

States of Affairs and the Relation Regress

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Point of Departure

The following is a common view: There are universals and there are substrates.¹ Universals and substrates obey what Armstrong (1978) calls the Principle of Instantiation and the Principle of the Rejection of Bare Particulars.² What is more, when a substrate exemplifies a universal (or, conversely, when a universal is instantiated in a substrate) there exists, besides (yet somehow constituted by) the substrate and universal, a state of affairs.³

But why, if there are universals and substrates, and universals and substrates depend generically on each other in the sense prescribed by Armstrong's two principles, should we posit states of affairs as well? In this paper, I consider and criticize one influential answer to that question.

The Problem of Unity

According to the view presently under investigation, one (quite probably the main) reason for positing states of affairs in addition to their constituent substrates and universals is that states of affairs are needed to solve a serious philosophical problem. To see how, suppose that (at least) contingent truths are made true by entities in the world⁴ and that truths with (at least

¹ The arguments presented here would be of equal relevance to someone (such as e.g. C. B. Martin (1980)) who construes states of affairs as in part constituted by tropes rather than by universals. There are however strong reasons for thinking that the present discussion ought to be of *special* interest (not to mention, the cause of special concern) to a universal realist. First, because the common view among trope-theorists is not this substrate-attribute view, but rather the trope-bundle view, a view given which there are neither substrates nor states of affairs (*cf.* my (2002: 127ff.)). The universal realist is arguably not similarly blessed with options and so has no choice but to be a substrate-attribute theorist (*cf.* Armstrong (1978: 91-96)). Although this contention has been disputed (*cf.* Rodriguez-Pereyra (2004); Zimmerman (1997)), it remains the orthodox view among universal realists.

² Principles according to which, first, universals depend *generically* on the existence of some substrate (a universal, if it exists, must be instantiated in some substrate) and, second, substrates depend *generically* on the existence of some universal (a substrate, if it exists, must exemplify some universal). In his (1978: 113), Armstrong distinguishes between a strong and a weak version of the latter principle. For the purposes of the discussion conducted here, that complication can be disregarded.

³ The view under consideration is a kind of constituent ontology in the sense described in this volume by M. J. Loux, P. van Inwagen, and R. K. Garcia. That is, it is a view according to which the character of familiar concrete objects is immanent to them. Or, put differently, it is a view which metaphysically "explains" (or "grounds") the existence of familiar things and their properties in the existence and nature of entities belonging to more fundamental ontological categories (in this case, the categories of substrate, universal, and state of affairs). The foremost proponent of this view is of course D. M. Armstrong (1978; 1989; 1997; 2004).

⁴ For the purposes of the discussion conducted here it is enough if we accept this "truthmaker principle" for atomic propositions with the basic form $\langle a \text{ is } F \rangle$. This should make the principle acceptable to almost everyone who accepts that there are truthmakers to begin with (and, in particular, it should be acceptable to defenders and critics of so-called "truthmaker maximalism" alike). For more on truthmaker theory *cf.* e.g. Simons (1992); Armstrong (2004); Beebe and Dodd (2005); Cameron (2008).

asymmetrically) independent truth-values must have different truthmakers.⁵ Remember that according to the view presently under investigation a specific substrate *a* which exemplifies a specific universal F-ness could have existed and exemplified some universal other than F-ness, and that a specific universal F-ness which is instantiated in a specific substrate *a* could have existed instantiated in some substrate other than *a*. This means that the constituents of a state of affairs have an existence that is independent of the existence of the state of affairs they happen to be the constituents of.⁶ And this means that the following two situations A and B (or “worlds” if you prefer that term) are both possible:⁷

A: *a* and F-ness exist; <*a* and F-ness exist> is true; <*a* is F> is true

B: *a* and F-ness exist; <*a* and F-ness exist> is true; <*a* is F> is false

Now, both <*a* and F-ness exist> and <*a* is F> are propositions with contingent truth-values and so must, if true, be made true by some entity or entities in the world; and as the former proposition can be true while the latter is false (as witnessed by the above situations) their truthmakers may at most be overlapping. But this means that there must exist something in situation A (but not in B) which can account for the fact that in the former but not in the latter situation <*a* is F> is true. The question is: What?

At first glance the answer may seem almost trivial for, clearly, in A, *a* and F-ness are somehow united, whereas in B they are not. So why not just say that in A, but not in B, a “unifier” (a relation, a connection, a tie, a nexus) exists besides *a* and F-ness?

At second glance things are however not as clear-cut. For, whatever else we want to say about this unifier we have to say that it is *not* something on which that which it is supposed to unify can depend for its existence. Proof of this is, of course, situation B. But this means that our unifier might exist and not unify *a* and F-ness, which means that the following situations are also possible:

C: *a*, F-ness, unifier exist; <*a*, F-ness, unifier exist> is true; <*a* is F> is true

D: *a*, F-ness, unifier exist; <*a*, F-ness, unifier exist> is true; <*a* is F> is false

Again, something must “make” the difference between the two situations. Using the same logic which led us from situations A and B to situations C and D we could add yet another unifier, in this case to situation C, and say that in C, but not in D, *a*, F-ness, and the unifier exist unified. But, again, we must say that this new unifier exists independently of that which it supposedly unifies, which means that new problematic pairs of situations can be produced. Et cetera, *ad infinitum*.⁸ This is the problem of unity.

⁵ This assumption is entailed given Truthmaker Necessitarianism (TN), i.e., the assumption that the existence of a truthmaker necessitates the truth of some particular proposition. Whether or not we should accept (TN) has been hotly debated. It is at least an open question (the answer to which I believe depends upon what stand one takes on the issue of the individuation of truthmakers) if the assumption made in this paper is not only entailed by, but also requires the truth of (TN). For a discussion of (TN), cf. Cameron (2005).

⁶ It does *not* mean, first, that the existence of the constituents of a state of affairs are independent of the existence of *some* state of affairs for them to be the constituents of (this is what the principle of instantiation and the principle of the rejection of bare particulars requires). Second, it does not mean that a specific state of affairs could have been differently constituted, i.e., the claim made above is fully compatible with the (quite reasonable) claim that states of affairs have their particular constitution essentially. For a more thorough treatment of these different possibilities cf. my 2011: 76f.

⁷ Throughout this paper anything surrounded by ‘<’ and ‘>’ is supposed to be a *truthbearer*. I will assume that the truthbearer is a proposition but if you happen to dislike propositions feel free to substitute them for the truthbearer of your choice.

⁸ This regress is often referred to as the “Bradley regress” to pay tribute to the argument as put forth in F. H. Bradley’s (1916 [1897]). So as not to get stuck in interpretive discussions, and in view of the fact that the way I present the argument differs rather considerably from how Bradley originally presented it, I here refer to the regress with the more neutral “relation regress” (for a more Bradleyan representation of the argument, cf. my 2002; 2010). According to Bradley, the regress is just one part of a more comprehensive argument aimed at proving that pluralism in general is false (and, hence, that holism is true). To him, therefore, it is an argument that can be formulated against any view according to which there is

States of Affairs to the rescue

The idea is now that the introduction of states of affairs solves the problem of unity. In D. M. Armstrong's words (1989: 88):⁹

Why do we need to recognize states of affairs? Why not recognize simply particulars, universals (divided into properties and relations), and, perhaps, instantiation? The answer appears by considering the following point. 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* [my italics].

And again (1997: 116):

We are asking what in the world will ensure, make true, underlie, serve as the ontological ground for, the truth that *a* is F. The obvious candidate seems to be the state of affairs of *a's being F*. In this state of affairs (fact, circumstance) *a* and F are brought together.

This suggestion sounds promising. If the difference between situation A, in which *a*, and F-ness exist and where it is true that $\langle a \text{ is } F \rangle$, and situation B, in which *a*, and F-ness exist, yet that same proposition is false, is the presence in A (but not in B) of the state of affairs *that a is F* then, it seems, we have the means to account for the truth of $\langle a \text{ is } F \rangle$ in a way that does not land us in vicious infinite regress. For the existence of the state of affairs *that a is F* is clearly incompatible with the falsity of $\langle a \text{ is } F \rangle$, which means that no new problematic pairs of situations seem to result from its introduction. Problem solved?

What are States of Affairs?

To be able to judge if the introduction of states of affairs does solve the problem of unity, it is not enough simply to say that in A there is the state of affairs *that a is F* whereas in B there is not. For what does that mean exactly? It must mean more than simply that in A, *a* and F-ness exist united whereas in B they don't, or to introduce states of affairs would just be to introduce another way of talking about a still unresolved and unexplained phenomenon.¹⁰ What we need is a substantial and non-circular account of the nature of that which exists in A but not in B, i.e., we need a substantial and non-circular account of the nature of states of affairs. Only given such an account can we then go on to judge if states of affairs constitute a viable solution to the problem of unity and if, as a consequence, the role played by states of affairs in relation to this problem can be used as an argument for their existence.

Now, we know that, since B is a possible situation, whatever a state of affairs is, it isn't reducible to *a* and F-ness, or to *a*, F-ness, and a unifier, or to *a*, F-ness, and an infinity of unifiers of

more than one thing (something which is often overlooked in the contemporary debate). If he is right, and if the introduction of states of affairs can solve what Bradley thought was unsolvable, this would constitute a very strong reason indeed for preferring the substrate-attribute view over competing pluralistic views of reality. In view of this, a critical investigation of the "states-of-affairs-solution" becomes all the more relevant.

⁹ Slight variations of the same argument can be found in his (1978; 1997; 2004). Armstrong calls this the "truthmaker argument" for the existence of states of affairs. Molnar (2003) introduced the term "master argument" for it (a title that is rather fitting in view of its standing among proponents of states of affairs).

¹⁰ Just as you cannot explain the sleep-inducing properties of opium by saying that they stem from a "virtus dormitiva" (cf. Molière's "Le Malade Imaginaire"), you cannot explain the unity of *a* and F-ness by saying that it is due to their being unified.

increasing order. This was the lesson learnt from the relation regress. States of affairs are *irreducible*.¹¹ But what exactly should this be taken to entail?

There are two main options: Either states of affairs are irreducible and brute or they are irreducible yet have a complex constitution. Below I investigate these options in turn, only to find that neither option should be acceptable, at least not to the traditional proponent of states of affairs.

States of Affairs as Irreducible and Brute

According to Armstrong, states of affairs “come first” and bare particulars and uninstantiated universals are “vicious abstractions from what may be called states of affairs: this-of-a-certain-nature” (1997 [1980]: 110). But what does it mean to say of the state of affairs that it “comes first” or that bare particulars and uninstantiated universals are “vicious abstractions” from it? For states of affairs to be able to solve the problem of unity, it must mean something more than just that *a* and F-ness are generically dependent on each other for, as we have seen, to say this does not prevent you from ending up in vicious infinite regress.¹² Still, it must mean something less than that *a* and F-ness depend specifically on each other, or the existence of the state of affairs *that a is F*, and hence the truth of $\langle a \text{ is } F \rangle$ would follow necessarily simply given the existence of *a* and F-ness (thereby contradicting the existence of situation B). A radical interpretation of Armstrong’s pronouncements is one which takes his talk of *vicious* abstraction very seriously. Literally, on this suggestion, *a* and F-ness do not exist. After all, all there is are states of affairs. ‘*a*’ and ‘F-ness’ may still be said to have referential force, but their referent will be the states of affairs, for that is all there is.¹³ States of affairs are brute; they are our rock-bottom.

This is certainly not an answer favored by Armstrong or, for that matter, by proponents of states of affairs generally. Yet, if this suggestion is adopted, the problem of unity disappears. For if there is no *a* and no F-ness, then there is no situation in which *a* exists but does not exemplify F-ness, or where F-ness exists but is not instantiated in *a*. Instead there are only states of affairs, and to say that *a* and F-ness are only contingently united, is another way of saying that although this is a situation in which the state of affairs *that a is F* exists, there are also situations in which it does not but where e.g. the states of affairs *that a is G* and *that b is F* exist.

Against this suggestion we may however raise at least two objections. First, if states of affairs are irreducible and brute, then realism is in effect traded for nominalism. For if what exists are ontologically structureless – “blobby” – states of affairs, and if states of affairs are (as Armstrong would take them to be) concrete particulars, then, on this suggestion, the world is a world of structureless concrete particulars. Bad news indeed for anyone who thinks there are properties. Second, and relatedly, although on this suggestion, the problem of unity is certainly *dissolved*, we cannot really say that it is *solved*. For if states of affairs are irreducible and brute, the problematic kind of complex whole does not exist, which means that there is no problem of unity. But if there is no problem of unity, then there is nothing that the introduction of states of affairs can be used to

¹¹ Vallicella (2000: 238-235) seems to think that even if states of affairs are reducible to (are nothing but) their constituents *a* and F-ness, they nevertheless exist as a separate fundamental category. Although this may be a mere terminological disagreement, I prefer to think of states of affairs exclusively as entities which, although constituted by e.g. *a* and F-ness, are nevertheless somehow something more or at least other than, these constituents. On my understanding, therefore, if the state of affairs is *nothing but* its constituents, it does not exist, at least not in the sense that it belongs to the ultimate furniture of reality (ontology).

¹² In spite of this, in his (1997 [1980]: 110) Armstrong seems to say exactly that when he compares the sticking together of substrate and universal with the Fregean sticking together of subject and predicate.

¹³ Perhaps we could even say that their referents are different “aspects” of the state of affairs, but if so we would need to understand this in a way that does not (re)introduce substrates and universals as separately existing fundamental entities in our ontology. Armstrong would surely object: To treat the state of affairs as a structureless ‘blob’ is after all to join company with the rest of the Quinean ostriches. (cf. Armstrong (1997 [1980]); Devitt (1997 [1980])).

solve. If states of affairs are irreducible and brute, therefore, the (non-existent) role they play in relation to the (non-existent) problem of unity is not a reason to think that they exist.¹⁴

States of Affairs as Irreducible and Complex

If states of affairs cannot be irreducible and brute, the only alternative is that they are irreducible yet ontologically complex. This means that, when the state of affairs *that a is F* exists, so does the substrate *a* and the universal F-ness.¹⁵ The Principle of Instantiation and the Principle of the Rejection of Bare Particulars (introduced in the first paragraph of this paper) still prevent *a* and F-ness from existing except as the constituents of some state of affairs but, on the present suggestion, the fact that *a* and F-ness must constitute some state of affairs does not mean that *a* and F-ness cannot count as some of the (perhaps *the*) ultimate constituents of the world.

What the relation regress teaches us is that the state of affairs *that a is F* cannot be reduced to the pair of *a* and F-ness. This means that the way *a* and F-ness make up the state of affairs *that a is F*, on the present suggestion, cannot be one of the ways in which *a* and F-ness constitute a complex whole simply by existing. This entails, more specifically, that the state of affairs *that a is F* cannot be either a mereological whole with *a* and F-ness as parts,¹⁶ or a set with *a* and F-ness as members. According to Armstrong (1997: 118), therefore, and as far as I can tell this is the common view among defenders of states of affairs generally, we must conclude that “states of affairs hold their constituents together in a *non-mereological mode of composition* [my italics].”

For this to mean something more substantial than just that states of affairs cannot be mereological or set-theoretical constructs, the special kind of non-mereological composition characteristic of the state of affairs needs some more flesh on the bones. How, on this suggestion, is situation A, in which there exists a non-mereologically composed whole consisting of *a* and F-ness, different from situation B, in which those same constituents at most make up a mereological whole? Again, there are two options. Either A is different from B because something exists in A that does not exist in B, or A is different from B, but this difference is brute and cannot be traced back to some difference in what, in particular, exists in either A or B.

That the difference is not brute should be easily seen. First, because there is reason to think that it *cannot* be, i.e., there is reason to think that two complexes cannot *just* differ. In Vallicella’s words (2000: 248):

It is unintelligible to suppose that two distinct *complexes* [the mereological sum *a* + F-ness, and the state of affairs *that a is F*] just differ as a matter of brute fact. A fact and the sum of its constituents are distinct complexes; hence there is need of a ground of their difference.

Second, because, again, we have reason to doubt that this suggestion substantially *solves* the problem at hand. Why? Not for the same reasons as those cited above. On the present suggestion, there is both complexity and unity and there is certainly a unity-problem. Rather, because, the “solution” offered does not seem to further our understanding of the phenomenon one bit, rather the opposite. In Dodd’s words (1999: 151-152):

[If the difference between the non-mereologically composed state of affairs *that a is F* and the mereological whole *a* + F-ness is brute] the familiar question remains unanswered: how can something with just a particular and a universal as

¹⁴ Dodd seems to have a similar objection in mind when he argues that (1999:151): “...if we take states of affairs to ‘come first’ in the sense at present under discussion, we immediately forsake any explanatory ambitions. As we introduced them /.../ a state of affairs exists just in case a particular has a property (or a relation holds between two or more particulars). To be then told that particulars and properties are mere ‘factors’ of states of affairs has one turning in a very small circle indeed.”

¹⁵ That states of affairs have an ontological structure in this sense is almost universally acknowledged by proponents of states of affairs. Cf. McDaniel (2009: 252, *fn.* 4).

¹⁶ Assuming that we accept the principle of unrestricted mereological composition (cf. D. Lewis (1991)).

constituents be a unity? How is it possible for *a* and F to be ‘brought together’ to form a unified entity which exists just in case *a* is F? Such a ‘bringing together’ of *a* and F is not by means of an instantiation relation; and, as we have seen, it can be neither set-theoretical nor mereological. We are left with no idea of how *a* and F are combined to form a genuinely unified state of affairs. Given this state of play, Armstrong’s invention of states of affairs amounts to philosophical wish-fulfillment.

If, on the other hand, something does exist in A to make the difference between this situation and a situation in which *a* and F-ness, but not the state of affairs *that a is F* exist, we are in trouble. For what could turn an *a* and F-ness situation into an *a is F*-situation without vicious infinite regress? It does not help to say, as Armstrong does, that what exists when the state of affairs does is a *non-relational* tie or nexus (1997: 118):

...there is no relation of instantiation *over and above* the states of affairs themselves /.../ It is often convenient to talk about instantiation, but states of affairs come first. If this is a ‘fundamental tie’ required by relations as much as by properties, then so be it. But this is *very* different from any thing that is ordinarily spoken of as *a relation*.

You cannot eat your cake and have it too. Therefore, a non-relational tie must either *not* be an addition to A in comparison to B, which means that, again, A and B are *just* different; an option that has already been discarded. Or, it must *be* an addition to A; but then, again, we seem to be left in the dark as to what kind of addition it is or, for that matter, how adding it is supposed to avoid leading to the vicious infinite regress. At one point, Armstrong could be interpreted as addressing this latter concern. He argues (1997: 118):

...even if a ‘relation’ is conceded, the regress is harmless. The thing to notice is that, while the step from constituents to state of affairs is a contingent one, all the further steps in the suggested regress follow necessarily /.../ once noticed, may it not be argued that the sole truthmaker required for each step in the regress *after the first* (the introduction of the fundamental tie) is nothing more than the original state of affairs? Many truths if you like, but only one truthmaker.

But, again, this “explanation” is unsatisfactory. Leaving the issue of how we should regard the status of a regress that follows *given* the existence of a state of affairs for the last part of this paper, it is enough if we note that it is hardly the relation which is added to *a* and F-ness in the presumably benign regress’s first step that is what accomplishes their unity (which is precisely what the relation regress set out above proves). Instead it must be the special togetherness (the “non-mereological mode of composition”) of the state of affairs that does this. Here it does its magic one step further up the regress-ladder than if we disallowed any type of relational constituent to occur in the state of affairs. But it (whatever it is) does its magic nevertheless. And all our original questions still remain: *What* does the magic? *How* does it do it?

An Impossible Dilemma

According to Vallicella, the irreducible nature of states of affairs (what he calls “the nonreductionist conception of states of affairs”) is *incoherent* (2000: 247):

...a nonsupervenient state of affairs is a whole of parts (insofar as it is complex) that is not a whole of parts (insofar as it is more than its constituents), and is thus a self-contradictory structure.

A more cautious way of putting the matter is in terms of a dilemma: States of affairs are either reducible or irreducible. They cannot be reducible or you end up in vicious infinite regress. If irreducible, on the other hand, states of affairs are either irreducible and brute or they are irreducible yet ontologically complex. But, again, at least if you count universals (or tropes for that matter) among the world’s basic constituents, and if you believe that the contribution states of affairs make to the solution of the problem of unity is a (strong) reason for holding that states of affairs exist, states of affairs can be neither.

A Third Option?

Have we exhausted all possibilities? Perhaps not. So far we have proceeded under the assumption that if *something* is supposed to make the difference between the state of affairs and the mere aggregate of its constituent *a* and F-ness, then this something must be one of the state of affairs' constituents and so be *internal* to it. But what if the state of affairs is regarded instead as a complex whole composed of *a* and F-ness and united in a non-mereological way by something that is *external* to the state of affairs itself? If this option could be spelled out in a coherent fashion then perhaps the dilemma set out above is a false dilemma, and then there may be hope still for the states of affairs. The externalist option is explicitly endorsed by Vallicella. He argues (2000: 249-50):

But there is a third possibility, namely, that the unity of a state of affair's constituents is due to an external unifier. For it does not straightaway follow from a fact being more than its (primary and secondary) constituents that it is a connectedness without a connector or unifier. The unifier might be external to the fact and its constituents. If sense can be made of this, we can retain the attractive view that a fact is not an entity distinct from its constituents (which is the element of truth in the reductionist approach) while also accounting for the undeniable unity of the fact's constituents. Just as contingently true sentences have need for states of affairs to make them true, contingent states of affairs have need of an external unifier to connect their constituents and so make them exist. The external unifier is the 'existence-maker' of states of affairs.

On this suggestion, as I understand it, the difference between situation A and situation B is not that in A there exists something (the state of affairs) that is differently constituted from what exists in B (the mere pair of *a* and F-ness), but rather that in A, there exists the state of affairs – understood as “nothing but” its constituents *a* and F-ness – *plus* something external to this state of affairs which makes *a* and F-ness into a unity. The difference between A and B must therefore be a difference that can be traced back, not to the constituents of the state of affairs, but to the presence, in A but not in B, of something *besides* the state of affairs, something which makes the state of affairs exist. One consequence of this is that, from the perspective of the state of affairs itself, there is *no* difference between a situation in which it exists and one in which it does not. This is however not a problem, or so proponents of this view argue, because there is still a difference between a situation in which the state of affairs exists and one in which it does not, only this difference is a difference in what exists *besides* the state of affairs itself.

To be able to judge if this suggestion can give us what we need, it must be supplemented with an account of the nature of this external unifier. Vallicella does provide us with the requisite supplementation by reasoning from analogy (ibid: 252):

Suppose I judge that *a* is F, and suppose further that the contents of acts of judging are not Fregean propositions, but items that cannot exist apart from the act of judging. In judging that *a* is F I create mentally a complex content composed of a subject-constituent and a predicate-constituent. This complex is a unity of constituents. On the one hand, the judgmental content is nothing more than its constituents. But on the other hand, the judgmental content is something more than its constituents insofar as it is the latter actually united to form a content capable of being either true or false – in the way in which neither the constituents taken by themselves, nor any list, set or sum of them is capable of being either true or false. But how can the judgmental content be something more than its constituents without being a further entity irreducible to them? The only way to resolve this tension is by positing an external unifier, an external ground of the unity of the judgmental content. In this case it is the judging consciousness that brings about the content's unity. Without recourse to such an external ground, we would be stuck with the tension.

According to Vallicella, whatever our external unifier is, it must be an *active* force, an agent (or, more neutrally put, an ontological operator), something which “do[es] something to the primary constituents to unify them” (ibid: 250). This agent, Vallicella believes, cannot be an individual human being, or a finite consciousness, as “[t]hat would be to embrace an intolerable idealism” (ibid: 252). The only option is to regard the external unifier as a transcendental consciousness of some kind. As a theist, Vallicella has a good candidate in mind (ibid.): “God has His uses. God can play the role of external unifier or ‘existence-maker’ for all contingent states of affairs”.

There are (at least) two problems with Vallicella's choice of external unifier. First, and in general, it is unclear how his choice of external unifier avoids the infinite regress. For, if God is what externally unifies a and F-ness in situation A, nothing seems to prevent God from existing also in situation B (some would say that nothing *could* prevent this, as God's existence is necessary) where $\langle a \text{ is } F \rangle$ is false. After all, as a purposive agent, God (or whatever we choose to call this transcendental consciousness) could have opted for not uniting a and F-ness. But then, it seems, it is not the existence of God that makes the difference between A and B.

In response to this, one may point out that, although it is not God that makes the requisite difference, it is still God who unifies a and F-ness as this unification is brought about by *an act of God*. This is however likewise problematic, for even if an act of God can hardly exist without God existing, and even if God could not exist without acting in one way or another, God could certainly exist without acting in a way that makes the state of affairs *that a is F* exist. But this means that just because a situation includes God, a purposive act by God, and a and F-ness, it does not have to include the state of affairs *that a is F*. It looks as though the familiar regress is up and running.

Second, even if it turns out that God can successfully play the role of 'existence-maker' for which he was introduced, then it is God, or perhaps God's purposive acts, and not the state of affairs, that solves the problem of unity. And if God is the solution to the problem of unity, then the problem of unity cannot be used to justify the introduction of states of affairs in ontology.¹⁷

States of Affairs as Externally Unified by States of Affairs

But what if the unity of the state of affairs was accomplished by *another* state of affairs, external to the first? This is F. Orilia's view (2006: 229):

What makes Fa [the state of affairs *that a is F*] an entity that exists over and above F and a is the state of affairs E^2Fa , understood as different from Fa , in that E^2 is taken to be the really attributive constituent of the former, whereas F is taken to be the really attributive constituent of the latter.

On this suggestion, the state of affairs *that a is F* exists and guarantees the unity of a and F-ness as well as the truth of $\langle a \text{ is } F \rangle$ *because* a higher-order state of affairs, the state of affairs *that a, F-ness, and a unifier unified* exists. If successful, this suggestion, apart from being compatible with a healthy naturalism, avoids the second difficulty encountered by Vallicella. If states of affairs are externally unified by states of affairs, then states of affairs are relevantly involved in a solution to the problem of unity, and so the existence of states of affairs can be justified with reference to the role they play in relation to this problem (as long as we can show that this solution successfully solves the problem, of course). What about the first difficulty? Can states of affairs be externally unified by higher-order states of affairs without infinite regress? Sadly, no. For if the possible existence of the state of affairs *that a is F* (or Fa , to borrow Orilia's formalism) *requires* the existence of the higher order state of affairs *that a, F-ness, and a unifier are unified* (E^2Fa) then it would seem that the latter state of affairs needs a still higher order state of affairs to ensure its possible existence; the state of affairs *that a, F-ness, a unifier and a 2nd order unifier are unified* ($E^3(E^2(Fa))$). But now it is easy to see that this state of affairs also stands in need of something to guarantee its existence; a yet higher order state of affairs. Et cetera, *ad infinitum*.

External vs. Internal Infinite Regress

¹⁷ Vallicella (ibid: 256) disagrees. According to him, if God externally unifies a and F-ness, and hence makes the state of affairs *that a is F* exist, then states of affairs constitute the solution to the problem of unity. As far as I can see, however, he can say this only if he more or less takes "state of affairs" to *mean* "the solution to the problem of unity"; a strategy I would advise against.

Perhaps surprisingly, proponents of the view now under consideration – the “infinatists” – gladly accept the regress generated above. In fact, the infinite regress to which their view commits them is not only one that they are prepared to live with, it rather forms an integral part of their solution to the problem of unity; It is *because* rather than *in spite of* this infinite regress, that the state of affairs *that a is F* exists.¹⁸

Now, the infinitists do not dispute that the infinite regress described in the beginning of this paper viciously prevents us from accounting for the truth of $\langle a \text{ is } F \rangle$. But then the regress to which they themselves are committed must be importantly different from that one. To be able to judge if the infinitist can successfully solve the problem of unity, we must therefore make sure, first, *that* the regress to which infinitism gives rise really is importantly different from the regress described in the beginning of this paper and, second, that it is different in a way that is of relevance to the question of viciousness.

First thing first; *that* the two regresses are substantially different is easily demonstrated. For, whereas in the original regress, what exists at each step can be regarded a corrective expansion of, and so identical with, that which is supposed to exist in the regress’s previous step, this is not true of the infinitist’s regress. To the contrary, in the infinitist’s regress, each step is distinct from, though related to, each other step in the regress. Given the original regress, therefore, the result is one infinitely complex whole which, because at no step is this a *unified* whole, contradicts the existence of the state of affairs *that a is F*. Given the infinitist’s regress, on the other hand, the result is instead an infinity of finitely complex and presumably unified wholes or states of affairs. This means that as the original regress envelopes *inside* the would-be state of affairs *that a is F*, the infinitist’s regress rather develops *given* and so *outside* this state of affairs. The two regresses are therefore clearly different. To capture this difference we can say, with Orilia, that the original regress is “internal” whereas the infinitistic regress is “external”. The difference can be depicted as follows (using ‘E’ to stand for a unifier):

The Internal Relation Regress	The External Relation Regress
$F - a$	Fa
$F - E^1 - a$	$E^1(Fa)$
$F - E^2 - E^1 - E^2 - a$	$E^2(E^1(Fa))$
$F - E^3 - E^2 - E^3 - E^1 - E^3 - E^2 - E^3 - a$	$E^3(E^2(E^1(Fa)))$
...	...
∞	∞

But what, if anything, is it about this difference that should make us judge the internal regress vicious yet the external regress benign (or even positively beneficial)?

Fortunately, to be able to answer that question no theory on what distinguishes a vicious from a benign regress generally needs to be formulated.¹⁹ Instead we can make do with an account of what would constitute a failure to answer the particular questions posed in this paper. Those questions, remember, were, first; “What makes it the case that in A, but not in B, is it true that $\langle a \text{ is } F \rangle$?” And, second, given that we have opted for answering the first question with “The state of affairs *that a is F*”; “What makes it the case that the state of affairs *that a is F* exists?” What we are looking for is what we might call the *ontological ground* for, or *metaphysical explanation* of, both the

¹⁸ One important proponents of this view is F. Orilia (2006; 2009). An early precursor to Orilia is I. Segelberg. Segelberg worked on these issues mainly during the 40ies and 50ies, and published exclusively in Swedish. However, thanks to H. Hochberg, and S. Ringström Hochberg, his complete works are now available in English (*cf.* Segelberg 1999). For an in-depth treatment of Segelberg’s philosophy, *cf.* Hochberg (1999) and Maurin (forthcominga). R. Gaskin (2010) also proposes that unity in complexity is achieved through the existence of an infinity of likewise unified wholes. Gaskin’s views are however set in a framework that is importantly, even radically, different from the framework in which matters are discussed here (*cf.* my (forthcomingb) for a critical investigation of the particularly Gaskian view).

¹⁹ For a thorough general treatment of the distinction *cf.* Gratton (2010) as well as Maurin (2007).

existence of the state of affairs *that a is F* and, as a consequence, for the truth of $\langle a \text{ is } F \rangle$; something, the existence of which, *guarantees* the existence of this state of affairs.²⁰ But if so, an answer will fail to give us what we need if it does not manage to guarantee the existence of the state of affairs *that a is F* or, as a consequence, the truth of $\langle a \text{ is } F \rangle$. A vicious regress is therefore one which “makes” an answer fail in that sense.

It is now easy to see why the internal relation regress is a vicious regress. In this regress, each step contains something that is compatible both with the truth and falsity of $\langle a \text{ is } F \rangle$ and/or with both the existence and non-existence of the state of affairs *that a is F*. But this means that *no* step in the regress can give us something which guarantees *that a is F*, and so, no step of the regress constitutes a metaphysical explanation of the kind we crave. However, not every regress is as easily evaluated. Unfortunately, the external relation regress is a case in point.

A quick look at the external relation regress should make us think that this is an unproblematic regress. After all, our explanatory task is completed already given this regress’s first step. For, given the existence of the state of affairs *that a is F*, both the truth of $\langle a \text{ is } F \rangle$ and, trivially, the existence of the state of affairs *that a is F*, is guaranteed. But then, whatever happens next in the regress should make no difference to the end-result. As Armstrong (1997: 119) puts it when exploring a similar alternative; “[m]any truths if you like, but only the one truthmaker.”

This is, however, not how the infinitist wants us to understand the regress she endorses. For, after all, if the regress is unproblematic in this way, then the state of affairs *that a is F* is *not* metaphysically explained by what comes next in the regress. But that it is, is however exactly what the infinitist wants to claim. According to the infinitist, although a quick look at this regress might make us think that whatever it contains after its first step depends for its existence on what exists at this first step, the existential dependence relations are actually the other way around; whatever exists in any step in the regress (including the first) has its existence guaranteed – is metaphysically explained – by whatever succeeds it in the regress. According to the proponent of infinitism, it is precisely because, as the regress is infinite, at no step in the regress will there be anything that is not metaphysically explained by what succeeds it, that this regress is, not only benign, but positively beneficial.

Critics of infinitism tend to disagree. Now, interestingly, this is not a disagreement over what makes a regress vicious. Proponents and critics of infinitism alike agree that the regress is vicious if it prevents the regress’s first step from constituting a metaphysical explanation of the existence of the state of affairs *that a is F*. Instead, this is a disagreement over whether or not the fact that no step in this regress could constitute the requisite explanation if it were not for the existence of the next step in the regress, is a problem or not. That is, this is a disagreement, not so much over what makes a regress vicious, but rather, over what it takes for something to be a metaphysical explanation. More specifically, as we shall see next, this is a disagreement over whether or not we should hold that explanation must ground out.

Do Explanations Have to Ground Out?

The principle over which proponents and critics of infinitism disagree is the following (Cameron (2008: 8):

...when there is an infinite chain of entities e_1, e_2, e_3, \dots , or an infinite chain of facts f_1, f_2, f_3, \dots , then while e_2 may ontologically depend on e_1 , and e_3 on e_2 , etc., and while f_2 may obtain in virtue of f_1 and f_3 in virtue of f_2 , etc., it is impossible

²⁰ A distinctively metaphysical explanation, it will be assumed, is an explanation such that, if x metaphysically explains y (if y *in virtue of* x) then not only does x somehow necessitate y or makes y exist/obtain, but it does so in virtue of being what y (mereologically or non-mereologically) consists of or, at least, by being the base on which y somehow supervenes or from which y emerges. This is of course only a first stab at an analysis of the metaphysical explanation, but it will have to do for now. For some recent, more thorough (and sometimes conflicting), views on the topic of metaphysical explanations, cf. e.g., Betti (2010); Correia (2008); Schaffer (2010); Schneider (2010); Wieland & Weber (2010).

for e_1 to be ontologically dependent on e_2 , and e_2 ontologically dependent on e_3 , etc., or for f_1 to obtain in virtue of f_2 and f_2 in virtue of f_3 , etc. There must be a metaphysical ground, a realm of ontologically independent objects, and a realm of basic facts which provide the ultimate metaphysical grounding for all the derivative facts.

If this principle – which we, following Orilia (2009) may call *Ontological Well-Foundedness* (WF) – is accepted, infinitism must fail to provide us with the requisite metaphysical explanation. For to hold that the existence of the state of affairs *that a is F* can metaphysically explain the truth of $\langle a \text{ is } F \rangle$ in virtue of it being, in turn, metaphysically explained by what comes next in the regress, etc. *ad infinitum*, is basically to do precisely what WF forbids.

Intuition is certainly on the side of WF.²¹ Although he wants to reject the principle, even Orilia is prepared to admit as much (2006: 232):

...intuitively it seems correct to say that we have an explanation for P only insofar as there is, so to speak, an increase in our knowledge/understanding, when we contemplate P . But, one could argue, if in an attempt to explain P I begin an explanatory task wherein at every stage I must presuppose a succeeding stage, then there is no increase. For any such increase is an approximation to the final stage and if there is no such stage, then there is no explanation. And thus there cannot be infinite explanatory chains.

Now, intuitions may be misleading and, in this case, the infinitist must argue that they are. And if Orilia is right, and the intuitiveness of WF stems from ideas about how explanation must result in an increase in our knowledge and understanding, it does seem as if the infinitist may have good cause to be critical. Metaphysical explanations, after all, are *very* different from everyday explanations. To give a metaphysical explanation of x is to metaphysically ground x . Knowledge and understanding has therefore nothing to do with whether or not a metaphysical explanation is successful but can at most constitute a coincidental side-effect of such success. If Orilia is right, and this is the main reason why people tend to think that explanation must ground out, it may therefore turn out that we have *no* reason to think that explanation must ground out as long as it is metaphysical explanation that we are talking about.

But is this our only justification for so strongly believing that explanation must ground out? I don't think so. The more important reason for the principle's strong standing is, rather, a very different sort of belief. As put by Cameron (ibid: 3):

..[if] there are infinitely many levels of facts, the obtaining of each depending on the facts at the next level /.../ it is hard to see how things could get off the ground in the first place.

Or, in Schaffer's words (2010: 62):

Being would be infinitely deferred, never achieved.

So, it is not because we think that unless explanation grounds out can there be no increase in understanding but, rather, it is because we think that unless metaphysical explanation grounds out can anything (begin to) exist. This is a reason of more obvious relevance to the sort of explanation that interests us here. However, just as we may think that metaphysical explanation must ground out because we think that 'being' needs some base in order to get off the ground; we think that 'being' needs some base in order to get off the ground arguably because we think that metaphysical explanation must ground out. This belief can therefore at most be used to explain our strong belief in WF; it cannot be used to justify it.

Cameron concludes that it is futile to try and give a metaphysically principled defence of WF. Instead we must just accept that WF is a bedrock principle; it is the starting- rather than the

²¹ WF's historical precursor can be said to be *the principle of sufficient reason*, first explicitly discussed by Spinoza and then Leibniz (but arguably "as old as philosophy itself" (cf. Melamed & Lin (2011)). Recent arguments based on WF include Schaffer's argument for what he calls "Priority Monism", according to which, since atomless gunk is possible, but metaphysical explanation must ground out, objects cannot depend for their existence on the existence of their parts but dependence must be the other way around (Schaffer (2010), discussed in Cameron (2008: 5f.).

end-point of argumentation. The principle, he believes, can still be defended, although not with reference to some even more basic metaphysical principle. Instead, WF should be defended on methodological rather than on metaphysical grounds. To justify WF, we should therefore see how this principle (and its opposite) fares in relation to our most treasured methodological principles. In this particular case Cameron suggests that we evaluate WF (and its opposite) with the following “unificationist” methodological principle in mind (ibid: p. 12):

If we seek to explain some phenomena, then, other things being equal, it is better to give the same explanation of each phenomenon than to give separate explanations of each phenomenon. A unified explanation of the phenomena is a theoretical benefit.

And this principle, Cameron argues, seems to provide some evidence for WF, for (ibid.):

...if there is an infinitely descending chain of ontological dependence, then while everything that needs a metaphysical explanation (a grounding for its existence) has one, there is no explanation of everything that needs explaining. That is, it is true for every dependent x that the existence of x is explained by the existence of some prior object (or set of prior objects), but there is no collection of objects that explains the existence of every dependent x .

Whether or not this really is a reason to accept WF can and has been disputed (cf. Orilia (2009)). Here we need not decide either way. It is enough if we agree that, as a fundamental metaphysical principle, WF is, in spite of its prominence in our (philosophical) thinking, hard to justify in a way that is likely to convince our opponents. What it comes down to is theoretical cost.

A theoretical cost seldom appears in isolation. To solve the problem of unity, as we have seen, some are willing to add states of affairs to their ontology. This is what we may call a theoretical cost of an ontological kind. If you are not willing to pay that price, proponents of states of affairs argue, you will have to pay another one: the price of not being able to distinguish situation A from situation B. This, however, is a cost most would regard as unacceptable. Now, suppose that explaining how A differs from B requires, not only that we posit states of affairs but also that for every state of affairs we posit, we automatically posit infinitely many states of affairs. This is a further ontological cost. Suppose next that our addition, as it turns out, can only solve the problem of unity if a principle that guides much of our philosophical reasoning and which most of us take for granted, is given up. This is a big cost. It should be taken to count against the suggestion but may, on balance, be acceptable. It all depends, I guess, on how much one wants to solve the problem of unity and, of course, it depends on if there are any cheaper alternative solutions available. Either way, from pointing out that accepting infinitism brings with it the admittedly high cost of having to give up WF, it does not follow that infinitism cannot successfully solve the problem of unity.²²

The Wrong kind of Explanation

Does this mean that the infinitist can solve the problem of unity? No. And the reason why not, ironically enough, is precisely the reason why, so far, she has managed so much better than her

²² Besides, it can be argued that infinitism is in fact *compatible* with a slightly modified version of WF. For, after all, given infinitism, it is not simply because every step of the regress is explained by what succeeds it that the existence of the state of affairs *that a is F* is metaphysically explained; it is also important, for the suggestion to be successful, that there are *infinitely many* such steps. But does this not, in a sense, mean that explanation, even on this account, grounds out. Only it grounds out in infinity. According to Cameron, as we have seen, if there are infinitely descending chains of ontological dependence, then our explanations fail to be unified for then “it is true for every dependent x that the existence of x is explained by the existence of some prior object (or set of prior objects), *but there is no collection of objects that explains the existence of every dependent x* ”. But in a sense there is; the infinite collection of states of affairs. I will not defend modifying WF in this way here. Instead, I think we can conclude that whether or not such a modification is possible, the fact that infinitism can only metaphysically explain the existence of the state of affairs *that a is F* if WF (in its original form) is discarded, does not mean that infinitism cannot explain the existence of the state of affairs *that a is F*.

rivals. With recourse to the external relation regress, remember, the infinitist can distinguish situation A from situation B:

A: a , F-ness, Fa , $E^2(Fa)$, $E^3(E^2(Fa))$, etc. *ad infinitum*, exist; $\langle a$ and F-ness exist \rangle_{true} ; $\langle a$ is $F \rangle_{\text{true}}$.

B: a , F-ness, exist; $\langle a$ and F-ness exist \rangle_{true} ; $\langle a$ is $F \rangle_{\text{false}}$.

According to the infinitist, it is *because* $E^2(Fa)$... exist in A that Fa exists in A, and it is *because* Fa exists in A that $\langle a$ is $F \rangle$ is true in A. Given this account of the difference between A and B, moreover, no new problematic pairs of situations are generated. In particular, there can be no situation in which $E^2(Fa)$... exists yet it is false that $\langle a$ is $F \rangle$. Why not? This may sound like a stupid question as the answer should be obvious. $E^2(Fa)$... cannot exist in a world in which it is false that $\langle a$ is $F \rangle$ because $E^2(Fa)$... cannot exist in a world in which Fa does not exist.

But then, just as the existence of the state of affairs *that a is F* is guaranteed by the existence of what we find at the next step of that regress, so is the existence of what exists after the first step in the regress guaranteed to exist by the existence of the state of affairs *that a is F* . Existential and hence explanatory dependence, in the external relation regress, is in other words symmetric not asymmetric.²³

Why is this problematic? Because symmetric explanations, and in particular *this* symmetric explanation, cannot explain everything that needs to be explained. To see this, note that the question “What makes it the case that the state of affairs *that a is F* exists?” is ambiguous. If disambiguated, two distinct questions can now be formulated:

HOW can there be a situation in which the state of affairs *that a is F* exists?

WHAT makes this a situation in which the state of affairs *that a is F* exists?

Here the how-question is supposed to capture the sense in which we, when asking for a metaphysical explanation of the existence of the state of affairs *that a is F* , are asking for that which makes the state of affairs *possibly* exist, given the existence of F-ness and a , whereas the what-question is meant to convey the sense in which that same question can be used to ask, of the state of affairs *that a is F* , what exists when it, and not just F-ness and a , does. This is a fine distinction indeed, and for most purposes we can overlook it. For the infinitist, however, the distinction makes all the difference in the world.

As we have just seen, the infinitist explains the existence of the state of affairs *that a is F* in a way which presupposes the existence of the state of affairs (and *vice versa*). The explanation is symmetrical. But this means that, although the explanation offered by the infinitist can certainly do very well as an answer to the what-question, it will not do as an answer to the how-question. After all, you cannot explain the *possible* existence of the state of affairs *that a is F* by introducing the relevant regress into an F-ness and a situation, because in order to get the regress you have to already be in that situation, which means that the possible existence of the state of affairs *that a is F* is presupposed by your explanation.

Now, *must* we answer the how-question in order to be able to solve the problem of unity? Unfortunately, yes. The infinitist’s external relation regress can only guarantee the existence of unity in complexity if there is unity in complexity. This is however not the problem of unity, the problem of unity is rather a problem that arises when we try to understand *how* there can be unity in complexity. Therefore, although the infinitist does manage to explain **what** exists when the state of affairs *that a is F* exists, she does not manage, appearances perhaps to the contrary, to meet the

²³ Some might in fact think that if the explanation offered by the infinitist must be symmetrical, this in itself is enough to show that the account fails (Cf. e.g. Lowe (2005); Schaffer (2010)). In this paper, though, I assume that explanation *can* be symmetrical.

more fundamental challenge, which was to explain **how** there can be a situation in which the state of affairs *that a is F* exists in the first place.

States of Affairs and the Relation Regress: Taking Stock

According to proponents of states of affairs, one important reason for holding that states of affairs exist is that states of affairs can solve the problem of unity. In this paper I have argued that only if the nature of states of affairs can be substantially and non-circularly spelled out, can we even begin to evaluate that claim. The account of the nature of states of affairs that comes closest to giving us what we want is the infinitist's. But, as it turns out, even though the infinitist manages to spell out the nature of states of affairs in one way, this is nevertheless not the account of their nature we need in order for states of affairs to be able to function as a solution the problem of unity. I conclude, therefore, that we have very little reason to think that states of affairs can solve the problem of unity. Consequently, we have very little reason to think that the role played by the state of affairs in relation to the problem of unity constitutes a reason to think that states of affairs exist.²⁴

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²⁴ When Armstrong in his (2004; 2005; 2006) surprisingly changes his mind (only to change it right back shortly after) and argues that instantiation is necessary, thereby automatically dissolving the problem for which his states of affairs were originally introduced, he is careful to point out that other reasons still exist for accepting the existence of states of affairs. This means that even if the argument set out in this paper succeeds in demonstrating that one important reason for positing states of affairs cannot provide the proponent of states of affairs with the kind of justification she requires, this at most constitutes a substantial weakening of the case for the existence of states of affairs. I will have to leave a discussion of these other reasons for holding that states of affairs exist for another occasion.

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