## Why Bradley's regress is harmless

"As I now see it, universals are to be thought of as a special sort of part of the particulars that instantiate them." (Armstrong 2005: 274)

A regress threatens friends of tropes and universals alike, making it seem mysterious how such qualitative entities could ever be bound to their particulars by a relation of exemplification that is itself qualitative. If exemplification were a relation between, say, a particular a and a property F, and hence a universal, a further relation would be needed to connect a, F and the exemplification relation. An ontologically and explanatorily vicious regress would follow (Armstrong 1978: 20, 41, 54, 70). Essentially the same worry can be raised with respect to the constitution of relational facts (Vallicella 2002: 12): what is the ontological ground of the difference between a relational fact aRb with extrinsic R and the set, sum or list of its constituents? This difference does not seem accounted for – ontologically or explanatorily – by further constituents of the fact.

On its ontological reading, I take the regress to be a sound argument against trope theories. There cannot be tropes, because there would have to be infinitely many of them to connect any of them to their bearers – at any level, we would have a distinct additional trope, itself in need of being connected to do the binding.

Even if we accept, however, that the ontological regress is an argument for universals, multiply exemplified on any stage of the regress, we still face a difficult explanatory task: what explains the difference between those instantiations of the exemplification relation that make for an unity between a and F and those that do not? What is the difference between a relation that does in fact relate and one that does not? We cannot just say that it is "the business of a relation [...] to relate" (Alexander 1920: 249) – we have to understand that business.

What reason is given to say that aRb is not the sum of its constituents? It is an application of what I call the "sufficiency argument":

"[That the fact and the sum are different] is well-nigh self-evident...For if the constituents exist, the set and the sum both 'automatically' exist; but the constituents can exist without the fact existing." (Vallicella 2002: 12)

The sufficiency argument relies on the following "principle of necessarily sufficient reason", applied to ontological explanations:

(Nec) An explanation, even of a contingent fact, must necessitate what it explains.

If we accept explanation by things, as truthmaker theorists do, (Nec) becomes truthmaker necessitarianism: the view that truthmakers necessitate the truth of what they make true. An argument for the existence of states of affairs is then the consequence: Because the truthmaker for the contingently true predication "Fa" must necessitate its truth, it cannot be F or a alone, nor their fusion, for all three of them could exist without

"Fa"'s being true. Hence it is the state of affairs a's being F, which, by necessity, exists if and only if a is F:

"If it is said that the truthmaker for a truth could have failed to make the truth true, then we will surely think that the alleged truthmaker was insufficient by itself and requires to be supplemented in some way. A contingently sufficient truthmaker will be true only in circumstances that obtain in this world. But then these circum-stances, whatever they are, must be added to give the full truthmaker." (Armstrong 1997: 116)

"Why do we need to recognize states of affairs? [...] If a is F, then it is entailed that a exists and that the universal F exists. However, a could exist, and F could exist, and yet it fail to be the case that a is F (F is instantiated, but instantiated elsewhere only). a's being F involves something more than a and F. It is no good simply adding the fundamental tie or nexus of instantiation to the sum of a and F. The existence of a, of instantiation, and of F does not amount to a's being F. The something more must be a's being F-and this is a state of affairs." (Armstrong 1989: 88)

States of affairs, however, are just symptoms of the problem, not elements of its solution. We just have explanatory circularity in lieu of an explanatory regress: The difference between the 'mere sum' and the fact is explained by something, i.e. a state of affairs, that is 'non-mereologically composed' out of its constituents. But unless we understand the difference between mereological and non-mereological composition, we do not understand the difference between the sum and the fact.

It is tempting, but mistaken, to blame the regress on the view that explanation may be by things. The truthmaker realists are right to think that explanations of truths must bottom out in something real, something existing. It is to give up on this idea, at the centre of any realist view that deserves its name, to accept 'truthmaking' by 'things being so-and-so': we are not providing an ontological ground for the truth that a is F by just saying that a is F. The realist core of the idea that explanation is ultimately by things can be maintained even if we let some (special!) other *formal* properties of the things than their existence do some of the explanatory work, most notably their essences and structures.

What explains the difference between Fa on the one, and a and F on the other hand, is that in the first, but not necessarily the second case, the exemplification relation holds between a and F. The fact that a is F is different from the (mere) sum of its components exactly in the cases where a is not F. The exemplification relation, however, is not an 'extra' component of the fact: it is the relation of parthood that the universal F bears to the particular a if and only if a is F. Parthood is therefore exemplified, i.e. itself a part of a and F, hence, by the transitivity of parthood, also a part of a. We do have a regress: parthood is exemplified within a infinitely many times.

There is a regress, because the parthood relation has to be itself a part to be exemplified. The regress, however, is neither ontologically nor explanatorily vicious. It is ontologically harmless, because exemplification, on any account of this relation as a universal, will be a relation relating itself – this is not more problematical than the self-exemplification of the property of being a property.

More controversially, the regress is not explanatorily vicious: the explanation of the unity of the fact is given, on the first stage, by *a* itself. This is an explanation by a

thing, not by the fact that a contains F. It is true that F is a part of a if and only if a explains that Fa, but this does not mean that the latter explanation is implicitly conditional, that it 'works' only under some condition. The explanation is contingent, this is true, but so is the explanandum. I submit that this is acceptable, and that (**Nec**) has therefore to be rejected.

The explanatorily vicious regress is avoided due to two formal features of the exemplification relation construed as parthood: its internality, and its formality. If F is part of a, they stand in an internal relation, supervening on the intrinsic natures of the relata. The internality of exemplification explains the internality of resemblance: if the universal is literally part of the particular that exemplifies it, two resembling particulars literally share a universal as their common part.

Exemplification, construed as parthood, is a formal relation. This is the second reason why the exemplification regress is as harmless as the truth-regress (if p is true, it is true that p is true etc.) of which Hochberg says:

"The subsequent facts in the chain are not involved in the specification of the truth conditions for the initial statements, which is what would make the chain a vicious regress." (Hochberg 1988: 193)

While exemplification is exemplified by the particular, the universal and the exemplification relation, this fact supervenes on the particular exemplifying the universal: "the predicates may ascend, but not the reality in virtue of which they apply" (Armstrong 2004: 106).

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