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Metaphysics and Scientific Realism

Essays in Honour of David Malet Armstrong

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Peter van Inwagen

In Defense of Transcendent Universals

1 Armstrong's ontological method

David Armstrong and I have very different ideas about method in ontology (and more generally in metaphysics, and, more generally still, in philosophy), and that fact alone is perhaps sufficient to explain why our positions on the questions of the existence and nature of universals are so different – so vastly different.¹

I will begin by giving a rather abstract description of the method that Armstrong has used in his work on "the problem of universals" – or, as I should prefer to say, the questions 'Are there universals?' and 'Given that there are universals, what is their nature?'. (I put the phrase 'the problem of universals' in scare-quotes and suggest an alternative phrase because, although I believe that there are many philosophical problems about or raised by universals, I do not think that there is any one philosophical problem that deserves to be called the problem of universals.)

Armstrong's approach to these questions is the approach of a theory builder: he approaches them by attempting to construct a theory of universals – an explanatory theory, a theory whose purpose it is to explain certain data. (He will conclude that there are universals because postulating their existence helps to explain these data. He will ascribe a certain nature to them because ascribing that nature to them helps to explain these data.) He begins by collecting and setting out the data the theory is to explain. Here are some examples of facts (I have no objection to describing them as facts) that are among these data:

The display

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in one sense contains one word and in another sense contains two words.

Two tennis balls are before us; they are numerically distinct, and yet they are identical in certain respects: for example, they are identical in color, shape, and size (each is optical yellow; each is a ball; the diameter of each is 6.7 cm).

 $[{]f 1}$ For reasons of both sentiment and stylistic convenience I will speak of David in the present tense.

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Having collected these (and many other) data, he attempts to construct (or to discover by surveying the relevant philosophical literature) theories that account for them or purport to account for them. He does his best to refine and improve the theories he constructs or discovers, to present each of them in the strongest form possible. He proceeds to compare the members of the inventory of theories so obtained with one another in order to see which of them is the best. He is, however, aware that it is all but inevitable that there will be no straightforward, unassailable answer to the question which of these theories is the best. For one thing, philosophers may disagree about what features a good theory may have or should have. Armstrong himself counts "postulates the existence only of spatio-temporal entities" as a "good making" feature of a theory, but other philosophers will less friendly toward, perhaps even hostile to, theories of universals that postulate only spatio-temporal entities. Or some may see this feature as a great advantage in a theory and others as an advantage but only a very small one. It is, moreover, unlikely that even philosophers who in the abstract accept the same features as advantages and the same features as disadvantages will agree about which of a given class of theories is the best. He has said,

We have to accept, I think, that straightforward refutation (or proof) of a view in philosophy is rarely possible. What has to be done is to build a case against, or to build a case for, a position. One does this, usually, by examining many different arguments and considerations for and against a position and comparing them with what can be said for or against alternative views. What one should hope to arrive at [...] is something like an intellectual cost-benefit analysis of the views considered.

[...] One important way in which different philosophical and scientific theories about the same topic may be compared is in respect of intellectual economy. In general, the theory that explains the phenomena by means of the least number of entities and principles (in particular, by the least number of *sorts* of entities and principles) is to be preferred.

[...] Other things being equal, I shall account the more economical theory the better theory.²

My own approach to ontological questions (and, in particular, to the questions of the existence and nature of universals) is entirely different.

As I see matters, the things we say in everyday life and in the sciences, and our everyday and scientific beliefs, have ontological implications, among them implications as regards the existence and nature of universals. It is, I believe, the task of ontology to draw out the ontological implications of our everyday and scientific

beliefs and assertions. And the way to draw out these implications (I contend) essentially involves the method Quine has recommended. By way of example, consider the following argument.

Any two mature unmaimed conspecific female spiders have the same anatomical characteristics

Any spider and any insect share certain anatomical characteristics

Therefore

For any insect and any two mature unmaimed conspecific female spiders, there are anatomical characteristics that belong to that insect and to both spiders.

This argument is valid. If anyone doubts its validity, those doubts can be removed by the simple expedient of pointing out that its "obvious" translation into the quantifier-variable idiom is *formally* valid. And that obvious translation is this or something very much like it:

 $\forall x \forall y \ (x \text{ is a mature unmaimed female spider } \& y \text{ is a mature unmaimed female spider } \& x \text{ and } y \text{ are conspecific} \rightarrow \forall z \ (z \text{ is an anatomical characteristic} \rightarrow . x \text{ has } z \leftrightarrow y \text{ has } z)).$

 $\forall x \forall y \ (x \text{ is spider } \& y \text{ is an insect.} \rightarrow \exists z \ (z \text{ is an anatomical characteristic } \& x \text{ has } z \& w \text{ has } z))$

Therefore

 $\forall x \forall y \forall z \ (x \text{ is an insect } \& y \text{ is a mature unmaimed female spider } \& z \text{ is a mature unmaimed female spider } \& y \text{ and } z \text{ are conspecific } . \to \exists w \ (w \text{ is an anatomical characteristic } \& x \text{ has } w \& y \text{ has } w \& z \text{ has } w)).^3$

Well and good. But... consider the second premise of this argument; and consider the obvious truth ' $\exists xx$ is a spider . & $\exists xx$ is an insect'. From these two sentences one may formally deduce

 $\exists x$ is an anatomical characteristic.

It seems, therefore, that careful formal analysis of some very simple beliefs we all have about spiders and insects shows that these beliefs entail the existence of

² Armstrong 1989, 19–20. Italics in original. I take 'positions' and 'views' to be – in this context – stylistic variants on 'theories'.

³ One might want to insert '& $y \neq z$ ' at the obvious place. The English is ambiguous. This ambiguity is not relevant to my argument.

anatomical characteristics. Any anatomical characteristic is of course a characteristic, And 'characteristic', 'feature', 'property', 'attribute' and 'quality' are all synonyms or as near to being synonyms as makes no matter. Some of our most ordinary beliefs, therefore, in Quine's famous phrase, carry ontological commitment to properties or attributes. Or, so, at any rate, I have often contended. And properties or attributes are certainly "universals." And, if one is convinced that arguments of this sort prove that we are "committed" by various things that we say and believe (and many of which most of us would regard as obviously true) to such things as "characteristics," one may go on to consider philosophical arguments for and against such theses as 'There are characteristics that nothing has' and 'Some characteristics are impossible' and 'Characteristics are ontological constituents of particulars'. That is, one may go on to investigate the nature of "characteristics."

It is not my intention to discuss arguments of these kinds in any greater detail than this. Those who want detail can find it in my "A Theory of Properties."5 But if I say that the method I have employed in my attempts to reach conclusions concerning the existence and nature of universals has been, first, to attempt to show that various of our everyday and scientific beliefs and assertions imply the existence of characteristics (or properties or features or qualities or attributes – call them what you will) and, secondly, to investigate the nature of these items, I have not said enough. I must also answer the question whether my approach to the questions 'Do universals exist?' and 'Given that universals exist, what is their nature?' is not as much "the approach of a theory builder" as Armstrong's. After all, is the title of my principal work on the topic not "A Theory of Properties"?

And here is my answer. There is a significant difference between Armstrong's "theory" of universals and my "theory" of properties. Armstrong's theory is in part an explanatory theory, a theory that is intended to explain certain data by postulating universals (and ascribing a certain nature to these postulated entities). My theory of properties is a purely descriptive theory: a theory that consists

entirely of statements about what sorts of things properties (characteristics, etc.) are and how they are related to one another and to their instances. (Of course any "Armstrong style" theory of universals will have a descriptive component. It will incorporate descriptive statements like 'A universal is wholly located at any place at which one of its instances is located'. But the "descriptive component" of a "van Inwagen style" theory of universals is the whole of the theory.) My method for approaching the question of the existence of properties is to attempt to show that our language and our thought (the affirmations and beliefs we bring to philosophy) define a role that can plausibly be described as the "property role," and to defend the thesis that there are objects that play that role. My theory of properties is an attempt to describe the nature the objects must have if they are to play that role.

My theory of the nature of the things that play the property role – for example, the things, other than spiders and insects, that we "quantify over" when we assert that spiders and insects share certain anatomical characteristics – has been aptly described by Kenny Boyce as "lightweight platonism." 6 'Platonism' because the theory contends that universals are invisible, intangible, achronic and nonspatial things that exist at all times and in all places⁷ and in all possible worlds, and whose existence is serenely indifferent to whether they have instances: if a universal has instances/has no instances at one time and has no instances/has instances at a later time, that is a "mere Cambridge" change in that universal; there is no sense whatever in which a universal is a "component" or "constituent" of its instances. 'Lightweight' because, as I view matters, universals are "anetiological"; they have no causal powers and they are not such as to respond to the causal powers8 of those things that do have causal powers. (Plato's Forms or Ideas certainly had causal powers.)

⁴ A "universal" is a thing that has, or can have, instances. They are the entities that are "universal to" their instances. A sentence-type (if sentence-types in fact exist; I omit the corresponding qualification in the examples that follow) is a universal whose instances are its tokens. A novel is a universal whose instances are the tangible copies of that novel. A property is a universal whose instances are the things that have that property. (A terminological warning: in the usage of some philosophers, "property-instances" are not the things that I am describing as instances of that property.) A relation is a universal whose instances are the sequences of things that stand in that relation. (Philosophers who affirm the existence of impossible properties and relations will obviously need to qualify the statement 'A universal is a thing that has, or can have, instances' in some way.)

⁵ Van Inwagen 2004.

⁶ Kenneth A, Boyce, Towards a Fictionalist Nominalism (A dissertation submitted to the Graduate School of the University of Notre Dame in 2013 in partial fulfillment of the requirements for the degree of Doctor of Philosophy.) See pp. 31ff.

⁷ If they are "achronic" and "non-spatial," what can be meant by saying that they exist at all times and in all places? Well, let us say that if God were to provide us at some time and place with a list of all universals, he would have provided the same list at any other time or place. Perhaps, rather than saying that universals exist at all times and in all places, it would be better to say that statements about the existence of universals - unlike statements about their having or not having instances – cannot be temporally or spatially qualified. To ask when or where a universal exists is to ask a question that betrays a misunderstanding of the nature of universals.

⁸ As I see causal powers, they are themselves properties; that is, some properties are causal powers. Suppose that a poker that has been removed from the fire is now hot enough to scorch paper. The property "being hot enough to scorch paper" is a causal power but has no causal powers; it is concrete particulars (or substances) like the poker that have causal powers.

I will not attempt to explain why I maintain that properties (the only universals I have discussed in any detail) have the features listed in the preceding paragraph.9 My purpose in this paper is to attempt to respond to Armstrong's criticism of a class of theories of universals of which mine is certainly a member. He calls the doctrine that is common to all such theories transcendent realism. (Armstrong supposes that transcendent realism is an explanatory theory – that the platonic or transcendent universals whose existence is affirmed by transcendent realism are entities whose existence transcendent realists postulate to explain the same data as those he is attempting to explain. 10 As we have seen, I do not "postulate" the existence of transcendent universals - I have no particular objection to calling the "properties" of which my theory treats 'transcendent universals' -, and my theory is in no sense an explanatory theory. I am going to treat Armstrong's supposition as a false statement about the reasons a transcendent realist must have for being a transcendent realist, and not as a part of the content of transcendent realism. And, indeed, the explicit definition of 'transcendent realism' that Armstrong provides says nothing about the reasons a transcendent realist might have for embracing transcendent realism.)

2 Armstrong's primary critique of transcendent realism

I will now set out Armstrong's account of transcendent realism and what I believe to be his primary critique of this position. ¹¹ In the course of doing this, I will show that his critique does not apply to my own version of transcendent realism.

We have, first, from the "Glossary of terms used and principles formulated" at the end of the first volume of *Universals and Scientific Realism*:

Immanent realism: the doctrine that admits universals but denies that they are transcendent. (p. 137)

Transcendent realism: The doctrine that universals exist separated from particulars. (p. 140)

Chapter 7 of that volume, "Transcendent Universals," opens with these words:

We turn now to a version of Realism¹² [It is] a *Relational* theory. According to this view, a has the property, F, if and only if a has a suitable relation to the transcendent universal or Form of F... It will be convenient to speak of transcendent universals as Forms. (p. 64)

These statements do not apply to my own version of transcendent realism. As I see matters, "the property F" is a transcendent universal. All properties – I contend – are transcendent universals, and some at least of transcendent universals are properties. I am, of course, willing to say that a has the property F if and only if a has a suitable relation to the property F,¹³ but I take that "suitable relation" to be the one expressed by the verb 'has' in the previous clause. That is, I am willing to say, "a has the property F if and only if a has the property F" (as who wouldn't be?).

And what is this relation I call (and all other speakers of English call) 'having'?¹⁴ 'Has' is not a technical term, but a word that belongs to our ordinary speech. Of course, like most everyday words, it has many senses, and these must be distinguished in a philosophical discussion of the nature of universals (as the 'true' of 'true friend' and the 'true' of 'true statement' must be distinguished in a philosophical discussion of the nature of truth). Obviously, when we say that a thing has a certain property, we are not using 'has' in any of the senses of the word illustrated by the following examples: 'Alice has a cold/has a grievance /has a Lexus/has a husband'. 'Has', like 'can' and 'is' is a very versatile word. But the sense of 'had' in the sentence 'Solomon had the property wisdom' (and in any sentence with the same semantical structure) is uniquely determined by, and is evident from an examination of, the sentence as a whole. The proposition expressed by this sentence, moreover, can be expressed by other sentences, sentences that make use of other everyday idioms. The following sentences of ordinary English all express the same proposition, or at least come as close to

⁹ The interested reader can consult van Inwagen 2004, particularly pp. 125–138.

^{10 &}quot;Transcendent [Universals] . . . are theoretical entities, standing apart from the ordinary world, postulated in the same general sort of way that atoms or genes were postulated, to explain certain phenomena. In a matter of fundamental ontology, this is a *prima facie*, though certainly no more than a prima facie, disadvantage of the theory of [Transcendent Universals] Not only are [Transcendent Universals] postulated entities, but so is the relation between particular and [Transcendent Universal] which bestows a nature upon the particular." (Armstrong 1978, 66).

¹¹ The quotations that follow are from Universals and Scientific Realism: Volume I.

¹² The "version of Realism" being transcendent realism.

¹³ Although I should prefer to say 'if and only if *a* stands in a suitable relation to the property F' or 'if and only if *a* and the property F are suitably related'.

¹⁴ *I* call it a relation. Others prefer other terms – 'tie' being one popular alternative. But call it what you will. Note that "having," if it is a relation, would seem to be an *internal* relation (like "is the same color as"), at least when it is asserted to hold between an object and an *intrinsic* property. Whether "having" holds between Solomon and wisdom – assuming that wisdom is an intrinsic property – is "settled" by the intrinsic properties of Solomon and wisdom.

expressing the same proposition as do 'The capital city of France is Paris' and 'Paris is the French capital':

Solomon had the property wisdom.15

Wisdom was one of Solomon's properties.

The property wisdom belonged to Solomon.

Wisdom can be truly predicated of (or 'ascribed to') Solomon.

This relation, I contend, the relation these sentences assert to hold between Solomon and wisdom, is as familiar and well-understood as it is hard to explain or give an account of. I would say that it was hard to explain because it was hard—impossible, in fact—to find simpler or better-understood ideas in terms of which to explain it.

Now in what sense is transcendent realism a "relational" theory? Not, surely, because it implies that Solomon had the property wisdom if and only if Solomon had the property wisdom? Perhaps what Armstrong was trying to say in terms of quantification over properties and "transcendent universals" could be put more clearly in terms of quantification over terms (names and definite descriptions) and predicates:

Transcendent realism is a Relational theory. According to this view, for any term a and any predicate \mathbf{F} , the sentence $\neg a$ is \mathbf{F} if and only if a has the property of being $\mathbf{F} \neg$ expresses a true proposition (and so for 'was' and 'had', *mutatis mutandis*) – and, indeed, a *necessarily* true proposition.¹⁶

For example, on this account of transcend realism, the sentence 'Solomon was wise if and only if Solomon had the property of being wise' expresses a (necessarily) true proposition. And this (so I interpret Armstrong's reasons for calling tran-

scendent realism a relational theory) implies that the proposition that Solomon was wise is a *relational* proposition owing to the fact that, according to transcendent realism, it is true if and only if Solomon bears a certain relation – "having" – to the property of being wise (or more idiomatically, to the property wisdom). And this is not simply a contingent truth if transcendent realism is true: transcendent realism implies that Solomon could not *possibly* have been wise without bearing this relation to the transcendent universal wisdom, an object that exists independently of Solomon and whose being in no way overlaps his being (an object that is, as one says, an inhabitant of the Platonic heaven).¹⁷

If that is indeed a fair reconstruction of Armstrong's reason for saying that transcendent realism is a relational theory, ¹⁸ it is not a good reason. There are at least two points to be made against it. I will conclude this section with a discussion of the first of these points, a very minor one. The second and much more important one will be addressed in section 3. The first point, the minor point, , is that the universal quantification

For any term a and any predicate F, the sentence $\neg a$ is F if and only if a has the property of being $F \neg$ expresses a true proposition

is not true — or at least it is an eminently defensible position that it is not true. For consider wisdom. It is evident that this property is not itself wise; we may therefore say that wisdom is *non-self-applicable* (unlike, say, the property "being an abstract object" — which *is* an abstract object). And a good case can be made for saying that the sentence

Wisdom is non-self-applicable if and only if wisdom has the property of being non-self-applicable

expresses a false proposition – or, at any rate, does not express a true proposition. The left-hand constituent of the biconditional seems obviously true, and it is hard to see how its right-hand constituent could be true, owing to the fact that (as Russell has shown) it is hard to see how there could be such a property as the property of being non-self-applicable. (Let 'N' abbreviate 'the property of being non-self-applicable'. If N exists, N is non-self-applicable if it is self-applicable

¹⁵ I concede that it is unlikely that anyone but a philosopher would ever utter or inscribe the sentence 'Solomon had the property wisdom'. (Presumably for pragmatic reasons: because in any ordinary context, anyone who said, "Solomon had the property wisdom," would set his or her audience to wondering what the point of saying that rather than "Solomon was wise" might have been.) But an utterance of the following sentence would be unsurprising: 'Wisdom is not a usual property of hereditary monarchs; if Solomon indeed had this property, as pious tradition holds, he was one of very few kings who did'.

¹⁶ Why do I formulate this thesis by employing quantifiers that bind nominal variables ranging over linguistic items (terms and predicates)? Why do I not use a quantifier that binds variables in predicative positions; why do I not use an expression along the lines of ' $\forall x \forall y (\mathbf{F}x \leftrightarrow x)$ has the property of being F)'? The short answer is that I believe that the idea of variables that occupy non-nominal positions (e.g., predicative positions and sentential positions) makes no sense.

¹⁷ This last qualification is important. Without it, Armstrong's own theory of universals could with equal justification be described as a relational theory. For anyone who accepts Armstrong's theory will accept the following thesis: For any term a and any predicate \mathbf{F} , $\ A$ thick particular a is \mathbf{F} if and only if a has the property of being \mathbf{F} as a constituent $\ \mathbf{F}$ expresses a true proposition.

¹⁸ Paul Audi clearly and explicitly gives this as a reason for classifying my own theory of properties as a relational theory. See Audi 2013, 755–756.

and self-applicable if it is non-self applicable. N is therefore - if N exists - both self-applicable and non-self-applicable. Hence, N does not exist.) And if 'the property of being non-self-applicable' has no referent, then the right-hand constituent of the biconditional is false and the biconditional is therefore false. (At any rate, the biconditional is certainly not true.)

Armstrong's argument for the conclusion that transcendent realism is a relational theory does not really require that transcendent realists accept this general principle, however. The argument requires only a restricted version of the general principle:

For any term a and any predicate F, if a denotes a concrete particular, then the sentence $\neg a$ is **F** if and only if a has the property of being $\mathbf{F} \neg$ expresses a true proposition

And it seems evident that any transcendent realist must accept this restricted prin-

If transcendent realism indeed implies that the proposition that Solomon was wise is a relational proposition, then it is easy to see why one should not be a transcendent realist: that proposition is obviously not a relational proposition; for no object x and no relation R is that proposition the proposition that R holds between Solomon and x. The only object that in any way "figures in" the proposition that Solomon was wise is Solomon. That proposition says of that object, Solomon, that it, or he, is wise, but in saying that of him, it does not affirm that there is some other object, some object that exists independently of him (even if that object be one that is in some way logically or semantically or ontologically intimately connected with the predicate 'wise'), to which he bears some relation - "having" or any other relation.

3 A reply to the primary critique

I will show that transcendent realism does not imply that propositions expressed by sentences of the form 'S is F' (where 'S' represents a term denoting a concrete particular and 'F' represents a predicate expressing an intrinsic property) are relational propositions. (Let us call such propositions SIP propositions—for 'subjectintrinsic predicate'.)

Let us consider the argument I have ascribed to Armstrong for the thesis that transcendent realism implies that all SIP propositions are relational propositions. Like Gaunilon vis-à-vis St Anselm's argument, I will attempt to convince my readers that there has to be something wrong with the argument by presenting a parody. (In fact, I will generously present two parodies.)

The first parody:

Propositionalism (the thesis that the bearers of truth-value are language-independent abstract objects) implies that all SIP propositions are relational propositions. Consider, for example, the proposition that Solomon was wise, a representative SIP proposition. Propositionalism implies that the proposition that Solomon was wise is a relational proposition owing to the fact that, according to propositionalism, this proposition is true if and only if Solomon bore a certain relation to the proposition that Solomon was wise (the relation "being such that it is true," the relation expressed by the open sentence 'x is such that y is true'). And this is not simply a contingent truth if propositionalism is true: propositionalism implies that Solomon could not possibly have been wise without having borne this relation to the proposition that Solomon was wise, an abstract object that exists independently of Solomon and whose being in no way overlaps his being (an object that is, as one says, an inhabitant of the Platonic heaven).19

The second parody:

Arithmetical realism (the thesis that numbers are real objects) implies that some SIP propositions are relational propositions. Consider, for example, the proposition that Solomon was bipedal, which is certainly an SIP proposition. Arithmetical realism implies that the proposition that Solomon was bipedal is a relational proposition owing to the fact that, according to arithmetical realism, this proposition is true if and only if Solomon bore a certain relation to the number 2 (the relation "having had legs that were numbered by," the relation expressed by the open sentence 'x's legs were numbered by y'). And this is not simply a contingent truth if arithmetical realism is true: arithmetical realism implies that Solomon could not possibly have been bipedal without having borne this relation to the number 2, an abstract object that exists independently of Solomon and whose being in no way overlaps his being (an object that is, as one says, an inhabitant of the Platonic heaven).

¹⁹ Will someone deny that the being of the proposition that Solomon was wise "in no way overlaps" Solomon's being owing to the fact that Solomon is a constituent of that proposition? Any who takes that position may substitute some "purely qualitative" definite description that denotes Solomon for 'Solomon' in the first parody. 'The ancient king famed for his wisdom who constructed a great temple', for example.

I hope that the lesson of the two parodies is evident. Evident or not, it is this:

If p and q are metaphysically equivalent propositions (if p and q are true in the same possible worlds) and if p is a relational proposition, it does not follow that q is a relational proposition.

That transcendent realism implies the necessary truth of biconditional propositions like

Solomon was wise if and only if Solomon had the property of being wise

is therefore not sufficient for classifying transcendent realism as a "relational" theory. That is to say, from the (true) premise that transcendent realism implies that such biconditionals are necessary truths, one may not validly deduce the conclusion that transcendent realism also implies that SIP propositions are relational propositions. To reach the conclusion that transcendent realism is a relational theory, one would need a stronger premise. One would need a premise that implies that a relation more intimate than mere necessary coextensiveness holds between pairs of predicates like 'is wise' and 'has the property of being wise'. One would, in fact, need the following premise or something very much to the same purpose:

For any term a and any predicate \mathbf{F} , if a denotes a concrete particular that belongs to the extension of \mathbf{F} , then the sentence $\lceil What \ it \ is \ for \ a$ to be \mathbf{F} is for it to have the property of being \mathbf{F}^{-20} expresses a true proposition

One would need a premise that has consequences like this one (given that Solomon belonged to the extension of 'wise'):

What it was for Solomon to be wise was for Solomon to have the property of being wise.

Now no doubt there are and have been many transcendent realists who would accept the thesis that what it was for Solomon to be wise was for him to have had the property of being wise. But this thesis is not essential to transcendent realism. I myself reject it. In my view, to say that Solomon's having the property wisdom is what it was for Solomon to be wise is as absurd as saying that what it was for Solomon to be wise is for the proposition that Solomon was wise to be true – or as saving that what it was for Solomon to be bipedal is for the number 2 to have been the number of his legs. In fact, in my view, the only sense the question 'What is it for someone to be wise?' can have is the sense that this question had when it was discussed by Socrates and his companions in dialectic. Since I do not know the answer to that ancient and profound question, I will not use 'wise' and wisdom in the examples in the paragraphs that follow. The examples in the sequel will pertain to the predicate 'white' and whiteness or the property of being white -, a property of physical objects, the common property of a sheet of white paper, a whitewashed fence, and the Taj Mahal.

What is it for an object to be white? I can think of two ways to answer this question. (Both the answers I shall provide are answers I have produced without much reflection. No doubt they could be improved. The second could certainly be expanded.) There is, first, a philosophical answer (but the question to which it is an answer belongs to the philosophy of perception, not to ontology):

For an object to be white is for it to have a disposition to cause visual sensations of whiteness in normal human observers who view it in ideal circumstances.

And there is, secondly, a physical answer:

For an object to be white is for it to have a surface that reflects all the component frequencies of white light (light composed of an equal mixture of all the visible frequencies of electromagnetic radiation; the visible component frequencies of sunlight are a good approximation) more or less equally.

Now while Armstrong would not deny that these two "answers" are correct answers to the question 'What is it for an object to be white?' on two perfectly reasonable interpretations of that question, he would maintain that they are not answers to the question metaphysicians are asking when they ask, "What is it for an object to be white?" He would perhaps tell us that an object's having a surface that reflects all the components of white light more or less equally poses exactly the same metaphysical problem as the problem posed by an object's being white. The questions 'What is it for an object to be white?' and 'What is it for an object to have a surface that reflects all the component frequencies of white light more

²⁰ Some alternatives: $\neg a$'s being **F** consists in a's having the property of being **F** \neg ; $\neg a$'s being **F** is grounded in a's having the property of being \mathbf{F}^{\neg} ; $\neg a$ is \mathbf{F} in virtue of a's having the property of being \mathbf{F} , $\neg a$ is \mathbf{F} because a has the property of being \mathbf{F} . Consider the last of these alternatives. Although 'because' is a tricky word, I think that it is closer to the truth to say that the Taj Mahal has the property of being white because it is white than it is to say that the Taj Mahal is white because it has the property of being white. Aristotle has famously said, "It is not because we think truly that you are white [= pale], that you are white, but because you are white we who say this have the truth." (Metaph. IX, 1051b). Similarly, one might say, "It is not because whiteness is truly predicable of you that you are white, but because you are white whiteness is truly predicable of you."

or less equally?' (not to mention the question, 'What is it for an object to be disposed to cause visual sensations of whiteness in normal human observers who view it in ideal circumstances?') are equally good and equally difficult metaphysical questions. The answer to the latter question according to transcendent realism (as Armstrong conceives transcendent realism) is

For an object to have a surface that reflects all the components of white light more or less equally is for it to have a suitable relation to the transcendent universal or Form "having a surface that reflects all the components of white light more or less equally" (or, as I should prefer to say, '... for it to have the property of having a surface that reflects all the components of white light more or less equally').

As I have conceded, some transcendent realists may endorse the statement 'For an object to be white is for it to have the property whiteness'. No doubt these realists would also accept this second statement. I reject both statements. In my view, the question 'What is it for an object to be white?' is a question to be answered either by physics or by a philosophical analysis of color-predicates, depending on the kind of answer one is looking for. And the question, 'What is it for an object to have a surface that reflects all the components of white light more or less equally?" is a question to be answered by physics alone. There simply are no such questions as the supposed metaphysical questions 'What is it for an object to be white?' and 'What is it for an object to have a surface (etc.)?' And, in my view, the declarative sentences that are supposed to be their answers (sentences like 'For an object to be white is for it to bear the relation "having" to a certain object in Plato's heaven, to wit, property of being white' and 'For an object to be white is for it to have the universal whiteness as an ontological constituent') are meaningless. (Or perhaps false a priori, Compare that postwar-Oxford chestnut 'Quadruplicity drinks procrastination'. It that sentence meaningless or false a priori? A case could be made for either answer.)

4 "How can distinct particulars have the same properties?"

I pass now to a second but related characterization of transcendent realism (at least it is a characterization of transcendent realism if the phrase 'the Platonic theory of Forms' in the quotation that follows is intended to refer to transcendent realism). Armstrong has said,

The problem of universals is the problem how different particulars can nevertheless have the very same properties and relations. It is the problem of generic identity. The Platonic theory of Forms is intended to solve this problem [...] (p. 64)

(He will go on to contend that the "Platonic theory of Forms" does not provide a satisfactory solution to this problem.) But is there any such problem? I will try to explain why – whatever other transcendent realists may think – I think that there is not.

Let A and B be two of the component planks of the fence Tom Sawyer tricked Ben Rogers into whitewashing. Miriam the metaphysician asks, "How can A and B, which are numerically diverse, both be white?" If Miriam addressed that question to me, I could think of only two ways to answer it.

There is, first, the efficient-causal answer:

Ben Rogers whitewashed A (thus causing it to be white) and Ben Rogers whitewashed B (thus causing it to be white). And, obviously, an agent can whitewash more than one plank.

(Compare: 'How can Alexandria Ariana and Alexandria Asiana, which were numerically diverse cities, both have had the same founder?' 'They were both founded by Alexander the Great; obviously a person can found more than one city'.)

There is, secondly, the formal-causal answer:

A and B are both such that, if white light falls upon them, they reflect all the component frequencies of that light more or less equally. Obviously, two planks that are physically very similar will reflect light in similar ways.²¹

These two answers can be generalized:

Two physical objects can both be white because the agencies that can cause a physical object to become white can operate on more than one such object.

A physical object is white if, when white light falls upon it, it reflects all the component frequencies of that light more or less equally; it is therefore

²¹ Or perhaps I should say that this is one of two formal-causal answers, the other being, 'A and B both have dispositions to cause visual sensations of whiteness in normal human observers who view them in ideal circumstances. Obviously two different objects that are physically very similar will have the same causal dispositions'. I will not discuss this answer in the text. What I would say if I did discuss it can easily be inferred from what I say about the "physical" formal-causal answer.

possible for two objects to be white because it is possible for more than one object to be such that when white light falls upon it, it reflects all the component frequencies of that light more or less equally.

But neither of these general statements, true though they be, is an answer to the metaphysical question our metaphysician Miriam would be asking if she uttered the sentence 'How can two physical objects, which are numerically diverse, both be white? For suppose that one is, like Miriam, convinced that this sentence can be used to ask a question whose answer is neither a causal explanation of the whiteness of both objects nor an account of the physical features common to the two objects that "underlie" whiteness; suppose one believes that this sentence can be used to ask a question whose answer would be an ontological analysis of a thing's being white. (A proponent of Platonic "transcendent universals" would give one sort of ontological analysis of a thing's being white; a proponent of Aristotelian "immanent universals" another sort of ontological analysis; a nominalist a third sort of ontological analysis.) Anyone who is convinced that the sentence 'How can two physical objects, which are numerically diverse, both be white?' has these features will certainly have the corresponding beliefs about the interrogative sentences

How can two physical objects, which are numerically diverse, be such that the agencies that can cause a physical object to become white can operate on both of them?

How can two physical objects, which are numerically diverse, both be such that when white light falls upon them, each reflects all the component frequencies of that light more or less equally?

As Miriam sees matters, the sentence 'How can two physical objects, which are numerically diverse, both be white?' is no more than an example of a question whose answer would be a certain sort of ontological analysis. The fact that the predicate that figured in the question happened to be a color-predicate is irrelevant to the point of the example. The two offset sentences would both be equally good examples of questions of that sort (although the complexity of the predicates that figure in the two sentences perhaps makes them less than ideal as illustrative examples). Thus, neither of the two answers to 'How can two physical objects, which are numerically diverse, both be white?' that I have proposed is relevant to the question Miriam means to be asking.

It will perhaps be evident from what I said in the preceding section that I do not believe that there is any such question as the question Miriam means to be asking. "The riddle does not exist. If a question can be framed at all, then it is

also possible to answer it." Miriam's question is non-existent because it cannot be answered; it cannot be answered (even by God) because no set of statements among all possible sets of statements is an answer to it.²² Certainly, this statement is not an answer to it.

Two numerically diverse objects can both be white because they can both have the property whiteness (an attribute or quality, an abstract object, a Platonic universal, a transcendent universal, a universal ante res).

I do not deny that two objects can both have the property whiteness, and I do not deny that whiteness is all the things listed in the parenthesis. (After all, I am a transcendent realist, and these things are exactly the things we transcendent realists believe.) What I deny is the "because." As an explanation the offset sentence is simply absurd – as absurd as

Two numerically diverse objects x and y can both be white because the proposition that *x* is white and the proposition that *y* is white can both be true

and

Two numerically diverse animals *x* and *y* can both be bipeds because it is possible for the number 2 to be the number of x's legs and also to be the number of y's legs.

The general point I want to make is this. A transcendent realist is a metaphysician who believes that universals exist, that these universals exist ante res (independently of their instances), that universals are necessarily existent things, that universals are in no sense constituents of particulars, that the only constituents of particulars are their proper parts (other "smaller" particulars; for example, electrons, submicroscopic particulars, are "constituents" of macroscopic particulars like cats and canaries),²³ that universals are abstract objects and thus do not and cannot enter into causal relations "from either end": they can be neither agents nor patients.

²² Cf. my discussion of Miriam's colleague Alice in van Inwagen 2011, 389-405.

²³ Thus, transcendent realists reject Armstrong's "layer-cake" model of particulars; transcendent realists agree with nominalists about the nature of particulars: to use Armstrong's dyslogistic term, they are "blobs." (A singularly inappropriate term. To paraphrase a point George Bealer once made in correspondence: if one holds that physically complex particulars like bicycles do not have immanent universals as constituents, it is at best very misleading to say that one therefore regards bicycles as blobs.)

This is the position of the transcendent realists. And why do transcendent realists hold this position? I can think of two reasons. One is the reason that Armstrong supposes must be the reason of all transcendent realists, a reason that parallels his reason for being an immanent realist: there are certain data, certain phenomena, to be explained, and the transcendent realist postulates the existence of transcendent universals to explain these phenomena. The other is my reason: there are good philosophical arguments (arguments that are most emphatically not "inferences to the best explanation") for the existence of immanent universals. (See, for example, the "spiders and insects" argument in section 1.)

5 Arguments, not explanations

If, therefore, one argues that immanent realism is to be preferred to transcendent realism because immanent realism better explains certain data (e.g., that objects that are numerically diverse can nevertheless be identical in a certain respect), that is in my view no argument at all – for there is and could be no such thing as an explanation of those data. Or, more precisely, there is no such thing as an explanation of those data that is of the sort the immanent realist claims to provide or of the sort that transcendent realists who have rival explanations of them claim to provide: explanations at whose core lies an ontological analysis of being wise, of being white, of being bipedal, of being... (and so on). And this is because there is and could be no such thing as an ontological analysis of being wise or being white or being bipedal.²⁴ There are indeed various necessarily true and non-trivial statements (some of them are instances of general theses of considerable metaphysical significance) of the forms

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\forall x (x \text{ is wise} \longleftrightarrow ...x...)
\forall x (x \text{ is white } \leftrightarrow ...x...)
\forall x (x \text{ is bipedal} \longleftrightarrow ... x...)
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but none of these statements is an ontological analysis of being wise (white, bipedal) and none of them be used to provide an explanation of what it is for a thing to be wise (white, bipedal).

Similarly, there are various statements of the form

 $\exists x \exists y (x \neq y \& x \text{ is white } \& y \text{ is white}) \& \forall x \forall y (x \text{ is white } \& y \text{ is white } . \longleftrightarrow$...x...y...)

whose second conjunct is necessarily true and non-trivial (and so for any other predicate). But none of these statements explains how it is possible for objects that are numerically diverse to be (nevertheless) identical in a certain respect.

In sum, arguments whose conclusions pertain to the existence and nature of universals can never be inferences to the best explanation. But there are plenty of arguments for theses that pertain to universals that are not inferences to the best explanation. I will close with an example of such an argument. (I do not present this argument to establish its conclusion, but only as an example of an argument for a significant thesis about universals that is not an inference to the best explanation, is not an argument of the general form 'We should accept the thesis that universals have the property F because ascribing F to them enables us better to explain the following data...'. Because I offer this argument that follows only as an example of an argument of a certain kind, I will not consider the objections that might be raised against it – some of which are formidable.)

One extremely important difference between immanent realism and transcendent realism is that immanent realists deny that there can be uninstantiated properties or attributes and transcendent realists affirm the possibility of uninstantiated properties. The following argument for the possibility of whiteness existing uninstantiated is therefore an argument for the falsity of immanent realism.)

Consider whiteness or the property of being white. (The immanent realist of course believes that there is such a property.) Suppose for reductio that it is impossible for this property, whiteness, to exist uninstantiated – that is, to exist if nothing has it. There are obviously possible worlds in which nothing has the property whiteness. It follows that there are possible worlds in which whiteness does not exist. And the proposition that something is white exists only if the proposition that something has the property whiteness exists. There are, therefore, worlds in which the proposition that something is white does not exist. Let w be any such world. An object (of any sort, in any logical or metaphysical category) can have a given property only if that object exists. It is therefore not the case that, in w, the proposition that something is white has the property *possible truth*. And, therefore, it is also not the case that, in w, the proposition that something is white is possibly true. The world w is accessible from the actual world (we have, after all, described it in terms of what is possible). But the actual world is not accessible from w, since in the actual world the proposition that something is

²⁴ There are in my view, excellent arguments for the falsity of nominalism (the thesis that there are no universals of any kind). But this is not one of them (despite its being a true statement): Nominalism can provide no explanation of the fact that objects that are numerically diverse can nevertheless be identical in a certain respect.

white is true and it is not the case that in w the proposition that something is white is possibly true: there is a proposition that is not possibly true in w and is true in the actual world. Hence, the accessibility relation is not symmetrical. But it is absurd to deny that the accessibility relation is symmetrical, and the *reductio* of the thesis that it is impossible for whiteness to exist uninstantiated is complete. Hence: It is possible for whiteness to exist uninstantiated—and immanent realism is therefore false.

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Peter Simons Armstrong and Tropes

So the philosophy of tropes is riding high. David Armstrong, U 125.1

Appreciation

In 1974, while a graduate student at the University of Manchester, I first heard David Armstrong give a talk. It was on various regress arguments against nominalism, later published in NR. At that time I was not a nominalist and the arguments seemed sound. What impressed me much more forcibly however was Armstrong's refreshing directness in addressing metaphysical issues. At that time, metaphysics was largely still under the domination of the philosophy of language, and arguments about the nature of universals tended to go via consideration of predicates, semantics and so on. Armstrong's rejection of bad old arguments from meaning cut through that tangle like Alexander's sword through the Gordian knot, and we were left face to face with the metaphysical question itself: are there universals, or are there not? Just as in the phenomenological tradition Roman Ingarden had broken away from Husserl's transcendental anxietizing, so in the analytical tradition Armstrong broke away from Strawson's Aristotelian-Kantian linguistic metaphysics-lite and Quine's Carnapian insouciance as to ultimates. The idea that metaphysics might regain her status as the Queen of Philosophy was implanted, and has stayed with me ever since. I owe David a great intellectual debt for making this clear by living example.

The next time I saw David was in 1990 at Zinal, by which time we and things had both moved on, and this essay is about some of those things. In the meantime I had become a fairly convinced nominalist, but that disagreement aside, we found we had much in common, not least resembling passions for history: political, military and especially of course naval. Knowing his conservative monarchism did not chime with my liberal republicanism, I steered clear of contemporary politics, but we had many heroes in common, notably Winston Churchill. Our most serious

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¹ In what follows, Armstrong's two major writings dealing with tropes in the theory of universals will be abbreviated as: NR for Nominalism and Realism (Universals and Scientific Realism Volume 1); and U for Universals: an Opinionated Introduction.