent objects cause nothing, but different, real acts have different effects, even though the difference between acts is not in the first instance a causal difference—though in the case of veridical *perceptual* consciousness I do not deny that there is a causal component. The differences among acts are real and are a function of the difference in object, but they are not *caused by* the differences between objects. If one likes, the determining difference in object is like a structural or formal feature of the act. It is not that the object somehow reaches into the act and causes it to be different from others; it is that the structure of the act is such that only such-and-such an object could “fit” it, to use a common metaphor. One thus cannot specify what the act fits or would fit, without making reference to the object. A very condition of its being the act it is is that it fit only just such an object. In this sense, the relation (even if only potential) to a specific object is metaphysically essential to the individuation of the act. That an act is *of* this or that object is the very feature that makes it a different act and thus enables it to have different causal consequences. These real differences between acts are enough to secure that they have different effects.<sup>32</sup>

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<sup>32</sup> Moore (1910: 56) is close to the response I have made on his behalf to the causal difference argument when he writes, “But there does seem to me to be one possible alternative [to the content theory]: namely, that in each case is it neither my consciousness of the object, nor the object itself, which produces the effect, but the whole fact—the fact that I am conscious of the object. This fact—the whole fact—is, it seems to me, certainly a different entity both from the object, and from my consciousness of it, if we mean by the latter merely what I have hitherto meant—namely, what is left over when we subtract the object from the whole fact.” To be sure, acts with different causal consequences must be acts that are different, but the difference that consists in one being of one object and another being of another seems

The internalist view sketched above is not clearly a theoretical *improvement* over Moore's, but this is not to say that I think Moore's own view, as a piece of *ontology*, is obviously superior. As a piece of *phenomenology* I think it surely is. Moore lucidly recognizes 1) that difference of act *seems to be* parasitic upon difference of *object* and not upon any discernible difference of intrinsic property, and 2) that consciousness seems to be the selfsame diaphanousness across acts. So, from act to act something changes (the object) and something remains the same (consciousness as such). This seems to me to be a correct phenomenological description. But what about the ontology? Here, unfortunately, I have no positive ontology of intentionality to offer. But for my purposes, Moore's phenomenological considerations will be enough.

### *III.2 Physicalism and the Diaphanousness of Consciousness*

In "The Refutation of Idealism" Moore says:

...[I]t is hardly likely that if philosophers had clearly distinguished in the past between a sensation or idea and what I have called its object, there should have been no separate name for the latter. They have always used the same name for these two different "things" (if I may call them so): and hence there is some probability that they have supposed these "things" *not* to be two and different, but one and the same. And, secondly, there is very good reason why they should have supposed so, in the fact that when we refer to introspection and try to discover what the sensation of blue is, it is very easy to suppose that we have before us only a single term. The term "blue" is easy enough to distinguish, but the other element which I have called "consciousness"—that which sensation of blue has in common with sensation of green—is extremely difficult to fix. That many people fail to distinguish it at all is sufficiently shown by the fact that there are materialists. And, in general, that which makes the sensation of blue a mental fact seems to escape us: it seems, if I may use a metaphor, to be transparent—we look through it and see nothing but the blue; we may be

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to be sufficient for this. Only if one makes the mistake of thinking that the externalist view is committed to it being the object that *causes* a difference in act and thereby different psychological effects will one think that this argument cuts against externalism. It is the "whole fact" as Moore here says that determines one act to be different from another and thus for them to have different effects.

convinced that there *is something* but *what* it is no philosopher, I think, has yet clearly recognised....<sup>33</sup>

Moore is correct, I think, that consciousness is phenomenologically diaphanous: one is aware of the objects and their qualities; there seems to be nothing literally in consciousness or behind it, and nothing between it and its objects. Still, it is distinguishable. The consciousness of an object is not (typically) the object of that consciousness.

But Moore's remark about materialists is wrongheaded. Consciousness does not reveal itself to be anything other than an empty revealing of objects and a revealing of that revealing. But this does not mean that consciousness reveals itself to be *non-identical* to all of its objects, though it does mean that one cannot determine the ontology of consciousness is simply by doing phenomenology. Only if one makes the mistake of thinking that if consciousness does not seem to itself to be something, then it is not, can one accept Moore's easy dismissal of materialism.

The upshot of the thesis of the diaphanousness of consciousness is simply this: consciousness is silent about its substance, about what, if any monadic properties it is or has and about what it is not. This does not mean that consciousness is an unreliable guide to its intentionality and other positive characteristics, but it does mean that its silence with regard to other features cannot be treated as a perfectly general denial that it has them. True, consciousness does not obviously seem to be physical, but that is because it does not seem to be anything other than a certain diaphanous revealing of objects and a revealing of that revealing. And it is a perfectly open question whether a revealing of objects could be physical or not.

Moore's main mistake here, so far as I can see, is to couple the thesis of diaphanousness with, at least implicitly in this passage, the thesis of strong transparency.<sup>34</sup> As I define this thesis, is it the claim that if consciousness has a property it can seem to itself to have the property upon

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<sup>33</sup> Moore 1965: 20.

<sup>34</sup> It is clear that Moore did not, or did not consistently, hold that consciousness can come to be aware of all of its properties via introspection. See, e.g., Moore 1965: 26 where he denies that, for a certain class of properties, one can tell by introspection whether or not consciousness has the properties. NB: Despite their typical English meanings, I am using the words 'diaphanous' and 'transparent' to mean distinct things.

introspection. That is, introspection, according to strong transparency, can reveal all of the properties consciousness has. This is not to be confused with the claim that consciousness has the properties it does seem to have upon introspection. We could call that weak transparency. It merely says that if consciousness seems to have a characteristic upon introspection, then it does. Strong transparency is the converse of weak transparency and is the stronger claim that consciousness has no properties that it cannot seem to have upon reflection. It says that if consciousness has a characteristic, then introspection can reveal it.

Moore was clear that consciousness does not *seem* to have any intrinsic “content” properties, that it does not *seem* to be material or anything else, and that consciousness is silent regarding its subject. His only mistake, so far as I can see, is to embrace strong transparency, at least some of the time. It is not at all philosophically irrelevant to point out that Sartre’s view of consciousness up through *Being and Nothingness* was very similar to Moore’s. In fact there is an argument in the introduction to *Being and Nothingness* that is, in substance, very much like the main argument in Moore’s “Refutation.”<sup>35</sup> *Being and Nothingness* can be viewed (in part) as an exercise in taking the diaphanousness thesis coupled with the strong transparency thesis to its logical conclusion. Consciousness does not seem to be anything substantial, therefore, Sartre concluded, it is not anything substantial; it is a Nothingness. I submit that Moore and Sartre were quite right about the diaphanousness thesis; consciousness does seem like an emptiness. But they were wrong to embrace strong transparency. It rules out materialism, but it rules out every other kind of substantive theory of consciousness as well. It leads to the view that consciousness is a Nothingness. This is fine as a kind of phenomenological description, but as an ontological theory it is disastrous. It entails directly a very strong, *a priori* form of mysterianism; that is, it implies that, in principle, no *informative* identity statement of the form “consciousness = X” could be true.

The proper alternative, I think, is to reject strong transparency. Consciousness does indeed have properties it does not seem to itself to have. Consciousness, as far as its substance or matter goes, may be identical to something that it does not seem to itself to be. What these properties are and what that matter or substance is we cannot say *a priori*

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<sup>35</sup> See Sartre 1956: 1x-1xii. I will not attempt to justify these sweeping claims about Sartre here, so the reader may take them *cum grano salis* for now.

nor via conceptual analysis, nor via more introspection. This opens the door to materialism once again (but to substance dualism and perhaps James's neutral monism as well). Such ontological issues cannot be decided on phenomenological grounds alone. We must then seek for another method whereby we may be able to determine theoretically what consciousness *is*. Far from precluding physicalism, then, Moore's doctrine of the phenomenological diaphanousness of consciousness opens a possible route to it, for it shows us that introspection gives us no information inconsistent with physicalism.

#### *IV. Conclusion: The True Significance of Diaphanousness*

Moore's claims about the diaphanousness of consciousness have received a steady stream of commentary in the philosophy of mind literature. For the most part these comments have been in the context of the debate over representational theories of phenomenal content according to which phenomenal content is just a species of intentional content and there are no "qualia" *sensu stricto*.<sup>36</sup> But I maintain that the true significance of the diaphanousness of consciousness for the philosophy of mind lies elsewhere, though my remarks here will have to be brief.

Philosophers of mind who do not dismiss the phenomenological data also tend to be fond of modal and epistemic arguments for dualism.<sup>37</sup> I maintain, but cannot argue here, that the ease with which we can conceive of the existence of zombies and, more generally, the ease with which we can conceive of consciousness as *not* being identical to just about anything one would care to imagine is readily explained by its diaphanousness. Moreover, the explanation of our conceptual powers in this regard is such that it undercuts any inference in this domain from conceivability to possibility and thus from the conceivable non-identity of consciousness

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<sup>36</sup> In relation to Moore and representational theories of phenomenal content see, e.g., Harman 1990, Shoemaker 1996: 132, Tye 1995: 31 and 220, Tye 2000: 111-112, Leeds 2002, Shoemaker 2002, Tye 2002 (this list is not exhaustive). From some brief discussions of Moore's remarks about diaphanousness in other contemporary philosophy of mind contexts, sometimes resulting in surprising applications, see, e.g., Rosenthal 1986, Metzinger 2000: 298-299 and 303, Metzinger 2003: 163-165, Dainton 2000: 43-44 (Dainton also discusses the passage from James that I quote at the beginning of this paper), and Caston 2002: 782-785.

<sup>37</sup> See, e.g., Chalmers 1996.

and (e.g.) a brain process to their possible non-identity (and thus their actual non-identity).

Consciousness does not seem, in the phenomenological sense, to be a brain process, that is true. But neither does it seem to be an immaterial substance, or a divine spark, or a fundamental property of the universe supervening on functional substrates of sufficient complexity, or a particular bit of Schopenhauer's Will. Consciousness is diaphanous with respect to all of these. There are simply no phenomenological data in this regard. Moreover, consciousness is likewise diaphanous with respect to its categorial status: one cannot tell phenomenologically if it is a kind of property (in some robust sense of 'property'), relation, substance, etc. (Perhaps one can tell, due to its manifest temporality, that it is a *process*, but we will leave this to the side.)

If one couples the fact that consciousness is diaphanous with the view that consciousness can reveal to introspection all of its characteristics, then one will quickly draw the inference that consciousness is something ontologically fundamental. As diaphanous, it does not seem to be a brain process. If the thesis of strong transparency holds, then one can infer from this that it is not a brain process. As diaphanous, it does not seem to be a kind of instantiated functional organization, therefore it is not. And so on. What is disconcerting is that the very philosophers who embrace this sort of reasoning (even if the embrace is not a fully self-conscious one), will, after thus "refuting" physicalism, turn around and identify consciousness with things it is equally diaphanous with respect to.

When phenomenological considerations reach their limits, such philosophers typically have no problem with postulating ontologies that clearly go beyond what is given. But the correctness of this kind of procedure presupposes that consciousness is *not* strongly transparent, something we should indeed presuppose. I do indeed agree that consciousness does not seem to itself to be physical. But one cannot conclude from this phenomenological fact (or from the conceptual analyses of consciousness that rest upon this fact) that consciousness is not physical unless one also embraces strong transparency. Thus we often find the same philosophers implicitly denying and embracing the thesis. Philosophers should, of course, be consistent. But there is a dilemma lurking here that some philosophers of mind will not like. Either reject strong transparency and thus admit that there are no compelling *phenomenological* reasons for denying physicalism or accept it and the diaphanousness of consciousness will force one, if one is to remain consistent, to end up with something like



Sartre's "phenomenological" ontology according to which consciousness is a Nothingness. *Tertium datur*, one might say: one could reject the thesis of diaphanousness and hold that some positive ontology of consciousness is given phenomenologically. But surely Moore and Sartre are right that no such ontology is given.

#### ABSTRACT

I discuss the main features of Moore's characterization of consciousness in his well-known 1903 "The Refutation of Idealism" and his little-known 1910 "The Subject-Matter of Psychology." The presentation is somewhere between an expository exercise in the history of analytical ontology and a philosophical engagement with Moore's interesting claims. Among other things, I argue that Moore's famous thesis of the "diaphanousness" of consciousness cannot, contrary to Moore's own claims, be used to undermine physicalism but in fact can be used to undercut some common arguments against physicalism.

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Neben Carl Schmitt gilt Eric Voegelin als einer der einflussreichsten Vertreter der Politischen Theologie im Sinne einer mit religiösen Kategorien operierenden Politikdeutung. Seine politische Theorie hat Eric Voegelin in systematischer Form in seiner Schrift "The New Science of Politics" niedergelegt. Das Werk, das bei seinem Erscheinen wenige Jahre nach dem Zweiten Weltkrieg großes Aufsehen erregte und bis heute einen nicht unerheblichen Einfluss ausübt, hat - trotz seiner überaus kontroversen Thesen - bislang noch keine Kritik gefunden, die sich en detail mit seiner Argumentation auseinandersetzt. Dabei hat Hans Kelsen bereits unmittelbar nach dem Erscheinen von Voegelins "New Science" eine sehr eingehende Replik auf dieses Werk verfasst.

Diese Replik aus der Feder des wohl prominentesten Rechtsphilosophen des 20. Jahrhunderts, die bisher nur in Archiven zugänglich war, wird nun vom ontos-Verlag zusammen mit dem Briefwechsel zwischen Eric Voegelin und Hans Kelsen, sowie einem erläuternden Nachwort erstmals veröffentlicht.

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Hans Kelsen

### A New Science of Politics?

Hans Kelsen's Reply to Eric Voegelin's "New Science of Politics". A Contribution to the Critique of Ideology

Edited by Eckhart Arnold



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