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The Problem of Universals and the Asymmetry of Instantiation*

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Oliver's and Rodriguez-Pereyra's important interpretation of the problem of universals as one concerning truthmakers neglects a crucial aspect of the problem: that there is a numerical identity between numerically distinct particulars. As a result, the initial pressure to countenance universals is lost. The problem of universals is rather how to resolve the apparent contradiction that the same things are both numerically distinct and numerically identical. I take the problem to indicate that standard views of identity are not fully adequate and make use of my own revisionary view. My account of instantiation as partial identity resolves the apparent contradiction. An advantage of this approach is that the theory of identity gives an account of instantiation without countenancing any additional fundamental tie. Any theory needs to include identity and distinctness, and it is an advantage to require no more.

A seeming objection to my account is that it appears to make instantiation symmetric, since partial identity as I explain it is symmetric. I follow Armstrong's standard reply that instantiation is a particular's being partially identical with a universal, and the difference between a particular and a universal is what makes instantiation asymmetric. However, Brown suggests that instantiation is nonsymmetric--neither symmetric nor asymmetric--and nonreflexive to boot. His crucial examples are *being a universal* and *being monadic*. I argue that these are not universals and so the putative counterexamples to the asymmetry and irreflexivity of instantiation fail.

I. The Problem of Universals

Oliver (1996: 49, 68-74) and Rodriguez-Pereyra (2002: 26-30) give an important interpretation and development of Armstrong's influential but laconic remarks about the problem of universals. They, and I here, focus on universals that are not relations. They argue that the

* I'm grateful for comments and criticisms from John Troyer, Gonzalo Rodriguez-Pereyra, and Scott Brown.

problem concerns which truthmakers to give for the sentences, gleaned by Oliver from Armstrong's discussion, stating these six facts:

(1) *a* and *b* are of the same type/have a common property.

(2) *a* and *b* are both F.

(3) *a* and *b* have a common property F.

(4) *a* has a property.

(5) *a* is F.

(6) *a* has the property F.

Rodriguez-Pereyra (2002: 40-42) then argues that the problem boils down to giving the truthmaker for sentences stating facts of the form "*a* is F". That is because (5) and (6) have the same truthmaker, and the other sentences can be analyzed as disjunctions or conjunctions of sentences like (5). After all, the truthmaker for a disjunction is the truthmaker for one of its disjuncts, and the truthmaker for a conjunction consists of the truthmakers for the conjuncts jointly.

From this conclusion, and the fact that *a* itself cannot be the truthmaker for "*a* is F", given that other sentences such as "*a* is G" are true and yet might not have been even while "*a* is F" remains true, Rodriguez-Pereyra (2002: 43-46) infers that at root the problem of universals is: what more is there to the truthmaker for a sentence of the form "*a* if F" than *a* itself. Given that the more to the truthmaker for "*a* is F" must be different that the more to the truthmaker for "*a* is G" Rodriguez-Pereyra (2002: 47) concludes that the problem of universals "vanishes into" the problem of the Many over One: "how a single particular can have a multiplicity of properties." This unexpected conclusion is meant to correct Armstrong's (1978a: xiii) characterization as the problem of the One over Many: how there can be an "identity of nature" between "different particulars".

Put this way, a solution to the problem of universals need only posit properties of some sort or other as the something more in the truthmaker for the target sentences. Universals would work, but so also would other versions of properties such as sets of resembling tropes or sets of resembling particulars (Rodriguez-Pereyra 2002: 46-48).

In the context of contemporary metaphysics in the shadow of David Armstrong where truthmaker theory helps set the agenda, this elegant rendition of the problem of universals has cast a new light on the problem and reinvigorated solutions that make no appeal to universals. I suspect, however, that this rendition does not help explain the power of the problem over the centuries. It is not out of the question that the earliest and most influential renditions of the problem made an unrecognized circuit through an inchoate truthmaker theory but I suspect that the problem was seen as less circuitous and more immediate. I suggest that the problem is one of resolving an apparent contradiction, rather than one of supplying appropriate truthmakers.

Consider a copse with two oaks, one sugar maple, and three red maples. There are apparently two correct answers to the question, "How many trees in this copse?" One can correctly answer three or six. In explaining the first answer one might say of the oaks, "This is the same as that." Now suppose that the oaks are close together so that it is hard to tell at first that they are two trees instead of one tree with two leaders. In explaining the second answer one might say of the oaks, “This is distinct from that.” Thus, of the two oaks in a copse of various trees one might with equal justice say “this is the same as that” and “this is distinct from that.” How can both be correct without contradiction? When faced with a contradiction make a distinction. Following Peirce (1906: 506) the distinction is between the type Oak and the token oaks. The former can be multiply located in a way the latter cannot.

Rodriguez-Pereyra to some extent recognizes that the heart of the problem is an apparent contradiction when discussing Armstrong’s formulation. According to Armstrong, “The problem of universals is the problem of how numerically different particulars can nevertheless be identical in nature, all be of the same 'type'" (1978a: 41). Even this formulation doesn’t fully capture what Armstrong has in mind, I think. Rodriguez-Pereyra likes it because it conforms more closely to the Nozickean way of expressing philosophical problems that Rodriguez-Pereyra (2002: 18-19) relies on: how is X possible, given Y. How is identity of nature possible given the numerical difference of particulars? An even better formulation of what Armstrong has in mind, though, is the one he starts out with at the beginning of his canvassing of theories of universals.

> The same property can belong to different things. The same relation can relate different things. Apparently, then, there can be something identical in things which are not identical. Things are one at the same time as they are many. How is this possible? (Armstrong 1978a: 11)

Rodriguez-Pereyra (2002: 19) captures the force of the problem by saying, "The troubling question is: how can there be identity in the difference?, or how can there be oneness in the multiplicity?" Here I think Rodriguez-Pereyra is exactly right. In contrast, the Nozickean form that he fits the problem into in conjunction with the list of six facts to be explained allow a subtle drift from what is centrally at issue. From 'how can both sides of an apparent contradiction be true?' the problem becomes 'how is something possible given an apparent excluder?' In the case of the problem of universals starting from Oliver's list, the problem becomes 'how is it possible that *a* and *b* are both F, given that they are numerically distinct?' In order even to see something formulated this way as a problem, one must have a residual sense that the problem is how distinct things can be the same thing. But the formulation also introduces the thought that what one is looking for is an explanation of the possibility. In casting about for the right sense of explanation, the only live candidate seems to be the sort of explanation one gives when giving a truthmaker for or giving the ontological grounds of. From there, the fact that the truthmaker for '*a* is F and *b* is F' would just be the truthmaker for '*a* is F' jointly with the truthmaker for '*b* is F' means that the initial sense of some sort of identity between distinct *a* and *b* has been lost.

A consequence of this loss is that the pressure to believe in universals, rather than just in properties in general, is lost. This formulation of the problem makes it harder to see why a theory of universals would have been developed in the first place as opposed to some other theory that simply takes resemblance to be primitive.

Thus explaining the possibility how "there can be something identical in things which are not identical" is not primarily to be giving grounds in virtue of which the above six sentences are true. Rather it is resolving the apparently contradiction.

Thus the facts that need to be accounted for are these:

(i) *a* is distinct from b.

(ii) *a* is identical to b.

Not usually noted, but nonetheless important is:

(iii) *a* in (i) is identical with *a* in (ii) and *b* in (i) is identical with *b* in (ii).

When faced with a contradiction, make a distinction. The standard solution is to multiply entities and take '*a*' and '*b*' to be ambiguous. [1] In (i) they refer to particulars that are distinct from each other. In (ii) they refer to a universal (or at least a property) that is identical to itself. Note however the cost is giving up (iii). Instead of identity, some other peculiarly intimate uniting relation between particulars and properties must be posited--a "fundamental tie" (Armstrong 1989: 108-110). The nature of this relation is a perennial source of concern. It would need to be a "non-relational tie" with all the paradox which that appellation conveys (Strawson 1959: 169). The standard solution of multiplying entities is so typical that it is hard to recognize that there might be an alternative that does not pay that cost. There is, however: my theory of universals and particulars as presented in "Instantiation as Partial Identity" (Baxter 2001).[2]

My approach is motivated by the thought that any theory will have to start with identity and distinctness. Other theories then layer on other peculiarly intimate relations to explain unity in cases where apparently things are both identical and distinct. Instantiation is an example. Inseparability, genidentity, composition, constitution, and co-location are other examples for other problems. Such theories assume that we already understand identity perfectly, so that our only option in theorizing when faced with the apparent contradiction is to multiply entities and multiply unity relations between them. A potentially more elegant approach would be to start with some humility about identity. Perhaps problems like the problem of universals show that we have not yet firmly grasped the nature of identity. Is there

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[1] For instance in Quine 1961: 67-69. A variation is, for instance, the possibility considered by Armstrong (1989: 2-5) that (ii) concerns identity "in the loose and popular sense", which for Armstrong is being "different parts of some wider unity". In that case the wider unity is posited in (ii) but not explicitly referred to by (ii)'s '*a*' and '*b*'.

[2] Note that I use 'partial identity' in a sense different from the two that Armstrong employs: "Partial Identity, as when two things overlap but do no more than overlap, or when two things have some but not all the same properties so that their nature "overlaps", can be understood readily enough" (1978a: 112). I use the phrase in an additional sense as when something on one standard for counting and something on another share an aspect.

a way to understand identity that makes all of (i), (ii), and (iii) true? If yes, then the standard multiplication of entities is excessive. Since we can't do without identity and distinctness, it makes sense to get them right and then make them do as much work as possible.

Again, when faced with a contradiction, make a distinction. On the account of identity I give, the distinction is between standards for counting. Numerical identity is relative to standards for counting (Baxter 1988a; 1988b). However, 'relative' is ambiguous. I do not mean to be proposing an account of relative identity like that of Peter Geach (1967) according to which the identity relation has an implicit additional relatum. When Geach says that the identity of *a* and *b* is relative, he means that the identity relation is not two-place but is rather three-place, there being a third place for a sortal. On this view, *a*'s being the same F as *b* and *a*'s being a distinct G from b is no more a difference in *a*, than *c*'s being to the left of *d* and *c*'s being to the right of *e* is a difference in *c*. On my view, in contrast, on one standard for counting *a* and *b* are a single individual that '*a*' and '*b*' both refer to. On another standard for counting *a* and *b* are distinct individuals referred to by '*a*' and '*b*' respectively. The difference between *a* on one standard and *a* on the other enters in to what it is to be *a*.[3] Let me use 'dependent on' instead of 'relative to' in order to capture relativity in this sense.[4]

For simplicity I will assume that there is one standard for counting particulars and another standard for counting universals. In doing so I neglect the fact that particulars have parts, and I neglect the fact that there are complex universals composed of others. Were there higher-order universals instantiated by lower-order ones, I would be neglecting that, too, but I will argue below that there are not. In any event, such complications can be added in later. I am, further, leaving out consideration of relations, which brings additional complications. With these simplifying provisos, then, the standard for counting particulars is:

[3] See the definition of cross-count identity below to see in more detail how this difference enters in to what it is to be *a*.

[4] I am grateful for discussion with Ram Neta and Lionel Shapiro concerning this distinction. Using the terms 'dependent' and 'relative' to make the distinction is likely influenced by Wiggins's (1980: 17) distinction between the sortal dependency of individuation (which he espouses) and the sortal relativity of identity (which he despises). Note that Wiggins would find nothing to like in the theory presented here. Another suggestive distinction is the one Spencer (2014) makes between relationism (of either sort) and variabilism.

PARTICULARS COUNT: Count as single things what instantiate something and are not instantiated by anything.

On the other hand, the standard for counting universals is:

UNIVERSALS COUNT: Count as single things what are instantiated by something.

I don't have a theory of what it is to be a standard, except that standards are meant to be objective. I am using that notion unanalyzed for now. I am also assuming that standards are normative, that they are thus appropriately expressed in prescriptive language, and that prescriptive language involves imperatives (see Hare 1952).

Given this approach, the apparent contradiction in (i), (ii), and (iii) is provisionally resolved as follows:

(i)' *a* is *numerically* distinct from *b*, *on the particulars count*.

(ii)' *a* is *numerically* identical to *b*, *on the universals count*.

(iii)' *a* in (i)' is *cross-count* identical with *a* in (ii)' and *b* in (i)' is *cross-count* identical with *b* in (ii)'.

Cross-count identity deserves to be called "identity" because it is an indiscernibility—one that takes into account that numerical identity is dependent on standards for counting.

CROSS-COUNT IDENTITY: x and y are cross-count identical if and only if all the same qualitative properties are true of them, and all the same non-qualitative properties are true of them on every count.

We can say that cross-count identity is equivalent to cross-count indiscernibility. Let me use 'property' very generally to mean anything true of something. A non-qualitative property will be a property such that whether it is true of something is dependent on standards for counting. A qualitative property will thus be a property such that its being true of something is not dependent on standards for counting. For example, being green, being square, and being wise would be qualitative properties; being four, being an individual, and being identical to Socrates would be examples of non-qualitative properties.

a in (i)' and *a* in (ii)' are cross-count identical. Being a kind of indiscernibility, cross-count identity is an equivalence relation. The fact that cross-count identicals can differ in their non-qualitative properties, depending on the standard for counting, prevents the inference from (i)', (ii)', and (iii)' to the contradiction that *a* is both numerically identical and numerically distinct from *b*. On no standard for counting is that contradiction true.

Numerical identity deserves to be called "identity" because it is being one, single thing. It does not entail cross-count indiscernibility, however. If *a* and *b* on the universals count were cross-count indiscernible then it could not be that on the particulars count that '___ is identical to *a*' is true of *a* and not of *b*. For *a* and *b* would have all the same qualitative properties and all the same non-qualitative properties on each standard of counting. So each of *a* and *b* on the universals count would be cross-count identical to each of *a* and *b* on the particulars count. However, that is not true. Different things can be true of entities numerically identical on some count. Here I appeal to my theory of aspects, though I have not explicitly considered aspects differing in their non-qualitative properties before.[5] See my "Aspects, Self Differing, and Leibniz's Law" (Baxter 2017). On the universals count, *a* and *b* are differing aspects of the same single thing--the universal. Thus numerically identical entities on a count--that is, an individual and one of its aspects, or aspects of the same individual--can fail to be cross-count identical. That is, they differ in some qualitative property, or in some non-qualitative property on some count.

Standard theories of identity have conflated being indiscernible with being one, single thing. The problem of universals motivates us to disentangle them. In light of the truth of (i)', (ii)', and (iii)', numerical identity comes apart from indiscernibility and indiscernibility becomes cross-count indiscernibility. On a count there can be numerically identical entities that are not cross-count indiscernible. Even disentangled, each of being one, single thing and being indiscernible is relevant to calling a relation "identity". Note that individuals numerically identical on a count will be have all the same things true of them on that count. To that extent, the standard conflation of being one, single thing and being indiscernible is fine. It is only when

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[5] Note that I use 'aspect' as a technical term in my account of how different things can be true of numerically identical entities. Aspects are the differing but numerically identical "portions" of individuals. To forestall common misapprehensions, they are not properties and they are not tropes. Denkel (1989: 44-46) employs a suggestive but unexplained use of 'aspect' that in some ways seems to refer to what I refer to by 'aspect' but which has no commitment to the qualitative differing of identical entities.

aspects and more than one standard for counting are brought into the picture, that the conflation becomes a problem.

To summarize so far, let me introduce the following terminology. An individual is something individuated on a count. Particulars are the individuals on the particulars count. Universal are the individuals on the universals count. A particular is cross-count identical with an aspect of a universal. So a universal is partially cross-count identical with the particular.

There is one last important piece to the account, which is why I earlier said it was provisional. Instantiation is the partial cross-count identity of a particular and a universal. From what I have said so far, the particular itself is cross-count identical with an aspect of the universal. But that is not right. It is an *aspect* of the particular that is cross-count identical with an aspect of the universal.

Suppose this were not so. If the particular itself were cross-count identical with an aspect of the universal, then the particular could not instantiate more than one universal. Suppose it did. Then, that particular would be cross-count identical with an aspect of universal F and with an aspect of universal G. So F and G would share an aspect. An individual is numerically identical with its aspects, on a given count. So each of F and G, being individuals on the universals count, would be numerically identical with the shared aspect. So they would be numerically identical with each other. So the particular would not instantiate more than one universal.

Thus if particular *a* instantiates more than one universal F and G, it is only an aspect of *a* that is cross-count identical with an aspect of F, and a differing aspect of *a* that is cross-count identical with an aspect of G. Thus, those two aspects of *a* are numerically identical both to each other and to *a* on the particulars count, and are numerically distinct from each other on the universals count—one being numerically identical to F and the other being numerically identical to G.

From this last important piece of the account, we see that the problem of the One over Many emphasized by Rodriguez-Pereyra is indeed intimately tied up with the problem of universals. The One over Many problem, from my perspective, is that given that instantiation is partial cross-count identity, how can a particular instantiate more than one universal? The solution is that the particular has different aspects, one of which is cross-count identical with one universal and the other of which is cross-count identical with the other universal. Those two aspects of the particular are numerically identical in the particulars count and numerically distinct in the universals count.

I note that Brown's (2017: 895-897) otherwise excellent summary of my account leaves out this important piece. A universal is certain *aspects* of many particulars counting as identical, not the particulars themselves counting as identical. This latter is my account of the relation between parts and wholes (Baxter 1988a, 1988b), but particulars are not generally parts of universals. In Brown's defense I at one point misleadingly say that universals "*are* particulars, strictly identical in a different count" (Baxter 2001: 456). Here what I meant to say is that all particulars collectively on the particulars count (neglecting parts) are all universals collectively on the universals count (neglecting parts). Using language from Lewis (1991: 81), the portion of reality that is all particulars is the same portion of reality as that which is all universals.

Thus the instantiation of a universal by a particular is their cross-count partial identity, that is, their sharing an aspect. In the example above, the two oaks are numerically distinct on the particulars count. Thus on the particulars count, any aspect of the one is numerically distinct from any aspect of the other. Thus oak #1 insofar as it is an oak, is numerically distinct from oak #2 insofar as it is an oak. However, those aspects of the two oaks are numerically identical on the universals count. They are aspects of the same universal, Oak. Thus on the universals count, Oak insofar as oak #1 has it is numerically identical with Oak insofar as oak #2 has it. And finally, oak #1 insofar as it is an oak is cross-count identical with Oak insofar as oak #1 has it. Likewise oak #2 insofar as it is an oak is cross-count identical with Oak insofar as oak #2 has it. Thus each oak shares an aspect with Oak.

The resolution of the contradiction in (i)-(iii) is then ultimately as follows:

(i)" *a* insofar as it is F is *numerically* distinct from *b* insofar as it is F, *on the particulars count*.

(ii)" F insofar as it is had by *a* is *numerically* identical to F insofar as it is had by *b*, *on the universals count*.

(iii)" *a* insofar as it is F is *cross-count* identical with F insofar as it is had by *a*, and *b* insofar as it is F is *cross-count* identical with F insofar as it is had by *b*.

It might be better in order to tell the whole story to add before (i)",

(o)" *a* is numerically distinct from *b, on the particulars count*.

I can then say that the original (i) was a blending of (o)" and (i)", facilitated by the fact that the individuals mentioned in (o)" are respectively identical with their aspects mentioned in (i)" as well as the fact that (i)" follows from (o)".

Why is this solution not a multiplying of entities and a reliance on the ambiguity of '*a*' and '*b*', as I have criticized the standard solution for? First, the aspects which I posit are numerically identical to the individuals (on whatever count) that they are aspects of. Positing aspects does not increase the number of entities. Second, because of all the cross-count identities, all the universals are the same portion of reality as all the particulars. Given all the particulars, positing neither aspects nor universals increases the number of entities.

My solution does rely a bit on ambiguity, however, though perhaps it is better called polysemy given the close relations between what are referred to. '*a*' and '*b*' in (i) refer to individuals on the particulars count, whereas in (ii) they refer to aspects of an individual on the universals count--aspects that are cross-count identical with aspects numerically identical with distinct *a* and *b* on the particulars count. It is those identities that make the polysemy more subtle than on the standard view, and prevents it from being an ambiguity between numerically distinct entities.

And so again, the instantiation of a universal by a particular is their cross-count partial identity, that is, their sharing an aspect.

The introduction of aspects requires some emendation of the original ways of expressing the standards for counting.

PARTICULARS COUNT*: Count as single things what instantiate something and are not instantiated by anything and are maximally united by "the way of location".

UNIVERSALS COUNT*: Count as single things what are instantiated by something and are maximally united by "the way of similarity".

Here I am helping myself without further elucidation to the distinction in Williams 1953:7-9 between "the way of location" as the characteristic way a particular is united across universals and "the way of similarity" as the characteristic way in which a universal is united across particulars. I say "maximally" in order to include all the appropriate aspects in the unities. Otherwise a mere aspect might inappropriately count as a particular or a universal when it should not.[6]

As a side note, it is in this way of sharing aspects that particulars "partake" in universals (Plato 1996: 131c-e).[7] It is a way different from the three supposedly exhaustive possibilities canvassed by Boethius (Spade 1994: 22). These three ways are being "Common by parts" as Boethius puts it with reference to Plato's sail analogy, in which a universal would be broken up into distinct parts; being common "over time" in which the universal would be passed from one particular to the next, and being "common at one time to all, yet not so that it constitutes the substance of what it is common to" in which the universal is merely externally related to many particulars. I am proposing a fourth way: being common by aspects. A universal common by aspects is identical in all its instances in the universals count and so is not broken up into distinct things in that count, unlike being common by parts. It is shared at the same time, unlike being common over time. Yet, unlike Boethius's third way, it helps constitute the substance of what it is common to as follows: Each aspect of the universal is cross count identical with an aspect of a particular that is numerically identical with that particular. Helping constitute the substance of a particular is being identical to the particular in some way. Here then is an account of participation that avoids the disadvantages of Boethius's other alternatives.

II. The Asymmetry of Instantiation

A more nuanced theory of the nature of identity seems well suited to resolve the problem of universals. Yet there seems to be an important objection to such a solution. Cross-count partial

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[6] I am sensible of the inadequacy of my characterization of the standards. That is work for another occasion. I take some comfort from Urmson's (1950: 148) spokesman for the Ministry of Agriculture who said about grading produce, "Proficiency in grading to the most rigid standards is easily acquired in practice, although a precise, and at the same time, simple definition of those standards in words or pictures is a matter of difficulty."
[7] See Armstrong 2004: 140.

identity is symmetric. A particular is partially cross-count identical with a universal if and only if the universal is cross-count identical with the particular. On the other hand, instantiation appears asymmetric. The particular instantiates the universal and the universal does not instantiate the particular. Thus it seems that an asymmetric relation is needed to serve as instantiation and the claimed advantage of not positing another intimate relation in addition to identity in my metaphysical theory cannot be achieved.

The solution to this apparent problem, as noted by Armstrong (2004: 146) is to make use of the difference between universals and particulars. Let me abbreviate 'cross-count partial identity' to 'partial identity'. Instantiation is not simply partial identity; it is the partial identity of a universal and a particular. Thus instantiation has this form: particular ___ is partially identical with universal ___. Instantiation is asymmetric, even if partial identity simplicater is not.

For this solution to work, there must be some fundamental difference between particulars and universals. That difference is the ontological priority of particulars. Particulars instantiate things and nothing instantiates particulars. That is to say there is a sense in which universals depend on particulars such that in that sense particulars do not depend on universals.

Here I might seem to take issue with the "equal rank" part of what Armstrong (1978a: 2) says, "Particularity and universality, it will be argued, are aspects of all reality and of equal rank". However, I agree with what I presume Armstrong intended: neither particulars nor universals can exist without the other existing.[8] However, there is another sense in which universals are dependent on particulars, and not vice-versa, that I take to distinguish them. That sense captures the fact that instantiation bottoms out in particulars. Let me use "qualifiedly dependent" to invoke this other sense.

In "Instantiation as Partial Identity" I try to explain this other dependence by saying that it is possible that there be a universal had by only one particular, but it is not possible that there be a particular possessing only one universal (Baxter 2001: 461). In other words, there can be a

[8] Note that when Armstrong says the world is composed of "'substances' in Hume's sense", that is of entities capable of independent existence, he is speaking of states of affairs involving at least both a particular and a universal (1978a: 115).

singly instantiated universal, but not a singly instantiating particular. The evidence for this claim is all around us. Everything we see is a particular with many properties. Even if we see particulars superficially, the more we come to really see them the more complex in their properties they appear. Further some of these particulars are one of a kind. Some of their properties are singly instantiated universals. But the reader my feel confused. Aren't universals multiply instantiated? So what am I saying here? Clearing this up will clear up the sense of dependence that I am after.

First, some terminology. Let's call a universal "degenerate" if it is potentially multiply instantiated but actually only singly instantiated.[9] I'm borrowing the term we use when we call a point a degenerate circle: a circle with a radius of zero. Let's call a universal "proper" if it is actually multiply instantiated. Likewise, let's call a particular "degenerate" if it potentially instantiates many universals but actually instantiates only one universal, and "proper" if it actually instantiates many universals. Let dependence be a situation in which something of one kind can exist without something of another kind but not vice-versa.

The sense in which universals are qualifiedly dependent on particulars can now be stated. It is possible that a proper particular exists even though no proper universal exist, and it is not possible that a proper universal exists even though no proper particular exists. The possible situation would be one in which there is only a single particular with qualitatively differing aspects. In such a case all the universals in the universals count would be degenerate. The *im*possible situation would be one in which there is only a single universal with differing particularized aspects. Were such a case possible, all the degenerate particulars in the particulars account would be qualitatively uniform within themselves and between each other. But a particular cannot be only one way; it cannot be degenerate. Thus proper universals depend qualifiedly on proper particulars.

The dependence is explained by the fact that a way can be the way of only one particular, but a particular cannot be only one way. So instantiation bottoms out in particulars and instantiated entities are qualifiedly dependent on particulars in the sense just explained.

[9] Armstrong (1978a: 30, 37) takes it to be a necessary condition of being a monadic universal that even if it is only singly instantiated it could be instantiated in any number of particulars.

The ontological priority of particulars consists in their not being instantiated and in their not being qualifiedly dependent.[10]

Here again we see the importance of the problem Rodriguez-Pereyra emphasizes—the problem of the Many over One. It is essential to the solution of the problem of universals, as I have characterized it, that particulars have more than one property.

There is another way to use the above discussion to characterize the difference between universals and particulars. I have said that it is possible that a universal be degenerate--that is, be nothing more than an aspect of one particular--whereas it is not possible that a particular be degenerate--that is, nothing more than an aspect of one universal. This claim is also supposed to help capture that particulars are concrete and universals are abstract. Here I use 'abstract' in the sense emphasized by D. C. Williams (1931 :587). One might object that according to Williams himself (1953:6) tropes are particulars that are abstract. However, I just don't understand this. I find it impossible to conceive of a trope existing except as an inseparable part of a proper particular. I take inseparability to be sufficient for identity.[11] So anything trope-like must be an aspect of a proper particular. So, again, anything particular is concrete--that is, cannot be degenerate--and anything universal is abstract--that is, can be degenerate.

Note that even if my discussion of dependence and my discussion of the concrete/abstract distinction are unsuccessful, there is still the difference between universals and particulars that universals can be degenerate and particulars cannot be. A difference between them is all that is needed for the asymmetry of instantiation.

There is another way to make the point that instantiation is asymmetric on my theory of instantiation as partial identity. Consider Hypatia's instantiation of Learnedness. The aspect of Hypatia shared with Learnedness is Hypatia insofar as she is learned, aka Learnedness insofar as it is had by Hypatia. Were, *per impossibile*, Learnedness to instantiate being Hypatia, the aspect would rather be Learnedness insofar as it is Hypatia, aka, Hypatia insofar as she is had by

[10] I'm grateful to a query from Paul Audi that prompted me to think further about the ontological priority of particulars.
[11] Compare Hume 2007: 17, 399 . Suarez (1947, 40) finds the root of such principles in Aristotle.

Learnedness. One can think that instantiation is symmetric on my account only by confusing the genuinely shared aspect with the impossible one.

There may appear to be a problem with my insistence that instantiation is asymmetric. Scott Brown (2017: 888-889) argues that instantiation is non-symmetric by arguing that there are cases in which it is symmetric and cases in which it is not. He argues also that instantiation is non-reflexive: there are cases in which it is reflexive and cases in which it is not. He concludes that a theory of instantiation as partial identity cannot accommodate these features of instantiation. Therefore, any such theory is extensionally inadequate. Certainly, as I have explained instantiation it is asymmetric and irreflexive, and so my own theory seems vulnerable to Brown’s charges.

Brown argues clearly and well. However, the claim depends on the examples and Brown mentions only two special ones to establish that instantiation is not asymmetric and not irreflexive, namely, *being monadic*, and *being a universal*. Instantiation is to be sometimes symmetric because *being monadic* is a universal and *being a universal* is monadic; instantiation is to be sometimes reflexive because *being monadic* is monadic.

It is clear that these apparent universals are going to be special cases, since as Armstrong (1978b: 142) puts it, the same one of these would be of more than one order. For instance, *being monadic* would apply to *being negatively charged*—so it would be a second-order universal, yet *being monadic* would also apply to *being monadic*—so it would also be a third-order universal. Likewise with *being a universal*. Brown (2017: 892-893) argues that second-order *being monadic* is numerically identical to third-order *being monadic*, on pain of unnecessary proliferation of entities and in light of the fact that the resemblance afforded by each is exactly the same. However, this point makes it clear that such a putative universal is going to be even more of a special case on my account, according to which numerical identity is dependent on count and does not apply cross-count.[12]

[12] Supposing numerical identity between counts seems crucial for the argument at Brown 2017: 897 concerning the same universal being both many and one relative to a single way of counting. If so then the argument is flawed, though I'm not sure I have fully understood the argument.

What makes these putative universals special cases is the fact that the relevant point of resemblance is or involves being instantiated. *Being a universal* is being such that it is instantiated: it shares an aspect with something particular. *Being monadic* is being such that it is instantiated by something particular only one at a time: there is one aspect shared between them such that any aspect shared between them is that aspect or is an aspect of that aspect. However, the fact that being instantiated is or is involved in the relevant point of resemblance shows that they are not universals. For instantiation is not a universal, on pain of Bradley's regress—a regress as vicious as covering every debt from a bad check with a bad check (see Armstrong 1978a: 21). One of the points of an account of instantiation as partial identity was to find a way to make sense of the "non-relational tie" between universals and particulars given that instantiation cannot be a universal. Brown (2017: 892) is right that one needs independent motivation to deny that *being monadic* and *being a universal* and his other example of *being dyadic* are universals, in order to prevent the denial from being ad hoc. That they all involve instantiation in the relevant point of resemblance is the independent motivation.

One might wish that absolutely all points of resemblance were universals; the theory would be cleaner. However, Bradley's regress teaches us that we cannot have that wish.

I here am also taking issue with Armstrong. For the purposes of the following discussion I will use 'property' in Armstrong's (1978b: 17) sense--monadic universal--rather than in the sense I introduced earlier. He does call *being a universal* "a pseudo-property" and not a second-order property, but that is because he takes it to be a determinable. It is being a member of a class of determinate properties such as *being a monadic universal*, *being a dyadic universal*, etc. (1978b: 145). I, however, am denying that these so-called determinate properties are universals.

I must confess I am suspicious of any second-order properties. Armstrong thinks that there are some and that they are all formal or "topic-neutral". His main example is *being complex* (1978b: 137-9). Some first-order universals are complex. For me, however, *being complex* is going to involve cross-count identity between a whole and its parts (1988a, 1988b). Cross-count identity is not a universal. If it were, then instantiation would be. However, instantiation is not a universal, as argued above, so cross-count identity is not a universal. My account of universals enforces this conclusion. A universal is a numerical identity between aspects of distinct particulars, and a universal is an individual. Numerical identity and being an individual are dependent on a given standard of counting. Cross-count identity is not dependent on a given standard of counting. So, again, cross-count identity is not a universal. That complexity involves cross-count identity is thus reason to believe that *being complex* is not a universal. I suspect that any of Armstrong's putative formal properties will involve identity or distinctness in a way that renders them not universals, though I am not giving sufficient argument here.

The closest to higher order properties that I'm willing to countenance at this point is determinables, though they won't actually be higher order properties.[13] Armstrong claims that determinables are not properties for the following reason: if they were, then determinate colors, for instance, would be the same and different in the same respect, namely, color. But nothing can be the same and different in the same respect (1978b: 106). However, given my work on aspects this argument fails. Philosophers have not paid sufficient to the fact that more than one respect can be appealed to in these claims (Baxter 2017: 3). Crimson insofar as it is red is the same as scarlet insofar as it is red. However, crimson insofar as it is crimson is different than scarlet insofar as it is scarlet. So Armstrong's argument does not establish that determinables are not properties. Rather, the fact that two particulars can be identical with respect to being colored—that redness can be "a strict identity, that runs through its many particulars" (Armstrong 2004: 141)—suggests that determinables are indeed properties. My first guess is that determinables are wholes with determinate properties as parts. Redness is crimson, scarlet, fire-engine red, etc., in a count in which they are identical. Note that an aspect that a particular shares with a determinate universal will automatically be shared with the determinable. For instance consider the following aspect: this emergency vehicle insofar as it is fire-engine red. That aspect, since it is shared with *being fire-engine red*, will be shared with *being red*, since the former is part of the latter. Thus the emergency vehicle instantiates

[13] Right now the only higher order universals I'm tempted to countenance are causation and other nomic connections. See Armstrong 1978b: 148-159.

redness, as well. So determinables are not really higher order properties. They are instantiated by particulars.

In any event, the crucial examples that Brown relies on are not universals. Thus we still as yet do not have counterexamples to my claim that instantiation is asymmetric and irreflexive.

In conclusion, the problem of universals is the apparent contradiction that particulars are both distinct and identical. The resolution of the apparent contradiction is provided by my account of instantiation as partial identity. It is part of that account that instantiation is and ought to be asymmetric and irreflexive.

References

Armstrong, D. M. (1978a). *Universals and Scientific Realism,* Vol. I: *Nominalism and Realism*. Cambridge: Cambridge University Press.

Armstrong, D. M. (1978b). *Universals and Scientific Realism,* Vol. II: *A Theory of Universals*. Cambridge: Cambridge University Press.

Armstrong, D. M. (1989). *Universals: An Opinionated Introduction.* Boulder, CO: Westview Press.

Armstrong, D. M. (2004). "How do Particulars Stand to Universals?" *Oxford Studies in Metaphysics* 1: 139-154.

Baxter, Donald L. M. (1988a). "Many-One Identity," *Philosophical Papers* 17: 193-216.

Baxter, Donald L. M. (1988b). "Identity in the Loose and Popular Sense," *Mind* 97 (1988): 575-582

Baxter, Donald L. M. (2001). “Instantiation as Partial Identity,” *Australasian Journal of Philosophy* 79: 449-464.

Baxter, Donald L. M. (2013). “Instantiation as Partial Identity: Replies to Critics,” *Axiomathes* 23: 291-299.

Baxter, Donald L. M. (2017). "Aspects, Self-Differing, and Leibniz's Law." *Noûs* 0: 1-21. doi: 10.1111/nous.12199.

Brown, Scott. (2017). "Against Instantiation as Identity." *Philosophical Studies* 174: 887-900.

Denkel, Arda. (1989). "Real Resemblances." *The Philosophical Quarterly (1950-)* 39: 36-56.

Geach, Peter. (1967). "Identity." *The Review of Metaphysics* 21: 3-12.

Hare, R. M. (1952). *The Language of Morals.* Oxford: Clarendon Press.

Hume, David. (2007). *A Treatise of Human Nature*, vol. 1. Ed. by David Fate Norton and Mary J. Norton. Oxford: Clarendon Press.

Lewis, David. (1991). *Parts of Classes*. Oxford: Basil Blackwell.

Oliver, Alex. (1996). The metaphysics of properties. *Mind*, 105: 1-80.

Peirce, Charles S. (1906). "Prolegomena to an Apology for Pragmatism." *The Monist* 16: 492-546.

Plato. (1996). *Parmenides*. Trans. by Mary Louise Gill and Paul Ryan. Indianapolis/Cambridge: Hackett.

Quine, Willard Van Orman. (1961). "Identity, Ostension, and Hypostasis." In *From a Logical Point of View*, 2nd. Ed., pp. 65-79. New York: Harper and Row.

Rodriguez-Pereyra, Gonzalo. (2002). *Resemblance Nominalism: A Solution to the Problem of Universals.* Oxford: Clarendon Press.

Spade, Paul Vincent, trans. (1994). *Five Texts on the Medieval Problem of Universals*. Indianapolis/Cambridge: Hackett.

Spencer, Jack. (2014). "Relativity and Degrees of Relationality." *Philosophy and Phenomenological Research .*

Strawson, P. F. (1959). *Individuals*. London: Methuen.

Suarez, Francis. (1947). *On the Various Kinds of Distinctions (Disputationes Metaphysicae, Disputatio VII, de variis distinctionum generibus)*. Trans by Cyril Vollert. Milwaukee, WI: Marquette University Press.

Urmson, J. O. (1950). "On Grading." *Mind* 59: 145-169.

Wiggins, David. (1980). *Sameness and Substance.* Cambridge, MA: Harvard University Press.

Williams, Donald Carey. (1931). "The Nature of Universals and of Abstractions." *The Monist* 41: 583-593.

Williams, Donald Carey. (1953). "On the Elements of Being: I." *The Review of Metaphysics* 7: 3-18.