AN ARGUMENT AGAINST ARMSTRONG'S ANALYSIS OF THE RESEMBLANCE OF UNIVERSALS

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I. Introduction

David Armstrong believes in universals. Once universals are accepted, it must also be accepted that they resemble one another to varying degrees. Colours, for example, fall into a certain multidimensional resemblance-order.

A theory of universals analyses the resemblance of particulars in terms of their common (or resembling) properties. Perhaps the resemblance of universals is likewise analysable in terms of common, higher-order properties of universals. Armstrong rejects such an analysis.[1] He proposes instead to analyse the resemblance of universals in terms of their common *constituents*. He develops the analysis as follows:

> If we consider ordinary, first-order, particulars, then . . . two things, while remaining two, can resemble exactly. At least exact resemblance is possible (assuming that the Identity of Indiscernibles is not a necessary truth). In the limit, resemblance of particulars does not give identity. But now consider the resemblance of universals. As resemblance of properties [monadic universals] gets closer and closer, we arrive in the limit at identity. Two become one. This suggests that as resemblance gets closer, more and more constituents of the resembling properties are identical, until all the constituents are identical and we have identity rather than resemblance. [4, pp. 105-106][2]

The idea, then, is this. Resembling universals are always complex universals (even though they might appear simple in experience). They are structural universals.[3] They resemble because they have common constituents: they overlap (although, as we shall see, they do not overlap in the mereological sense, by having common parts). Overlap admits of degree; universals that resemble more, overlap more. Resemblance between universals converges to identity because overlap converges to complete overlap.

I will present an argument against Armstrong's analysis of the resemblance of universals. But first a point regarding the composition of structural universals.

II. The Composition of Structural Universals

In *A Theory of Universals*, Armstrong spoke of structural universals having *parts*. But,

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[1] See [4, p. 105].
[2] See also Armstrong [1, pp. 120-127].
[3] Here and in what follows, I ignore conjunctive universals; and I assume that there are structural universals as Armstrong understands them. A structural universal is one such that, necessarily, whatever instantiates it has proper parts that instantiate certain simpler universals in a certain pattern. A structural universal is composed of the simpler universals that it involves. See Lewis [8] and Armstrong [2].

'under the benign prodding of David Lewis', he has since come to realize that it is misleading to speak of structural universals having parts.[4] For structural universals have a *sui generis*, non-mereological mode of composition, whereby two of them can be composed out of the very same simpler universals. Armstrong, accordingly, now speaks of structural universals having *constituents* rather than parts.

Not having (proper) parts, structural universals do not overlap in the mereological sense. Let us say that structural universals *overlap$_C$* iff they have common constituents; and that structural universals *overlap$_C$ completely* iff they have exactly the same constituents.[5]

Different structural universals can overlap$_C$ completely. We may, for instance, imagine different patterns of colour (structural universals) which have the very same simpler universals as constituents. Chemistry provides many actual examples of different structural universals which overlap$_C$ completely. *Butane* and *isobutane*, for instance, overlap$_C$ completely; both contain the universal *carbon* four times over, the universal *hydrogen* ten times over, and the dyadic universal *bonded* thirteen times over.

The composition of structural universals, then, is such that two of them can overlap$_C$ completely; 'F and G overlap$_C$ completely' does not entail 'F is identical with G'.

III. The Argument

The argument in brief is as follows. If Armstrong's analysis of the resemblance of universals is correct, then 'F and G resemble exactly' is equivalent to 'F and G overlap$_C$ completely'. Now, as was just pointed out, 'F and G overlap$_C$ completely' does not entail 'F is identical with G'. So, if Armstrong's analysis is correct, 'F and G resemble exactly' does not entail 'F is identical with G'. But 'F and G resemble exactly' does entail 'F is identical with G'; different universals cannot resemble exactly.[6] Thus Armstrong's analysis is mistaken.

The argument in full is as follows:

(1) Armstrong's analysis of the resemblance of universals (henceforth AAR) is correct. [Assume for conditional proof]

(2) 'F and G resemble exactly' is equivalent to '~$\Diamond$($\exists$P)($\exists$Q)(P and Q resemble more than F and G)'.[7]

(3) '~$\Diamond$($\exists$P)($\exists$Q)(P and Q resemble more than F and G)' is equivalent to '~$\Diamond$($\exists$P)($\exists$Q)(P and Q overlap$_C$ more than F and G)'. [(1)][8]

(4) 'F and G resemble exactly' is equivalent to '~$\Diamond$($\exists$P)($\exists$Q)(P and Q overlap$_C$ more than F and G)'. [(2), (3)]

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[4]   See Armstrong [2] and [3, p. 312]; Forrest [7]; and Lewis [8].

[5]   Because a structural universal can have a constituent 'many times over', complete overlap$_C$ is more properly defined thus: F and G *overlap$_C$ completely* iff (x)(x is a constituent of F n times over iff x is a constituent of G n times over).

[6]   If different universals could resemble exactly, then two particulars might resemble exactly and yet instantiate different (non-relational) universals, which is contrary to the Universals theory.

[7]   Two notes: first, by 'is equivalent to' I mean 'entails, and is entailed by'; second, 'P' and 'Q' are restricted variables ranging over universals.

[8]   (3) follows from (1) because AAR has the consequence that '($\exists$P)($\exists$Q)(P and Q resemble more than F and G)' is properly analysed as '($\exists$P)($\exists$Q)(P and Q overlap$_C$ more than F and G)'.

(5) '~◊(∃P)(∃Q)(P and Q overlap$_C$ more than F and G)' is equivalent to 'F and G overlap$_C$ completely'.

(6) 'F and G resemble exactly' is equivalent to 'F and G overlap$_C$ completely'. [(4),(5)]

(7) If AAR is correct, then 'F and G resemble exactly' is equivalent to 'F and G overlap$_C$ completely'. [(1) – (6), conditional proof]

(8) If 'F and G resemble exactly' is equivalent to 'F and G overlap$_C$ completely', then 'F and G resemble exactly' and 'F and G overlap$_C$ completely' have the same entailments.

(9) 'F and G overlap$_C$ completely' does not entail 'F = G'.

(10) If AAR is correct, then 'F and G resemble exactly' does not entail 'F = G'. [(7), (8), (9)]

(11) But 'F and G resemble exactly' does entail 'F = G'.

(12) AAR is mistaken. [(10), (11)]

IV. Concluding Remark

It is now generally recognized by those interested in metaphysics that the Universals theory and the Trope theory are the leading contenders in that field.[9]

The argument just given shows that Armstrong's analysis of the resemblance of universals does not succeed. For reasons that I will not go into here,[10] this result considerably weakens the case for rejecting the Trope theory in favour of the Universals theory.[11]

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8. D.K. Lewis, 'Against Structural Universals', *Australasian Journal of Philosophy* 64 (1986) pp. 25-46.

[9]   Armstrong defends the Universals theory in [1], [4] and [5]. For a detailed defence of the Trope theory, see Campbell [6].
[10] But see Armstrong [4, pp. 102-103, 136-139] and [5, pp. 22-27]; and Campbell [6, pp. 38-40].
[11] I would like to thank an anonymous referee for helpful suggestions.