Armstrong on Instantiation as Partial Identity
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ABSTRACT
The paper discusses David Armstrong’s view of instantiation as partial identity between particulars, on the one hand, and properties and relations, on the other hand. Parallel to this, his thesis that true predications are necessary is discussed as well. According to Armstrong himself, his views concerning instantiation and modal status of predication have changed. It is maintained in the paper that the alleged changes of views do not concern the same notion of particular as his old views do.

1. Introduction
David Armstrong argues in a lecture paper, entitled ‘Particulars have their properties of necessity’,* that the instantiation between particulars and their properties is a matter of identity. More exactly, it is a matter of partial identity holding between them. The idea originates, as far as Armstrong is concerned, from Donald Baxter. The latter outlines an argument, aiming at the thesis that instantiation is partial identity, in Baxter 2001. The argument is rather complicated. This is due, not least, to the difficult notion of aspect,† which is

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* A version of this paper was read in the Department of Philosophy, Göteborg University, 17.05.2004. It contains thirty unnumbered paragraphs. References will be made to the paragraphs.
† Baxter’s theory of aspects is presented in Baxter 1999. In Baxter 2001 it is applied to the issue of instantiation.
essential to Baxter’s theory in terms of which the argument is formulated. I will only consider Armstrong’s argument in this paper.

As indicated in the title, the main thesis of Armstrong’s paper is that particulars have their properties of necessity. The same is stated to be true for relations: if \( R^n \) is holding between certain particulars \( a_1, \ldots, a_n \), it does so as a matter of necessity. The partial identities between particulars, on the one hand, and properties and relations, on the other, constitute the foundation for the necessity.

Armstrong informs us that he has come to this view lately. He used to believe that predications, in general, are contingent. Thus, it seems as if the paper involves revisions of formerly espoused opinions concerning rather significant issues.

2. Two views on particulars

* The exception is hinted at like this:

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\ldots \text{I rejected essential properties except for the Lockean notion of properties that are essential relative to some concept in our minds. (Armstrong 2004, § 1)}
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In Baxter 2001, 449, the author describes parts of what used to be Armstrong’s view:

If you believe in universals and particulars, and you believe that neither are simply bundles of the other, then you need to make sense of instantiation, what Armstrong calls the fundamental tie. It needs to be a ‘non-relational tie’. That is, it can be neither an internal nor an external relation, as Armstrong construes them. Internal relations are always necessary — the relata can’t exist without them — but instantiation is sometimes contingent — the relata can exist without it.

Baxter’s own view is that instantiation is a contingent matter in many cases. Cf. Baxter 2001, p. 462. According to Baxter’s theory the tie between a particular and a property is the identity holding between an aspect of the particular and an aspect of the property. Cf. Baxter 2001, p. 453. That Baxter thinks that the tie can hold contingently is due to his view on change. Nothing more will be said about Baxter’s view.
Armstrong's ontological persuasion is a version of immanent realism; i.e., he recognises universals *in rebus*, but not universals *ante rem*. He insists, moreover, on sparseness. For the present discussion the sparseness condition can, and will, be disregarded.

Armstrong considers four different views, concerning the nature of properties and how they stand to particulars. These views are the results of combining two distinctions: one between properties viewed as being tropes† and as universals respectively; the other between (ordinary) par-

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* The sparseness condition is inspired by David Lewis' distinction between abundant and sparse properties. Lewis says:

> The abundant properties far outrun the predicates of any language we could possibly possess. There is one of them for any condition we could write down, even if we could write at infinite length and even if we could name all those things that must remain nameless because they fall outside our acquaintance. In fact, the properties are as abundant as the sets themselves, because for any set whatever, there is the property of belonging to that set. […]

> The sparse properties are another story. Sharing of them makes for qualitative similarity, they carve at the joints, they are intrinsic, they are highly specific, the sets of their instances are *ipso facto* not entirely miscellaneous, there are only just enough of them to characterise things completely and without redundancy. (Lewis 1986, pp. 59-60)

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According to Armstrong, (natural) science is the measure of everything. It will determine the true inventory of universals.

† 'Trope' has become the common term of properties viewed as particulars. It should be noted though that not all trope theories are nominalistic. Quite a few recognise universals. These theories analyse tropes as being composites of universals and something else. What the *something else* is differs between the theories. Two, between themselves very different, examples of such trope theories (though neither uses the term 'trope') are the ones advocated by J. P. Moreland and Donald Mertz respectively. Cf., for example, Moreland 1989 and Mertz 1993.
particulars viewed as being bundles of properties and as composites of subjects* and properties, or attributes, respectively.

Armstrong regards — in his writings before Armstrong 2004 — (ordinary) particulars to be composites of subjects and universal properties.† I suppose he still considers this to be his view.

2.1 The bundle theory
Keeping ontology and epistemology apart, Armstrong thinks that the necessity thesis of predication is pretty obvious with regard to the bundle theory of particulars. It does not matter whether the properties are considered to be universals or tropes. He says:

[T] is it not clear that if a particular is just a bundle of properties, then it is a necessary truth that any particular property [which is a property of the particular in question] is a member of the bundle? We may not know just what properties a certain particular has, but for each such property it is necessary that the particular has that property because the property helps to constitute what that particular is. The

* The term ‘subject’ is one among several used by Armstrong. Others are ‘substance’ and ‘particular’. The preferred term is ‘particular’. Unfortunately, it can be short for ‘thin particular’ as well as for ‘thick particular’. The notion of thin particular has affinities with that of bare particular — or substratum. The thick particulars are the ordinary objects. To the best of my recollection, Armstrong nowhere uses any of the terms ‘thin subject’, ‘thick subject’, ‘thin substance’ or ‘thick substance’. In Armstrong 1997 the term ‘substance/attribute’ is used instead of ‘subject/attribute’. The former is used once in Armstrong 2004. Cf. Armstrong 2004, § 15.
† In Armstrong 1989a, chapter six, a version of the subject/attribute theory with properties being tropes is flirted with. The theory is characterised as being a version of resemblance nominalism. I suspect that this is a mistake though. Judging from the account actually given, tropes’ being what they are is not at all founded upon resemblances between them. Quite the opposite: resemblances hold because of tropes being particularised natures. Be that as it may, in the end Armstrong’s preferred theory is not a trope theory of any sort.
situation seems to be just a particular case of class membership: a’s being $F$, on this view, is a matter of $F$ being a member of the class $\{F, G, H, \ldots\}$ where the members bear to each other a certain bundling relation. And the relation of a member of a class to its class is a necessary one. (Armstrong 2004, § 3)

A particular thing being just a bundle of properties means that there is no subject (thin particular) having the properties. It does not mean that any class of properties is a particular — i.e., an ordinary particular. The relevant difference between bundles, making up particular things, and classes are the constitutive relations. But, this does not change the fact that an ordinary particular necessarily has all the properties it actually has. Obviously, an extensionality principle valid for bundles is presupposed here. *

Some of Armstrong’s modal intuitions are expressed in the following quotation:

I grant that the particular $a$ is a contingent being. The proposition ‘$a$ exists’ is contingent, hence $a$ might not have existed. Furthermore, I grant there might have existed, at the same place and time, a counterpart of $a$, something that closely resembles $a$, although it is not $a$. If anyone chooses to call that contingency, so be it. But this is […] a ‘contingency’ compatible with necessity of the truth that $a$ is $F$. It is a fundamental principle of modal theory, I suppose, that if a truth is necessary, then it cannot also be contingent

* In a paragraph later on Armstrong says that

[m]ere bundling is essentially a bundling of certain items. Bundling is therefore like the class-operator; just what is bundled is of the essence of the resulting entity. (Armstrong 2004, § 7)
(and vice-versa). I think the principle should be upheld.  
(Armstrong 2004, § 4)

Armstrong allies himself with David Lewis, whose modal theory is hinted at close upon the former statement:

[That] the late Hubert Humphrey, might not have had some property that he actually does have [Lewis analyses] in the following way: it is a matter of a counterpart of H. H. in another world than this one lacking that property, but otherwise closely resembling the original particular. Against Kripke’s initially strong-seeming objection that we want the possibility for our Humphrey, Lewis contends, and with great force, that it is impossible that we can do any better than a counterpart, a counterpart that cannot, strictly, be identified with the actual Hubert Humphrey. But if so, then it is surely necessary that Humphrey has just the properties he has and no other. It is impossible for him to be different, then it is a way of saying that he has his properties necessarily. (Armstrong 2004, § 5)

That Humphrey could not have had any other properties than the ones he actually has seems to go against intuitions many of us have. This is not disputed by Armstrong. He thinks there is a confusion though. It is Humphrey himself that is a contingent being. Therefore, the proposition ‘Humphrey exists’ is contingently true.

Like Humphrey and other (ordinary) particulars, the existence of universals is also considered to be contingent:

[U]niversals are also contingent beings, […] any universal might not have existed, but instead a universal very like*

* In Armstrong 1989b a combinatorial theory of possibility is presented. Provided that its tenets still hold, there are restrictions regarding the contents of alternative univer-
the really existing universal might have existed. (Armstrong 2004, § 17)

So, particulars and universals could not really have been different from what they actually are. Armstrong seems to think that they could have been missing though. Thus, the universe* could have been different from what it actually is, since some of its content could have been missing, perhaps replaced by something similar? But, such a universe would not be the same universe as the ‘original’ one, would it? The dialectics of Armstrong’s argument seem to force him to say that it would be a different universe. But, could Armstrong allow the universe to be different from what it actually is?

If the bundle theory has a consequence that true identity statements between proper names and definite descriptions are necessarily true, it may be considered to be an incentive to postulate thin particulars as constituents of the ordinary (thick) particulars.†

2.2 THE SUBSTANCE/ATTRIBUTE THEORY
Armstrong says that with regard to the substance/attribute theory of particulars the necessity thesis of predication is less obvious. He gives an explanation of this:

* Though the universe perhaps is not an ordinary particular, I suppose it is a particular rather than a universal.
† Herbert Hochberg discusses matters like this in Hochberg 1964. According to him, the tie between a particular and its properties is contingent. This is so despite the fact that he advocates — at least tentatively — a bundle theory.
This is because a subject/attribute analysis creates a certain ‘distance’ between a particular and its properties, a distance not present in bundle theories. On the subject/attribute view the *particularity* [my italicizing] of a particular is not exhausted by the bundling together of its properties. But if so, cannot we introduce the notion of the ‘bare’ or ‘thin’ particular which has its properties contingently? Mere bundling is essentially a bundling of certain items. Bundling is therefore like the class operator, just what is bundled is of the essence of the resulting entity. But given a subject/attribute analysis, the subject, the particular, seems to stand in some way or degree outside its properties. So may not the connection between subject and its attributes be contingent? (Armstrong 2004, § 7)

Armstrong answers the question of the last sentence in the negative. Thus, I presume that Armstrong’s focus of interest has shifted. As he now sees it, what is of prime relevance is that the properties of a particular are constituents* of it. The intended particular cannot be a thin one, since such an entity cannot reasonably have any properties as constituents.† It would go against its being *thin*. Armstrong says, with reference to properties being constituents of particulars:

* Besides ‘constituents’ he also uses the term ‘parts’. He prefers the former. ‘Constituents’ marks, without solving any problems, that there is an important difference between, on the one hand, the properties of a particular and, on the other hand, the ordinary parts of the same particular.

† One of Armstrong’s arguments for the existence of thin particulars is properties considered as *ways*. At one place this is stated thus:

If properties are not so much *thingy* entities, but rather are *ways* that things are (something that in no way derogates from their mind-independent reality), then we cannot dispense with particulars in this sense, with what can be called the *thin* particular. (Armstrong 1997, pp. 123-124.)
In the past I half-recognized this point, but I distinguished between the thin particular, which was the particularity of a particular abstracted from its properties, and the thick particular that included these properties. This left the properties outside and merely contingently connected to the thin particular, leaving the fundamental tie between thin particular and its universals a very puzzling matter. Baxter’s call was for a more thorough interpretation of particular and universal. (Armstrong 2004, § 14)

Instead of a puzzling tie between a thin particular and properties, something more intelligible is sought for. Bearing this in mind, he continues:

This strengthens the impression that thin particulars are considered (at least sometimes) to instantiate properties. The same impression is confirmed by what is stated in another work:

The thin particular is a [a thick particular], taken apart from its properties (substratum). It is linked to its properties by instantiation, but it is not identical with them. It is not bare because to be bare it would have to be not instantiating any properties. But though clothed, it is thin. (Armstrong 1989a, p. 95)

A thick particular is, in both these works, conceived of as being a state of affairs. Armstrong says:

[L]et us conjoin all the non-relational properties of a certain particular, a, or perhaps, in order to allow for temporal parts, a at a certain instant. Call the resultant the property \(N\) (for nature). The thick particular \(a\) is now seen to be identical with the state of affairs of \(a's\ being \(N\). (Armstrong 1997, p. 125)

The thick particular \(a\) is identified here with the state of affairs \(a's\ being \(N\). This is a bit surprising, since \(a\) then seems to be identical with a state of affairs having \(a\) as a constituent. One would rather have expected a thin particular instantiating \(N\) to be identical with the thick particular, i.e. the state of affairs. Obviously, there is an elusiveness in what Armstrong says concerning this matter.
What has to be done [...] is to re-think the notion of the thin particular. This can be achieved by conceiving the particular as a one running through the many properties, a ‘one in the many’, a uniting factor or principle in virtue of which they are all properties of the same particular. This comes closer to the bundle theory, but I don’t think it is a bundle theory. The factor of particularity, though inseparable from the universals it unites, is not analysed away as it is in bundle theories. (It is worth noticing that this account of particulars seems to be as much available to those trope theorists who accept a substance/attribute account as it is available to upholders of universals. They could, and I think should, think of ordinary particulars [my italicizing] as ones that run through many tropes in virtue of which the tropes are all properties of the one particular.) (Armstrong 2004, § 15)

It is the thick particular which is thought of as running through properties. This is clear from what is stated in the second half of this quotation. Furthermore, the same particular — i.e., a thick particular — is also thought of as being the factor in virtue of which properties are properties of the same particular. So, the rethinking of the thin particular seems to result in its being irrelevant. In any case, the relation between thin particulars and properties — which is characterised as being a very puzzling matter — is not the one under consideration any more.*

* The tie between thin particulars and properties has been the one attended to in the past. This appears from Armstrong 1997, p. 267. From the context it is obvious that the intended particulars here are thin particulars.

The contingency of states of affairs cannot be abandoned, I think. But it is not implausible to argue that it is necessary that a particular have some non-relational property (or just possibly some property, non-relational or relational), although just what that property is, is
In a paragraph further on, the following is said regarding universals:

The universal is a one that runs through its particulars just as the particular is a one that runs through its universals.

(Armstrong 2004, § 18)

Thus, Armstrong considers there to be a reciprocal running through between particulars and universal properties. What is meant by the metaphor ‘a one running through many’? Well, that a (universal) property is a one running through many is not so hard to understand. Since such a property can be something which many things have in common, it can be intuitively described as running through these things. But, it is more difficult to make sense of the metaphor applied to a (thick) particular. It seems more adequate to consider particulars as enclosing their properties. The (thick) particulars, with all their properties as constituents, are too corpulent to be capable of running through single properties.

It is explicitly stated that the partial identity between a particular and its properties is constituted by the properties being constituents of the particular.† This and the picture of a reciprocal running through between particulars and properties inspire Armstrong’s view of predication as being a matter of necessity:

[It] seems to me that if a universal is partially identical with its particulars then it will be necessary that the particular instantiates that universal. A particular that did not in-

not necessary. Similarly, it would be necessary that every universal be instantiated, although not necessary that it be instantiated by the particular particulars it is actually instantiated by.

* If the conjunction of all the properties of a particular is itself a (conjunctive) property, the particular could perhaps be described as running through that (conjunctive) property; as well as through properties which have this property as a constituent. Armstrong does not mention this possibility though.

† Armstrong 2004, § 14. The term actually used is ‘parts’, not ‘constituents’.
stantiate that universal would not be that particular. So I now think that where $F$ is a universal and $a$ has $F$, it is a necessary truth that $a$ has $F$. (Armstrong 2004, § 16)

Instantiation being partial identity, and partial identity in itself being symmetrical, it would be appropriate saying that universals instantiate particulars. In paragraph twelve Armstrong indeed talks about a universal instantiating a particular.

3. Partial identity and relations
Like most philosophers, Armstrong makes a distinction between internal and external relations respectively. They will be discussed in that order.

3.1 Internal relations
In Armstrong 2004, the distinction between internal and external relations is introduced like this:

A fairly traditional way of classifying relations in metaphysics, going back to Hume* at least, is into internal and external relations, where internal relations are those necessitated by their terms. For instance, given two objects of different sizes, with $a$ bigger than $b$, then this relation bigger than holding between $a$ and $b$ is internal. (I’m making the assumption here, a plausible one I think, that size is a non-relational property of objects.) This bigger than relation seems to supervene on the two objects having the size they have, and I’d argue that ontologically there is nothing there except the two objects with their sizes. Contrast this with

* Considered from what Hume explicitly says, the scope of his distinction is limited to ideas. Cf. Hume 1978, Part III, Section I. Furthermore, Hume does not use the terms ‘internal’ and ‘external’ in combinations with the term ‘relation’.
the two objects being a mile apart, an external relation.

(Armstrong 2004, §19)

Exactly what is stated here concerning the phenomenon of supervenience? The phrase ‘ontologically there is nothing there except the objects with their sizes’ very much suggests identity or reduction of some sort. Is the thesis that the state of affairs \(a\) is bigger than \(b\) is identical with the conjunction of the two states of affairs \(a\) is \(S\) and \(b\) is \(S'\), where \(S\) and \(S'\) are two specific sizes? Or, is it that the relation bigger than is identical with the conjunction of the two states of affairs \(a\) is \(S\) and \(b\) is \(S'\)? The latter seems to be a bit absurd. What about the former interpretation? Can \(R(a, b)\) — with \(R\) being the relation bigger than — really be identical with \(S(a) \& S'(b)\)? Identity does not seems to be likely here.

Perhaps, the term ‘supervenience’ is intended to indicate that an internal relation, or a relationship consisting of an internal relation and relata, is not identical with or reducible to the relata and their natures. This would be in accordance with the intuitive sense of ‘super’. But, if that is so, it is hard to see what is intended by a phrase such as ‘ontologically there is nothing there except the objects with their sizes’. Let us see what Armstrong says in other works concerning supervenience.

In an earlier work supervenience is described in terms of an ontologically free lunch:

The terminology of ‘nothing over and above’ seems appropriate to the supervenient. One may call this view, that the supervenient is not something additional to what it supervenes upon, the doctrine of the ontological free lunch. Like other free lunches, this one gives and takes away at the same time. You get the supervenient for free, but you do not really get an extra entity. (Armstrong 1997, pp. 12-13)

In another place, close upon the former, the last statement is emphasised:

\[T\]he supervenient is ontologically nothing more than its base. But some ontological doctrines appear to lead to
superveniences that are more than their bases. If one still wishes to hold that the supervenient is no addition of being, then one has either to explain away these appearances as mere appearances, or else reject these doctrines just because they lead to superveniences that are additional to their bases. The latter course, a bold one perhaps, but I trust not foolhardy, is the one that I generally find myself advocating. (Armstrong 1997, p. 13)

In another work it is stated, concerning the internal relation of resemblance, that it supervenes on the natures of its relata. This is declared to mean that the relation is not something distinct from the subvenient entities. In the same work a definition is presented. I take it that it is intended to be a general definition of supervenience:

I favor, and will use, a definition in terms of possible worlds: Entity Q supervenes on entity P if and only if every possible world that contains P contains Q. This definition allows particular cases of supervenience to be symmetrical: P and Q can supervene on each other. (Armstrong 1989a, p. 56)

I suppose that a conjunction of two states of affairs, such as \( S(a) \& S(b) \) is an entity according to the definition. If that indeed is the case, the entity \( R(a, b) \) is supposed to supervene on that entity. According to the definition, the former also supervenes on the latter. Is this correct? Well, since the entity \( R(a, b) \) would supervene on a lot of other entities as well.

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* Cf. Armstrong 1989a, p. 56. The subvenient entities are the ones the supervenient entity supervenes upon.
† The remark will hold even if the entities are properties and (internal) relations, instead of states of affairs and conjunctions of such.
‡ In an infinite set of possible worlds there would be an infinite set of pairs of sizes that are subvenient in relation to \( R(a, b) \).
the reverse implication cannot be allowed to hold without restriction. Curiously enough, Armstrong seems to be aware of this. Ponder upon the following statement, where the internal relation at issue is resemblance:

Given the natures of $a$ and $b$, they must resemble to the exact degree that they do resemble. (Although it would be possible for them to resemble to that exact degree yet have different natures.) (Armstrong 1989a, pp. 55-56)

It seems fair to say that the discussion indicates that Armstrong’s notion of supervenience is problematic.

The gist of Armstrong’s reasoning about internal relations, in Armstrong 2004, is that the true ontological form of internally relational states of affairs is not $R(a, b)$. It is instead $F(a)+G(b)$. I.e., an internal relational state of affairs is (nothing more than) a mereological sum of two qualitative states of affairs. So, predications of (true) internal relations are necessary, since the predications of properties are necessary. I hope my remarks have shown that there is some uncertainty as regards the notion of supervenience. The latter playing an important role in Armstrong’s reasoning.

3.2 External relations

According to Armstrong, the external relations — in contrast to the internal relations — involve states of affairs besides the qualitative ones. Properties — in Armstrong’s ontology, monadic universals — are considered to be constituents of their particulars. They are, so to say, lying within their particulars. Armstrong wants the same to hold with regard to external relations — the polyadic universals. He says:

But how are we to bring external relations within their instantiating particulars? It may seem a rather opaque idea […]. My present idea is to provide more clarity by exploiting the link between external relations and what I call structural properties. The latter are monadic, but they at-
tach to a particular in virtue of the way the proper parts of that particular are related to each other. For a simple example think of a blade and a handle fitted together to make a knife. *Having a blade and a handle standing to each other in this way* is a structural property of an object, the object that is the mereological sum of this blade and this handle. (Armstrong 2004, § 21)

Thus, an external relation is brought within a particular by summation of particulars. The particular, which has the relation within itself, is the sum of the related particulars. He asserts that every (external) relation gives rise to a monadic, structural property.

From what is stated above, Armstrong concludes that the ontological form of all instantiations is \( x \) is \( F \). But, why consider the (monadic) structural property to be ontologically primary to the (polyadic) relation? After all, he explicitly says that (external) relations yield states of affairs. This indicates that the (external) relations are not dependent on structural properties. It is rather the other way around — the structural properties are dependent upon (external) relations.

I allow myself here to speculate a bit. Perhaps, what is behind all this is (again) Armstrong’s notion of supervenience. He could be presuming that the pair external relation—structural property is a case of mutual supervenience. If a certain (external) relation is holding between its terms, the sum of these terms has a certain monadic structural property. If we start in the other end, i.e. from the sum of terms having the structural property, certain terms have a certain (external) relation holding between themselves. Given that this is what he considers to be the case, and that he (tacitly) embraces the view that the monadic has primacy over the polyadic, the monadic predicational form can be taken as being the primary one.

An alternative explanation of why Armstrong holds that the form of all predications is the monadic one might be the following. If it is not the true form of all predication, the (general) necessity thesis may be wrong.
References


