

Predication and the Problem of Universals

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Abstract: This paper contrasts the scholastic realists of David Armstrong and Charles Peirce. It is argued that the so-called 'problem of universals' is not a problem in pure ontology (concerning whether universals exist) as Armstrong construes it to be. Rather, it extends to issues concerning which predicates should be applied where, issues which Armstrong sets aside under the label of 'semantics', and which from a Peircean perspective encompass even the fundamentals of scientific methodology. It is argued that Peirce's scholastic realism not only presents a more nuanced ontology (distinguishing the existent from the real) but also provides more of a sense of why realism should be a position worth fighting for.

... a realist is simply one who knows no more recondite reality than that which is represented in a true representation.

C.S. Peirce

Like many other philosophical problems, the grandly-named 'Problem of Universals' is difficult to define without begging the question that it raises. Laurence Goldstein, however, provides a helpful hands-off denotation of the problem by noting that it proceeds from what he calls *The Trivial Observation*:² The observation is the seemingly incontrovertible claim that, 'sometimes some things have something in common'. The

1 *Philosophical Writings of Peirce*, ed. Justus Buehler (New York: Dover Publications, 1955), 248.

2 Laurence Goldstein, 'Scientific Scotism – The Emperor's New Trousers or Has Armstrong Made Some Real Strides?', *Australasian Journal of Philosophy*, vol 61, No. 1 (March 1983), 40. See also the view W.V.O. Quine puts into the mouth of McX in 'On What There Is': '... he says: "There are red houses, red roses and red sunsets; this much is prephilosophical common sense in which we must all agree. These houses, roses and sunsets, then, have something in common; and this which they have in common is all I mean by the attribute of redness."' W.V.O. Quine, *From a Logical Point of View* (Massachusetts: Harvard University Press, 1953), 9-10.

problem of universals then concerns what exactly is this 'something'. Consider a large group of cats gathered together. These attractive, sensitive and wilful creatures will be found to share certain features, such as similarities in appearance and behaviour, which cats do not share with other animals (such as pigs). Because of this, our ordinary language licenses the statement, 'all cats have something in common'. But what is this 'something', and how do we manage to attribute it to cats and to no other creatures?

The main issue with respect to our 'something' is: *whether the something may be called real*. Of course, how this question is answered will depend on just what is meant by the crucial term, 'real'. Contemporary analytic metaphysics almost universally takes for granted that the terms 'real' and 'existent' are coextensive. I shall argue that they are not. Much contemporary analytic metaphysics also takes for granted that there is a sharp distinction between 'semantic' and 'ontological' questions, and that realism is a question located purely within ontology (construed as the question of what exists). I shall suggest that this has distorted discussion of the problem of universals in favour of nominalism.

It will turn out that the history of the treatment of the problem of universals, and of the treatment of the term 'real' since the thirteenth century are intertwined. It is well known that the debate over universals first came to full flower amongst the scholastic philosophers, with Ockham the most famous combatant on the nominalist side, arguing against the subtle 'scholastic realism' of Duns Scotus a generation earlier. As scholasticism gave way to new, vigorous strains of philosophy in the Early Modern period it was widely assumed that nominalism had won the debate over universals. The transmutation of Scotus' name into common parlance as the term 'dunce' is a somewhat disturbing symbol of the extent to which scholastic realism became associated with all that was dessicated, useless and inappropriately *a priori* about scholastic

philosophy. Today even scholastic realists will admit that scholastic realism struggles with an image-problem as counterintuitive.'

I shall explore and contrast the scholastic realism of David Armstrong, who works within the twentieth century analytic paradigm whereby 'real' and 'existent' are coextensive, and Charles Peirce, who saw the real as properly opposed not to the nonexistent but the fictive. I shall examine a recent skirmish in the contemporary debate over universals between Armstrong and Michael Devitt, and suggest that it exhibits a measure of the sterility which medieval realism has been accused of, which renders it unclear why we should care about the truth of scholastic realism. I shall then argue that if, however, one reexamines the issues discussed by Armstrong in the terms laid down by Peirce, scholastic realism is far from being on the back foot with respect to intuitive appeal, but becomes a claim about the objectivity of certain *predications*, rather than a claim about whether certain somewhat unusual entities *exist*. Although it should be noted that Armstrong's views are in some ways idiosyncratic (for instance in the degree of sharpness with which he delineates semantic and ontological issues) and should not be taken as representative of contemporary approaches to realism about universals, he is an early, and arguably the most prominent, defender of such realism in the analytic tradition, and his view is worth discussing for at least this reason.

1. Armstrong: Scholastic Realism Australian-Style

1.1. Particulars and Universals Exist, and only Together (in States of Affairs)

Armstrong characterises the Realist-Nominalist debate as follows:

³ Thus David Armstrong writes with respect to scholastic realism regarding laws of nature, 'I believe that the contemporary orthodoxy on laws of nature – that basically they are mere regularities in the four-dimensional scenery – is in a similar position to that enjoyed by the regimes in power in Eastern Europe until a few months ago .. ', (His choice of analogy demonstrates recognition of the current repressed status of scholastic realism, tempered by a certain hopefulness about the future). D.M. Armstrong, 'Shoemaker's Theory of Properties' (Forthcoming in *Philosophical Studies*).

Nominalism is defined as the doctrine that everything there is is a particular and nothing but a particular. A Realist is one who denies this proposition, holding that Universals exist.'

What does Armstrong mean by the term 'Universal'? He writes:

Universals are entities that are identical, strictly identical, in different instantiations, and so are the foundations *in re* for all genuine resemblances between particulars.'

While Armstrong rejects Nominalism, he also wishes to separate his own 'Immanent Realism' from 'Platonic' or 'Transcendent Realism', the view that universals might exist without being instantiated. Though Armstrong is a forthright Realist about Universals, this does not downgrade his ontological acceptance of particulars. He sees the inclusion of both particulars and Universals as vital for a healthy ontology. •

It should be noted that in the twentieth century an idiosyncratic use of the term 'nominalism' has sprung up, deriving originally from Harvard. This usage sees nominalism as denying the reality not of *general* but of *abstract* objects, such as sets and propositions. The usage is somewhat confusing as the original nominalism aimed to eliminate or reduce all but the logically particular, yet sets and propositions can in fact be treated as logical particulars.' The Harvard usage, in targeting

4 D.M. Armstrong, *Universals and Scientific Realism* (Cambridge: Cambridge University Press, 1978), Vol. I, 1. A capitalisation of the terms 'Realism' and 'Universal' (and not 'particular') is Armstrong's preferred usage, so I will follow this usage when discussing his views.

5 D.M. Armstrong, *A World of States of Affairs* (Cambridge: Cambridge University Press, 1997), 21.

6 It is worth noting that over the course of his philosophical career, Armstrong has moved to the view that one needs to commit not just to particulars and Universals but to states of affairs in which the two are combined in a structured way. However, this change in Armstrong's views is outside the scope of this paper.

7 Sets are not treated as logical particulars by (the Harvard philosopher) Nelson Goodman, however, as he regards the notion of set as intensional, and this perhaps helped to facilitate

abstraction rather than generality for reduction, seems to run together nominalism with materialism, a position which surely is worthy of separate discussion. Armstrong has deplored such uses of the terms 'nominalism' and 'abstract',⁸ and thus, although the Harvard usage has become influential, this paper will keep to the original understanding of the problem of universals, and it should be noted that the distinction between Universals and particulars discussed here will be orthogonal to the abstract/concrete distinction (although the two distinctions do of course intersect in ways too complex for the present paper to embark on discussing).

1.2. A Posteriori Realism

It is fundamental to Armstrong's Realism about Universals that it is an a posteriori Realism. By this he means that there is no automatic correlation between predicates and Universals. Universals are not to be read blithely off the shape of our language.⁹ Rather, Universals are discovered through the hard empirical work that constitutes science. Thus, there may be predicates in our language to which no Universal corresponds in the world. (Armstrong suggests 'accelerates through the speed of light' as a possible example here.) There also may be Universals to which none of our predicates correspond, or even to which none of our predicates ever will correspond due to our epistemological limitations. The latter is a hard proposition to establish empirically, but. Armstrong claims that Realism and the possibility of long-term human error about the world go hand in hand.

Armstrong argues that when doing philosophy one must separate in principle *semantic* questions (questions of where and when to apply certain predicates) from *ontological* questions (questions of the existence

the slide in meaning from medieval to Harvard nominalism. (Thanks to Josh Parsons for discussions on this point.)

⁸ Armstrong *A World of States of Affairs*, pages 120 & 136.

⁹ Armstrong calls this mistake, 'the Argument from Meaning', and also 'Rationalism' (which label he treats as already a serious philosophical blow against the view to which it is ascribed).

of various Universals). For as there is no automatic correlation between predicates and Universals, who is to say that discussion of either question will throw light on the other? For this reason my initial illustration of the problem of universals using the example of 'cathood' is somewhat misleading with respect to Armstrong, as Armstrong's Universals are much less homely, more spatiotemporally fine-grained and also correspond to much more theoretical predicates than this.' 'Is a cat' for him is precisely the sort of predicate which demonstrates the need to separate semantics from ontology. But we will see that Peirce does not share these qualms,

1.3. The Explanatory Power of Universals

In 1978 Armstrong set out a landmark taxonomy (intended to be exhaustive) of different varieties of Nominalism: Predicate Nominalism", Concept Nominalism, Class Nominalism, Mereological Nominalism, Resemblance Nominalism, and (last and very much least in Armstrong's mind) Ostrich or Cloak and Dagger, Nominalism. Armstrong claims that almost all Nominalisms view properties as some form of *external relation* between the thing that has the properties, and something else (such as class membership, being thought of in a certain way, being part of a mereological aggregate...). This is just not satisfying, as in all these cases we can imagine the thing not partaking in the external relation, but still having the property.

Armstrong refutes Predicate Nominalism this way:

According to Predicate Nominalism, an object's possession of (say) the property, *being white*, is completely determined by the fact that the predicate 'white' applies to this object. But now let us make a thought-experiment. Let us imagine that the predicate 'white' does not exist.

10 An example of the kind of Universal he does consider likely to exist is the charge on an electron. See for instance, Armstrong, *A World of States of Affairs*, 26.

11 Armstrong, *Universals and Scientific Realism*, Vol. I, 11-44.

Is it not obvious that the object might still be white? If so, its whiteness is *not* constituted by the object's relation to the predicate 'white'."

Class and Mereological Nominalism receive a similar send-off." Armstrong claims that Resemblance Nominalism is 'by far the most satisfactory version of Nominalism'. But he notes that in claiming to explain properties in terms of 'resemblance relations' between things, it appears merely to substitute for the type-term 'property' something equally in need of Nominalistic explication.

Even worse than these versions of Nominalism, according to Armstrong, is the philosophically highly irresponsible 'Ostrich Nominalism', of which Quine is an example. Such a position (which claims that facts such as that 'Fluffy is a cat' is true while 'Fluffy is a pig' is false, are primitives which require no explanation) is unacceptable because:

[w]hat such a Nominalist is doing is simply refusing to give any account of the type/token distinction, and, in particular, any account of types. But, like anybody else, such a Nominalist will make continual *use* of the distinction. He therefore owes us an account of the distinction. It is a compulsory question in the examination paper."

In short, realism about Universals is required by Armstrong to explain the fact that when we state that things have properties we often speak truly, by claiming that those true statements refer to Universals as well as to particular things. A way of putting this argument which has become prominent in Armstrong's recent writing on Universals' is to claim that Universals must be present in *truth-makers* for true statements involving predicates of a general nature (which notion of 'truth-making' now plays a prominent role in Australian realism generally).

12 Armstrong, *Universals and Scientific Realism*, Vol. I, 17.

13 Armstrong, *Universals and Scientific Realism*, Vol. I, pages 37 and 35 respectively.

14 Armstrong, *Universals and Scientific Realism*, Vol. I, p. 17.

15 See for instance Armstrong, *A World of States of Affairs*, 2-3.

1.4. Devitt Defends Nominalism

Michael Devitt agrees with Armstrong about the need to separate semantic and ontological questions.¹⁶ He sets out to defend Nominalism against Armstrong's attacks and, with characteristic brashness, positions himself squarely in the Ostrich Nominalist camp:

Ostriches are reputed to ignore problems by putting their heads in the sand. Mirages are another feature of desert life: people see things that aren't there. An 'Ostrich Nominalist' is a person who maintains Nominalism whilst, ignoring a problem. A 'Mirage Realist' is a person who adopts Realism because he sees a problem that, isn't there.'

He claims that those who believe that there is a real problem which requires Realism about Universals as its solution have failed to appreciate the "'new" metaphysics of W.V. Quine and others'. According to Devitt's version of Quine, one's ontological commitment is gauged by working out 'what must exist for a given sentence to be true'. Thus, sentences such as, 'My two cats share a property: their species', seem to require the existence of the property of cat-hood. However, when we are in the business of tallying up ontological commitment, sentences may be paraphrased in such a way that ontological commitment, is reduced, as long as meaning is preserved. Thus, 'My two cats share a property', in this context, may be paraphrased as 'My two cats are both cats', which commits only to two individuals, which happen both to possess a certain property.

Devitt acknowledges that at this point Armstrong will protest, 'Tut in virtue of what do these two cats both instantiate this property? Surely it is because they share something real?' Not at all, claims Devitt.:

The Quinean sees no problem for Nominalism in the likes of [sentences of the form 'a is F'] because there is a well-known semantic

¹⁶ A sustained working out of this separation is presented in his *Realism and Truth* (Princeton, NJ: Princeton University Press, 1984).

¹⁷ Michael Devitt, "'Ostrich Nominalism" or "Mirage Realism"?, *Pacific Philosophical Quarterly* 61 (1980), 433.

theory which shows that ['a is F'] can be true without there being, any Universals:

['a is F'] is true if and only if there exists an x such that 'a' designates x and 'F' applies to x.⁸

Thus, he argues that the only truth-makers our true sentences need are particular objects.

Thus, the dialectic between Armstrong and Devitt takes the following form. Armstrong claims that we need to postulate the existence of Universals that perform a truth-making role with respect to our true predications, thereby explaining them. Devitt suggests that true predication is not in need of such explanation. A certain weariness descends on the debate at this point. One is tempted to ask, what difference does it make here if Devitt is right or Armstrong is right?

1.5. Predication and Substantive Disagreement

I shall now argue that in fact Devitt and Armstrong are not engaged in a substantive disagreement. Consider the following principle (SD) as a *necessary condition for substantive disagreement*:

(SD) (X_1, \dots, X_n) have a substantive disagreement if there is some predicate F to which (X_1, \dots, X_n) wish to give differing extensions.

Thus, consider a sample disagreement, say, over whether a certain animal, Fluffy, is a cat or a pig. Insofar as two people disagree over this question, they will wish to give a different extension to the predicate 'is a cat'. One person will wish to include Fluffy in the extension concerned, and the other will wish to exclude her. We can see, then, that in this case of straightforward substantive disagreement, the principle does provide a necessary condition for the disagreement in question.

¹⁸ Devitt, p. 435.

¹⁹ I suspect that it is also a sufficient condition, but it is not necessary for my purposes to argue this.

It might be objected that the principle's focus on predication leads it to ignore any features of the world which are not capturable by human language. Is the principle not antirealist, in that sense? However, the principle does not deny *being* to such features of the world, merely points out that, as it is not possible for us to refer to such features at all, it is not possible (alas) for us to substantively disagree over them.

A second objection is that the principle 'might seem, again due to its emphasis on predication, to be biased towards general entities such as properties, at the expense of particular entities such as material objects. Can we not substantively disagree about the existence of particular objects? However, at least since Quine we have learned that claims about particular objects may be transformed into logically equivalent claims about the extension of predicates. So, for example, 'Pegasus exists' (a claim about which people may surely substantively disagree) may be transformed into, 'There is something which Pegasizes'. Thus the distinction between the general and the particular is revealed to be, in the first instance, a matter of logic not of ontology. The existence of real generality will be found to have considerable flow-on effects for ontology, though not the simple connection whereby each real Universal provides the ontologist with a distinct existent entity imagined by Armstrong. (I will return to this point in section 2.5.) Having provided counterarguments to the above two objections, I shall assume that SD does in fact provide a necessary condition for the presence of a substantive disagreement.

In the disagreement between Devitt and Armstrong, both sides take the extension of any predicate as a given, and are merely quarreling about the metaphysical apparatus behind it. So, for instance, there is not a single cat which ceases to be called a cat, or gains or loses a (first-order) property if one swaps one's metaphysical allegiance from Armstrong to Devitt, or *vice versa*. In other words, the only predicate whose extension Armstrong and Devitt are disputing is the technical, metaphysical, predicate, 'is a Universal'. The dispute concerns whether the extension of this predicate includes an enormous number of 'second-order objects', as

Armstrong would have us believe, or is empty, as Devitt would have us believe. Isn't this issue, then, a prime example of what Wittgenstein called, 'a wheel which is not connected to any other part of the mechanism'? Isn't the nominalist justified in asking what is the point of introducing a predicate into one's ontology (is a Universal') in order to start a dispute which concerns the extension of the new predicate alone?"

It is precisely the principled separation of semantic from ontological questions, which Devitt and Armstrong both subscribe to, which allows their disagreement to be so completely sealed off from differences in predication (except in a degenerate sense with respect to the technical predicate 'is a Universal') and thus from any substantive character. Rather, it is thought that Universals' only role is to 'truth-make' truths on which realists and nominalists agree. The term 'truthmaker' is relatively new in philosophy, but the idea and a certain nominalist assault on it are as old as metaphysics itself. Berkeley's attack on Locke's 'material objects' (which lie behind all our ideas and both cause and resemble those ideas, to which Berkeley responded that they lay so irrevocably 'behind' our ideas that they formed an idle hypothesis) may be usefully viewed in this light, as may Putnam's attack in *Reason, Truth and History* on the putative, omnipresent 'reference relation R' in contemporary 'metaphysical realism'. It is an ironic feature of truthmaker accounts that it is the very (metaphysical) purity of their realism which invites the application of Ockham's nominalistic razor in this way.

Therefore it appears that if there is to be a substantive disagreement over whether universals are real, realism must have a great deal to do with predication. Just what the involvement between realism and

20 Compare the dispute over whether Fluffy should be included in the predicate 'is a cat', answers to which have a number of flow-on effects with respect to further predicates such as 'has a tail' and 'will miaow'. One might protest that Armstrong and Devitt also disagree about the nature of natural laws (with Armstrong holding that they are relations among universals, which Devitt cannot) and their quarrel is substantive for that reason. However, again, note that the two do not disagree over whether a single natural law holds, only about what truth-makes whichever laws in fact hold.

predication might be will be the subject of the second section of this paper.

2. Peirce: Scotistic Pragmati(ci)sm

2.1. Where Peirce and Armstrong Agree.

Like Armstrong, Peirce thought that taking a Realist stance was an important philosophical choice with deep consequences. He claimed that his particular brand of realism was indebted to the scholastic realists, in particular to Scotus. Peirce also favoured an *a posteriori* scholastic realism, in that he thought the question of which universals to ascribe reality to should be an *a posteriori* matter. For he like Armstrong believed that the true importance of realism lay in explaining our scientific practice.¹

Thus, there is a Peircean analogue of Armstrong's claim that we must separate semantics from ontology and obtain knowledge of Universals through scientific work rather than linguistic analysis. Peirce makes a distinction between *objective* (which he called 'real') and *subjective* (which he called 'fictive') generality.²² Human beings use numerous predicates, which we can extend in countless ways to cover entities not previously described. To distinguish between objective and subjective generality is to say that some of these extensions latch onto, are somehow licensed by, a reality independent of ourselves. As such they are real discoveries, as opposed to a choice (either private or community-wide) which, by its nature as a choice, could have gone otherwise.

21 He also thought that realism itself should be held to *a posteriori*: 'For the simpler hypothesis which excluded the influence of ideas upon matter had to be tried and persevered in until it was thoroughly exploded. But ... henceforward it will be a grave error of scientific philosophy to overlook the universal presence in the phenomenon of this ... category'. C.S. Peirce, *Collected Papers* (Massachusetts: Harvard University Press, 1933, 1935, 1958), 5.64.

22 Peirce did not like this use of the terms 'subjective' and 'objective' as opposites, preferring a medieval construal of the term 'objective' according to which it meant something more like 'intentional'. However, since the distinction has now become terminological orthodoxy I am using it to make his ideas clear.

However, Peirce's approach to the Problem of Universals is different from Armstrong's. The differences take some teasing out, but are profound.

2.2. 'Universals' vs. 'Generals'

Much of philosophical significance is packed into the fact that Peirce's stated commitment is to 'real generals' rather than 'existent Universals'. First of all, the term 'general' is fundamentally a *logical* rather than an ontological notion. It should be noted, however, that logic was understood by Peirce not in the largely formalistic sense in which that subject is understood today, but as the study of maximising the truth of our beliefs." For this reason, much of what is now known as epistemology, semantics and scientific methodology, was included by Peirce under the heading of logic as a matter of course.

The key to identifying Peircean generals is that the term includes anything *projectible in the way that predicates are.*' What is meant by this? Consider the later Wittgenstein's rule-following argument. Wittgenstein argued that no amount of enumeration of a rule's particular applications can exhaust the rule. Despite that (somehow, mysteriously) we 'know how to go on'. Consider the rule for addition, which we all follow with minimal trouble. The rule is arguably mind-independent, in that we can (and do) get the answer wrong. However, explaining in what way such a rule might correspond to something that exists is a notoriously intractable problem. (Stating, for example, that the rule corresponds to an existent, mind-independent addition function seems merely to dodge the rule-following problem, not solve it.)

23 More exactly, Peirce divided logic into three main branches: i) 'pure' or 'speculative' grammar, which studies the necessary preconditions of our signs having *meaning*, ii) 'logic proper', which studies 'the conditions of the truth of representations', and is pretty close to today's formal logic, and iii) 'pure' or 'speculative' rhetoric, which is close to what would be today be called scientific methodology. See, for instance, *Philosophical Writings of Peirce*, p. 99.

24 'The old definition of a general is *Generale est quod natum aptum est dici de multi's*. This recognises that the general is essentially predicative ...' Peirce, *Collected Papers*, 5.102.

Where Armstrong's Universals are explicitly *n*-adic properties, and he is then faced with the problem of how to construct scientific laws out of complex, second-order relations between them, the Peircean 'general' is a blanket term which covers properties, laws of nature, patterns, habits, thoughts and more, insofar as they are projectible in the way that predicates are. It might seem infelicitous to put entities such as properties, on the one hand, and thoughts, on the other, together in the one philosophical category. For are not properties objective and 'external' whereas thoughts are subjective and 'internal'? For Peirce, however, the line between subjective and objective does not fall along the (Cartesian) mind/world lines invoked by the use of the terms 'internal' and 'external' above. Thought-like entities can partake of objectivity just as much as things can, for Peirce, as we shall see.²⁵

2.3 'Real' vs. 'Fictional'

For his definition of 'real', Peirce returns to the term's source: the thirteenth century. There, he claims, the real was defined against the *fictive*—that which has whatever properties we choose to ascribe to it:

Realism and *realitas* are not ancient words. They were invented to be terms of philosophy in the thirteenth century, and the meaning they were intended to express is perfectly clear. That is *real* which has such and such characters, whether anybody thinks it to have these characters or not (5.430).²⁶

Thus Peirce identifies the real with the mind-independent, where 'mind-independent' is defined as what we can be wrong about.

25 It might also seem infelicitous to put properties and laws of nature together in the one philosophical category, for arguably the two are very different. However, the two share 'projectibility', for to understand 'white' and to understand the law of gravity is equally to grasp future instantiations of the property and of the law. He also treats the difference between properties and laws of nature as a difference of degree rather than kind, but this matter is outside the scope of this paper.

26 Following convention in Peirce scholarship, all numbered citations in the text are to volume and paragraph of the *Collected Papers*.

A possible objection is that this definition of the real is flawed because it renders unreal certain mental states which we want to count as real. For surely my beliefs, for example, are not independent of how I think about them? And are not my beliefs real?²⁷ This objection, however, only has force against a Cartesian view of beliefs whereby beliefs have no substance apart from explicit representation to the mind's eye. Yet this is implausible. Consider my belief that tigers are dangerous. Is it the case that I can change this belief merely by thinking about it? And if a roaring tiger comes into view will I really not run away? Genuine beliefs are tied to, if not exhausted by, a vast network of dispositions to behave in certain ways, and it is implausible that we may selectively abandon swathes of these behavioural dispositions by mere doxastic fiat. This is leaving aside the enormously popular physicalist view that as well as a complicated functional role in our negotiating the world, much of which is not under our control, beliefs also possess a physiological manifestation (such as in states of the brain), the laws governing which may be studied like any other real scientific phenomenon, which is a further argument against the Cartesian position.

`What then of *qualia*?' the critic will ask. Surely there must be *some* mental events which are so private or so recondite that they are exactly as we think they are? Is not my very own taste of pineapple real? Yet isn't that taste exactly as I think it is? Can't I decide to have a thought the nature of which is entirely up to me? Here the Peircean will bite the bullet, arguing that if this taste of pineapple is really so epistemologically inaccessible that no-one can disagree with me about it (which seems strange as people do successfully discuss tastes with each other), what is lost by denying it reality? And this putative thought is a strange entity if I truly am free to dictate its character by the way I think of it. What is the thought 'about'? In this way Peirce's definition of the real resonates not only with Wittgenstein's account of rule-following, but also with his private language argument, and insistence that if 'whatever is going to

²⁷ Thanks are due to Daniel Nolan and Greg Restall for discussions on this point.

seem right to me is right', 'that only means that here we can't talk about "right"—28

For a more straightforward example of the fictive, consider the predicate 'humorous' as applied to, say, a hat. There is no further criterion for whether a given hat is humorous than that a certain group of people find it so. We can give no sense to the idea that everyone who ever came in contact with a given hat might be wrong about its humorousness. Thus, the putative property of 'humorousness' is fictive.'

(A signal of the potential confusion that lies in this area, however, is that the property, *being believed by the human race to be humorous* is, on the other hand, real).

2.4. 'Real' vs. 'Existent'

There is nothing in Peirce's definition of the real that renders it analytic that the real must be coextensive with the *existent*. How one should define the existent is not uncontroversial. It appears to be something of a family-resemblance concept whose 'features' include spatio-temporal location, causal efficacy, complete determinacy and material substance. However, in this paper I do not wish to take a stand on exactly how existence should be defined, merely to argue more broadly that the real and the existent should be distinguished.

For example, someone who thought that *numbers* did not exist (due to their lack of spatio-temporal location and material substance) could quite well hold that they are real generals in Peirce's sense. For if by some bizarre mischance the entire mathematical community were to believe

28 L. Wittgenstein, *Philosophical Investigations*, trs. G.E.M. Anscombe (Oxford : Basil Blackwell, 1968), §258, p. 92. The congruence is not entirely coincidental as Wittgenstein received an indirect influence from Peirce both through Ramsey, who read the first edition of Peirce's *Collected Papers* in the 1930s, and also through the works of William James, which were read by Wittgenstein with interest.

29 Thus, what Peirce called the fictive lines up rather neatly with what in more recent philosophy has been identified initially by Crispin Wright and named by Mark Johnston the *response-dependent*. It would appear that the considerable work that has been done in this area recently is applicable to the question of realism and nominalism as conceived by Peirce, and *vice versa*.

that thirteen was not a prime number, in such a possible world thirteen would still be a prime number. Numbers are in fact a paradigmatic case of entities that have their properties independently of what is believed about them. Thus reality need not entail existence.

One might think that even if reality is not always a guarantee of existence, at least the reverse must hold. For if something forms part of the causal fabric (such as a chair or a cat), surely this gives it sufficient independence from us that we might be wrong about its characteristics. To answer this question requires attending with some delicacy to the different ways in which the proper relationship between logic and ontology is conceived by Peirce and Armstrong.

Peirce thought that the recognition of both existence and reality was essential to a healthy metaphysics, and that the existent is (logically) particular and the real is (logically) general. This is, then, an analogue of Armstrong's claim that one needs particulars and Universals to do full justice to being. The two claims are different, though, in that Armstrong treats particulars and Universals as different types of thing, like the difference between cats and dogs on a very much more general level. Peirce however, treats them as different *modes of being*. This means that rather than speaking of particulars and Universals as *themselves entities*, one may speak of particularity and generality as something all entities partake of."

Consider a cat (Dave). If Dave is deeply affectionate while prone to fits of neurotic miaowing, he will share characteristic behaviours to some degree with all other affectionate and/or neurotic creatures. Dave will thus possess real generality. But Dave is also a unique animal with a unique spatiotemporal trajectory, personality and a set of possible responses to situations not exhausted by a general description of any degree of detail. A degree of particularity is therefore also inherent in Dave.

30 That is, all worldly entities, *Pace* the notorious conceptually distilled *res* posited by many metaphysicians.

Both Armstrong and Peirce make a separation between 'logical'/'semantic' and ontological questions, and it might be asked how their views differ in this respect. However, Armstrong sees 'semantic' questions as concerning the extensions of predicates, and 'ontological' questions as concerning the existence of entities. Therefore the answer to the problem of universals for him lies within ontology, insofar as the problem concerns whether Universals are included amongst the things that exist. For Peirce, however, the business of 'logic' in this context is to ask *what are the fundamental modes of being*. The problem of universals then receives its answer for Peirce within logic, insofar as real generality is affirmed by him as a mode of being alongside existent particularity. The Peircean ontologist then inquires into existence and reality (which are equally concrete—as noted in section 1.1, the abstract/concrete distinction is orthogonal to the distinction at hand). Thus, it is not that according to Peirce the postulation of real generality has nothing to do with ontology. It is just that embracing real generality provides no one-to-one mapping from real generals onto existent entities, as Armstrong imagines there to be. For, as we have already noted, it is precisely the characteristic of the real that no collection of existent things, no matter how numerous, can exhaust it.

Thus, the full answer to the question posed earlier of whether things which are existent must also be real is that it is a 'category error'. In order to be existent a thing must have real properties – in fact it will probably have a great many. But *qua existent* the thing is neither real nor unreal, any more than *qua coloured object* a thing can be square or not square. This notion of different modes of being is at first glance a good deal more cumbersome than Armstrong's streamlined approach to being, but it has theoretical virtues. For instance, giving up Armstrong's notion that committing to both particularity and Universality means committing to the claim that particulars and Universals exist as entities in their own right sidesteps the problem faced by Armstrong of explaining how such different types of entity might be related, related so intimately in fact that one is never present without the other. As he holds

to Flume's 'no necessary connections between distinct existences', and it appears to be a necessary truth that particulars and Universals always appear together, he is forced to posit that they are internally related. Armstrong has admitted that he has not been able to shed any light on this mystery at the heart of his ontology, and his call in 1978 for work to be done on an 'empiricist' account of the relation in retrospect seems best described as hopeful.

2.5. Generals and Prediction

Realism about generals is defined by Peirce as follows:

The question ... is whether man, horse, and other names of natural classes, correspond with anything which all men, or all horses, really have in common, independent of our thoughts, or whether these classes are constituted simply by a likeness in the way in which our minds are affected by individual objects which have in themselves no resemblance... (8.12).

Peirce thought we needed to postulate such a scholastic realism because only this hypothesis could explain the practice of *scientific experimentation*. When scientists perform an experiment in order to test a new hypothesis, a key feature of the experiment is *prediction*, of the hypothesis' consequences, in a manner that is as precise, hypothesis-specific and readily experienced as possible, and then careful observation of how the world does in fact behave.

Peirce notes that we often fail to appreciate what a profound capacity we possess for predicting the behaviour of our surroundings. In a public lecture he gave at Harvard in 1903 he held a stone in the air in front of his audience, and challenged them to admit that they knew that the stone would fall when he dropped it rather than flying up in the air. He then pointed out that the behaviour of the stone was not subject to any influence from what its observers thought might happen to it, and so, 'It would be quite absurd to say that ... I can so peer into the future merely on the strength of any acquaintance with any pure fiction' (5.94). He

concluded that his audience possessed knowledge of an 'active general principle', exerting influence on dropped objects, and that this active general principle answered his definition of the real.

This is the way, then, in which scholastic realism explains scientific practice, for without it we can make no distinction between what we think the extension of a predicate ought to be and what that extension really is (that is, between objective and subjective generality). And without that, we can engage in conceptual analysis but not in scientific work.'

As we have seen, Armstrong also argues that Universals are needed to explain the regularities postulated by scientists (by 'truth-making' them):

There had better be some ontological way that respectable predicates, ones that yield real regularities, earn their respectability.'

However Armstrong does not explore the logic of *prediction* as the specific reason why the postulation of his Universals cannot be avoided. I shall now argue that such an omission renders one vulnerable to compromising one's realism.

2.6. 'Universals' vs. 'Tropes'

Consider the predicate 'is a cat' (which is not widely regarded as 'respectable', but which I believe to be so). In order for 'is a cat' to earn its respectability, according to Armstrong, we must postulate something 'ontological'. Why must we postulate a Universal rather than an infinitely long set of distinct property instances? Instead of a single 'One Over Many' cathood, why not as many individual cathoods as there are cats? Such a view does exist of course: trope theory. Trope theory holds that properties and relations have their being as particular 'instantiations', which are distinct existences, though they may share the 'property' of

31 This is a point which Scotus appreciated: 'The universals are not fictions of the intellect, as in such a case they could not predicate anything about an external object ... nor would there be any difference between metaphysics and logic, but indeed every science would be logic dealing with the universal'. Cited in Fred Michael, 'Two Forms of Scholastic Realism in Peirce's Philosophy', *Transactions of the Charles S. Peirce Society*, vol. XXIV (1988), 323.

32 Armstrong, *A World of States of Affairs*, p. 220.

resemblance. As Armstrong has set up the debate between realism and Nominalism, he has no real answer to the question why we should prefer his ontology of Universals to trope theory."

On Peirce's approach, however, this question can be answered. The answer is that a '*real general*' is *projectible by us*, and thus testable in scientific experiment, and an infinitely long set of distinct property instances is not. For there is no *a priori* reason why a set containing 1000 cat-instances should not contain a pig-instance for its 1001st member. But there is an *a priori* reason why the Universal 'is a cat' should not embrace Babe. One doesn't understand cathood if one thinks that the same particular can be both a cat and a pig. Thus, only a belief in Universals can make sense of our ability to extend predicates to situations of which we have no direct experience, which just is scientific prediction.

At this point, many trope theorists will protest that the 1000 cat-instances do in fact share something which provides an *a priori* justification for including the cat and not the pig among their number –and that is the 'property' of resemblance. however, I shall assume that insofar as this property of resemblance amongst the 1000 cats provides *projectibility* (of the 1000 cats' cathood to further cats) the trope theorist does nothing but smuggle real generality in the back door, thus reestablishing full-blooded realism. If on the other hand the property of resemblance does not provide projectibility then it will not provide the *a priori* justification (for excluding the pig from the cat collection) which it is alleged to.

It might be objected that what has been offered is a terribly anthropomorphic reason to postulate one ontological entity (a Universal) rather than another (a set of distinct property instances). Just because

33 He has come some way towards acknowledging this in his latest book, where he writes, '... the view that properties and relations exist yet are particulars, is an important alternative which in many ways respects the spirit of the present enterprise'. Armstrong, *A World of States of Affairs*, 22.

34 A pig from the film of the same name.

something is easier for us to grasp and extrapolate, does that mean that it is 'out there'? Wasn't this meant to be realism? This objection, however, assumes that if we make ontological commitments based on what we find easy to *discover or to believe*, we risk *unwitting* error through substituting the subjective for the objective, or as Peirce would put it, the fictive for the real. The objection may be answered by noting that the Peircean epistemology provides *other* means for removing the human idiosyncracies and projections from our beliefs than a distinction between what is in the world and what is in the mind.

Peirce's pragmatic theory of meaning dismisses as meaningless any discussion by us of 'things in themselves'," ruling that all we have to work with epistemically is our beliefs. He therefore draws his real-fictive distinction within the realm of general ideas. He then argues that through continual testing of our ideas against the world *through* prediction and observation, by intelligently identifying and discarding those ideas which lead to false predictions, and trying out new ideas, we can slowly converge on the real. Thus for Peirce that the real is 'mind-independent' does not mean that it is 'not in anybody's mind'. (Such a definition of the real would be somewhat self-defeating after all.) It just means that *its character is not altered by any person or group of persons having it in their mind*.

Thus, though Armstrong argues for Universals as truth-makers for true scientific statements, he does not seek specifically to explain scientific prediction, nor note the fact that we can only make predictions by postulating a coherent and graspable idea rather than an infinitely long set of distinct things. This is just to say that in concentrating on the ontological, truth-making, role which Universals play, he loses sight of their logical role as real *generals*. Therefore, on his construal of the problem of Universals, Armstrong cannot make a case for his Universals over tropes.

35 For one example among many see Peirce, *Philosophical Writings of Peirce*, 251-268,

2.7. The **Real as Representational**

From his use of prediction to identify real generality Peirce draws the challenging conclusion that the real is of the nature of a *representation*:

When I say that the general proposition as to what will happen, whenever a certain condition may be fulfilled, is of the nature of a representation, I mean that it refers to experiences *in futuro*, which I do not know are all of them experienced and never can know have been all experienced (5.97).

Peirce expresses this 'representational' nature of real generality mathematically, as follows. The medievals defined the general as that which is 'predicable of many'. Peirce, however, notes that in this context, 'many is not enough':

None of the scholastic logics fails to explain that *sol* is a general term; because although there happens to be but one sun yet the term *sol aptunt natum est dici de multis*. But that is most inadequately expressed. If *sol* is apt to be predicated of *many*, it is apt to be predicated of any multitude however great ... In short, the idea of a general involves the idea of possible variations which no multitude of existent things could exhaust (5.103).

This is in fact a quantitative means of expressing the point about the superiority of scholastic realism to trope theory. The claim is that something is required of a *different logical order* than a mere set of distinct instances of a given property (even if that set is infinitely large), in order to ground prediction. In other words, generality is irreducible to particularity of whatever cardinality.

The idea that the real is representational in the sense just outlined is challenging because it is a form of idealism, and idealism has been seen as antithetical to realism. The conflation of idealism with antirealism was a defining moment in analytical philosophy.' Yet the move derives what

36 Peter Hylton tells this story well. See *Russell, Idealism and the Emergence of Analytic Philosophy*, (Oxford: Clarendon Press, 1990), 109-110.

plausibility it has from the collapsing of the real onto the existent. For it is only if one believes that reality is restricted to existent things (and moreover, only if one assumes a materialist analysis of existence) that one will believe that ideas are disqualified from real status by their very nature as ideas. Thus, Peirce calls himself an Objective Idealist, and this is not a contradiction in terms.

2.8. The Experimentalist's View of Assertion' (Pragmatism and Predication)

The preceding sections argued for the importance of our practice of prediction in grounding our belief in real generality, and pointed out the way in which we use prediction together with a belief in real generality to winnow error from our ideas, which we express through predicates. Such a 'predictive approach to predication', is Peircean pragmatism in a nutshell, (which Peirce captured nicely at one point in the phrase, 'The Experimentalist's View of Assertion').

We have seen that Devitt and Armstrong argued about the semantics of general statements antecedently assumed to be true. The way Peirce sets up the problem acknowledges that nominalism and realism both ascribe extensions to predicates and properties to things. So this is not a good place to drive an analytical wedge between the two positions. Rather, given that what distinguishes the two is the *mind-independence* of the universal or general, the crucial testing-ground for nominalism against realism is precisely where we project our ideas about the world onto a new situation where they may or may not hold water. For error (manifested as unsuccessful prediction) is our only experiential link with mind-independence. Peirce's pragmatic argument for realism from scientific experiment is that if we are faced with a situation containing things over which we have no control, and we find ourselves willing to extend general ideas into that new situation, to dismiss alternative possibilities that are entirely intelligible but which we know will not obtain, that shows that we ascribe reality to those ideas whether we admit it or not.

One can treat the predicate 'is a cat' as picking out a real property without being committed to the existence of cathood. One means by this just that the general idea of 'cat' possesses predictive power, so that we can extend at least some of the discoveries we make about cats of our acquaintance (such as their love of meat and their unwillingness to have their tails pulled) to cats with which we are not acquainted. In other words, the question is whether 'is a cat' is *a properly scientific predicate*. (This for Peirce, unlike Armstrong, can be a matter of degree.)

It was noted that the debate between Armstrong and Devitt was sterile because the extensions of predicates such as 'is a cat' were taken for granted by Armstrong and Devitt while they argued about whether existent objects ('cathoods') underpinned that predication in a truth-making capacity. We saw that Armstrong explicitly acknowledges that the issue has nothing to do with the extensions we ascribe to our predicates when he takes such pains to separate 'semantic' questions from 'ontological' ones." This in fact jars with Armstrong's strongly held naturalism and empiricism. If the presence of Universals makes no difference to which predicates are applied where, how are we to observe Universals at work in the world through scientific inquiry?

By contrast the problem of realism and nominalism as Peirce conceives it arises precisely in situations where a decision needs to be made about whether to extend a given general predicate to a new particular or set of particulars. In such cases we need to decide whether past evidence for it was subjective or merely coincidental, or whether the idea concerned may be relied upon in a new situation. That is precisely the pragmatic difference between realism and nominalism. Far from a dry scholastic argumentative diversion, this is a philosophical choice with profound consequences, for future choices not just in scientific contexts, but in many other areas of inquiry."

37 See also Devitt's audacious, 'The strictly semantic problem of multiplicity does not have anything to do with Universals' (Devitt, 436).

38 Moreover, there is probably no area of human life which is not touched by questions of realism so construed. Consider, for example, the problem, 'Is my love for him real?'

Thus, the separation of semantic from ontological questions need not be a precondition of realism, as Armstrong takes it to be. The question is rather: which semantics is objective and which subjective? Which real and which only as we think it is? Thus the way is cleared for a realism about *meanings*, which is largely unexplored in the contemporary philosophical context."

3. Conclusion: 'Semantic Realism'

If cats have something in common which is not shared by other creatures, what is that 'something'? The argument of this paper has been that the something is not a something that *exists*, but something *real*, and by this is meant just that it is projectible into new situations in ways that give us a measure of predictive power.

Thus Armstrong, despite his somewhat renegade status on the current philosophical landscape as an extreme and scholastic Realist, is not Realist enough. For he is Realist about 'concrete' things (which he calls 'ontology') and not about meanings (in his terms, 'semantics'). To this end, • he turns his Universals into concrete, casually efficacious existent things. Thus, the question arises what makes his Universals 'Universals', and not just exceptionally large particulars with exceptionally scattered (and unusually homogeneous) parts. Realism about meanings is largely untouched since Early Modern philosophy hit its stride. Yet ironically, according to Peirce, such semantic realism is the logical lesson implicit in the Scientific Revolution's greatest discovery of all—the experimental method.

Thus the Problem of Universals is not an exercise in pure ontology, as Armstrong and Devitt would have one believe. It is worth exploring the

considered not as a question of whether some love-ensuring entity(ies) exist, but as a question of whether the feeling in question is one I can *rely* on.

39 A notable exception is the recent, Kripke and Putnam-inspired growth in 'Twin Earth' style examples, designed to demonstrate an externalism about meaning which riches on rigid designation. Yet such discussions have so far lacked principled answers to questions such as *when* we should rigidly designate, and according to which features of the objects designated.

hypothesis that there has been confusion in recent analytic philosophy generated through substituting ontological for epistemological, logical or semantic questions, and that this has been encouraged by a background nominalism in the discipline, for the slide from, 'It's real,' to, 'It's an existent entity', means that any measure of objectivity for a claim seems to need to be backed up by the postulation of some existent entities. It is tempting to argue that this has resulted in analytic philosophers casting vast shadows of repressed logic across the heavens.'

Peirce warned against the possibility of 'Nominalistic platonism' 100 years before Armstrong:

Individualists are apt to fall into the almost incredible misunderstanding that all other men are individualists too—even the scholastic realists, who, they suppose, thought that 'universals exist' (5 .504).

This paper contends that that claim was remarkably prescient, where 'prescient' just means able to identify an active general principle, and on the basis of that, know something of what is to come.'"

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40 See for example the discussion by Armstrong of how universals *qua* concrete building block of the Universe may be 'conjunctive' but not 'disjunctive'. (Armstrong, *A World of States of Affairs*, 26ff). If this charge of 'logical reification' is true, it is somewhat ironic given the explicit, enthusiastic, revisionary anti-metaphysical aims of early analytic philosophy.

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