

In Defence of Facts

Grounding, Essential Properties
and the Unity Problem

DONNCHADH O'CONNILL

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In Defence of Facts Grounding, Essential Properties and the Unity Problem

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A common conception of facts is as worldly entities, complexes made up of non-factual constituents such as properties, relations and property-bearers. Understood in this way facts face the unity problem, the problem of explaining why various constituents are combined to form a fact. In many cases the constituents could have existed without being unified in the fact—so in virtue of what are they so unified? I shall present a new approach to the unity problem. First, facts which are grounded are unified by the obtaining of their grounds. Second, many ungrounded facts are such that they must obtain if their non-factual constituents exist (e.g. if the property F_{ness} is essential to a particular, a , then if a exists the fact that a is F must obtain). In this way the obtaining of these facts is explained by the essence of some of their constituents. I also address the possibility of facts which are brutally unified (i.e. neither grounded nor essentially unified), and compare the account I offer with some of the main alternatives.

It is common for facts to be understood as worldly entities, complexes made up of non-factual constituents such as properties, relations and property-bearers. A number of authors have presented a problem for facts understood in this way, the problem of unity. This is the problem of explaining the difference between the existence of all the constituents of a fact and the obtaining of that fact. For instance, a particular entity a might exist and a property F_{ness} might be instantiated, but it does not follow that the fact that a is F obtains—so in virtue of what does this fact obtain?

In this paper I offer a new line of defence against the unity problem. After outlining the compositional conception of facts in section 1, I shall state the unity problem in section 2 and possible responses to it in section 3. In section 4 I outline the first part of my defence, which appeals to the notion of grounding:

if a fact is grounded, its unity is explained by the obtaining of its grounds. This raises the issue of whether there are facts which are not grounded, and if so how the unity of these facts can be explained. In section 5 I consider how the unity problem might be addressed if every fact were grounded. In section 6 I propose that many facts which are not grounded are plausibly such that the properties they involve are essential to their property-bearers. Because of this, the constituents of these facts are essentially unified. In section 7 I address the possibility that there could be ungrounded facts which are not essentially unified, facts whose unity is not explained in either of the two ways I propose. In section 8, I briefly compare my account of the unity of facts with alternative views proposed by Arianna Betti and William Vallicella. While the account I offer has certain drawbacks compared to these alternatives, it also has important advantages, and should be taken as seriously as any other account of the unity of facts.

1 The Compositional Conception of Facts

On the *compositional conception*, a fact is a complex entity made up of non-factual constituents (hereafter “constituents”). In this section I shall present some key aspects of facts thus understood.¹

First, facts are *non-representational entities*: they do not have truth- or accuracy-conditions, nor do they refer to or designate anything, and they are not about anything in the sense in which intentional states are about their objects. Some facts will include representational entities among their constituents (e.g. the fact that the sentence “Tom is wet” is true). But such facts do not themselves represent anything. Furthermore, facts are not metaphysically posterior to propositions which state them; e.g. the identity of the fact that *a* is *F* is not metaphysically determined by the proposition “*a* is *F*” (in contrast with what Kit Fine terms the propositional conception of facts—see his 1982, 51–52).

Second, I take facts to be composed of property-bearers and properties (for the purposes of this paper I include relations among the properties). Both properties and property-bearers are relatively coarse-grained entities: for instance, the property *being water* is identical with the property *being composed of H₂O molecules*, whereas the concepts “being water” and “being

¹ A more thorough statement of this conception is offered by Betti (2015, 7, 18–30; see also Vallicella 2016a, 115). In what follows I shall ignore questions concerning states of affairs as distinct from facts.

composed of H₂O molecules” are distinct. Correspondingly, the fact composed of this property and a certain mass of material (e.g. the fact that this body of liquid is water) is more coarse-grained than the proposition “this body of liquid is composed of water.” The properties which help to make up facts are universals. Property-bearers can be either particulars or universals.²

Third, because facts are composed of entities which exist and help to make up the world, I take it that facts themselves help to make up what exists; in this sense, they are *worldly* entities (see Betti 2015, 22–24). This conception of facts thus closely corresponds to one rejected by P.F. Strawson, according to whom a fact “is not something in the world. It is not an object; not even (as some have supposed) a complex object consisting of one or more particular elements (constituents, parts) and a universal element (constituent, part)” (1950, 135).

Fourth, the way in which a fact’s constituents are combined to make up that fact is *non-mereological*. In the present context this can be understood as follows: for a fact to obtain is not the same as for its constituents to exist; rather, it is for its constituents to exist *and* be combined or arranged in some specific way (Betti 2015, 65).³ For instance, the fact that *a* is *F* (hereafter, “*Fa*”) obtains only if *a* *instantiates* the property *Fness*; the fact that *a* is larger than *b* obtains only if *a* and *b* stand (in a particular order) in the relation *larger than*. It is helpful to have a term which allows us to contrast the existence of all the constituents of a fact with the obtaining of this fact. When all the constituents exist, I shall refer to them as forming an *aggregate*, where for an aggregate of entities to exist just is for each entity in the aggregate to exist. One might then say that whereas an aggregate is a mereological sum, a fact

2 I assume a sparse view of properties, on which it is not the case that each predicate corresponds to a distinct property or relation. For the most part this will not matter in what follows, but it is worth noting that I do not assume that formal ontological predicates such as “instantiates” correspond to distinct properties. Therefore, I do not accept that facts have so-called “secondary” constituents, e.g. a relation of instantiation or a non-relational tie which binds *a* and *Fness*. I shall mostly use examples of facts containing one property-bearer and one property; however, the compositional conception is not itself committed to this restriction.

3 Alternatively, this form of composition can be understood as involving non-extensional mereology (Bennett 2013, 101–102). The notion of non-mereological composition has been challenged by David Lewis (e.g. 1986), but it is accepted by all proponents of the compositional conception of facts. As I understand it, the problem of unity is based on accepting this conception and raising a challenge concerning facts understood in this way.

is a non-mereological complex (Armstrong 1997, 119–122; Meinertsen 2008, 3).⁴

It is frequently claimed that because facts exhibit non-mereological unity, the existence of the constituents of a fact does not itself suffice for the obtaining of that fact (Vallicella 2000, 246; Betti 2015, 54). I shall question this claim later, but for the time being I accept it. It is also often claimed that a fact is something *over and above* its constituents. This claim is sometimes supported by the contention that the constituents can exist without the fact obtaining (Vallicella 2000, 238). It is also sometimes supported by appealing to the non-mereological composition of facts: “philosophers who do accept facts say that when Hargle is sad, alongside these two things (Hargle and sadness) there is also a third thing in the world: a special ‘being together’ of these two things in a real unity over and above the two things” (Betti 2015, 30). I shall return to these claims in section 6.

Fifth, I accept what Gonzalo Rodriguez-Pereyra terms the *structuralist criterion* of fact identity: “facts are identical if and only if they have the same constituents combined in the same way” (1998, 520). That is, fact *A* is identical with fact *B* iff (i) the constituents of *A* are all identical with the constituents of *B*, and vice-versa; (ii) the mode of combination of the constituents in *A* is identical with the mode of combination of the constituents in *B*; (iii) *A* obtains at exactly the same time as *B*. By “mode of combination”, I mean the specific kind of non-mereological composition which characterises each fact. This could be that a particular instantiates a property, or that two entities stand in a certain relation. In the case of asymmetric relations, it would also include entities standing in a certain order in that relation, so that, e.g. *aRb* would involve a different mode of combination than *bRa*.

This criterion suggests the following asymmetry: while the identities of the constituents of a fact help to determine its identity-conditions, the reverse does not hold (Vallicella 2016a, 117). Therefore, on the compositional conception “facts are built up out of ontologically more basic materials” (2016a, 115). This view of facts can be contrasted with one in which the constituents of facts are abstractions from them, such that the identity of the constituents is determined by the identity of the facts to which they belong.

⁴ I do not intend talk of aggregates to be ontologically committing—I use it for convenience and if necessary it could be replaced by plural quantification over the constituents (Betti 2015, 53). For ease of presentation, I shall write as though a property must be instantiated in order to exist—however, the discussion can easily be adapted to accommodate a Platonist conception of properties.

Finally, I assume that whenever the constituents of a fact *A* are arranged in the mode of combination characteristic of *A*, *A* thereby obtains (e.g. if a property-bearer *a* instantiates a property *Fness*, the fact *Fa* obtains).⁵ This assumption can be challenged.⁶ For instance, in E.J. Lowe's four-category ontology when a universal property is had by a property-bearer we do not need to posit a fact; rather, the property-bearer is characterised by a particular property or mode (2006). But while one could object to facts in this way, this seems to be a different issue to the problem of unity.⁷

2 The Problem of Unity

Given the above conception of facts, the unity problem is relatively easy to outline. Consider *Fa*. For this fact to obtain, its constituents (*a* and *Fness*) must be combined in a specific, non-mereological manner; only in this way will they achieve the kind of unity characteristic of a fact. This kind of unity between *a* and *Fness* would be absent if, for instance, *a* existed and *Fness* was instantiated, but *a* did not instantiate *Fness* (e.g. if some entity *b*, wholly distinct from *a*, instantiated *Fness*). In that scenario, *a* would exist and *Fness* would be instantiated, but they would not exist together in the way characteristic of *Fa*.

The unity problem is simply the problem of explaining *why*, given that specific non-factual entities (e.g. *a* and *Fness*) each exist, they are united to form the fact *Fa*. More generally, it is the problem of explaining for any fact *why*, given that its constituents each exist, they are unified in the specific mode of combination characteristic of that fact. A solution to this problem for a specific fact, *A*, would be a metaphysical explanation of *why*, given that the constituents of *A* each exist, they are arranged in the mode of combination characteristic of *A*. As Betti puts it, the problem is "how to account for the unity of relations with their relata and for the unity of properties with their bearers" (2015, 42). Elsewhere she glosses the problem as the search for "something *in*

5 This formulation sets aside issues to do with the time at which the constituents are arranged.

6 Thanks to Jani Hakkarainen for raising this point.

7 The unity problem could be reframed as a problem concerning the unity of specific property-bearers and properties, without mentioning facts. With regard to Lowe's ontology, the problem would be that of explaining why a specific property-bearer has the modes which characterise it.

virtue of which those constituents form a unity” (2015, 45; see also Vallicella 2000, 242; Orilia 2006, 214; Meinertsen 2008, 3).⁸

The unity problem thus characterized is relatively straightforward to grasp, but there are potentially complicating factors which must be addressed. The first is that the problem is often described in such a way that it seems to presuppose the possibility that the constituents of a fact might exist and the fact not obtain. For instance, Vallicella asks: “What makes it the case that a number of constituents of the right kinds—constituents which are connectable so as to form a fact but *need not be connected to exist*—are actually connected so as to form an actual or existing fact?” (Vallicella 2000, 242, italics added). Here the italicized phrase expresses the assumption that the existence of the constituents need not entail the obtaining of the fact (see also Dodd 1999, 159; Wieland and Betti 2008, 510; Betti 2015, 54; Perovic 2016, 144). In what follows I shall not make this assumption, though I postpone discussion until section 6.

Second, the unity problem as I have characterised it should be distinguished from different problems with which it might be confused. For instance, at one point in their discussion Betti and Jan Wieland ask, “What grounds the difference between mereological and unmereological composition?” (2008, 513). Wieland and Betti present this as a restatement of the original unity problem,⁹ but I think it is a different problem. The unity problem is the question, for any specific fact, of what it is in virtue of which its constituents are unified. An answer to this problem may in principle apply to any fact, but it will not itself explain the difference between mereological and non-mereological composition. It may be that the difference between mereological and non-mereological composition cannot be explained, but it would not follow that the unity problem cannot be solved (Vallicella makes a similar

8 Metaphysical explanations, the kind of explanations expressed by “in virtue of” claims, encompass grounding explanations but also other forms of explanation (see fn. 36 below). Katarina Perovic suggests that the problem of unity consists of “a cluster of problems that are frequently run together” (2016, 145). I have some sympathy with this view, but I suggest that the problem outlined in the main text does not conflate different issues. In terms of the various problems Perovic distinguishes, the problem of unity corresponds both to what she terms the explanatory problem and the Mereological Problem of Unity (2016, 146–149). I suggest that these are really the same problem. What Perovic calls the Mereological Problem concerns the ontological ground of the difference between a fact and the aggregate of its constituents. In this context, the ontological ground is whatever explains the unity of the constituents in the fact; it is that in virtue of which they together form a fact.

9 They introduce the quoted passage by saying, “We can restate the problem immediately” (2008, 513). The context makes it clear that by “the problem” they mean the unity problem.

point in his 2000, 242). Similarly, Julian Dodd glosses the supposed obscurity of the unity of facts as the “problem of the nature of instantiation” (1999, 156). But we need to distinguish between an account of *what* instantiation is (an answer to the problem concerning its nature) and an account of *why* specific entities instantiate specific universals (an answer to the unity problem).¹⁰ More generally, there is a difference between giving an account of *what it is for* a and F ness to form a fact, and explaining *why* a and F ness are so combined. It is perfectly legitimate to answer the first question by citing the characteristic unity of the fact. For instance, one might be contrasting the unity of a fact with the unity of parts in a mereological sum, or members in a set, in which case it makes sense to refer to a instantiating F ness. But it is not legitimate to answer the second question by citing this very unity: it is no use explaining why a and F ness are unified in Fa by saying that a instantiates F ness. This would be to simply re-describe what one was asked to explain.¹¹

It is crucial to distinguish the unity problem from these other problems (concerning the nature of instantiation, or the difference between mereological and non-mereological composition). These questions concern the very coherence of a theory of facts; they arise insofar as the very idea of facts is considered obscure. The unity problem, in contrast, is based on the assumption that the idea of a fact is coherent. It is only given a coherent notion of facts that the distinction between a fact and the aggregate of its constituents can clearly be drawn; and it is only given this distinction that the unity problem can be posed. Therefore, in addressing the unity problem we can set these other questions aside.

3 Possible Solutions

The unity problem has been developed into an argument against facts by a number of different writers (Dodd 1999, 152; Wieland and Betti 2008, 509; Betti 2015, 51). Though details differ, each version of the argument works in roughly the same way: postulating facts gives rise to the unity problem; there

¹⁰ We also need to distinguish each of these accounts from an account of *how it is possible* for distinct entities such as a and F ness to be unified (Dodd 1999, 151; Vallicella 2002, 26; Maurin 2015, 212–213), or an account of how non-mereological composition is possible (see Eklund’s characterisation of the problem of unity for facts in his 2019, 1236–1237).

¹¹ For further discussion of the difference between questions concerning what something is and questions concerning why it is (as it is), see Audi (2015).

are a determinate number of possible solutions to this problem available; none of these solutions succeed; therefore, we should not postulate facts.¹²

To structure the discussion I shall refer to the range of possible solutions outlined by Betti (2015, 51). The unity of a fact could be explained by:

- (A) the constituents of the fact, e.g. a and/or F_{ness} ;
- (B) one or more additional constituents of the fact, i.e. a constituent which is identical to neither a nor F_{ness} ;¹³
- (C) something external to the fact, i.e. something numerically distinct from either the fact or any of its constituents; or
- (D) the fact itself.

Bo Meinertsen outlines a version of (B). Vallicella and Francesco Orilia argue for different versions of (C).¹⁴ Betti interprets David Armstrong as in effect putting forward a version of (D). Dodd, Wieland and Betti argue that none of these options can work, and that the unity problem cannot be solved.

Wieland and Betti offer a dissolution of the problem which in effect rejects the assumption that a fact is something other than the aggregate of its constituents. This argument appeals to the notion of *bearer-specific properties*. A property is bearer-specific iff it is in its nature to be had by a specific bearer or bearers (Betti 2015, 90).¹⁵ So if F_{ness} is a property specific to a , F_{ness} is such that necessarily if it exists, it is instantiated by a . All tropes are bearer-specific properties, but Wieland and Betti deny that all bearer-specific properties are tropes, since it can be in the nature of some bearer-specific properties to be had by many specific entities (2008, 519).¹⁶ If properties are bearer-specific, then the unity problem would be dissolved: a would instantiate F_{ness} as soon as F_{ness} exists, and therefore there would be no difference between the fact and the aggregate of its constituents (Betti 2015, 92).

The response I shall offer to the unity problem does not fall neatly into any of Betti's options—or rather, different parts of the response fall into different options. I shall begin by outlining a version of option (C), though distinct

12 One possible response to this argument would be to claim that facts can obtain without their unity being explained at all. I shall consider this possibility in section 7.

13 For instance, one might treat the relation of instantiation as a further constituent of the fact.

14 Dixon (2018) can be understood as proposing a version of (C), though he does not specifically discuss the problem of unity.

15 Betti prefers the phrase “relata-specific relations” (2015, 89–90). Since I am treating relations as among the properties, this difference is not important.

16 The notion of bearer-specific properties is criticised by Vallicella (2016b, 237–240). It is defended by Wieland and Betti (2008, 521–522), and by Betti (2015, 93–96). I discuss it in section 8 below.

from those offered by Vallicella or Orilia. Whether or not this version of (C) solves the unity problem for all facts depends on further assumptions. If there are facts to which it does not apply, then some other response to the problem must be offered. I shall offer a further response which can be read as a version of Betti's option (A), or as dissolving the problem in a manner similar to her appeal to bearer-specific properties. It is also important to note that, on my approach, there may be facts to which none of options (A)-(D) applies; in section 7 I shall defend the possibility of such facts.

4 Grounding and Unity

In this section I shall outline a specific conception of grounding and argue that it can help explain the unity of grounded facts.

The terminology of ground is frequently used in order to set out the unity problem (Vallicella 2000, 243; Wieland and Betti 2008, 510–511; Betti 2015, 55). It may therefore seem odd to appeal to a notion of grounding in order to solve this problem. But the appearance of oddity here is easily explained. The notion of “ground” used to state the unity problem simply indicates whatever could solve it (i.e. whatever it is in virtue of which a fact is unified, or whatever explains its unity). Therefore, theorists writing about the unity problem have not needed to say a great deal about this notion. For instance, neither Betti nor Vallicella systematically characterize this notion or attempt to relate their use of it to the recent literature on metaphysical grounding. In contrast, the conception of grounding which I shall outline is in large part drawn from this literature. And because I am planning to put this conception to constructive use in solving the problem, I will need to say more about it.

Grounding is a form of metaphysical determination often linked to certain non-causal “in virtue of” explanations (e.g. mental facts obtain in virtue of the obtaining of certain physical facts; entities possess dispositional properties in virtue of possessing categorial properties; actions have moral properties in virtue of certain of their non-moral properties). I take grounding to be a worldly relation which underwrites some of these explanations, in much the same way that causation is typically thought of as a worldly relation which underwrites causal explanations (Audi 2012, 691; Schaffer 2016a, 84). I assume that grounding is irreflexive, asymmetric, transitive, non-monotonic, and that

the full grounds of an entity necessitate the existence of that entity.¹⁷ Many of these assumptions have been questioned in the literature, but together they form a familiar and recognisably orthodox conception of grounding.¹⁸

To this conception I shall need to add more detail about the relata of grounding and the specific way or ways in which they are related. I assume that grounding holds between facts understood on the compositional characterisation. This is not part of the orthodox view: it is common for grounding theorists to speak of facts being grounded, but they are usually non-committal as to the nature of these facts. However, the idea that worldly facts can be related by grounding is at least a familiar one (Audi 2012, 687; Raven 2012, 689; Trogdon 2018, 1289). If there are worldly facts then they look like good candidates to be grounded, assuming anything can be grounded at all.

What is it for a worldly fact to be grounded? There is probably no non-circular definition or analysis of grounding,¹⁹ but we can still say something informative about it. Examples of informative but circular accounts are found elsewhere in philosophy. For instance, it is possible to think that knowledge cannot be analysed in a non-circular fashion, and also that it is informative to learn that knowledge must satisfy a safety condition; this can be informative even if the account is circular, i.e. if the relevant notion of safety is itself understood in terms of knowledge (Watzl 2017, 66). More generally, “Someone who accepts that there is an informative but non-reductive account of some *F* thus normally will say something about either the internal structure of *F*s or how being an *F* is related to some other phenomena” (Watzl 2017, 66–67). In the case of grounding worldly facts, I think we can do both of these things.

If a worldly fact *Fa* is fully grounded in other facts, then *Fa* obtains because the other facts obtain (at a specific time, in a specific world).²⁰ For a fact to obtain just is for its constituents to exist and to be unified in a certain way. Therefore, for the grounds of *Fa* to explain the obtaining of that fact is at the very least a good reason to accept that those grounds explain the unity of *a* and *Fness*. So this conception of grounding suggests a straightforward answer

17 On the distinction between full and partial grounds, see Fine (2012), 50. I assume that if a fact is partially grounded, it must be fully grounded.

18 For example, Rodriguez-Pereyra (2015) challenges irreflexivity, transitivity and asymmetry; Raven (2013) defends all three features.

19 Though for a recent proposal see Correia and Skiles (2019).

20 This is a non-causal sense of “because” that tracks grounding relations. The indexing to worlds and times is adapted from Skiles (2015), 719. If *Fa* is on this occasion grounded by, e.g. *Gb* and *Hc*, it is possible that in other circumstances it could have been grounded by different facts. In what follows I shall omit this indexing.

to the unity problem, at least as it concerns grounded facts: the constituents of grounded facts are unified by their grounds.²¹

While I think this is the correct explanation of the unity of grounded facts, it is reasonable to ask for more detail: in particular, *how* do the grounds of *Fa* unify its constituents? Again, it may not be possible to provide a non-circular answer to this question. But we can add more detail by considering that, plausibly, worldly facts can be grounded in different ways, depending on their constituents and the constituents of their grounds. In what follows I adopt the following hypothesis: for each instance of grounding, one or more of the constituents of the grounded fact stand in some specific ontological relation or relations to one or more of the constituents of each of the grounds. Which ontological relations obtain will depend on the constituents of each of the facts. For instance, the properties which help to make up the grounds may be determinates of a determinable property helping to make up the grounded fact (e.g. the fact that *a* is red is grounded in the fact that *a* is scarlet). Or the grounded fact may involve a property-bearer which is composed of the property-bearers in its grounds. Examples of this include many facts about functions (e.g. the fact that a computer is running a specific programme is grounded in facts about different sub-systems of the computer).²²

The ontological relations holding between these constituents will determine how exactly the grounds unify the constituents of the grounded fact. For example, suppose that the fact that *a* is red is grounded in the fact that *a* is scarlet. In this case, each constituent of the grounded fact stands in a specific

21 Strictly speaking, each grounded fact would be unified by its immediate grounds (on the distinction between mediate and immediate grounding see [Fine 2012, 50–51](#)). In what follows I shall omit this qualification.

22 These specific ontological relations are very similar to what Kelly Trogdon terms *grounding mechanisms*, “determination relations of a certain sort holding between constituents of grounding facts and constituents of the facts they ground” (2018, 1290). They are also similar to what Tobias Wilsch terms *linking principles*, principles which, roughly speaking, determine which objects and properties combine to form facts (2015, 3302–3304) (thanks to an anonymous referee for suggesting these sources). For more detailed discussion of the different kinds of ontological relations which can hold between the constituents of different facts, see (?). I do not regard these specific kinds of ontological relation (determinate-determinable, composition, etc.) as themselves kinds of grounding, i.e. “small-g” grounding relations ([Wilson 2014, 540](#)). Nor do I accept Wilson’s criticisms of “big-G” grounding, though I cannot discuss the matter here; but see e.g. [Cameron \(2016\)](#); [Schaffer \(2016b\)](#). I should also add that other conceptions of how grounding works are available (e.g. [Schaffer 2016a](#)). I am not claiming that the account I shall sketch in the main text is how grounding *should* be understood; I am merely claiming that grounding *can* be understood in this way, and that doing so allows us to see how the grounds of a fact unify it.

ontological relation to a constituent of the ground: *a* is identical with itself, and the property *being scarlet* is a determinate of the property *being red*. The determinable-determinate relation is such that, necessarily, any entity instantiating a determinate property instantiates its determinable.²³ Therefore, if the fact that *a* is scarlet obtains, this will automatically unify *a* and the property *being red* in the fact that *a* is red. In this way, the unity of *a* and the property *being red* is explained by the obtaining of the fact that *a* is scarlet.

Let us consider a slightly more complicated example: suppose there is a tower, *a*, which is exactly one metre tall and which consists of ten bricks piled on top of each other. Suppose also that the fact that *a* is one metre tall is grounded in facts about the height of each of the bricks which compose it and facts about how these bricks are arranged (i.e. they stand on top of each other). Here *Fness* is the property *being exactly one metre tall*, *Gness* is the property *being exactly ten centimetres tall*, and *H* is the relation *standing on top of each other*.

Again each constituent of the grounded fact stands in a specific ontological relation to a constituent of each of its grounds. First, the bricks together *compose a*.²⁴ Second, the height of the bricks, when the bricks stand in *H*, will *sum* to one metre. Here, the ontological relation holds between the property *being exactly ten centimetres tall* and the property *being exactly one metre tall* (one might say that instances of the first property, i.e. instances of *Gness*, are apt to sum together to form an instance of *Fness* when a certain number of bearers of the instances of *Gness* are suitably arranged).

So the full grounds of *Fa* (the fact that *a* is exactly one metre tall) will include ten facts of the form “*Gb*”, “*Gc*”, etc. (i.e. each brick is ten centimetres in height), plus a collective fact of the form “*b, c, etc. are together H*” (i.e. the bricks are stacked on top of each other). When these facts all obtain together, a fact of the form *Fa* will obtain (something which is composed of the ten bricks will be exactly one metre in height). That is, the property *Fness* and *a* (the tower composed of these ten bricks) will each exist and will be unified in the fact *Fa*.²⁵ Again, it should be clear how the ontological relations holding

23 As Paul Audi puts it, “Anything maroon is red, and indeed, anything maroon is red *in virtue of* being maroon. So it seems that it is the natures of these properties that are responsible for the grounding relation’s obtaining” (2012, 693).

24 Of course, it is a difficult question as to when one entity is composed by other entities, but I set this issue aside here. What matters for present purposes is that *a* is composed of the ten bricks.

25 If “*a*” is a singular term then it may be objected that the obtaining of all the grounds does not suffice to ground the specific fact *Fa*, because of the possibility of Ship of Theseus-style examples

between a and the bricks, and between F_{ness} and G_{ness} and H_{ness} , help to explain how the grounds of Fa can unify its constituents.

Each grounded fact is thus unified by something external, i.e. something identical neither with the fact itself nor with any of its constituents. This is a version of Betti's option (C). The precise details of how the constituents of different grounded facts are unified remain to be worked out, but the outline of the approach is clear: examine the constituents of the grounded fact and the constituents of its grounds, and work out which ontological relations hold between them.²⁶

It might be objected that this proposal begs the question: it can only work if a and F_{ness} are already unified. Suppose that Fa is grounded in the fact that b is G (Gb). It seems clear that a 's being F is a logical precondition for Fa to stand in any relation. Therefore, in order for Gb to ground Fa , a must already

(Skiles 2015, 721–723). This is an important issue but I shall not address it here: for present purposes what matters is that the obtaining of the grounds explains why F_{ness} is unified with whatever it is which the bricks together compose.

- 26 Could there be instances of grounding which do not feature specific ontological relations holding between constituents of the grounded fact and its grounds? These would be instances of what Trogdon terms *bare grounding*, “grounding relations that aren't instances of grounding mechanisms” (2018, 1295). Trogdon mentions as possible examples cases of logical or conceptual grounding, e.g. the fact that a is F and the fact that b is G together ground the conjunctive fact that a is F and b is G . I shall not address these examples in detail, but the following strategy is worth noting. On the compositional conception, a fact is composed of non-factual entities (properties, relations and property-bearers). Take the (proposed) conjunctive fact that a is F and b is G . What are the entities from which it is composed? It might be thought that this fact includes a conjunctive property, e.g. the property x being $F \wedge y$ being G . I am sceptical that there is such a property, but if it exists then it is plausible that the following is essentially true of it: it is instantiated iff some entity x is F and some entity y is G . In that case, the grounding of the conjunctive fact is not bare, since a specific ontological relation holds between a constituent of the grounded fact (the conjunctive property) and constituents of its grounds (i.e. F_{ness} and G_{ness}). On the other hand, it might be denied that the conjunctive fact includes a conjunctive property: on this view, the conjunctive fact is composed by a , b , F_{ness} and G_{ness} , arranged in a specific way. In that case, this proposed conjunctive fact seems to be an aggregate of the two facts which supposedly ground it. Given the compositional conception, it is not at all clear that any mere aggregate of facts should itself be counted as a *fact*. Rather, it is a collection of distinct facts. Any collection of facts can itself be treated as a fact, but this would be to use a different conception of facts, on which facts are logical or conceptual rather than worldly entities. I am not suggesting that facts understood in this way should not be posited, just that they are not the kind of facts which the problem of unity concerns.

be F (i.e. a and $Fness$ must be unified). Far from unifying a and $Fness$, any grounding relation in which Fa stands requires that it already be unified.²⁷

An initial worry with this objection is that it threatens to prove too much. For with very little modification, it can be deployed against any proposed explanation of the existence of any entity whatsoever (where “existence” includes e.g. a fact’s obtaining, an event’s occurring, etc.). Suppose we want to explain the existence of some entity x , and we appeal to a different entity y ; we say that y ’s existing, or something else about y , explains x ’s existing (e.g. y might be an event which causes x). For this explanation to be correct, it is necessary that x exists (if x did not exist, then its existence would not be explained). So the proposed explanation works only if x already exists. In this way, it turns out that any proposed explanation of the existence of any entity will be circular. But this is surely not so.²⁸

One issue here is with the word “already”: it might be objected that if x and y are events, and if effects occur after their causes, x could not already have occurred for its occurring to be explained by y . But I take it that in the objection to my proposal, the word “already” does not indicate temporal priority, but a logical precondition: for Gb to ground Fa logically requires that Fa obtains. When the term “already” is understood in this sense, y ’s causing x logically requires that x occurs, just as Gb ’s grounding Fa logically requires that Fa obtains.

This gives us reason to think *that* this objection has gone wrong. As to *how* it goes wrong, the answer lies in distinguishing *explanatory* considerations from *modal* considerations (which include what is logically or metaphysically necessary for something to exist). The basic point is this: for x to modally depend on y (so that x cannot exist unless y exists) does not preclude that x can itself explain (or help to explain) y ’s existence.

A couple of examples from the literature can help to clarify this point. On a widely accepted view of sets, the singleton set containing Socrates exists iff Socrates exists. But the existence of the set is widely thought to be explained (at least in part) by the existence of Socrates (see e.g. Schaffer 2016a, 53).

27 This objection was suggested to me by certain passages of Vallicella’s (2000, 243, 254). However, it is not clear that he is putting forward this exact argument in these passages. Thanks also to an anonymous referee for pressing me to develop my response to this objection.

28 Vallicella argues that event causation cannot be causation of existence, precisely since both the cause and its effect must occur for a causal relation to hold between them (2002, 27). But this seems false, at least for instances of what Ned Hall terms productive causation, when an event “helps to generate or bring about or produce another event” (2004, 225).

A second example is the Euthyphro dilemma (which has been discussed in the grounding literature—see e.g. Raven 2012, 692–693). Whichever way one responds to the dilemma, the “because” statement is true iff both the gods will that p and p is good. But this modal dependence does not rule out either explanation one might offer (e.g. that p is good because the gods will that p , or that the gods will that p because p is good).

How does this apply to my proposed explanation? It is true that Gb 's grounding Fa modally depends on (logically requires) that Fa obtains. But this, I suggest, is not an explanatory dependence; we are not obliged to say that Gb 's grounding Fa is explained, even in part, by Fa 's obtaining. And, as per the examples outlined above, the modal dependence of a proposed explanation on its explanans is not by itself sufficient to generate an explanatory circle. Indeed, the modal dependence of the explanation of Fa 's obtaining simply reflects the sufficiency of the proposed explanation: if the obtaining of Fa 's grounds are sufficient to explain the unity of Fa , then Fa must obtain for the explanation to be correct.

5 The Vicious Regress Argument

I have argued that grounding can account for the unity of facts which have grounds. This invites the questions of whether there are ungrounded facts, and if so what could account for their unity. There are two options to consider here:

- (1) There are no ungrounded facts, and every fact is unified by its grounds;
- (2) There are ungrounded facts, which are not unified in the way in which grounded facts are unified.²⁹

I shall consider (1) in this section, and (2) in section 6.

In scenario (1), there are no facts such that they are not fully grounded in some other facts. Facts can form chains of grounding (a collection of facts where any two members of this collection stand in grounding relations to each other). In scenario (1), each fact will stand in an infinite descending chain or chains of grounds.

Whether such chains are possible and whether they could solve the unity problem are contentious issues. The main reason for thinking that such chains

²⁹ As we shall see, there is a third option: there are no ungrounded facts, but chains of grounding terminate in entities which are not themselves facts. I shall briefly consider this option in section 6.

are impossible is that they seem to give rise to a vicious regress.³⁰ The criteria for deciding when regresses are vicious have been subject to extensive debate (Clark 1988; Nolan 2001; Maurin 2007; Wieland 2013). The criterion which seems most relevant in the present context is what Wieland terms the Failure Schema (2013, 99). This schema is summarised by Simon Blackburn: “A strategy gives rise to a vicious regress if whatever problem it was designed to solve remains as much in need of the same treatment after its use as before” (2005, 313). Examples of such strategies include the homunculus regress and the tower of turtles. In each case, a certain problem must be solved in order that something can be the case; an entity is posited in order to solve this problem; but the positing of this entity creates a problem of exactly the same kind as the problem the entity was posited to solve.

This suggests the following objection to scenario (1): the initial problem was how to explain the unity of some fact; in order to explain the unity of this fact, we posited grounds; but these grounds are facts each of which raises an explanatory demand of exactly the same kind as that which we initially faced. To respond to this further explanatory demand by positing further grounds would simply be to generate further problems of the same kind, and so on. What makes this regress vicious is that it makes no progress on the original question (or any progress it makes at any step in the regress is immediately cancelled out). This is arguably what goes wrong in the homonculous and turtle cases.

While this is a problem for (1), it is not clear that it is decisive. The original question was how to explain the unity of some specific fact, *Fa*. By appealing to the grounds of *Fa*, this question is answered. Granted, the answer generates a problem of the same kind: but *ex hypothesi*, for each new fact introduced, we will be able to appeal to *its* grounds to explain its unity. Given the scenario outlined in (1), there will never be a fact which lacks grounds, so the problem of unity can be answered for every fact posited.³¹

30 This objection is raised by Betti concerning a version of option (B), the idea that *a* and *Fness* are unified by the presence of a further constituent such as a relation of instantiation (2015, 56–57).

31 This is an important difference between the regress of facts to which the truth of (1) would commit us and what Eklund terms the *constitution regress* (2019, 1227–1229). The constitution regress very plausibly is vicious, because no step in this regress explains the fact with which the regress started. So rather than a different problem of the same type occurring at each step, as is the case with the regress generated by accepting (1), in the constitution regress the very problem we started with is never solved.

It may be objected that this strategy is vicious insofar as it explains the unity of facts by assuming the very possibility of any fact being unified. This objection, or something like it, crops up occasionally in the literature:

Even if, assuming there can be facts, facts may depend on each other in never-ending chains of dependence, postulating such chains of dependence does not help when it comes to the very possibility of there being facts to begin with. (Eklund 2019, 1228)

But in the context of discussing the problem of unity, this objection seems to change the subject.³² We began by asking a local question (what explains the unity of some specific fact or facts); now we are considering a global question, what is required for the possibility of any fact whatsoever.³³ But the chain of grounds was introduced to answer a series of local questions, e.g. why each specific fact is unified: “To claim that an infinite regress is vicious because it doesn’t allow us to answer the global question is to have accused it of having failed to carry out a task it was not designed to complete” (Bliss 2013, 408).³⁴

There is more to be said on these specific points and on other ways of characterizing regresses as vicious, but I shall not explore these issues here. My provisional conclusion is that while the regress argument is a problem for the proponent of (1), it is not clearly decisive: that is, it is not obvious that the regress argument renders (1) untenable. That said, it is worth asking how the unity problem might be solved for ungrounded facts.

32 This is not to suggest that Eklund himself is guilty of this. In the section where the passage I quoted appears, he is discussing the constitution regress, which is different to the regress which the truth of (1) would set up (see fn. 31 above).

33 Vallicella makes a similar point: the problem of unity “does not concern the nature of fact-unity in general, but the existence of fact-unity in particular cases” (2000, 242).

34 Orilia offers a solution to the unity problem which also appeals to an infinity of facts, and he responds to the threat of a vicious regress in a similar way (2006, 233). I shall not discuss Orilia’s position in detail, but it is worth mentioning two differences between it and my own. The first is that the facts to which Orilia appeals, facts which contain instances of an exemplification relation (what I have termed “instantiation”) are ad hoc; they are posited solely in order to solve the unity problem, without any independent reason to accept them. In contrast, the conception of grounding I have outlined can limit itself to facts which are relatively uncontroversial. Of course there are controversies surrounding grounding claims, but in general such claims are introduced as a way of ordering facts which we have independent reasons to accept. Second, Orilia’s view commits one to a necessarily infinite regress and a necessary infinity of facts given the obtaining of any fact (2006, 230). Even if such a regress is metaphysically possible, considerations of parsimony would favour not positing an infinity of facts if it can be avoided. As we shall see, the grounding response to the unity problem does not by itself commit one to positing an infinity of facts.

6 Essentially Unified Facts

I propose that at least some ungrounded facts are *essentially unified*.³⁵ These facts are such that the properties which make them up are essential to their property-bearers, and so the property bearer could not exist without instantiating that property.³⁶ For instance, suppose that the property *being negatively charged* is essential to any electron. In that case, a specific electron *e* could not exist without instantiating this property, i.e. without the fact that *e* is negatively charged obtaining. More generally, the thesis that some facts are essentially unified entails rejecting the following assumption: “Even if *a* and *F*ness cannot exist except in some state of affairs or other, there is nothing in the nature of *a* and nothing in the nature of *F*ness to require that they combine with each other to form *a*'s *being F*” (Vallicella 2000, 238).

Essential unity can be usefully compared with bearer-specific properties (see section 3). A bearer-specific property is such that if instantiated, it is necessarily instantiated by some specific entity or entities. In essential unity, it is the property bearer which is such that if it exists, it necessarily instantiates a certain property. In each case, one of the constituents of a fact is such that its existence (or instantiation) requires that it combine with the other constituent or constituents.

There are two ways in which essential unity might be said to explain the unity of some ungrounded facts. One way to understand facts which are essentially unified is that there is no ontological difference between them and the aggregate of their constituents. Since there is no difference, there is no need for any explanation of this difference, and the unity problem dissolves. This reasoning mirrors Betti's explanation for why bearer-specific properties dissolve the problem: “If *R* is *relata-specific*, and thus it is in the nature of *R*

35 In the next section I shall consider ungrounded facts which are not essentially unified. It is worth noting that there may be grounded facts which are essentially unified. The unity of these facts would be over-determined. But it is plausible that the vast majority of grounded facts are not essentially unified. Indeed, as noted in section 2, it is often assumed in the literature on the problem of unity that the constituents of a fact could all exist without together composing that fact.

36 The relevant notion of “essence” is the non-modal conception made familiar by Kit Fine. In particular, I have in mind Fine's notion of *constitutive essence* (1995, 276). Note also that I am not suggesting that essentially unified facts are grounded in essential facts about their constituents. Rather, the proposed explanation of the unity of essentially unified facts is an *essentialist explanation* (Glazier 2017, 2872).

to relate a and b , then aRb exists as soon as R exists. So, there is simply no difference between $a + R + b$ and aRb " (2015, 92).

This way of dissolving the unity problem might be thought to face the following objection: it removes any motivation to think of essentially unified facts as genuinely *facts*, as entities over and above their constituents. This is Betti's own conclusion: bearer-specific properties not only dissolve the problem of unity, but also remove the need for the ontological category of compositional facts (2015, 106).³⁷

Even if this point is correct, it is compatible with a way of solving (rather than dissolving) the unity problem. Consider the aggregate of entities which we wrongly took to form an essentially unified fact. Let us term this aggregate a *quasi-fact*. Each quasi-fact will include a number of property-bearers and properties or relations such that each property or relation is essential to the property-bearers. We can then adjust the notion of grounding as follows: a fact can be grounded by another fact, or by a quasi-fact, or by some combination of facts and quasi-facts. Every grounded fact will be unified by its grounds (either facts or quasi-facts); and since there is no difference between a quasi-facts and the aggregate of its components, the problem of unity will not arise for quasi-facts.

That said, I am drawn towards the other way in which essential unity can solve the problem. First, I think there *is* an ontological difference between essentially unified facts and the aggregate of their constituents, even though the existence of the constituents suffices for these facts to obtain. The aggregate of e and *being negatively charged* just is e and this property considered together. It involves nothing other than these two entities; there is nothing more to the aggregate's existence than the existence of these entities. In contrast, the fact that e is negatively charged involves the instantiation by e of this property; that is, the fact involves these entities being arranged in a specific way. As it happens, these entities are such that when they exist they are automatically arranged in this way. But this does not entail that there is no ontological difference here. The fact still involves a way of being unified which the aggregate does not.³⁸

³⁷ This conclusion is questioned by Vallicella (2016a, 236).

³⁸ It might be objected that the difference I am positing between essentially unified facts and the aggregates of their constituents appeals to non-mereological composition, and so begs the question in favour of facts. But it is important to be clear on what is at issue here. As was argued in section 2, we can distinguish between explaining *what it is* for constituents to form a fact (e.g. clarifying the distinctive way in which the constituents must be unified so as to form a fact), and

The problem of unity for an essentially unified fact is solved by some of its own constituents. The problem of unity, recall, is the problem of explaining why, given that each of a fact's constituents exist, they are combined in the way characteristic of this fact. In an essentially unified fact, some of its constituents are such that necessarily, if they exist they must instantiate certain properties or stand in certain relations. Therefore, given that each of the fact's constituents exist, it is necessary that they are unified so as to form this fact. For instance, it is in virtue of the essence of *e* that it is unified with the property *being negatively charged*.

This account is in effect a version of Betti's option (A): the explanation of why the constituents are unified lies in the essence of one of the constituents itself. Betti herself rejects this option. Since the unity problem presupposes that the constituents in the aggregate are numerically identical to the constituents of the fact, it seems impossible for the difference between the fact and the aggregate to be explained by reference to any of these constituents (2015, 56). But as argued above, the difference between the fact and the aggregate just is the non-mereological unity of the constituents in the fact, and this unity is explained by the essence of the property bearer.

7 Brutely Unified Facts

I have outlined an account of the unity of grounded facts, and of ungrounded facts where the properties are essential to the property-bearers. However, it is plausible that if ungrounded facts obtain, not all of them are essentially unified: for instance, the fact that a fundamental particle stands in a certain spatiotemporal location (Dasgupta 2014, 579), or the fact that a simple entity *a* is *F* (where *Fness* is e.g. a maximally determinate shade of colour). That is, in addition to grounded facts and facts which are ungrounded and essentially unified, there is at least logical space for a third category of facts, facts such that there is nothing in virtue of which their components are unified. Let us term these *brutely unified facts*.³⁹

explaining *why* a fact obtains given that its constituents exist. The discussion in this paragraph of the main text concerns the first of these issues, not the second. And as mentioned earlier, in addressing the first of these issues it is legitimate to appeal to non-mereological composition, e.g. to instantiation.

³⁹ Thanks to Francesco Spada and to an anonymous reviewer for drawing my attention to the possibility of such facts. It may be that there are facts which do not belong to any of the three categories I have distinguished (i.e. facts which are ungrounded and not essentially unified, but

The possibility of brutally unified facts raises two issues for the position I wish to defend. The first is the general question of whether such facts are possible; the second is whether allowing for such facts weakens my position compared to other responses to the problem of unity. I shall consider the second issue in the next section; for the remainder of this section, I shall discuss the first.

An assumption made by some in the literature is that if the unity of a (supposed) fact cannot be explained, then we have reason to think that this fact cannot exist (e.g. Vallicella 2000, 248; Betti 2015, 103; Maurin 2015, 201). I do not share this assumption. I think it is true of any fact that we can ask why it obtains or why its constituents are arranged as they are, but if it turns out that a positive answer cannot be provided for certain facts, this does not in itself give us reason to doubt that such facts obtain.

Vallicella offers three arguments against the possibility of brutally unified facts. First, he claims that the view that there are such facts leads to “the contradiction that a fact both is and is not a whole of parts” (2002, 20), i.e. an aggregate of its constituents. The argument is as follows:

A fact *is* a whole of parts in that there is nothing ‘in’ it but its parts. For a fact is a complex, and a complex is composed of constituents. Analysis of *aRb* can yield nothing beyond *a*, *R*, and *b*. A fact is *not* a whole of parts in that the existence of the parts does not entail the existence of the whole. Thus a fact is more than the mere sum of its parts. This ‘more’ is something real, and yet it cannot be, or be grounded in, any further constituent of the fact. [...] it seems to be a contradiction to say of a whole that it is an entity in addition to its parts when it is composed of them. (Vallicella 2002, 20)

The problem with this argument is that it equivocates on the first claim, that “there is nothing ‘in’ a fact but its parts” (i.e. its constituents). This claim could be interpreted as meaning “a fact has no constituent other than its parts, e.g. *a*, *R* and *b*.” But it could also be interpreted as meaning “a fact is reducible to or nothing over and above its parts”, where this would entail, among other things, that a fact obtains if its parts all exist. Interpreted in the first way, the first claim would be accepted by the proponent of the compositional conception; but interpreted in this way, the first claim does not lead to a contradiction with

which are not brutally unified either). That said, it is not obvious what would unify such facts, and so I shall set aside this possible further category.

the second claim, that a fact is more than the aggregate of its parts. Interpreted in the second way, the first claim would lead to a contradiction with the second claim; but interpreted in this way, the first claim would not be accepted by the proponent of the compositional conception. Thus, Vallicella's first argument is either a non-sequitur or it begs the question against the proponent of the compositional conception (by assuming that a fact is nothing over and above its constituents).

Vallicella's second argument starts with two facts, *Fa* and *Gb*, which ex hypothesi have no constituent in common. Vallicella notes "each fact is precisely a *fact*, which suggests that they have the universal *being a fact* (facthood) in common" (2002, 21–22). But if they have no constituent in common "then facthood is not a common constituent; how then do we explain the circumstance that they are *both* facts? How do we explain the common categorical status?" (2002, 22). Since Vallicella thinks it cannot be a brute fact that both are facts, nor can either of these facts itself be a brutally unified fact.

Given a sparse conception of properties (see fn. 2), it is not at all clear that there is any good reason to accept that there is a property *being a fact*, or that there are facts of the form: *Fa* is a fact. There are certainly *truths* of the form "*Fa* is a fact." What explains their being true is precisely the factual ontological structure of *Fa*, i.e. *a*'s instantiating *Fness*.

But assume that there is such a property as the property *being a fact*. Presumably this property will be instantiated by all and only facts, and therefore will be something which all and only facts have in common. But why assume that it must be a *constituent* of every fact? On the contrary, it seems obviously mistaken to assume that a fact such as the apple's being red must be partly composed of the property *being a fact*. The proponent of the compositional conception of facts has no need to assume that properties are constituents of the entities which instantiate them.⁴⁰ And this is true even if the entities which instantiate properties are themselves facts.

Vallicella's third argument is as follows:

- (i) if the difference between a fact and its constituents is a brute fact, then it is possible that two facts share all constituents. (ii) But it is not possible that two facts share all constituents. Therefore,

⁴⁰ This is a well-known view of properties, (e.g. Armstrong 1989, 77), but it is not one which I accept, and more importantly it is not one to which the proponent of the compositional conception is committed.

(iii) the difference between a fact and its constituents is not a brute fact; it has an ontological ground. (2002, 22)

The proponent of the compositional conception will accept neither (i) nor (ii). As regards (i), if a fact is brutally unified then the difference between this fact and the aggregate of its constituents is simply that the fact is a *fact*, that is, it consists of the constituents arranged in a certain way. Vallicella claims,

if a fact's being a fact is what distinguishes it from its constituents, then a fact's being a fact is what ultimately distinguishes it from other facts even if there also happens to be a difference in constituents. Each fact, just in virtue of its being a fact, differs from every other fact. (2002, 23)

But on the compositional conception, this is false. That Fa is a fact, i.e. a complex of constituents arranged in a specific way, is not what distinguishes it from Gb (which, after all, is just as much a fact). What distinguishes the two is precisely that they have different constituents. More generally, what distinguishes each fact from the aggregate of its constituents is different to what distinguishes each fact from any other fact (the latter is given by the identity-conditions of facts outlined in section 2).

As regards (ii), it is widely thought possible for certain distinct facts to share the same constituents (as with facts including asymmetric relations—see section 2 above). Vallicella dismisses this response as question-begging against (ii), but this claim is highly doubtful.⁴¹ The general point behind rejecting (ii) is that a fact is composed of constituents unified in some specific way (e.g. a particular instantiating a universal, or two particulars being related in a certain order), and that in certain cases the same constituents can be unified in more than one way, giving rise to distinct facts.⁴²

41 In a footnote, Vallicella clarifies that what is question-begging is to appeal to aRb and bRa 's being distinct facts in support of the claim that facts obtain (2002, 24, n. 51). This specific dialectical move might beg the question, but what I am discussing in this paragraph in the main text is not whether facts obtain, but whether we should accept claim (ii), that it is not possible that distinct facts share all constituents.

42 An alternative counterexample to (ii) appeals to a plausible condition on the criteria of identity for facts, that these criteria are time-indexed (see section 2). If a instantiates F ness at t 1, ceases to instantiate it at t 2, and instantiates it again at t 3, it seems perfectly reasonable to say that there are two distinct facts composed of a and F ness; one obtained at t 1 and ceased to obtain at t 2, the other obtained at t 3.

8 Comparing Different Accounts of Unity

The account I offer of the unity of facts has two significant limitations compared to alternatives such as those offered by Betti or Vallicella. First, it is a disunified account, proposing different answers to the problem of unity for different facts (e.g. grounded versus ungrounded); in contrast, Betti and Vallicella each offer a unified account.⁴³ Second, the account I propose is limited in scope, if it is accepted that there can be ungrounded facts which are not essentially unified (this is the second issue mentioned at the start of the previous section). My account does not provide a positive answer to the question of what unifies these facts, whereas the positions defended by Betti and by Vallicella promise to do so.

Each of these limitations is important, but I do not think that they are decisive. While all facts share the ontological structure described in section 2, there are important differences between, e.g. facts which are grounded and facts which are ungrounded, and between facts which are essentially unified and facts which are not. Once these differences are made clear, the cost of a disunified account is diminished; or, to put it another way, once the differences between facts are made clear, it is less obvious that we should expect to find a single account which explains the unity of each fact.

Furthermore, it seems to me to be a mistake to assume from the outset that the problem of unity can be solved for every fact. Once we acknowledge that there are different types of fact, the possibility is opened that there are facts for which no positive answer can be given to the question “Why does this fact obtain?”. Granted, it is methodologically preferable to be able to explain the unity of each fact. That is, all things being equal, we ought to prefer a theory which allows for a positive answer to each question of this form to one which does not. But are all things equal?

I contend they are not; the account I offer has advantages over the main alternatives. My account relies on grounding and on certain properties being essential to their bearers. While grounding and essential properties are by no means uncontroversial, each is a relatively familiar and well-developed idea, and there are reasons for accepting each idea which are independent of any role they might play with regard to the unity of facts. In contrast, the accounts offered by both Vallicella and Betti rely on ontological posits which

43 Though this may not be true of Vallicella's proposal (see e.g. 2000, 258n45).

have not been widely discussed or systematically clarified, each of which is ad hoc, and each of which faces independent considerations against it.

To develop this point, consider first some of the problems facing Betti's ontological posit, bearer-specific properties. First, on Betti's view the identities of properties are implausibly fragile. For instance, consider two entities, *a* and *b*, each of which instantiates the property *being the determinate shade of red x*. Now consider a counterfactual situation where *a* does not exist. On Betti's view, in this counterfactual situation *b* would not instantiate the property *being the determinate shade of red x*, since that property can only exist if it is instantiated by *a*. Rather, in that situation *b* would instantiate the distinct (though presumably qualitatively identical) property, *being the determinate shade of red x**. This is surely the wrong result; it seems to me that I can understand what it would be for that very property, *being the determinate shade of red x*, to exist and to be instantiated in a situation where *a* did not exist.⁴⁴

Second, Betti's position entails that our knowledge of what properties are is constrained to an implausible degree. Her view requires that one can only be said to know which property is in fact instantiated if one knows each and every entity which bears it (e.g. we can only know we are dealing with the property *being the determinate shade of red x* and not the property *being the determinate shade of red x** if we know that *a* exists). Again, this seems implausible.⁴⁵

Vallicella appeals to a single entity, U, to unify all contingently unified facts. He assumes that U cannot necessarily unify these facts, as this would mean they were not contingently unified. Therefore, U must contingently unify them. As Vallicella puts it,

U must have the power of contingent self-determination: it must have the power to contingently determine itself as operating upon its operand. In other words, if U is the ground of the contingent unity of a fact's constituents, then U contingently *grounds its grounding* of the unity of the fact's constituents. (2000, 255)

⁴⁴ This point is even clearer if one accepts that there are determinate quantitative properties, e.g. *being the determinate length x*.

⁴⁵ Bearer-specific properties would not be so controversial if they were assumed to be tropes; however, as mentioned in section 3 Betti rejects this assumption. Furthermore, ruling out any universal properties or relations brings its own problems (see Armstrong 1989; Lowe 2006).

Vallicella's model for this contingent self-determination is our own free will. Specifically, he suggests that the contents of our thoughts are unified in conscious acts, as when one judges that *a* is *F* (2000, 255). Indeed, the entities Vallicella proposes as candidates to play the role of *U* are God and transcendental consciousness (2000, 252–253).

There is an ambiguity in this account as it stands. Consider one's unifying the contents of a specific thought (say, that *a* is *F*) in an act of judging. What is the unifier here? One's ability to judge is not sufficient to explain the unity of the contents of this thought, since one could exercise this ability without thinking that very thought. Alternatively, the unifier could be a particular exercise of this capacity, e.g. a particular act of judging (that *a* is *F*). But this answer immediately leads to a further problem. A particular act of judging will involve either oneself standing in a relationship to something, e.g. the contents of one's act of judging, or it will involve one instantiating a specific property, e.g. the property *judging that a is F*. Either of these will involve the obtaining of a fact, and furthermore this fact will be contingent. What explains the obtaining of such facts? (Note that the answer cannot be "one's power to freely judge"—what is being asked for is an explanation of one's exercising this power on a specific occasion.) Similarly, *U* may have the power of contingent self-determination, but its having this power is not sufficient to explain the unity of each fact; what is also needed is an explanation of why this power is exercised as it is.⁴⁶

None of this is to suggest that the accounts offered by Betti or by Vallicella cannot work, or that their posits cannot be ultimately defended. But each of their accounts faces serious theoretical problems. The account I offer, though limited in important respects, relies on more familiar and well-established ontological ideas. For this reason, it deserves to be taken as seriously as any other proposed solution to the problem of unity.*

46 Vallicella notes that if *U* is God, then on a standard conception God necessarily has His attributes, e.g. He is necessarily omniscient (2000, 258, n. 45). But God presumably does not necessarily have the property *judging that a is F*; nor does He necessarily stand in a unifying relation to the fact that *a* is *F* (and if He did, the fact that *a* is *F* would not be contingent).

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Donnchadh O’Conaill
 University of Fribourg
 donnchadh.oconaill@unifr.ch

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