

# ON (NOT) BEING IN TWO PLACES AT THE SAME TIME: AN ARGUMENT AGAINST ENDURANTISM

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## §1.

My neighbor Cyrano has a big nose. My other neighbor Pinocchio also has a big nose. There are objects that have properties, and these two objects seem to have the same one—having a big nose. Any theory of objects and their having of properties has to accommodate this claim, which is the basic intuition that is a starting point for the metaphysical debate about objects and properties. Some views do it by accepting that the property of having a big nose that Cyrano and Pinocchio have is literally and numerically the very same, while other views do it by denying that the properties are numerically and literally the same. Both, however, agree on two points : (i) two objects can “share

the same property” in some relevant sense (even if it is only, say, in virtue of them being exactly similar tropes instead of being universals), and (ii) Cyrano and Pinocchio themselves, being objects and not properties, are not shareable in any sense. This is the basic distinction between objects and properties.<sup>1</sup>

The notion of “being shareable” is very close to the one of “being multiply locatable”: (immanent) universals are shared by different objects in virtue of being multiply located where these objects are, while tropes are not literally shared by different objects, since they are not multiply located. Thus, a different way to put the question above is to ask: *is there an entity such that it can be in two places at once?* Here are the answers:<sup>2</sup>

| properties | objects |  |
|------------|---------|--|
| Yes        | No      | many friends of (immanent) universals (Armstrong . . .)  |
| No         | No      | (i) properties are tropes (Campbell, Stout, Williams . . .)<br>(ii) properties are somehow reducible to objects<br>(nominalism) (Lewis, Rodriguez-Pereyra . . .) |
| Yes        | Yes     | bundle theory with (immanent) universals à la O’Leary-Hawthorne  |
| No         | Yes     | ?  |

In this paper, I will be interested in the last line of this table. One way to put my main concern is to ask: is there a view (crazy enough) to claim that *objects* are multiply locatable while *properties* are not? The basic intuition says that properties at least seem to be able to be in two places at once, but that objects are not. Is there a view that says the exact opposite? As we shall see, endurantism does have this bizarre consequence.

## §2.

Endurantism says that objects persist through time by being wholly multiply located at different *times*. Cyrano exists at  $t_1$ , and exists there wholly (contrary to what a perdurantist would say), as well as at all other times at which he exists, for instance  $t_2$ ; and the Cyrano at  $t_1$  is numerically identical to the Cyrano at  $t_2$ —“both Cyranos” are one and the same object. Thus, Cyrano’s persistence through time is *not* analogous to his persistence through space: he “persists through” space by having different spatial *parts* at different spatial locations, while he persists through time by being wholly present at different temporal locations. And, of course, Cyrano changes over time.

This is where a well-known objection of David Lewis (1986, pp. 202–205) arises: at time  $t_1$  Cyrano has a big nose, but he then decides to undergo plastic surgery (say, at  $t_4$ ) and consequently has a small nose at a

later time  $t_5$ . For the endurantist, this means that one and the same (numerically identical) person exists wholly at  $t_1$  and  $t_5$  and has the two incompatible properties of having a big nose and having a small nose. In order to avoid the threat of having to deal with a contradiction, endurantists will typically embrace either *indexicalism* (Van Inwagen 1990) or *adverbialism* (Johnston 1987, Lowe 1988, Haslanger 1989). I shall examine these two strategies in turn.

## §3.

Indexicalism is the view that Cyrano does *not* have incompatible properties, for instead of having properties like “having a big nose,” he has *time-indexed* properties like “having-a-big-nose-at- $t_1$ ” and “having-a-small-nose-at- $t_5$ ,” and these are perfectly well compatible and noncontradictory. Thus, since the indexicalist will claim that *all* properties are always indexed, no contradiction can ever arise from intrinsic change of an object that is numerically one and the same at different times, as the endurantist claims.

Before I jump directly to my main concern in this paper, let me mention one reason to be dissatisfied with this endurantist account, which will already reveal a part of my worry. Suppose we accept the endurantist-indexicalist’s line of response. At  $t_1$ , Cyrano has a big nose. At  $t_2$ , he has a big nose. At  $t_3$ , he still has a big nose. And so on, until

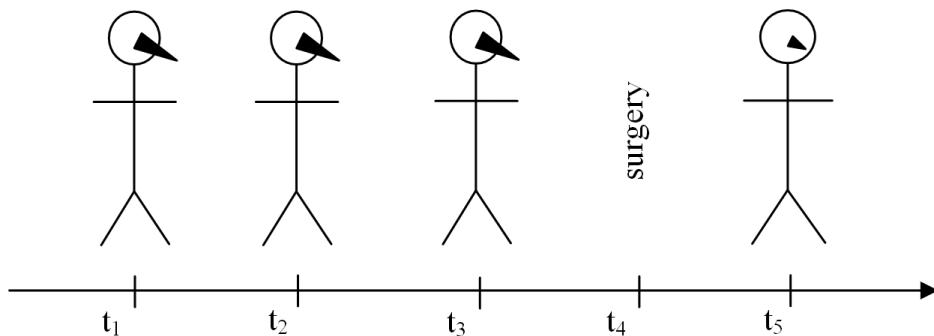


Figure 1.

the surgery. The intuitive thing to say here is clearly that Cyrano keeps having a certain property for a certain time—but the indexicalist endurantist just cannot allow for that. According to indexicalism, at any time during the interval  $t_1-t_3$ , Cyrano *has to lose all of his properties and gain new ones*: he first has the property “having-a-big-nose-at- $t_1$ ,” then the property “having-a-big-nose-at- $t_2$ ,” then the property “having-a-big-nose-at- $t_3$ ,” and so on. According to this view, because Cyrano cannot simply (*simpliciter*) have the property of having a big nose, he has to change his properties all the time, and he cannot keep any—he just cannot stay the same. And since the property “having a big nose” is not available to her, the endurantist does not have the theoretical means to say that all these time-indexed properties have “something in common”—they just are totally different properties. This is an initial worry, but it does not stop here.

Suppose that at  $t_5$  Cyrano travels back to the past in order to tell his former self that the surgery will be all right and that he does not have to worry.

In a similar vein as before, the objector raises her voice: according to endurantism,

Cyrano has the properties “having-a-big-nose-at- $t_2$ ” and “having-a-small-nose-at- $t_2$ ”: a seeming contradiction. But of course, this appearance of contradiction is easily solved by claiming that all properties are always space-time indexed, since of course “having-a-big-nose-at- $l_1-t_2$ ” and “having-a-small-nose-at- $l_2-t_2$ ” are not contradictory (where “I” stands of course for “spatial location”).

Now, my point is obvious: space-time indexed properties *are tropes*. In the endurantist-indexicalist’s world there is no room for a single property to be multiply located, since any property is space-time bound and cannot be instantiated at different times, and so there simply is no room for universals (multiply locatable properties). The situation is that the endurantist has to do something in order to avoid the Lewisian worry about temporary intrinsics (and its cousin arising from the time-travel scenario), and if what she does is to embrace indexicalism, her properties just have to be space-time bound and non-multiply-instantiated tropes.

So what? After all, trope theory is a very respectable one. But consider Cyrano himself in the time-travel scenario: he goes back to the past and talks to the younger Cyrano. What

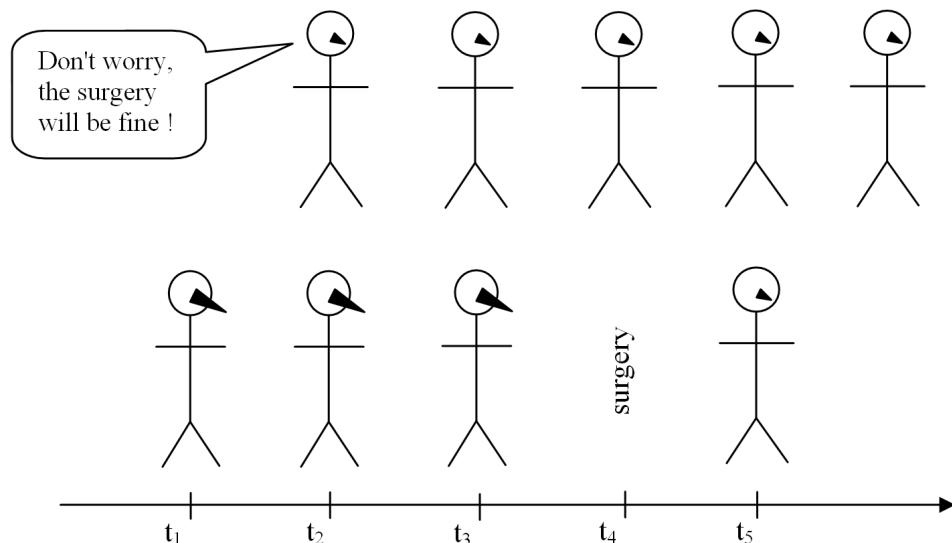


Figure 2.

happens in this situation is that *Cyrano is multiply located*: he is at one meter from himself, he is in two places at once. This is simply because identity is transitive and because, following endurantism, the Cyrano with a big nose at  $t_2$  is identical to the Cyrano with a small nose at  $t_5$ , who is identical to the Cyrano with a small nose at  $t_2$ , who is then identical to the Cyrano with the big nose at  $t_2$ . This, then, is what the endurantist-indexicalist's world looks like:

*Objects* like Cyrano are multiply locatable; they are *universals*.

*Properties* like “having a big nose” have to be space-time bound and are not multiply locatable; they are *particulars*.

I take this to be an unwelcome consequence of indexicalist endurantism. The point we started with when setting up a desideratum for a theory about what objects and their properties are was based on a strong intuition that objects are non-multiply locatable particulars, and properties are shareable and thus at least seem to be able to be multiply locatable. Abandoning the latter point, and claiming that properties are, after all, tropes is probably a revisionary move with respect to our intuitions, but if the friend of tropes motivates it well enough and shows that our notion of shareability can be replaced by the one of exact resemblance, then such a move is at least *prima facie* acceptable—any metaphysical theory is revisionary to some extent. But the indexicalist endurantist just seems to go too far: being forced to claim that properties are tropes is one thing, but being forced to embrace the view that objects are universals is another, a much heavier and much more revisionary and counter-intuitive move. One way to see this is to consider the endurantist's description of the situation where Cyrano is talking to himself: a bilocated man that is at one meter from himself.<sup>3</sup> I am not even certain that this is fully intelligible—a situation where there is one and the same thing

but where “one of them” is talking and the “other” listening.

Compare this to what the perdurantist<sup>4</sup> says: objects persist through time by having temporal parts; Cyrano at  $t_2$  is a different object (a different temporal part) than Cyrano at  $t_5$ , and consequently the Cyrano at  $t_2$  who traveled back in time is a different object than the Cyrano at  $t_2$  who still has a big nose—one man talking to himself, but only in virtue of there being one object (one of his temporal parts) talking to another—where one of these objects is doing the talking and the other is doing the listening.

#### §4.

Of course, the endurantist does not have to embrace indexicalism (as Van Inwagen [1990] does); she can rather choose the *adverbialist* strategy. The adverbialist solution to the Lewisian problem of temporary intrinsic properties proposes not to temporally modify the property but rather the having of it. Thus, the adverbialist will say that “Cyrano has a big nose at  $t_1$ ” is to be analyzed as “Cyrano has-at- $t_1$  a big nose” or, more elegantly, “Cyrano has  $t_1$ -ly a big nose” (see Johnston 1987, pp. 129–129). So, according to adverbialism, there is not just the having of a property, there is always  $t$ -ly having (or having-at- $t$ ) of a property. This will provide a solution to the problem of temporary intrinsics, because Cyrano has a big nose at  $t_1$  and has a small nose at  $t_5$ , and so he has both the incompatible properties, but he has the former  $t_1$ -ly and the latter  $t_5$ -ly, and this is how the threat of a contradiction is avoided.

If we accept this strategy, then again, this is the place where my worry starts, even though this time it is weaker. Under this view, since properties like “having a big nose” are not indexed, the adverbialist endurantist is *not* forced to see them as tropes (bound to a particular spatio-temporal location, and non-multiply locatable), they could very well be universals. But the relation of exemplification cannot.

Since it has to be space-time indexed (and not only time indexed, as the time travel scenario shows), it will turn out, as before, to be a trope. Is this bad news for the endurantist? Of course not (yet), but it is news: the relation of exemplification is a central piece of metaphysics for the adverbialist, and it has to be a trope. The adverbialist could then try to defend a mixed view (tropes *and* universals), or simply more naturally say that properties are tropes, since she has to accept the existence of tropes anyway. My point here is then weaker than before: the adverbialist endurantist cannot say that *all* properties and relations are universals, since at least one kind of them (and a rather important one!) has to be a trope.

(Note that the adverbialist cannot follow those who claim that not too much weight should be put on the relation of exemplification. Indeed, it is often claimed that exemplification is not a relation, that it is a “nonrelational tie,” that we should not reify exemplification [Lewis 1983, pp. 351–355], that it is a *sui generis* linkage that hooks things up without intermediaries, and so on. The adverbialist cannot follow these recommendations, and she has to take exemplification seriously as a relation, since she wants to index it spatio-temporally and insist on it in order to avoid the Lewisian worry about temporary intrinsics.)

So the adverbialist endurantist has two options. First, she can choose to go for a mixed view where some (relational) properties are

tropes and others are universals. Or, second, she can make her view more systematic and accept that since she has to endorse tropes anyway, all properties are tropes. Thus, depending on which option she takes (the latter being, to my mind, more elegant and more theoretically virtuous and economical), the adverbialist endurantist can avoid being forced to say that all properties are particulars, while being forced to say that at least some are. But *in both cases*, she of course cannot avoid the consequence that objects like Cyrano are universals. This is then what the adverbialist endurantist’s world looks like if she goes for the mixed view:

*Objects* like Cyrano are multiply locatable; they are *universals*.

Some *properties* have to be space-time bound and are not multiply locatable, they are *particulars*; other properties are *universals*,

and this is what her world looks like if she goes for the more systematic view:

*Objects* like Cyrano are multiply locatable; they are *universals*.

*Properties* are space-time bound and are not multiply locatable; they are *particulars*.

Thus, the same objections as before can be drawn, even if they are weaker in the “mixed view” case, and the last line of the table from §1 can be completed as follows:

Is there an entity such that it can be in two places at once?

| properties | objects |  |
|------------|---------|--|
| Yes        | No      | many friends of (immanent) universals (Armstrong . . .)  |
| No         | No      | (i) properties are tropes (Campbell, Stout, Williams . . .)<br>(ii) properties are somehow reducible to objects<br>(nominalism) (Lewis, Rodriguez-Pereyra . . .) |
| Yes        | Yes     | bundle theory with (immanent) universals <i>à la</i><br>O’Leary-Hawthorne  |
| No         | Yes     | <b>Endurantists</b>  |

I accept that it is unclear how strong my objection against endurantism is. First, some endurantists might be ready to bite the bullet.<sup>5</sup> Second, some endurantists might want to claim that my argument is a *reductio* not against endurantism but against the possibility of time travel. This would seem to me to be question begging, since the only reason to reject time travel here would be to save endurantism; the endurantist would need independent reasons for rejecting the possibility of time travel, which she may or may not have. Thus, I thus prefer to limit myself to a conditional claim: if time travel is possible, then endurantism faces the bizarre consequence that objects are universals and properties are particulars.

In the remaining two sections of this paper, I will consider two (very different) views that both try to make sense of the idea that an object can wholly be in two places at the same time, and I shall argue that both fail.

### §5.

The first such view is the one from the third line of my table above—John O’Leary-Hawthorne’s (1995) bundle theory with immanent universals, where the relation of compresence (that is, the relation that unifies universals into a bundle in order to make up an object) is a variably polyadic universal that is one and the same for all objects (the very same compresence relation does its bundling job in all bundles; it can do this because it is itself a universal).

This version of the bundle theory is especially vulnerable to the well-known objection from Identity of Indiscernibles: the bundle theory is committed to the principle, but the principle is false, so the bundle theory is false.

[Id.Ind.]

$(\forall x)(\forall y)((\forall F)[Fx \leftrightarrow Fy] \rightarrow [x = y])$

Under the bundle theory, objects are said to be bundles of properties. Now, take two

objects that have the same properties; for instance, as in Max Black’s world, two perfect spheres of the same size, same mass, same composition, same color, and so on. Both spheres are bundles of the same properties (universals)—and so are the same bundles. But then, the bundle theorist must accept that the two spheres are numerically identical—in other words, that there is only one sphere. And this is exactly what the principle of Identity of Indiscernibles claims.

But this principle is false, the objector claims, for it is quite possible for there to be two numerically distinct objects that have exactly the same properties (that are qualitative duplicates). The example of two spheres exactly alike in all of their properties is possible.

O’Leary-Hawthorne’s defense of his version of the bundle theory against this worry is as ingenious as it is simple: since, according to this bundle theory, objects are bundles of universals, they can behave like universals; relevantly, a bundle of universals (for instance, the bundle that is a sphere in Black’s world) can be, exactly as a single universal can be, bi-instantiated, and bilocated. Thus, Black’s world can be redescribed in terms of the bundle theory as a world where there is one sphere bilocated at a distance from itself. (And this is strange, O’Leary-Hawthorne claims, only to the extent that the idea of a bilocated universal is perhaps strange.)

A consequence of this is that material objects, like a sphere or Cyrano or yourself, *behave like universals*. So, since under this view *properties* are universals (unlike in the case of the endurantist considered above), such a view seems to collapse the distinction between objects and properties—indeed, it seems that objects are simply eliminated from ontology. This is, in short, a worry put forward by Vallicella (1997). But, as before, it is hard to evaluate the dialectic force of this worry, since the bundle theorist might decide to bite the bullet. However, Vallicella offers

a second objection that seems to me more damaging, while being simpler: to be multiply located, a bundle of universals would have to be instantiated, but this makes no sense for the bundle theory. Vallicella (1997, p. 94) writes:

An immanent universal  $U$  is (multiply) located if and only if it is (multiply) instantiated. So if a bundle  $B$  of universals is itself a universal, then it is (multiply) located if and only if it is (multiply) instantiated. But what could account for  $B$ 's (multiple) instantiation? On [the bundle theory], universals are instantiated by being bundled together with other universals. But it makes no sense to suppose that  $B$  is bundled together with other universals. For  $B$  is a complete bundle of universals. . . . [But] if  $B$  is not bundled together with other universals, then it is not instantiated. For on [the bundle theory], a universal is instantiated just in case it enters into a bundle. And if  $B$  is not instantiated, then it cannot be multiply instantiated. But if  $B$  cannot be multiply instantiated, it cannot be multiply located. . . . Black's [world] cannot be given the O'Leary-Hawthorne reading: it cannot be construed as a single sphere at a non-zero distance from itself. For the sphere cannot be doubly located without being doubly instantiated, and it cannot be instantiated at all . . . for the simple reason that a bundle of universals is not a universal but a particular, and no particular can be instantiated.

I think that Vallicella's objection succeeds, and have nothing to add to it. What I can add is another objection to this version of the bundle theory, one that concerns the way it handles persistence through time, and that is related to the discussion above. Let us first suppose that our bundle theorist is an endurantist. As we have seen, to avoid a contradiction in the case of temporary intrinsics, the endurantist can appeal to indexicalism or adverbialism. But, for the reasons we have seen before, if she goes for the former, the bundle theorist has to say that properties are *tropes*—and *not* universals, as (the version we are considering of) the bundle theory

wants to say; so this is not an available option for her. Therefore, perhaps she can either choose to be a perdurantist or to remain an endurantist but abandon indexicalism in favor of adverbialism. Let us examine these two options in turn.

*Perdurantism* just does not seem to be available to this bundle theorist either. At the very least, it would be very strange for her to take that route, since her central claim is that objects behave like universals and can be multiply located, while the perdurantist's central claim is that all objects are space-time bound and that nothing (no object) can be multiply located. So even if perdurantism does not force one to embrace tropes (unlike indexicalist endurantism), it does not seem to be a viable option for the friend of the bundle theory with universals.

The last option is endurantist *adverbialism*. Or is it? Indeed, we will now easily see that adverbialism is available only to the *substratum* theorist and not to the bundle theorist, and so this strategy cannot be of any help to the bundle theorist either. Remember: adverbialism provides a solution to the problem of temporary intrinsics, because Cyrano has a big nose at  $t_1$  and has a small nose at  $t_2$ , and so he has both of the incompatible properties, but it has the former  $t_1$ -ly and the latter  $t_2$ -ly and this is how the threat of a contradiction is avoided. Now, in order to be able to be an adverbialist, the *substratum* theorist could want to say that, apart from properties and a substratum that is the bearer of the properties, there is a *third* component in her view, namely, a relation of exemplification between the substratum and its properties, and that this relation is time indexed (rather than the properties being time indexed, as the endurantist indexicalist would have it).

The *bundle* theorist, however, cannot (and does not want to) provide anything like this, since she does not introduce a substratum that needs to be related by a special relation to its properties; her view does not require any such

intermediaries—and so she cannot be an adverbialist since there is no suitable place where to put the adverbialist index,<sup>6</sup> and she simply cannot appeal to this strategy. To sum up: the bundle theory with universals is not compatible with endurantist indexicalism because this view requires tropes rather than universals; it does not, at least *prima facie*, look like it could be made to work under perdurantism, and endurantist adverbialism simply is not an available option. Thus, this view cannot account for the persistence of an object through time. Add to this Vallicella's worries, and it seems that this view which claims that objects behave like universals just does not work.

### §6.

The second view I am going to examine which tries to make sense of the idea that an object can wholly be in two places at the same time is Josh Parsons's (2000) theory on “entension” and “distributional properties.” This view is yet another strategy available to the endurantist to face the problem of change in intrinsic properties. Parsons starts by introducing the notion of a *distributional property*: if a poker is hot at one end and cold at the other end, it has the (intrinsic) distributional property of having such and such heat distribution. Let us call this poker “ $p_1$ ” and the distributional property it has “ $D_a$ ” and let us call “ $p_2$ ” another poker with another distributional property “ $D_b$ ”—the property of being uniformly hot, for example. It is then possible, as Parsons points out, to define the property of being hot at one end as the (intrinsic) disjunctive property “ $D_a$  or  $D_b$  or . . . ,” where a series of distributional properties that ascribe heat at one end of the poker is specified. This disjunctive distributional property of being hot at one end is *spatially* indexed. To apply this strategy to the *temporal* case, let us consider the persisting Cyrano again. Remember the endurantist picture: Cyrano persists through time by being wholly present at more than one time—he has a big nose at

$t_1$ , a small nose at  $t_5$ , and so on. If one were a perdurantist, one could easily see that Cyrano (the spatio-temporal worm) has a certain distributional property of having a big nose at its earlier “end” existing at  $t_1$  and of having a small nose at its later “end” existing, say, at  $t_5$ . (Suppose, for simplicity, that Cyrano dies right after  $t_5$ .) Let us call this Cyrano-worm “ $C_1$ ” and the distributional property it has “ $D_c$ ,” and as in the spatial case of the poker, let us call “ $C_2$ ” another similar worm with another distributional property “ $D_d$ ”—the property of having a small nose for the whole interval of time from  $t_1$  to  $t_5$ . Now we can define the time-indexed property of having a small nose at  $t_5$  as the disjunctive property “ $D_c$  or  $D_d$  or . . . ,” where a series of distributional properties that ascribe smallnosedness to the  $t_5$  part of the worm is specified. Just as in the spatial case, Parsons claims, this disjunctive property is intrinsic and nonrelational.

Up to now, we worked under the four-dimensionalist hypothesis, but Parsons sees a way to apply such a strategy to the case of the endurantist. He claims that “we ought to accept the possibility of extension without parts” (Parsons 2000, p. 412). By this he means that ordinary objects such as people, tables, or roses *extend*—they are *extended* in time by existing completely at different times. And if this proposal is accepted, if Cyrano can be said to have a *temporal extent* even under the endurantist hypothesis, it is then possible to ascribe to it the disjunctive distributional property “ $D_c$  or  $D_d$  or . . . .” Such an account, then, provides us with time-indexed properties (that take away the threat of a contradiction resulting from Lewisian worry about temporary intrinsics), which are genuinely intrinsic and non-relational. Change, then, as he makes it clear later, “does not consist in objects temporally having changeless properties, but in objects permanently having changing [distributional] properties” (Parsons 2002b, p. 6).

I am not really sure whether I can understand the notion of an object that endures and has

temporal extent. I know what the *perdurantist* means when she says that objects have temporal extent because she takes extension in time to be spacelike and because I know what extension in space is: one object is extended in space by having different spatial parts located at different places; applied to the temporal case, this claim is perfectly well understood in the perdurantist picture. Parsons proposes that “analogous to perdurance, we have *pertension*, filling space by having distinct parts in distinct places; analogous to endurance, we have *entension*, filling space by being wholly located in each of several places” (Parsons 2000, p. 404) and provides an argument to support the claim that there are entending simples (namely, quarks and leptons). I do not wish to discuss his argument in detail, for one thing is clear (he claims this himself), namely that its key premises are empirical, and so it is subject to surprises from science: if it is discovered that quarks and leptons are not mereologically simple, or that it is not clear that there are mereologically simple particles at all, his argument will be undermined. Furthermore, as he himself points out, current physics is simply silent on whether mereologically simple objects are extended or not. This is why, even if the argument were successful, I would not take it to be of great support for the claim that ordinary material objects, like people or tables, can be spatially or temporally extended without having spatial or temporal parts. And if this is right, it does not seem plausible that the endurantist’s ordinary objects can exemplify the disjunctive distributional properties Parsons wants them to. Actually, it is precisely the distributional properties account that I think is subject to the most serious worry here. Consider this: how big are the disjunctions of distributional properties ? There are probably infinitely many ways a smallnosed-at- $t_5$  person can be at other times of its existence. If an object is guaranteed to have temporal extent (let us suppose this) that includes  $t_5$ , there are probably infinitely many possibilities for it

to be such and such at other times. So there are infinitely many distributional properties that ascribe smallnosedness at  $t_5$  to the object. But then the disjunctive property “ $D_c$  or  $D_d$  or . . . ” would contain an infinity of disjuncts. Ontologically, this does not seem very satisfying: we were looking for an account of how a person can have a big nose at some time and have a small nose at another, and instead we end up with a person that has the time-indexed property of having-a-big-nose-at- $t_1$ -and-having-a-big-nose-at- $t_2$ -and- . . . -and-having-a-small-nose-at- $t_5$ -OR-having-a-small-nose-at- $t_1$ -and-having-a-small-nose-at- $t_2$ -and- . . . -having-a-small-nose-at- $t_5$ -OR- . . . and so on, ad infinitum. Can we *know* and *grasp* such infinite (or, at least, *very large*) disjunctions? Is this what we are talking about when we say “At  $t_1$ , Cyrano has a big nose”?

Furthermore, Parsons’s view is circular. The time-indexed property of having-a-small-nose-at- $t_5$  is analyzed as a disjunction of distributional properties. What are those distributional properties?  $D_c$  tells us something about the size of the nose for some interval of time,  $D_a$  tells us something about the distribution of heat in the poker. What are those properties  $D_c$  and  $D_a$ ? Well, as we just saw above, a distributional property such as  $D_c$  is a conjunction: it is the property of having-a-big-nose-at- $t_1$ -AND-having-a-big-nose-at- $t_2$ -AND- . . . -AND-having-a-small-nose-at- $t_5$ . Likewise, in the poker’s case, the property  $D_a$  is a conjunction : it is the property of being-hot-at-one-end-AND-mildly-hot-in-the-middle-AND- . . . -AND-cold-at-the-other-end. It is easy to see that, ultimately, distributional properties are conjunctions of space- or time-indexed properties, and this is why it is circular to define, for instance, “having a small nose at  $t_5$ ” or “being hot at one end” in terms of such properties.

Thus, this second view which claims that objects behave like universals also fails.

## NOTES

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1. This is perhaps why, in the literature, the term “particular” often just means “object.” The terminology that I will be using in this paper (which, I take it, is a very standard one) is the following: the term “entity” stands for anything that exists, the term “particular” stands for non-multiply locatable entities, the term “universal” stands for multiply locatable entities, the term “property” stands for entities like “having a big nose” or “being red” without saying whether it is a particular or a universal, and the term “object” stands for spatio-temporal entities like a table or Cyrano without saying whether it is a particular or a universal.
2. Platonic universals are not mentioned in this chart because, since they are unlocated, they cannot be multiply located; i.e., the question of whether they are in one place or two places simply does not arise.
3. Something happened at this moment that is only partly a joke: while I was typing this sentence, the text-editing software on my computer automatically “corrected” it and changed “himself” into “him” because after “at one meter from,” the software just refused to write “himself.” Only after I manually overrode the software’s built-in grammar was it able to accept the perdurantist’s proposal.
4. I have the “worm view” in mind here, but of course the “stage view” can do this as well in a similar way.
5. See, for instance, Miller (forthcoming).
6. Indexing the relation of compresence would make it a *perdurantist* view.

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