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The Ontological Turn Misunderstood: How to Misunderstand David Armstrong's Theory of Possibility

'There has been an "ontological turn"', states Fraser MacBride at the beginning of his article 'Could Armstrong Have Been a Universal?' (1999). He is referring to the fact that even in circles where there once has been a 'linguistic turn', or where metaphysical problems have been treated as problems of semantics, now again metaphysical theories of things and properties are developed. (For a survey of such theories see Oliver 1996.) Such theories are used in philosophical analyses of, e.g., causation or modality. MacBride argues that these analyses, and in particular Armstrong's theory of possibility, are 'flawed': 'The concepts of particular and universal such analyses presuppose are not properly understood. The ontological turn has proceeded hastily without the required proper examination of these concepts' (MacBride 1999, p. 471). I shall argue that MacBride has proceeded hastily without the required proper examination of these metaphysical theories. Discussing MacBride's misunderstanding of Armstrong I shall suggest that there is a greater gulf between semantics and metaphysics than many think.

MacBride's aim is to show that theories of modality such as David Armstrong's, which are supposed to be reductionist, fail to be reductionist because the concepts of particular and universal which they employ are 'suffused with modality' (472). Let me first explain how MacBride understands Armstrong's theory, how he criticizes it, and how he misunderstands it. Then I shall discuss the relationship between metaphysics and semantics and show how MacBride's misunderstanding results from a confusion of the two. MacBride's criticism is supposed to be 'a fully general critique' (p. 474) of a whole family of theories, but I shall concentrate on MacBride's criticism of Armstrong's theory of possibility.

1. MacBride's description of reductionist theories of modality

MacBride takes Armstrong's theory of modality to run as follows. There are particulars and universals. There are no merely possible entities, only

actual entities. There are no real possible worlds, although representations of possible worlds can be admitted as 'possible worlds surrogates'. They 'depict worlds that combine existing particulars and universals in different ways' (MacBride 1999, p. 475). Or one can say that possible worlds 'exist according to a fiction in which genuinely existent particulars and universals are recombined to form novel instantiations' (MacBride 1999, p. 475). For example, if in the actual world the properties F, G, and H are instantiated but nothing instantiates all three, then there is another possible world in which a particular instantiates all three.

According to MacBride, Armstrong's theory then proceeds as follows: Modal sentences are 'translated into a language where, roughly, necessity is expressed by universal quantification over possible worlds, possibility by existential quantification' (MacBride 1999, pp. 476f). Now 'a semantics is provided for the possible worlds language by treating its quantifiers as ranging over possible worlds surrogates' (p. 476). So MacBride takes the aim of Armstrong's theory to be to provide in this way 'truth conditions' for modal sentences. He takes the aim of Armstrong's theory to be to translate modal sentences into possible worlds language, to say they are true if and only if the possible worlds are so-and-so, and to say what possible worlds are. Assume, for example, in the actual world there is a particular *b* which instantiates the property N and not the property F, which is instantiated by other particulars. Take the sentence S '*b* could have been F instead of N'. According to MacBride, Armstrong's theory translates S into S* 'There is a possible world in which *b* is F but not N'. Further, the theory states that S*, and hence S, is true if and only if there is a fiction of a certain kind according to which *b* is F instead of N.

Now we come to the bit which is most important for MacBride's criticism. Armstrong calls his theory of modality 'reductionist'. MacBride spells this out as follows.

> [A] modal reduction must, on any account, be capable of specifying non-modal truth conditions for sentences that contain modal vocabulary. […] This means that a reductive theory of modality must satisfy (in principle) the following two constraints. First, the theory must be *extensionally adequate* (EA). Each specification of a truth condition that the theory associates with a modal sentence must be materially equivalent to the sentence for which it specifies a truth condition. Second, the theory must be *non-circular* (NC). Each specification of the truth condition of a modal sentence that the theory provides must be expressed (perhaps at infinite length) using only non-modal vocabulary. (MacBride 1999, p. 474)

So, according to MacBride, Armstrong's theory aims to provide 'non-modal truth conditions' for modal sentences, that is, it aims to transform sentences that express modal claims or that contain modal vocabulary into sentences that express no modal claims and that contain no modal vocabulary.

2. MacBride's criticism of reductionist theories of modality

MacBride's criticism is *that Armstrong's theory, contrary to what Armstrong claims, is not reductive*. Armstrong fails because his theory commits him to some irreducibly modal sentences. 'The concepts of particular and universal dictate that if particulars and universals exist a range of modal sentences are true […]. Combinatorial theories cannot be reductive because they cannot provide truth conditions for these sentences that simultaneously satisfy (EA) and (NC).' (MacBride 1999, p. 477) So MacBride wants to show that there are modal sentences for which Armstrong fails to provide non-modal truth conditions. The truth conditions Armstrong provides are *prima facie* non-modal but they contain concepts which have modal ingredients.

I think MacBride is right so far: the sentences which he puts forward as examples against Armstrong are (insofar as they are meaningful) irreducibly modal. Let me give three examples.

(1) Necessarily, nothing is both 5 kg and 1 kg in mass. (p. 478)

A defender of a combinatorial theory of modality could hold that, as any combination of properties is possible, (1) is false. This theory would be open to the objection that it fails to satisfy (EA). But Armstrong takes (1) to be true. MacBride argues that then Armstrong has to specify which fictive possible worlds contain only *possible* combinations of properties. This cannot be done without the use of modal vocabulary. Hence Armstrong has to admit that there are true modal sentences which are either themselves irreducibly modal or for which he cannot provide truth conditions without the use of modal vocabulary. Hence Armstrong's theory does not satisfy (NC).

Further, MacBride explains that Armstrong is committed to certain modal principles about particulars and universals and that hence again

(NC) is violated. For example, Armstrong rejects the possibility of non-instantiated universals. So he is committed to

(2) Every universal is necessarily instantiated. (p. 485)

But no totally non-modal truth conditions for (2) are given. So Armstrong's theory violates (NC). Another example is:
(3) Necessarily, particulars only instantiate universals. (p. 487)
Armstrong takes instantiation to be a non-symmetrical relation between particulars and universals. So he is committed to the truth of (2). Armstrong does not, and cannot, provide truth conditions for (2) without using modal vocabulary. Hence again Armstrong's theory violates (NC).
MacBride is right in holding that 'the concepts of particular and universal' are 'suffused with modality' and that Armstrong's theory does not satisfy (NC), i.e. it does not provide for every modal sentence 'truth conditions' which can be 'expressed using only non-modal vocabulary' (p. 474).

3. Armstrong's theory restated

However, MacBride misunderstood Armstrong's claim that his theory of modality is 'reductionist'. A theory that is reductionist in Armstrong's sense does not need to satisfy (NC). Let me sketch Armstrong's theory (cf. Armstrong 1989 and 1997, ch. 10):

> There are particulars and universals. Universals, i.e. properties, are instantiated by particulars. If two particulars, *a* and *b,* have the same property F, then the F-ness of *a* is identical with the F-ness of *b.* Which universals there are is not to be discovered *a priori* but only *a posteriori*. Universals are not the meanings of predicates, and there is no one-to-one correlation between predicates and universals. A predicate may apply in virtue of one or of several universals. Different predicates may apply in virtue of the same universal, and a predicate 'F' may apply to *a* because *a* instantiates the universal L and to *b* because *b* instantiates the universal M. A particular together with a universal (or several universals) which it instantiates, i.e. an entity of the form *a's being G,* is called a state of affairs. Every universal is instantiated at least once. Everything there is is either a state of affairs or composed of states of affairs or a constituent of a state of affairs.

There are true statements about what is possible and about what is necessary, e.g. 'Nothing can be both 1 kg and 5 kg in mass' or 'There could be a man 5 m tall'. The aim of Armstrong's theory of modality is to

'give some account of the nature of possibility' (Armstrong 1989, p. 3), and to answer the question 'What truthmakers can our ontology supply for modal truths?' (Armstrong 1997, p. 149).

Armstrong's theory of modality is *reductionist*, or 'deflationary', in the sense that it entails that 'necessary and merely possible states of affairs are not required. The contingent states of affairs are to provide truthmakers enough' (Armstrong 1997, p. 172). Let us clarify this by stating what a *non*-reductionist view would be like. Consider the following line of thought. 'Raising the arm entails that the arm goes up, but the arm's going up does not entail that the arm was raised. In the same way, what is actual is possible, but what is possible need not be actual. As a result, just as we ask what must be added […] to the arm's going up to yield raising the arm, so we are tempted to ask what must be added to something merely possible to yield its actuality.' Giving in to this temptation leads to a non-reductionist view, because one who asks 'What must be added to something merely possible to yield its actuality?' grants some ontological status to the merely possible. The non-reductionist believes 'that there are two sorts of states of affairs: the actual ones and those that are merely possible' (Armstrong 1997, p. 148). According to the non-reductionist view, the statement that there could be a man 5 m tall is made true by a merely possible state of affairs consisting of a particular instantiating the universal *being 5 m in length* and all the universals which something needs to instantiate to count as a man. The reductionist resists this temptation. He claims that there are only actual entities and that true modal claims are made true just by the actual entities.

A slightly different line of thought which might lead a philosopher to a non-reductionist view springs from the principle that for each true statement there is a state of affairs corresponding to it, which is the object of the statement and which makes the statement true, and different statements correspond to different states of affairs. Recognising that there are true modal statements one is thus led to the recognition of merely possible states of affairs. Anyway, the creed of the reductionist is that there are no such things as merely possible entities.

Here is the rest of Armstrong's theory of modality in a nutshell: For any two properties (universals) that are wholly distinct, any particular can instantiate both of them, one of them, or none of them. Properties are 'compossible'. Any combination of properties, as long as they are wholly distinct from each other, is possible. So all the combinations of particulars

and properties 'that respect the form of atomic states of affairs constitute the possibilities for […] states of affairs' (Armstrong 1997, p. 160).

Only wholly distinct properties are compossible. Two universals can have common parts, they can overlap. Universals which overlap cannot be instantiated by the same particular (at the same time). Also, a universal cannot be instantiated by a particular twice. (These are basic principles on whose defence Armstrong spends much time. See Armstrong 1989, ch. 6; cf. Armstrong 1997, p. 155 and p. 174.)

Armstrong's conception of 'possible worlds as fictions' is, at least in his more recent writings, not an essential part of his theory of modality. In his *A World of States of Affairs* (1997) they do not play the role any more which they played in his *A Combinatorial Theory of Possibility* (1989). He now writes that his theory 'does not go *through* fictional possible worlds' although they may 'be admitted as useful fictions' (Armstrong 1997, p. 172).

All true modal statements are made true just by the actual contingent universals and particulars. No merely possible states of affairs and no necessary states of affairs are needed as truthmakers. Let us see for some examples of modal statements how this view can be upheld.

A statement like 'There is nothing which has just the properties F, G, and H, but there could be such a thing' is true (if it is true) because F, G, and H exist and are wholly distinct (and hence compossible). It is made true by the universals F, G, and H.

A statement like 'Nothing can be both F and G' is true (if it is true) because F and G are not wholly distinct universals. It is made true by F and G.

Finally, why is it true, according to Armstrong, that 'every universal is necessarily instantiated'? I think Armstrong would say that this is true because of the essential nature of universals. (He speaks about 'the essential nature of universals' e.g. in his 1997, p. 127.) It flows from the essential nature of universals that they are promiscuously repeatable, that they cannot exist without being instantiated, etc. We reached the bedrock here. And that is just what the theory wants to do: say how things are at the ontological bedrock.

4. What is wrong with MacBride's criticism

It is of course a matter of dispute whether Armstrong's theory is true, and many elements of it can be, and are, disputed. One can dispute

Armstrong's ontology, one can dispute the claim that wholly distinct properties are always compossible, one can dispute the claim that properties can overlap, etc. MacBride disputes that the theory achieves its objectives. The trouble is that the objectives he expects the theory to achieve are not the objectives which the theory is designed to achieve. He expects the theory to provide 'non-modal truth conditions for sentences that contain modal vocabulary' (p. 474) and hence to satisfy (EA) and (NC). I take it that that means that the theory should explain how modal sentences can be translated into sentences which are materially equivalent to the original sentences, but which are not modal.

Take again the example 'Nothing can be both 1 kg and 5 kg in mass'. What does Armstrong's theory have to say about this example (which Armstrong discusses in his 1989, ch. 6)? Can we see from this what the aim of Armstrong's theory is? The theory says about this example, first, that it is true, and, secondly, that it is true because the universals to which the predicates '1 kg' and '5 kg' refer overlap. In general, the theory states that a statement of the form 'Nothing can be both F and G (at the same time)' is true if and only if the universals in virtue of which the predicates 'F' and 'G' apply are not wholly distinct. *Armstrong does not attempt to translate modal statements into non-modal statements.* He does not attempt to translate anything. He does not attempt to provide what MacBride calls 'truth conditions'. Hence there is nothing to satisfy or violate (EA) and (NC). Armstrong's theory makes a general claim about the ontic structure of this world and about the combinability of universals. One may argue that this whole project of describing the ontic structure of this world and of the nature of possibility is doomed to failure. But one has to recognise that this *is* Armstrong's project.

There is no need to argue at length, as MacBride does, that Armstrong is committed to irreducibly modal statements, i.e. that his theory violates (NC). It is clear in everything Armstrong writes that he thinks that there are such true statements. Otherwise he would not have to be worried about what their truthmakers are. The modal statements (1), (2), and (3) mentioned above which MacBride's presents as counter-examples to Armstrong's theory, are statements which also Armstrong would take to be examples of true irreducibly modal statements. MacBride's criticism is misplaced because his assumption that Armstrong wants to deny that there are such statements is wrong.

5. Semantics and Metaphysics

We have here an example of a misunderstanding of an interesting type. There are philosophers who think that semantics has an important role in philosophy. They not only think that semantics is an interesting field, but they think that many traditional philosophical problems, e.g. problems about modality, have to do with semantics or are to be solved by 'providing a semantics'. They think that much of philosophy is about providing 'truth conditions' for certain sentences.

But there are other philosophers who do not share this enthusiasm for semantics. They are rather puzzled by the fact that some of their colleagues always ask them to specify 'truth conditions' for certain statements, in order to solve certain philosophical problems. They think that most traditional philosophical problems, or those problems which they think are philosophical and important, are not problems of semantics, because, at least as they understand it, semantics is concerned with *meaning,* and most philosophical problems are not about meaning. The theories they put forward, e.g. of causation, or of properties, or of modality, do not say much about semantics and truth conditions. These philosophers might make claims about 'truthmakers', but they do not see why what their colleagues call 'truth conditions' is relevant for the problem. Let us call the former sort of philosophers S-philosophers and the latter sort of philosophers M-philosophers.

Armstrong is an M-philosopher and MacBride is an S-philosopher. Armstrong sees it as one of his tasks in his theory of modality to provide truthmakers for certain sentences. MacBride, however, writes in a footnote about an attempt of Armstrong to provide truthmakers for a certain type of modal statements: 'He [Armstrong] offers a corresponding account of their truth-makers […]. But a provision of truth-makers does not make for a specification of truth conditions.' (1999, p. 480, note 5) So we have the S-philosopher telling the M-philosopher 'A provision of truthmakers does not make for a provision of truth conditions', and the M-philosopher telling the S-philosopher 'A provision of truth conditions does not make for a provision of truthmakers'.

What is the difference between providing truth conditions and providing truthmakers? Truth conditions are propositions or sentences; that is, they are meaning entities. For example, the proposition that the stone has a mass of 5 kg is a meaning entity whereas the stone is not a meaning

entity. The proposition is true or false, whereas the stone is neither true or false. That truth conditions are meaning entities is also implied by what MacBride says about a reductive theory of modality: 'Each specification of a truth condition that the theory associates with a modal sentence must be materially equivalent to the sentence for which it specifies a truth condition.' (474) Only a meaning entity can be materially equivalent to a sentence. A truthmaker can be described or referred to by a meaning entity, but it cannot be materially equivalent to a meaning entity (except in the rare case where a meaning entity is a truthmaker). Also MacBride's statement of the claim that a reductive theory of modality must be non-circular makes clear that truth conditions are meaning entities: 'Each specification of the truth condition of a modal sentence that the theory provides must be expressed […] using only non-modal vocabulary.' (474) Only meaning entities can be expressed. You can express, using certain vocabulary, the proposition that the stone has a mass of 5 kg, but you cannot express a stone or a universal.

Truthmakers, on the other hand, as Armstrong wants to provide them, are not propositions and not sentences, they are not meaning entities at all. For example, according to Armstrong, the truthmaker of the sentence 'The stone has a mass of 5 kg' is a certain state of affairs, i.e. a certain individual instantiating certain universals. A stone, for example, is a state of affairs, one involving quite many universals. A truthmaker can fall on your foot and hurt you. No danger of that with a truth condition. The truthmaker of the modal sentence 'There can be a thing that is red and 5 kg in mass', according to Armstrong, are the universals in virtue of which the predicates 'is red' and 'is 5 kg in mass' apply. These are not the meanings but the objects of the predicates. For example, one of these universals is that in the stone which makes it behave in a gravitational field in a certain way.

Therefore providing truthmakers is different from providing truth conditions. MacBride misses the point of Armstrong's theory of possibility when he says that Armstrong's 'provision of truth-makers does not make for a specification of truth conditions.' (1999, p. 480, note 5) This is an example of an S-philosopher failing to understand what the project of M-philosophers is, and even failing to recognize that M-philosophers pursue a different project than S-philosophers.

It is very difficult for the S-philosophers and the M-philosophers to understand each other. Some realize that there is another camp but do not understand what the aim and the method of those in the other camp is.

Some find that some of their colleagues put things in a strange way but do not realize that these other philosophers are pursuing a different project. I have argued that MacBride misunderstands Armstrong in the latter way. That is why MacBride refers to Armstrong's theory as 'the proposed semantics' (p. 477), although Armstrong does not propose a semantics at all.

The two projects need to be disentangled. In the linguistic turn one of them swallowed the other. Some will say that both projects are worthwhile and depend on each other. I am sceptical about this peaceful solution, but in this article I have argued only that we have to distinguish the two.

ABSTRACT

Armstrong says of his theory of possibility that it is 'reductionist'. Fraser MacBride has argued at great length that it fails to be reductionist because for some statements it fails to provide non-modal truth-conditions. I argue that MacBride misunderstands Armstrong's theory because its aim is not to provide truth-conditions. This illustrates how great a gulf there is between semantics and metaphysics, and between those whose aim is to provide truth-conditions and those whose aim is to provide truth-makers.

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