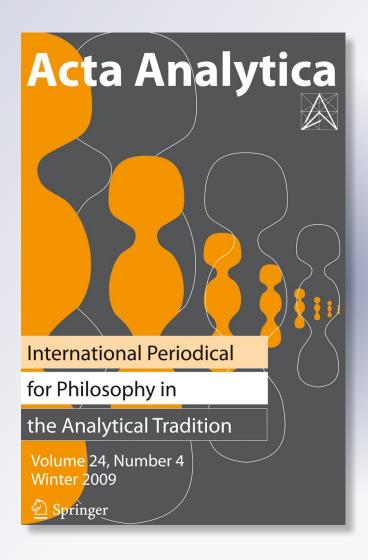
# **Matteo Morganti**

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Abstract In this article, a critical assessment is carried out of the two available forms of nominalism with respect to the ontological constitution of material objects: resemblance nominalism and trope theory. It is argued that these two nominalistic ontologies naturally converge towards each other when the problems they have to face are identified and plausible solutions to these problems are sought. This suggests a synthesis between the two perspectives along lines first proposed by Sellars, whereby, at least at the level of the simplest, truly fundamental constituents of reality, every particular is literally both an object and a particularized property (or, alternatively put, the distinction between objects and properties dissolves). Some potential problems and open issues for such an approach to nominalism in ontology are identified and discussed, with particular emphasis on the sort of fundamentalism that seems to crucially underlie the proposed ontology.

**Keywords** Nominalism · Resemblance · Trope · Particular · Abstract · Concrete

#### 1 Introduction

Let us look at the traditional views about the ontological constitution of material objects. A popular one is the bundle theory (with properties as universals). There are at least two reasons to regard it as unsatisfactory. One is that realists about universals postulate them in order to provide an analysis of similarity facts, but haven't yet presented a good account of partial similarity. Another reason is that, unless they add certain more or less *ad hoc* assumptions to their realism about universals, bundle

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<sup>&</sup>lt;sup>1</sup>See Pautz (1997), Eddon (2007), Gibb (2007) and Morganti (2011a).

<sup>&</sup>lt;sup>2</sup>For example, that objects are constituted by universals but are bundle-instances rather than bundles: see Rodriguez-Pereyra (2004).

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theorists are committed to the necessary truth of a controversial principle: the Identity of the Indiscernibles.<sup>3</sup> An alternative is the Aristotelian/Lockean view based on substrata/bare particulars. While the internal consistency of the notion of a bare particular can be, and has been, defended,<sup>4</sup> the discussion is certainly still open. Moreover, it seems at least conceivable that the work bare particulars are supposed to do can be attributed to other ontological items, resulting in increased ontological economy and simplicity. In a bit more detail: some (Moreland 1998) take bare particulars to act as individuators, but couldn't one attribute primitive identity directly to objects or their properties? Others suggest that bare particulars act as unifiers of properties (LaBossiere 1994), but can't one plausibly contend that a relation of 'coexistence' or 'compresence' suffices for this? To be sure, it is open to discussion whether the linguistic/conceptual distinction between properties and their bearers has any ontological import.

Nominalists deny that similarity facts require analysis and that there is any need for individuators for objects and/or unifiers for properties. On this basis, they postulate primitive relations of resemblance between either concrete particulars (resemblance nominalism) or particular property-instances (trope theory). But which one of these two nominalist alternatives should be regarded as the most plausible position? More importantly: Does a nominalist really have to choose?

This paper aims to provide answers to these questions. The next section (2) assesses resemblance nominalism, in particular, in the version recently formulated by Rodriguez-Pereyra in a number of works, and suggests that such a theory naturally converges towards trope nominalism under plausible theoretical and methodological assumptions. Section 3 examines trope nominalism and argues that it can only overcome certain objections moved to it if tropes are as simple and concrete as the resemblance nominalist's basic particulars. Section 4 then draws the somewhat natural conclusion, that is, that the best option for the nominalist is to endorse a 'synthesis' of resemblance nominalism and trope nominalism. This can be done, it is argued, along the lines of a view that goes back to Sellars (1952) but hasn't been considered since. After a concise illustration of this 'third way' for nominalists, in Section 5 two possible objections are briefly discussed, and the position further clarified. A section containing some concluding remarks follows.

#### 2 Resemblance Nominalism

Resemblance nominalism is based on the idea that properties do not constitute an autonomous ontological category, and are instead by-products of similarity relations among concrete particulars. Price's (1953) suggestion that some objects act as 'paradigms' has later been set aside in favour of the view that classes of similarity play the key role. These are classes of resembling objects in which no object is in any sense prior to the others.

<sup>&</sup>lt;sup>5</sup> The latter also posits some primitive relation 'gluing' tropes together. The ontological status of such glue is, of course, open to discussion. But so is that of the sort of compresence relation postulated by bundle theorists. In what follows, it will simply be assumed that there exists a relation of mutual existential dependence holding tropes together, the postulation of which doesn't entail ontological 'proliferation'.



<sup>&</sup>lt;sup>3</sup> For a more precise and exhaustive discussion of this point, see Morganti (2011b).

<sup>&</sup>lt;sup>4</sup> See, for instance, Sider (2006).

There are five questions the resemblance nominalist must be able to answer (see Goodman (1972) and Rodriguez-Pereyra (2002))<sup>6</sup>:

- 1) How can an object partake in more than one similarity class if not in virtue of the fact that it possesses (several distinct) properties?
- 2) Russell's Regress: the various instances of resemblance that involve pairs of particulars in each similarity class seem to demand ontological analysis. What is it that makes them all instances of the *same* relation? Higher-order resemblances appear to be required, but once these are introduced the problem resurfaces, and an infinite regress seems inevitable.
- 3) How can one distinguish between two properties exemplified by the same objects (i.e., how can coextensive similarity classes determine distinct properties)?
- 4) Is the theory able to account for cases in which all objects having property A also have property B but not vice versa? That is, does the theory allow for a proper subset of the objects belonging to a similarity class to constitute a distinct similarity class?
- 5) Suppose object a resembles object b but not object c, and object b resembles object c but not object a: {a, b, c} would seem to constitute a similarity class in virtue of the fact that there is a similarity relation holding between any two objects in it. Yet, by assumption, it is not the case that a, b, and c all have a property in common.

The first difficulty is readily taken care of once it is pointed out that, if resemblance nominalism is true, properties must not be *presupposed* when considering facts of similarity; and that, according to the theory, it is just a fact (and one for which we shouldn't seek an explanation) that an object can enter into similarity relations with several groups of other objects, so coming to 'have' several different properties.

Things are not so simple, however, when it comes to the other problems listed above. Indeed, the most sophisticated form of resemblance nominalism available (Rodriguez-Pereyra 2002) solves those additional difficulties only at the price of introducing a number of clearly non-negligible complications.

Rodriguez-Pereyra parries the second objection, for instance, by avoiding the reification of resemblance relations and claiming that, in fact, they are nothing over and above the objects they relate; they are internal relations that count as 'ontological free lunches' and are immediately given once the objects exist. In particular, all questions concerning the status of resemblance relations are sidestepped by taking concrete particulars as the sole truthmakers for similarity claims about them.

The worry arises that, on this construal, the objects that form a similarity class in one possible world may not do so in another world, and thus the existence of objects turns out to be insufficient for grounding specific resemblance relations and, consequently, property-exemplifications. Rodriguez-Pereyra responds to this by postulating that objects only exist in one world (a distinctive feature, of course, of the counterpart-theoretic account of modality): indeed, if a and b only exist in world w, where they belong to the same similarity class, then it is in fact the case that 'a exists' and 'b exists' together *entail* 'a and b resemble each other' (Rodriguez-Pereyra 2002; 101-121).



<sup>&</sup>lt;sup>6</sup> The following analysis is close to that in Morganti (2007).

<sup>&</sup>lt;sup>7</sup> For a specific treatment of this problem, see Rodriguez-Pereyra (2001).

As for the third objection, according to Rodriguez-Pereyra (2002; Ch. 5) it requires one to endorse modal realism, allowing for non-actual objects to be members of similarity classes (the idea seems to be that an actual object cannot be similar to a non-existent object, i.e., all objects in the same similarity class must have the same ontological standing). This means that properties are (partly) determined by which objects they *might be*, rather than *are*, exemplified by, and suffices for solving the problem under consideration: for, so understood, coextension does in fact correctly entail identity of properties (no two truly distinct properties, it would seem, are both instantiated *and* instantiable by all the same objects, but more on this later). In relation to this, it is important to point out that, in the case of properties with only one actual instance, the similarity relations constituting them will be essentially based on the existence of at least one non-actual object (Ib.; 90-91).

As for the fourth and fifth difficulty, Rodriguez-Pereyra conceives of the similarity relation as one that holds i) in various *degrees* (Ib.; Ch. 10, Sec. 2) and ii) in an *iterative* way, that is, between pairs of objects, pairs of pairs of objects, pairs of pairs of pairs of objects, and so on (Ib.; 169-172). The first assumption makes it possible for a similarity class of A-objects to include a smaller one of B-objects (with A being a property distinct from B): in such a case, all the B-objects resemble each other at degree 2 and all the A-objects objects resemble each other at degree 1. The second assumption is, instead, sufficient for a binary relation to ensure that all objects in a similarity class are connected as needed in order to avoid 'imperfect communities'.

The resulting picture is certainly consistent and, it seems, exempt from the problems besetting the more 'naïve' versions of resemblance nominalism. The additional assumptions introduced by Rodriguez-Pereyra in order to defend the viability of resemblance nominalism, however, are no doubt pretty substantial. Consider, for example, the non-intuitive features attributed to the similarity relation in order to deal with difficulties 4) and 5) above, or the commitment to individuals being world-bound in the sense of counterpart theory, and to mere *possibilia*. To be sure, each one of the assumptions in question is perfectly consistent, and might be supported by explicit positive arguments. The point, however, is that it would seem to be a welcome result if one could dispense with those assumptions altogether, perhaps replacing them with less controversial ones. So, are there alternative ways to proceed for the resemblance nominalist?

To begin with, notice that a great deal of simplification is achieved by simply postulating that *complex* concrete particulars, i.e., objects belonging to n>1 similarity classes, are always analysable in terms of *simple* concrete particulars, only belonging to one similarity class. Indeed, doing so immediately circumvents objections 1), 4) and 5), which all arise from the assumption that objects can have many properties and

<sup>&</sup>lt;sup>9</sup> It is an open question to what extent this undermines the appeal of resemblance nominalism, which Rodriguez-Pereyra, for instance, considers importantly connected to the preservation of intuition and established beliefs, and hence to the idea that commonsense, everyday objects are fundamental (Rodriguez-Pereyra 2002; 201-202). *Prima facie*, however, it would seem that a commitment to the existence of a subset of concrete particulars which are truly fundamental because simple is not worse, in terms of intuitive plausibility, than the endorsement of the complicated conceptual machinery devised by Rodriguez-Pereyra. The guiding assumption of this paper is that the former position is in fact preferable to the latter, but even if one disagrees with this it remains useful to define a possible nominalistic position different from those currently on offer.



Obviously enough, this last sentence is not formulated in the terms of resemblance nominalism. It just conveys the basic idea more easily. The same will apply in what follows in similar cases.

yet fail to lend themselves to further ontological analysis. However, two problems remain even after this move: objection 2) still requires one to assume that individuals are world-bound; moreover, with respect to objection 3), one-instance properties are still entirely determined by similarity relations holding between (single) actual objects and one or more merely possible objects, so requiring realism about possible worlds.

But consider now the following. To begin with, suppose that our simple concrete particulars partake in certain similarity classes and not others *necessarily*. With this, objection 2) dissolves without the need to use counterpart-theoretic tools. The idea of regarding property-exemplification as necessary is, of course, normally avoided because it has the consequence that it leaves no room for accidental properties. Notice, however, that this worry is greatly alleviated by the assumption that the resemblance nominalist only needs to be concerned with those particulars that are simple and, consequently, ontologically fundamental. For, isn't it at least conceivable that, say, the elementary particles described by the Standard Model have all their properties essentially? Indeed (especially if one focuses on absolute spin magnitude rather than actual spin value) this seems to actually be the case. Independently of this, certainly there is at least one possible way of identifying plausible candidates for the role of 'fundamental simples' and, at the same time, regarding all the properties of such entities as essential (i.e., all facts about these entities' belonging to specific similarity classes as necessary).

However, more is needed if one is to dispose of objection 3) without endorsing Rodriguez-Pereyra's 'pricey' version of resemblance nominalism. Suppose, then, that each one of the simple concrete particulars is not only necessarily endowed with but also *identical to* its unique qualitative aspect. Clearly, if this were the case, a concrete particular wouldn't need to have its qualitative content determined 'from the outside', let alone by objects existing in different possible worlds: for, being a specific particular would be, on this construal, *the very same thing* as bearing a specific property. This suffices for concluding that objection 3) can also successfully be dealt with without adding any complex superstructure to the basic intuitions that initially underpinned resemblance nominalism.

Now, what is the nominalist to do with all this? The worry is that, if one follows the line of reasoning just suggested, in effect one abandons resemblance nominalism, for resemblance relations among concrete particulars do not play a fundamental role any longer if concrete particulars are identical to their (single) qualitative content. While this is a legitimate concern, it might express a fact that is simply inevitable. That this is actually the case seems to be strongly suggested by some independent, recent reflections on resemblance nominalism.

In the context of a more general assessment of the theory, Paseau (2012) compares Rodriguez-Pereyra's theory with the Lewisian variant of resemblance nominalism that invokes a contrastive and variably polyadic relation (Lewis 1983; 14-15), and adds two further problems to those we have already discussed. First, Paseau argues, both views are unable to account for the coextension problem when it is assumed that the properties in question are *necessarily* coextensive (a possibility one is free to reject, but the explanation of which is clearly an advantage for a theory of properties). Secondly, they cannot deal with problems 3), 4) and 5) above in cases in which



objects possess an *infinite* number of properties. <sup>10</sup> Paseau does show that a version of resemblance nominalism based on a *comparative* relation holding among sets of any size overcomes these difficulties. However, he also argues that such a theory *can be extensionally adequate only at the cost of not being, at root, a (resemblance-) nominalistic theory after all!* This is because the comparative version of resemblance nominalism must necessarily assume that there are respects of similarities and/or numbers of properties shared, and thus inevitably ends up reifying properties instead of making them derivative on resemblance relations.

It thus seems that resemblance nominalists who attempt to solve the difficulties their view meets with (and who admit at least the possibility of necessarily coextensive properties and/or objects with an infinite number of properties) are in fact *obliged* to converge towards an alternative form of nominalistic ontology, based on primitively similar property-instances rather than on concrete particulars plus resemblance relations of various kinds. With this in mind, let us now move on to the assessment of the alternative form of nominalistic ontology which takes properties as fundamental, i.e., of trope theory. Should one, given the foregoing, conclude that nominalists about the ontological constitution of material objects must be trope theorists?

#### 3 Trope Theory

Trope theory, the view that reality is constituted by numerically unique instances of properties and nothing else, was propounded in various forms by Stout (1923), Williams (1953), Campbell (1990) and Simons (1994), among others. Recently, it has become progressively more popular because allegedly able to provide a simple and economic account of the ontological constitution of objects in terms of qualitative constituents, while also avoiding certain costly commitments (e.g., to the necessary truth of the Identity of the Indiscernibles, and to the existence of peculiar entities such as repeatable properties and/or bare particulars/substrata). At the same time, though, many objections have been moved to trope theory, and at least some of them appear forceful.

To begin with (and considering only those objections that are relevant in the present context), Lowe (1998; 156) claims that, as shown by the fact that they do not subsist 'free-floating' and are individuated by their belonging to a specific object (e.g., *this ball's* redness), tropes do not have the identity conditions necessary for playing the role of fundamental constituents of reality. Indeed, it is undeniable that at least some properties (e.g., shape, colour) seem clearly to depend on objects rather than constitute them as such. This certainly weakens the plausibility of the claim that tropes are the very 'alphabet of being' (Williams 1953).

<sup>&</sup>lt;sup>10</sup> Moreover, says Paseau, these views have other problems: Lewis' is 'triply infinitary', as its basic predicate is infinitary, its background logic allows infinitely many conjunctions and disjunctions, and it also allows quantification over infinitely many variables; Rodriguez-Pereyra's, instead, privileges classes of a certain type (pair sets) without argument, assumes resemblance to be ultimately binary without providing a reason for it, and has an infinite number of primitive resemblance relations, one for each degree of resemblance (see above).



Obviously enough, the response to this criticism has to be that only those propertyinstances that have the required sort of 'ontological autonomy' count as genuine tropes. Let us see whether this claim can be justified and, if it can, where it leads.

A first step towards answering the above 'lack of autonomy objection' in the 'selective' way just suggested is to endorse a *sparse* account of properties, one that rejects the idea that there is a one-to-one correspondence between meaningful predicates and genuine properties. This is both necessary and sufficient to create the space for manoeuvre required to at least try to get rid of those properties that appear problematic in the present context. One can then opt for a 'scientific' (in Armstrong's (Armstrong 1978) sense) approach to defining the properties that should populate one's 'ontological zoo' and those that should count as fundamental. If one follows this approach, what the truly basic properties exactly are is to be determined by making reference to our best current science. And this makes it at least possible that those that count as fundamental properties also qualify as credible candidates for playing the role of 'basic building blocks' of material reality. As a matter of fact, it can be argued that a sparse and scientific account to properties suffices for the trope theorist's purposes.

Let us examine this in detail. At least given the present state of research in physics, it seems plausible to suggest that the fundamental properties are those described by the (abovementioned) Standard Model of elementary particles: mass, electric charge, colour and (absolute) spin. Suppose this idea is in fact taken seriously. Given what we said a moment ago, the trope nominalist has to contend i) that the properties described by the model are conceivable of as self-standing, i.e., in abstraction from the concrete particulars (i.e., particles) that exemplify them and independent of them; and ii) that there are good reasons for thinking that they are in fact so independent. How is s/he to argue in favour of this thesis? For instance, is the electric charge of a muon dependent on the muon itself, or does it constitute it as such? If one favours the second answer, how is one to argue that that alternative is more plausible than the other?

There is no knock-down argument to be given here, but one way to go is the following. At least in the case of the most fundamental physical properties (unlike, for example, in the case of shape or colour properties), it is certainly not absurd to identify such properties with the fundamental constituents of material reality, rather than simply attribute the former to the latter. And in fact, there are grounds for contending that such identification *should* be carried out by the nominalist, for it enables him/her to avoid the postulation of 'pure matter', i.e., a bare particular or substratum, which is something that nominalists (as well as bundle theorists that are realists about universals) certainly want to steer clear of. For, suppose that fundamental particles have properties but it is not the case that they are constituted by (i.e., identical to) such properties and nothing else. Since we have reached the ultimate level of analysis for properties, this entails that, necessarily, fundamental particles have one or more constituents that are not qualitative in nature. But this amounts to saying that they are in fact composed (among other things) by one or more 'bits of pure matter' bearing their properties. If, however, one rejects the existence of bare particulars/Aristotelian matter, one is *ipso facto* allowed (indeed, forced) to reject this picture by endorsing the view that properties are the sole constituents of objects. But this means that property-instances are no longer 'by-products' of the existence of concrete particulars as in the case of shape and colour properties, and instead have the



degree of ontological autonomy required to qualify as basic ontological elements. (Obviously enough, if one follows this line of argument, s/he will also take most properties to be *derivative*: colour properties, for example, will be systematically reduced to physical facts about the surfaces of objects (and their interactions with light rays), that is, about the way in which more fundamental components, ultimately tropes, are structured together). Of course, this argument crucially relies on the idea that there is in fact a fundamental level, something that might be legitimately questioned (see for instance Schaffer (2003)). As it will be argued below, however, it is not case that the proposal being put forward becomes untenable or completely uninteresting in a non-fundamentalist setting.

Getting back to our main discussion, in a nutshell the suggestion is that genuine tropes not only exhaust the content of concrete objects, but are concrete themselves; and that the truly fundamental objects do not consist of material parts on the one hand and properties on the other—they are instead mereological composites of property-instances (see Paul forthcoming), possibly with only one part. Indeed, if tropes are understood in this way, the lack of autonomy objection seems to be blocked. And it also seems that the objection is only blocked if tropes are understood in this way, for as soon as one re-establishes the distinction between objects as concrete particulars and properties as abstract particulars, the complaint that the latter cannot constitute the alphabet of being naturally arises.

It must be emphasised at this point that, if one endorses the viewpoint just illustrated, other problems for trope theory are also straightforwardly solved.

For example, trope theory must deal with the so-called *boundary problem* (Campbell 1990; 142-145), consisting of the fact that if tropes are fundamental constituents, they cannot be arbitrarily divisible in the same way in which properties such as, say, the whiteness of this sheet of paper are—otherwise, what counts as fundamental would depend on entirely contingent matters of fact. But it is plausible to think that the properties described by the Standard Model of elementary particles and, more generally, whatever properties turn out to be truly fundamental in the sense discussed here, are simple and non-divisible as is required for solving this problem.

The view just outlined also overcomes Manley's (Manley 2002) arguments to the effect that trope theory doesn't really avoid certain difficulties typical of resemblance nominalism, namely 3) and 5) in the previous section. Starting from the latter problem, Manley considers three colour tropes, pink, baby-blue and purple, and



<sup>&</sup>lt;sup>11</sup> Of course, it can still be the case that property-instances depend on concrete particulars in the sense that they do not exist free-floating and are always bundled with other property-instances so as to form objects. However, first, this is not necessarily the case, and empirical evidence (e.g., in the form of one-property fundamental particles such as antineutrinos) seems to show that it is in fact at least contingently false. Secondly, and more importantly, the problem here is not with lack of autonomy in the sense that property-instances do not exist on their own, but rather in the sense that they seem to exist *because* certain items belonging to a different ontological category exist.

<sup>&</sup>lt;sup>12</sup> The foregoing doesn't mean, though, that a radical physicalist reductionism is required by trope nominalism as construed here, for non-reducible and/or emergent properties can be allowed by the theory. For more details on this and the trope-theoretic reconstruction of fundamental properties on the basis of the Standard Model in general, see Morganti (2009a). See also section 5 below.

argues that there is no obvious way of organising them into similarity classes because each one of them resembles the other two but in different respects. Manley's conclusion is that trope theory is not preferable to resemblance nominalism. However, if truly genuine tropes have the features described a moment ago, all cases in which classification is, so to put it, 'uncertain' in this way can be explained in terms of the involved properties not being ontologically fundamental and, therefore, allowing for further analysis. For fundamental properties, instead, no uncertainty arises, for the simple fact that these properties are not similar in any non-trivial or non-basic respect (where a trivial respect of similarity would be, say, the sharing of the property of being a property; while predicates such as 'is blu-ish' or 'is red-ish' point instead to non-basic respects of similarity). As for problem 3), Manley contends that in a world where all coloured things are red, the class of red tropes will be identical to the class of coloured tropes, and so there will be no way to distinguish two intuitively different sets of tropes. This problem, too, is solved via the endorsement of the sparse/reductionist account of properties illustrated above, as the latter immediately entails that the predicate 'is coloured' doesn't cut the world at the joints, as it were, and therefore must not be taken to denote a genuine trope (but just a determinable at the linguistic level).<sup>13</sup> In short, Manley's objections rest on the assumption that trope nominalism must be a form of class nominalism and there are no constraints determining exactly which classes are possible. On the proposal being put forward, however, such constraints do exist, as only natural classes are allowed, with naturalness coinciding with simplicity and fundamentality (as these are 'extracted' from our best current scientific hypotheses). Hence, trope theorists need not be worried by Manley's criticisms.

In a nutshell, the conclusion reached in this section is that it is plausible to think that tropes are correctly conceived of not only as *essentially possessed* by (the simple, most basic) concrete particulars, but as *being* such particulars. Where does this lead us? Does resemblance nominalism resurface as the best option for the nominalist? If so, what about the considerations made in the previous section?

#### 4 Simple Particulars à la Sellars

Before moving on, let us pause for a moment and summarise what has been said so far. We have seen that all the problems that beset resemblance nominalism are neatly solved if one i) postulates that concrete particulars can be analysed in terms of simple particulars that possess their (unique) qualitative aspect essentially and ii) takes these simple particulars to *be identical to*, rather than necessarily exemplify, their lone property-instances. On the other hand, we have also seen that iii) conjecturing that the truly genuine tropes *are* concrete particulars dispels the charge moved to trope theory that the entities it presents as basic building blocks lack the ontological autonomy needed for playing that role.



<sup>&</sup>lt;sup>13</sup> Pretending for a moment that, contrary to what was contended earlier, predicates such as 'is red' do instead cut the world at the joints. It is clear that only genuine tropes actually do so, while redness was excluded from the range of genuine tropes here.

Given this, one immediately sees the distinction between abstract and concrete particulars starting to blur. But this is not necessarily an unwelcome result. For, instead of wondering whether or not a vicious circularity arises—so that each form of nominalism can be accepted only insofar as it relies upon, or is absorbed by, the other—or trying to show that, all things considered, either resemblance nominalism or trope theory should be preferred and regarded as the 'truly correct' theory, one could shift to an altogether different level by dropping the very opposition between object and property. That is, one could insist on the simplicity, particularity, basicness, concreteness and qualitative nature of the entities that have been pointed at as ontologically fundamental, and construct an ontology on that basis, without having recourse to other, albeit traditional, ontological categories and/or differentiations which, as a matter of fact, turned out to play no role whatsoever, and to even be potentially problematic. In this section, it will be contended that this is in fact what one *should* do. And that, consequently, all that is needed in order to individuate the most plausible form of nominalism is a generic talk of 'mini-substances' or 'simple particulars': the object/property distinction need not come into play at any point.

That reality is, at its basis, constituted by simple particulars, each one of which exhibits at the same time i) an essential qualitative content and ii) the concreteness that we consider distinctive of material objects was in fact suggested a long ago by Sellars in a relatively neglected paper (Sellars 1952). More specifically, in that paper Sellars argues that it is possible to conceive of a domain of 'basic particulars' each one of which is an instance of one and only one simple, non-relational universal (Ib.; 187). Next, he suggests that we reduce all complex universals to constructions out of such instances, which he calls 'qualia' (Ib.; 188). This is already sufficient, Sellars claims, to analyse whatever seems to be a single particular exemplifying a number of universals in terms of a number of particulars exemplifying simple universals (Ib.). <sup>14</sup> Sellars' crucial move is, though, to contend that each basic particular is not ontologically distinct from the *quale* it exemplifies, and so predication involves no internal complexity (Ib.; 189). In other words, Sellars maintains that each unique quale exists only insofar as it is exemplified by a concrete particular; but the latter is, in turn, nothing over and above the quale it exemplifies. From this, it follows that categories such as those allegedly denoted by the terms 'universal', 'object', 'property' etc. make room for a more fundamental category of basic concrete particulars that grounds them all.

Sellars lends support to this view by arguing in favour of a distinction between *particulars* and *facts* which, he claims, is as important as commonly overlooked. At the level of fundamental particulars, he says, it is possible (in fact, necessary) to follow the line of reasoning just illustrated and claim that, whenever an object *a* instantiates a property P, *a is* an instance of P. Exemplification doesn't require ontological distinction, and the latter is in fact excluded in the case of basic, simple particulars. On the other hand, says Sellars, this doesn't prevent one from saying that the fact denoted by 'a is P' is composed by a as a 'this-factor' and by P as a 'such-factor'. Crucially,



<sup>&</sup>lt;sup>14</sup> This clarifies the way in which the proposed approach solves what Rodriguez-Pereyra calls the problem of the 'many-over-one', that is, the problem of explaining how a single object can have many properties (an important issue, as we have seen, for the resemblance nominalist).

though, according to Sellars, it would be wrong to infer ontological complexity from this latter distinction, <sup>15</sup> which only has linguistic/conceptual import. <sup>16</sup>

Whether or not one accepts this understanding of facts, what is important here is Sellars' claim that it is not necessary to consider the distinction between concrete particulars bearing properties and properties being borne by objects as an untouchable metaphysical axiom.

Simple particulars of the sort described so far could thus be called 'Sellarsian particulars'. A 'third way' between trope theory and resemblance nominalism is available, then, in the form of an ontology of Sellarsian particulars. In view of the considerations made earlier in this paper, such particulars appear i) to be endowed with the characteristics required for developing a simple and consistent nominalist ontology, able to overcome the limits of both trope theory and resemblance nominalism while also remaining preferable to other (bi-categorial and/or non-nominalist) ontological perspectives; and ii) to be the *only* conceivable entities with such characteristics.

#### 5 Two Objections

One potential source of trouble for the form of nominalism just put forward is that an ontology of Sellarsian particulars appears to have difficulties in accommodating the possibility (which is certainly conceivable and also supported by science, and was in fact allowed for earlier in this paper, see footnote 12) that as complexity increases certain properties 'emerge' that cannot be reduced to fundamental, simple particulars. Think, for instance, of the non-supervenient entanglement relations that constitute (one of) the peculiar ontological features of the quantum-mechanical domain.

There are two reactions to this available to the Sellarsian nominalist. On the one hand, s/he could contend that emergent/non-reducible properties and relations are not different from other 'derivative' properties such as shape or colour properties, and consequently pose no special challenge because they are reducible *in some way*—although this way hasn't been precisely identified yet—to truly fundamental, particulars. <sup>17</sup> Alternatively, the Sellarsian nominalist could accept that emergent properties are genuine, fundamental building blocks of reality, maintaining at the same time, although, perhaps, contrary to what Sellars thought, that simple particulars need not exist 'all at the same level' (and perhaps also that, as one may take quantum entanglement to require, they can be relations). This would also serve to avoid the potential objection that the ontology being proposed is anachronistically based on a



<sup>&</sup>lt;sup>15</sup> Which is, instead, what ontologists customarily do. The internal complexity of facts, for example, is what leads Armstrong (Armstrong 1997) to postulate a world of unitary states of affairs whose constituents are property-bearing particulars and exemplified universals.

<sup>&</sup>lt;sup>16</sup> Sellars later developed this into a 'process ontology' which he took to provide the best way to integrate perception into the 'scientific image' of the world (see Seibt 1990), but this is not relevant for the argument being put forward here.

<sup>&</sup>lt;sup>17</sup> Of course, this would mean to reject the view that relations might at least in some cases be genuine properties not analysable in terms of relata and monadic properties. In the case of quantum entanglement, allegedly irreducible relations could be considered mere (albeit mathematically peculiar) statistical correlations with no ontological counterpart. See Winsberg and Fine (2003) for a suggestion in this sense.

naïve, classical, essentially Humean, conception of material reality. <sup>18</sup> A more complex notion of ontological fundamentality than generally conceived is required for this, maybe, but certainly not an inconsistent one. <sup>19</sup>

Another, more important, worry is represented by the possibility that there is no simplest, fundamental level of reality. Indeed, if the world is 'gunky' (it is infinitely divisible, and the division never gets to a basic level which is not dependent on anything 'below' it), it would seem that talk of simplicity really makes no sense and, consequently, the Sellarsian strategy is of no avail to the nominalist because it is in principle pointless to talk of truly basic, non-further-analysable simple particulars. However, first, one could reject the possibility of gunk on the basis that it conflicts with a credible ontology. Alternatively, and more plausibly, one could acknowledge the problem, leave the possibility of gunk open and yet insist that the distinction between object and property is not an ontological primitive, as it in any case dissolves upon analysis (although only in the limit, and not in a way that corresponds to any feasible process of subdivision). This would, at the very least, mean that the Sellarsian synthesis still does important conceptual work that metaphysicians should be aware of. In other words, it could be contended that the significance of the proposal being put forward doesn't have to do with the fact that it is purported to describe the fundamental constituents of the actual world but, rather, with the fact that it shows that the dichotomy between two ontological categories usually taken as fundamentally distinct may in fact not be basic, and need not be taken to play an ineliminable role.<sup>20</sup>

To be sure, more needs to be said about these and other issues, but for the time being it can be concluded that neither of the two difficulties considered here is fatal to the project of defending a nominalist ontology of Sellarsian particulars.

<sup>&</sup>lt;sup>20</sup> A different but related problem is that the direction of ontological dependence might be the opposite of what we normally think, i.e., the whole be prior to the parts. Indeed, if Schaffer (Schaffer 2010) is right that we should be priority monists and take the whole cosmos as the truly basic entity, it would no longer be possible to claim that the fundamental building blocks of reality are Sellarsian particulars. Whether or not priority monism should be taken seriously (for discussion, see Morganti 2009b), however, the fact remains that the smaller parts (even if ontologically dependent) may not correctly be analysed in terms of properties and objects. In other words, in spite of the way in which the paper has been phrased, the proposal doesn't crucially hinge on the simple particulars in question being ontologically prior to everything else, hence ontologically fundamental.



<sup>&</sup>lt;sup>18</sup> Ladyman and Ross, for instance, argue against a "metaphysics of domestication that [...] seeks to account for the world as 'made of' myriad 'little things' in roughly the same way that (some) walls are made of bricks [, that is, as a series of...] reverberating networks of [...] 'microbangings'" (Ladyman and Ross, 2007; 4). In spite of the talk of fundamental particles (and properties thereof) in the previous section, the proposal being put forward here doesn't in any way rely on the assumption that the basic constituents are point-like 'little things'. Nor does it assume that the fundamental building blocks are (the concrete counterparts of) monadic properties involved in 'networks of microbangings'. In fact, an ontology of relations only, of the sort defended by Ladyman and Ross themselves, can perfectly be interpreted along the lines suggested here. The only essential thing is that the resulting ontology be intended as a nominalistic ontology.

<sup>&</sup>lt;sup>19</sup> Another worry motivated by science might have to do with the impossibility of sharp localisation of objects and properties given quantum physics. Here too, however, the nominalist doesn't have to give up his/her whole theory but just to modify it as required. In particular, s/he will have to exclude point-likeness, or at any rate well-defined and 'non-spread-out' localization, from the basic features of the fundamental simples. At any rate, this shouldn't worry us too much: for, spatial (or spatio-temporal) position is clearly a peculiar property. In particular, it is certainly an extrinsic property of things rather than an ontological constituent of them.

#### 6 Conclusions

This paper pointed towards a possible new development in the debate concerning the ontological constitution of material objects and, more generally, the ultimate constituents (if there are any) making up the whole of reality. It was argued, in particular, that nominalists about properties who also want to avoid bare particulars may make their case as strong as it can possibly get by opting for a third way between resemblance nominalism and trope theory that was first envisaged by Sellars. This third way is based on the idea that in defining the 'architecture of reality' one is not forced to assume that there are (at least) two types of 'building blocks', one corresponding to things, and another corresponding to the things' qualitative aspects; nor does the nominalist ontologist who aims for simplicity and economy have to attempt a complete reduction of everything to either one of these two categories. Whether the Sellarsian proposal of an ontology of simple particulars can (or should) be effectively revived as suggested or there are problems (perhaps other than those briefly considered in this paper) that prevent one from so doing remains an open question. But, the view does appear worth a closer look.

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