

## CONCRETE UNIVERSALS AND SPATIAL RELATIONS\*

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### ABSTRACT

*According to strong immanent realism, proposed for instance by David M. Armstrong, universals are concrete, located in their instances. E.J. Lowe and Douglas Ehring have presented arguments to the effect that strong immanent realism is incoherent. Cody Gilmore has defended strong immanent realism against the charge of incoherence. Gilmore's argument has thus far remained unanswered. We argue that Gilmore's response to the charge of incoherence is an ad hoc move without support independent of strong immanent realism itself. We conclude that strong immanent realism remains under the threat of incoherence posed by Lowe and Ehring.*

**Keywords:** metaphysics, universals, realism, abstract, concrete

### 1. Introduction

In *Universals and Scientific Realism*, David M. Armstrong (1978a, b) rehabilitated realism about universals as a viable metaphysical position. Instead of taking universals as abstract entities, he had the agenda of “bringing them down to earth” (1989, 76-77, 99-100). Accordingly, Armstrong and others have construed universals as concrete constituents of their instances (cf. Lewis 1986, 64; Smith 1997).

*Immanent realism* about universals claims that universals must have particular instances in order to exist.<sup>1</sup> E.J. Lowe (2006, 99) distinguishes between *strong* and *weak immanent realism*. Lowe argues against Armstrong's strong immanent realism, according to which universals are themselves concrete (spatiotemporal) and located where their instances are (Lowe 1998, 156). According to strong immanent realism (henceforth "SIR"), a universal can be simultaneously *multi-located*: one and the same non-scattered entity occupying different spatial locations at the same time. In contrast, the proponents of weak immanent realism (Ellis 2001; Lowe 1998, 2006, 2009) maintain that all universals are abstract, i.e., non-spatiotemporal. Hence, according to weak immanent realism universals cannot occupy spatiotemporal locations.

Douglas Ehring (2002) has also advanced an argument against SIR. Both Lowe's and Ehring's arguments against SIR take the form of *reductio ad absurdum*: they attempt to show that given certain plausible assumptions, SIR turns out to be incoherent. Ehring's argument led Cody Gilmore (2003) to defend SIR by proposing a novel conception of the structure of spatial relations, "the  $2n$  proposal". Gilmore's idea is that when we come to conceive of a spatial relation, say 'x is two feet from y' as four instead of two placed, Ehring's critical conclusion will be avoided. And, while Gilmore addresses only Ehring's discussion, his  $2n$  proposal, if acceptable, would also work in countering Lowe's criticism of SIR.

Gilmore's defence of SIR is, in turn, completely ignored in Lowe's subsequent recap (2006, 99) of his argument against Armstrong. In the wake of Gilmore's defence, Ehring subsequently gave in on the issue (e.g. 2011, 29-30). So, judging from the present state of the play, it seems that concrete universals are still a live option in metaphysics thanks to Gilmore's defence. Indeed, SIR has been recently endorsed, for instance, by Katherine Hawley and Alexander Bird (2011, 207).

In this paper, we argue that Gilmore's  $2n$  proposal goes virtually no way to answer Lowe's and Ehring's arguments against SIR. While the  $2n$  proposal is in itself an interesting alternative to the usual common sense picture of the structure of spatial relations, in the present dialectical context it stands in need of rational support that is independent of SIR itself. We think Gilmore does not give us such independent grounds for replacing the common sense " $n$ -place" view of the structure of spatial relations with the  $2n$  view. Our main point is a negative one: in the present context, debate about the metaphysics of universals, Gilmore's  $2n$  proposal turns out to be purely *ad hoc*.

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<sup>1</sup> Immanent realism contrasts with transcendent realism, according to which a universal can exist without being instantiated. Universals are seen either as Russellian property universals, i.e. properties instantiated directly by objects (e.g., Armstrong 1997), or as Neo-Aristotelian kind universals instantiated in objects or in tropes (Smith 1997; Lowe 1998, 2009; Ellis 2001).

In our view, since Gilmore's answer to Lowe's and Ehring's arguments against SIR is not satisfactory, these critical arguments remain unanswered. Hence, SIR still faces the serious threat of incoherence. Unless some other answer to their critiques of SIR were developed, or the  $2n$  proposal provided with independent support, the current situation ought to lead us to consider other forms of realism, or nominalism, as the more attractive options in the universals debate.

## 2. Lowe and Ehring against SIR

Let us now take a closer look at Lowe's and Ehring's arguments against SIR. Both of these arguments have the form of a *reductio ad absurdum*: their aim is to show that given certain plausible assumptions SIR leads to a contradiction. First, we will briefly present each argument. After that, in order to make the target and scope of these arguments more precise than in their original formulations, we will point out certain distinctions and background assumptions relevant to each argument.

Lowe's argument against SIR is part of his critique of Armstrong's position (Lowe 1998, 156, cf. 2006, 99). It can be summarized as follows: Assume, for the sake of illustration, that there are two balls in disjoint spatiotemporal locations. Suppose further that both balls, as particular objects, instantiate a specific universal, say the property of impenetrability. According to SIR, the property of impenetrability is, to use the standard phrase, "wholly present" in each ball, located where each ball is located. Impenetrability is wholly present in each ball in the sense that we are not dealing with a scattered object located in a scattered region consisting of the locations of each ball. The point is that it is one and the same entity (the property of impenetrability) that simultaneously occupies two disjoint spatial locations. So we have a situation at hand where there are two entities, in this case material objects, in different locations and a third entity, in this case a universal, in both of these locations.

Now, let us make a further, *prima facie* plausible assumption: "having the same spatial location" is an equivalence relation (reflexive, symmetric and transitive). On this assumption, it is not only that the universal impenetrability is simultaneously located where the balls are; it is also the case that the balls simultaneously have the same location as impenetrability (because of the symmetry of 'having the same spatial location'). So one ball is located where impenetrability is located and impenetrability is located where the other ball is located. By the transitivity of 'having the same spatial location', the two balls have the same spatial location at the time  $t$  under consideration. However, *ex hypothesi*, the two balls have different locations at  $t$ . We have a contradiction.

Ehring's (2002) strategy is to refute the view, inherent in SIR, that a universal can be multi-located by giving an example which illustrates *the problem of local external relations*:

U and V are each instantiated twice at [time] *t*, once each at the North and the South Pole, perfectly overlapping at each Pole. U at the North Pole is north of V at the South Pole and U at the South Pole is not north of V at the North Pole. (Ehring 2002, 21)

This scenario constitutes a problem for multi-location of universals, because U would be both north of V and not north of V at *t*, which is contradictory. Now, it is time for some clarifying comments on Lowe's and Ehring's arguments. On the face of it, they are simple and straightforward *reductio* arguments. However, they do involve assumptions that call for discussion in terms of the contemporary theory of location.

Both arguments rely on cases in which a universal is assumed to have the same location as another entity—in Lowe's case a material object, in Ehring's another universal. For Lowe's argument to work, SIR must be seen as admitting the metaphysical possibility that a universal has exactly the same location as a material object that instantiates it. This, in turn, requires that the location of the universal, and that of the instantiating object, be considered as *exact location*. For the present purposes, exact spatial location can be characterized as follows: *a* is exactly located at *b* if and only if *a* has the same size, shape, and spatial relations to other things as does *b*.<sup>2</sup> Exact location is required instead of merely *weak location* (*a* being weakly located at *b* if and only if *b* is not completely free of *a*), since the relation 'having the same location as' is thought of here as predicable—truly or falsely—of the two balls, as well as of each ball and the property of impenetrability. This presupposes that the entities in question have exact locations, since if they *only* had weak locations they *could not* occupy *the same* (unique) location.

Contrary to Lowe's argument, Ehring's does not presuppose that it is possible that a universal has the same exact location as an object that instantiates it. Ehring's argument can also be reformulated so as not to require that the universals in question have exact locations. Let us say we have two instantiations of *U* and one of *V*, so that with respect to some observer one instantiation of *U* is to the left of the instantiation of *V* and the other instantiation of *U* is not. Here, *U* both is and is not to the left of *V* (with respect to the observer's position). All this requires is that the regions where the instantiations are (weakly) located be disjoint.

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<sup>2</sup> For a more detailed discussion of the notion of exact location, see (Parsons 2007, 203; Gilmore 2014). In the context of the present discussion, it is important that the notion of exact location employed not rule out multilocation per definitionem.

However, as far as we can tell, Ehring’s original argument does require that the universals have exact locations. Furthermore, the idea of a spatially located object lacking an exact location is controversial in any case.<sup>3</sup> Hence, we will from now on assume that the notion of multi-located universals, central to SIR, is that of multiply exactly located universals. Thus, if we write “ $Lxy$ ” for “ $x$  is exactly located at  $y$ ” and “ $Ux$ ” for “ $x$  is a universal”, we can formalize “It is possible that there are multiply located universals” as

$$(1) \quad \Diamond \exists x \exists y \exists z (Ux \wedge Lxy \wedge Lxz \wedge y \neq z),$$

where the notion of possibility is to be understood as metaphysical.

What the status of (1) should be in a formalization of SIR is not one of our present concerns. Moreover, we do not wish to claim that (1) captures, in any sense, the core of SIR as a metaphysical doctrine. We take it that commitment to the truth of SIR in some way involves commitment to the truth of (1). And the arguments against and the defence of SIR currently under discussion, concern the truth of (1). Lowe’s and Ehring’s strategy is to show that (1) leads to a contradiction; the purpose of Gilmore’s defence of SIR is that once we get the structure of spatial relations correct, (1) does not lead to a contradiction and hence SIR is saved from *reductios* like Lowe’s and Ehring’s.

### 3. Gilmore’s 2n proposal

In response to Ehring’s argument, Gilmore (2003) formulates and defends a novel conception of spatial relations he calls “the 2n proposal”, according to which spatial relations that are *prima facie* n-placed are really 2n-placed. Given the truth of the 2n proposal, (1) does not lead to contradiction in the way Lowe and Ehring argue.

Gilmore claims that, at least in the case of universals, a spatial relation such as ‘ $x$  is north of  $y$ ’ is, contrary to appearance and to common belief<sup>4</sup>, not two- but four-placed: ‘ $x$ , at its location  $Lx$ , is north of  $y$ , at its location

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<sup>3</sup> For example, Parsons’ (2007, 205) formal theory intended to capture the conceptual truths about location contains Exactness as a theorem: “Everything that is anywhere has an exact location”. Parsons considers this theorem “extremely plausible”. It is the Functionality theorem, the view that exact location is unique, that is in tension with multi-location (Gilmore 2014, sect. 6).

<sup>4</sup> We admit to being ignorant as to how widely held the “n-placed view”, that for example ‘ $x$  is north of  $y$ ’ is a two-placed relation, is. To resolve this question would be an empirical task. However, we understand Gilmore as taking the n-placed view to be the common, majority conception, since he takes it without further ado as the starting point of his discussion, without any reference to particular “n-placed theorists”, and presents his 2n proposal as a better, alternative conception. Furthermore, we do not wish to embrace any particular explanation of why the n-placed view appears (to us, and presumably to many others as well, at least prior to the publication of Gilmore’s paper) as the right one.

Ly'. Hence, according to Gilmore's proposal a spatial relation, at least one between universals, contains an extra argument place for the spatial location of each relatum. Given the truth of the 2n conception of spatial relations, it is easy to see that while U, the North Pole, V, and the South Pole (in that order) do stand in the relation 'x at Lx is north of y at Ly', U, the South Pole, V, and the North Pole (in that order) do not (Gilmore 2003, 423). Gilmore goes on to show that his 2n proposal provides a solution to any possible case illustrative of the problem of local external relations. Hence, given the 2n conception of spatial relations, we can accept SIR and, with it, (1), without falling into the contradiction pointed out by Ehring.

It is easy to see how the 2n proposal, if true, would also work as part of an answer to Lowe's critique of SIR. Call the exact location of one of the balls (ball1) "L1" and that of the other (ball2) "L2". Given the 2n conception, a crucial step in the argument is revealed as a non sequitur, occurring as a result of an equivocation caused by an inadequate understanding of the structure of spatial relations, in this case of the relation of having the same location. Although impenetrability at L1 has the same location as ball1 (at L1), ball2 (at L2) does not have the same location as impenetrability at L1; it has the same location as impenetrability at L2. The transitivity of the relation of having the same location still holds, but once we adopt the 2n conception, we must consider the relata as sequences consisting of entities (which may themselves be locations) and their locations. Now, abbreviating "has the same location as" with "R", we see that there is no middle term b that would allow us to take the transitivity step from aRb and bRc to aRc.

Gilmore anticipates and replies to three objections to his 2n proposal. In what follows, we shall only discuss Gilmore's reply to the second objection, in order to focus on two different, alternative versions of the 2n proposal Gilmore puts on offer. In the next section, we shall argue that neither version of the proposal works in defence of SIR in the present dialectical context.

What Gilmore is defending, and what he and Ehring take to be required by SIR is the non-derivativist view of the spatial relations between universals. The non-derivativist view is that spatial relations between universals are metaphysically primitive, hence not in any sense derivative or based on facts or entities of some other kind, say, the spatial relations between the particulars that instantiate these universals. Ehring (2002, 18) states that his argument against multi-location of universals is directed only at non-derivativist views of their spatial relations. One of the difficulties here is how to understand the notion of something's being derivative on something else; Ehring does not tell us much about this. He puts the matter in terms of "literalness": In contrast to non-derivativism, derivativist views say that universals do not literally stand in spatial relations.

On a derivativist view, when we say for example that one universal is a certain distance from another, this is just “short for saying that a certain pair of objects instantiate those universals and those instantiating objects are that distance from each other” (ibid.).<sup>5</sup> Hence, according to derivativism the spatial relation of distance between the universals is not metaphysically primitive but derivative on something else, for example on the corresponding spatial relation between the instantiating particulars.

This is really all that can legitimately be said about the derivativism–non-derivativism distinction on the basis of Ehring’s and Gilmore’s discussions. In short, non-derivativism is the view that universals stand in spatial relations, period; derivativism is the view that universals stand in spatial relations in virtue of some further facts that are not facts of universals standing in spatial relations. What is left undetermined is how we should understand, in terms of contemporary analytic metaphysics, the notions “in virtue of”, “metaphysically primitive”, and “derivative”. One possible way of framing this distinction would be in terms of metaphysical grounding (e.g. Fine 2012; Correia 2013). The general idea in this case would be that the obtaining of facts of specific sort—universals standing in spatial relations—are determined (in a way to be further specified) by the obtaining of facts of another, more fundamental sort—for example, instantiating objects standing in spatial relations.

What is supposed to distinguish SIR from weak immanent realism is the view that universals are concrete, hence spatiotemporal. If a metaphysician claimed adherence to SIR while at the same time accepting derivativism, she would have to face the pressing question, what distinguishes her form of realism from weak immanent realism. Putting the issue in terms of Ehring’s (somewhat vague) notion of literalness, if the alleged strongly immanent universals do not literally occupy spatial locations, why take these universals as concrete instead of abstract? A weak immanent realist can also say that universals do occupy locations, but only in the derivative sense that the instantiating objects do.

We do not attempt to argue in this paper that no view that could justifiably be classified as derivativist in the general sense discussed above would be compatible with SIR. We only wish to make two points. First, the Ehring–Gilmore dialectic currently at issue is predicated on the assumption that derivativist views are not serious options for the defender of concrete universals. In the present paper, we shall also proceed under this assumption, common to both sides of the debate we are evaluating. Second, derivativism is not obviously compatible with SIR; compatibility would have to be evaluated vis-à-vis the details of each particular deriva-

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<sup>5</sup> Although the “short for saying that” –idiom might suggest to some that Ehring is talking about a linguistic issue of what statements mean, this is clearly not the case. Derivativism and non-derivativism are described by Ehring in otherwise squarely metaphysical terms, as concerning the spatial relations between entities instead of spatial relation talk.

-tivist view. Perhaps there could be a coherent variant of SIR that incorporates derivativism. However, we are not aware of such a variant, nor in the business of developing one ourselves.

One of the objections to the 2n solution that Gilmore considers is that it makes the spatial relations of universals derivative from the spatial relations between locations, and hence turns out to be a form of derivativism after all.

Gilmore responds to this objection by considering two versions of the 2n analysis of spatial relations. The unrestricted analysis applies to all spatial relations. According to the unrestricted version, even the relation “L is two feet from L’”, where L and L’ are locations, is, despite appearances, a four-place one: “L at L is two feet from L’ at L’”. This version of the 2n analysis relativizes spatial relations between locations to those very locations. This version avoids the above mentioned objection because locations are spatially related in the same location relative way as universals are. The second version of the 2n analysis would then be the restricted one: The spatial relations between locations on one hand and between universals on the other are different in nature. Locations are spatially related to each other simpliciter, without further relativization to locations (that is, to themselves) whereas universals are spatially related to each other only as relativized to their locations in the way laid out by the 2n proposal. However, rather than admitting that the latter way of being spatially related would be derivative from the former, Gilmore insists that the two ways are “equally fundamental and equally genuine” (2003, 426).

#### 4. SIR and the 2n Proposal

Before moving on to our arguments against Gilmore’s 2n proposal, it is in order to briefly clarify the dialectical situation at hand. First of all, we wish to point out that in the present context Gilmore could not argue in favor of the 2n proposal along the following lines:

- P1        SIR is a true theory.
- P2        If a theory T is true, T is coherent.
- P3        The 2n proposal, in its restricted or unrestricted form, is the only viable response to Ehring’s (and Lowe’s) argument to the effect that SIR is not coherent.
- C         The 2n proposal, in its restricted or unrestricted form, is true.

Let’s call this argument A. There is of course nothing wrong with A per se. We do not wish to claim A would be invalid, were Gilmore to offer it. But he does not offer it, and for a good reason. In the present dialectical context, the truth of SIR is the moot point. Surely, there are theoretical



motivations for adopting SIR having to do with metaphysical explanatory power, for example the possibility of explaining causation in terms of universals (e.g. Armstrong 1997, 204ff.); and no serious ontological theory should be expected to be completely free of problems. However, at the present state of discussion SIR has faced serious objections, ones that, if true, would amount to an outright refutation of SIR by *reductio ad absurdum*. So, whatever the explanatory benefits a metaphysician may be allowed to expect from SIR, she will not be entitled to adopt SIR unless she can somehow verify that it is not incoherent in the way its critics—Lowe and Ehring—have laid out.

In accordance with this situation, Gilmore does not argue in favor of the 2n proposal on the grounds that SIR is true. Rather, he is offering the 2n proposal as a further theoretical view, one about the metaphysics of spatial relations, and argues that if the 2n proposal is true, SIR need not be a complete dead end as a result of Lowe's and Ehring's incoherence arguments. And Gilmore does think the 2n proposal is true; our aim is to show that he does not give us sufficient reason for thinking so.

Instead of A, Gilmore's argument is better schematized as A\*:

- P\*1      If the 2n proposal is true, then Ehring's (and Lowe's) argument fails to establish that SIR is not coherent.
- P\*2      If Ehring's (and Lowe's) argument fails to establish that SIR is not coherent, then we have no reason to assume that SIR is not coherent.
- P\*3      The 2n proposal is true.
- P\*4      Ehring's (and Lowe's) argument fails to establish that SIR is not coherent. (From P\*1-P\*3)
- C\*      We have no reason to assume that SIR is not coherent. (From P\*4 and P\*2)

We do not contest the validity of A\* nor the truth of the premises P\*1 and P\*2. What we do contest is Gilmore's entitlement to assert P\*3 and hence the justification he gives for P\*4 and C\*. We will not attempt to argue that the 2n proposal is not true, only that Gilmore does not give us sufficient grounds to adopt it in favor of the more common and intuitive conception of spatial relations as n-placed (for example, of 'two feet from' as two-placed). In what follows, it is important to keep in mind why A is a question-begging argumentative strategy in the present context: Gilmore's purpose is to clear SIR of the grave incoherence objections by arguing that the 2n proposal is true. His purpose is not, and in this dialectical context cannot justifiably be, to argue that the 2n proposal is true on the grounds that SIR is in fact true regardless of the standing objections. In brief, Gilmore cannot appeal to the independent plausibility or truth of SIR in his argumentation in favor of the 2n propo-

-sal, since the proposal is specifically introduced to alleviate the worry that SIR may be incoherent. Now that we have made the dialectical context clear, we can proceed to our critique of Gilmore's argument for the 2n proposal and hence for P\*4 and C\*.

As regards the restricted version of the 2n analysis, Gilmore notes that an advocate of this version does have the option of treating the spatial relations between universals as derivative from the spatial relations of their locations, but that nothing forces this option on her, since she is able to say that the two different ways of being spatially related are equally fundamental. This is the only argument we are given in favour of the restricted 2n.

However, it does not suffice here to simply insist, without argument, that the two ways are "equally fundamental". If universals can be two feet apart only as relative to their locations which are two feet apart in a non-relative way, the insistence of equal fundamentality loses credibility. First, in the absence of further details and argument, we are left wondering why there should be two different, equally fundamental ways of being two feet apart. Certainly this is not obvious and not a widely endorsed view in the metaphysics of spatial relations and locations. Even if Gilmore provided us with a satisfactory answer, we would still be left wondering why universals should be among those entities that can be two feet apart only in the relative sense. This latter question cannot be answered by insisting "because universals, being spatiotemporal and multiply instantiable, are capable of being multi-located".

Second, we are left without a clue as to what the relevant notions of fundamentality and relativity are supposed to be. If they were, what looks the most plausible option in this context, metaphysical notions, it is very difficult to see how these two ways of being spatially related could be equally fundamental. For if locations are among those types of entities which can be two feet apart without this fact being grounded in the fact that entities of some other category are so related spatially, and if universals can be two feet apart only in virtue of entities of another category (locations) being so related, then the insistence about equal fundamentality looks out of place. This way of putting the matter requires that we read "fundamental" and "relative to" in terms of grounding: facts A are more fundamental than facts B if and only if B's are grounded in (facts that are grounded in) A's and ultimately to whatever A's are grounded in (if A's are grounded); and B's obtain only as relative to the obtaining of A's if and only if B's are grounded in A's. Admittedly, this may not be the only plausible metaphysical reading of the relevant notions<sup>6</sup>, but the notions of fundamentality and relativity at play do suggest it.

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<sup>6</sup> Another possible reading would be in terms of ontological dependence (e.g. Lowe 1998, 169-173).

On the other hand, if the notions of fundamentality and relativity were not to be understood in a metaphysical sense but rather in some conceptual-linguistic sense, then we must admit to having no idea what the basis of the claim of equal fundamentality could be. For the concept of being two feet apart intuitively seems to be a constituent of the concept of being two feet apart relative to some other entities being two feet apart, but not the other way around. The claim that a proper constituent *a* of concept *b* would be equally fundamental as *b* itself in some conceptual, linguistic, or semantic sense would need to be backed by a detailed theory and argument, which Gilmore does not give us.

Since we are not given guidelines as to how the relevant notions of fundamentality and relativity should be understood, we shall not speculate further on the issue. We have not tried to establish the sweeping conclusion that the two ways of being two feet apart cannot be equally fundamental in any possible sense. The purpose of our discussion has been to point out that the proponent of SIR who opts for the restricted version of the 2n analysis is not justified in simply insisting the relativized and the non-relativized ways of being spatially related are equally fundamental. Gilmore, however, seems to think so since he gives us no account of how and why they should be considered equally fundamental—this insistence of equal fundamentality is merely an ad hoc move to save the restricted 2n from derivativism. Pace this insistence, the restricted 2n, on a metaphysical reading, is just a form of derivativism: universals can stand in a spatial relation only in virtue of entities of another category (locations) standing in that spatial relation.

The unrestricted version of the 2n proposal is introduced to avoid this worry about derivativism and the accompanying problems about fundamentality and relativity. It says explicitly that “the most fundamental way” (Gilmore 2003, 426) in which any entities, locations included, can be two feet apart is relative to locations. In particular, for two locations *L* and *L'* to be two feet apart is for *L* at *L* to be two feet from *L'* at *L'*. Gilmore (*ibid.*, 425) says that he sees no reason to deny that each spatial location is located at itself—he apparently considers this way of speaking of locations being located at themselves unproblematic.

From the point of view of everyday discourse, talk of a location being located (at itself or at any location) seems strained. However, its being strained or unfamiliar does not, of course, constitute a reason to deny that each spatial location is located, or even a reason to condemn this way of speaking as senseless or confused in the technical context of metaphysical inquiry. The view that the 2n proposal applies to locations as well as the entities that are commonly thought to occupy locations needs to be assessed by its theoretical merits. Nevertheless, we might want to say that the view is not very intuitive. Moreover, it is perhaps safe to say that it is far from being a majority view among metaphysicians. Neither of these observations per se count against the

unrestricted 2n proposal. They just draw attention to the fact that it might not be justifiable to adopt it purely by default—rather, such adoption would need rational support.

One way of providing such support would be to point out that adopting the unrestricted 2n as part of our metaphysics would have certain purely theoretical, top-to-bottom virtues, such as making the theory more elegant, simple, or unified. If a metaphysician gave this kind of argument in favor of the unrestricted 2n, she would probably think it does not make any metaphysical difference, at the level of ontology, whether or not we say that locations are located. We could stipulate either way, and the stipulation could be evaluated, if at all, by considering its theoretical virtues. Indeed, Parsons (2007, 224) states that there is no metaphysical difference between thinking that locations are located at themselves and thinking that locations are not located at all. Parsons claims that thinking either way is just a matter of stipulation.

However, the present discussion shows that the adoption of the unrestricted 2n does have potential for making a metaphysical difference. Let us assume that the restricted and the unrestricted forms of the 2n proposal exhaust the options, as Gilmore seems to do. If a proponent of SIR wishes to save SIR from Lowe's and Ehring's arguments by adopting the 2n conception of spatial relations, and if the restricted version of 2n is ruled out (for example because it turns out to be derivativist), then our proponent of SIR is left with the unrestricted version. Thus, from the point of view of the contemporary debate about universals, the view that locations are located is far from lacking metaphysical significance.

So, given the current state of the play, one cannot just stipulate on the issue. Serious metaphysical argument is required. Gilmore does not present any such argument, aside from offering the unrestricted version as an alternative to the restricted one, and saying (without argument) that he sees no reason to deny that locations are located at themselves.

Bracketing considerations having to do with SIR, we should note that we already have a perfectly acceptable view of the structure of spatial relations, one that also comports with everyday intuitions (should we wish to give weight to everyday intuitions in metaphysics): the “n-placed” view of spatial relations, according to which being two feet apart, for instance, is a two-placed relation. Against the background of what has been just said, the 2n view of the structure of spatial relations should come with strong motivating reasons. In the absence of such reasons, it is hard to see why we should think that spatial relations between locations have the more complex structure expressed by “L at L is two feet from L' at L'” instead of the more simple one expressed by “L is two feet from L' ”. Even if we gave no weight to common sense intuitions in metaphysics, perhaps considerations of theoretical simplicity and redundancy might, *ceteris paribus*, come into play here.

It should be kept in mind that, as explained at the beginning of this section, the fact that the 2n proposal, on either version, supports SIR cannot in this context be accepted as a reason for adopting the 2n proposal. One would need reasons independent of SIR. It seems to us that Gilmore's only rationale for adopting the unrestricted 2n view of the structure of spatial relations is to save multi-location of universals, and hence SIR, from Ehring's critique, in the event that the restricted version of the view should be deemed unacceptable or lacking sufficient rational support. Hence, should the need to go unrestricted arise for Gilmore, the 2n view would be completely ad hoc: Gilmore gives us no reasons for replacing the common sense "n-placed" view with the restricted version of the 2n view, independent of its usefulness in the defence of SIR against Ehring's argument. And earlier in this section, we argued that the restricted version indeed lacks sufficient rational support, and is difficult to accept for a proponent of SIR because it seems to be a form of derivativism.

## 5. Conclusion

The metaphysical possibility of multi-location of universals is central to SIR. Lowe and Ehring have argued that the admission of such multi-location leads to contradiction. If Gilmore's 2n proposal were defensible on grounds independent of SIR, it could be used in answering Lowe's and Ehring's *reductio* arguments. If, in spite of common-sense views on the matter, spatial relations were 2n instead of n placed in the way laid out by the proposal, multi-location of universals would not lead to contradiction. In this paper, we have argued that Gilmore has not made a convincing case for the 2n proposal.

First, the restricted version of the 2n proposal stands in need of a detailed account of why there should be two different yet "equally fundamental" ways of being spatially related, namely the relativized and the non-relativized way, and why universals are among those entities which can be spatially related in the former but not the latter way. Furthermore, Gilmore's insistence on equal fundamentality seems but an ad hoc attempt to mask a derivativist position about the location of universals. And derivativism, in turn, is not considered an option for a proponent of SIR by either side of the debate.

Second, adopting the unrestricted form of the 2n proposal would mean accepting the view that all *prima facie* n-placed spatial relations are really 2n placed, involving locations as *relata*, and hence that locations themselves are located. In section 4 we pointed out that whether or not we consider locations as located is not a mere matter of stipulation; given the current situation in discussion on the metaphysics of universals, the unrestricted 2n proposal might well be needed to support SIR against Lowe's and Ehring's critique. Hence the view that locations are located

does have ontological import. Moreover, since we already have the common sense “n-placed” view of spatial relations, it is surely the case that the unrestricted 2n proposal cannot be established by mere stipulation. To repeat, being compatible with SIR is not in this context to be cited as a reason for accepting the 2n proposal, in either its restricted or unrestricted form. But Gilmore gives us no argument in favor of the unrestricted form of the 2n proposal, aside from the fact that it is, unlike the regular “n-placed” view, compatible with the multi-location of universals. Hence, as things stand, the unrestricted 2n is simply an ad hoc move to save SIR from Ehring’s incoherence argument.

We have argued that Gilmore’s 2n proposal currently lacks sufficient rational support in order to be utilized in a counterargument to Lowe’s and Ehring’s reductios against SIR. We conclude that since the supporters of SIR have not adequately answered Lowe’s and Ehring’s arguments, SIR remains under the threat of incoherence. Therefore, in the current situation, we should be motivated to look for an alternative answer to the problem of universals. Prima facie, weak immanent realism does better in this respect and it is, indeed, the view endorsed by many metaphysicians including Lowe himself. According to it, immanent universals are rather abstract than concrete, i.e. they are not located in space-time even if their concrete instances are. Another alternative would be nominalism, for example a trope theory as proposed in (Keinänen 2011).<sup>7</sup>

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