Nonetheless, Harrington's book is probably one of the best introductions to the philosophy of time.

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Arianna Betti, *Against Facts*, Cambridge, MA: MIT Press, 2015, 328 pp., US$42 (Hardback), ISBN 9780262029216

> There is a world of difference between truth and facts.
> Facts can obscure the truth. (M. Angelou)

This is a superb book in metaphysics. That's a fact. Well, if Betti is right, that is in fact *not* a fact. For if she is right, there is no such fact. In fact, if she is right, there are *no* facts. That there are no facts is the main thesis of '*Against Facts*'. As Betti herself puts it:

> This is a book against facts. It argues that we have no good reason to accept facts in our catalog of the world. (Betti 2015, xiii)

The book is divided in two main parts. The first part argues against the existence of *compositional facts*, specially structured—i.e. non-mereologically structured—complex building blocks of reality, whereas the second argues against the existence of *propositional facts*, the alleged semantical references for expressions of the form "the fact that such and such". Although both parts are almost self-contained and the arguments used are different, they are nonetheless related. In particular, Betti argues that compositional facts are not propositional facts. This is important insofar as (one of) the main arguments against compositional

facts is that they are *ad-hoc*: they are postulated for solving solely the so-called *unity problem*.[1] If it turned out that compositional facts could be used as semantical values for some referring expressions in our language, that would arguably assign them yet another role, thus significantly undermining the charge of *ad-hocness*. In reviewing a book as rich as this, some choices are inescapable. We will focus in particular on the first part of the book and thus on compositional facts.[2]

In Section 1 we briefly review the "*Master Argument For Facts*", in Section 2 we will address Betti's "*Master Argument Against Facts*" and in Section 3 we will provide some suggestions to resist some of Betti's insightful criticism. Let us be clear from the start. We do not take the arguments in Section 3 to be outright objections to Betti's account. Rather the arguments raise concerns on behalf of fact-theorists and (hopefully) offer possibly unexplored paths for them to resist Betti's conclusions. A final section follows.

1. The Master Argument For Facts

According to Betti, the master argument for facts is Armstrong's *truthmaking argument* (TA).[3] More precisely, she argues convincingly that it is the *unity problem*, which is behind some of the assumptions of the TA. In her words:

> [G]iven a certain framework (…) it is simply not possible to run a truthmaker argument without presupposing some solution to the unity problem. The unity problem is a truly basic problem to solve for any metaphysics involving a certain kind of properties and relations, and so a fortiori for any metaphysics coupled with a truthmaker theory of truth. (Betti 2015, 47)

Let us see, then, what the TA and the *unity problem* are. Consider the following empirical truth, *Hargle/Argle*:

(*Hargle/Argle*): Hargle the hedgehog is lying on Argle's lap.

Given a truthmaker theory of truth, empirical truths like (*Hargle/Argle*) need a *truthmaker*, something in reality that makes them true. Clearly, Hargle, the relation of *lying on* and Argle's lap play a role in the truth of (*Hargle/Argle*). Yet if we take them separately, they won't suffice to make (*Hargle/Argle*) true. For example, Hargle could be now munching an apple in Grey Linn Park, Argle could be reading *Finnegan's Wake* in the White Horse Tavern and Maud Gonne

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[1] See Section 3.

[2] We will omit 'compositional' from now on.

[3] See Armstrong (1997, 115).

could be finally lying on William Butler's lap. This would hardly render (*Hargle/Argle*) true. It is a special connection between these elements, a special *unity* if you want—hence the name, *unity problem*—that is the truthmaker of (*Hargle/Argle*). This connection, this unity is the following *fact*: "*Hargle's lying on Argle's lap*".

> [I]n other words, Hargle, Argle's lap and the relation of *lying on* must be *brought together*, arranged in some way (…) Facts *are* things brought together. (Betti 2015, 17)

Let us give a general version of the TA.[4] We follow Betti for notation—see, e.g., Betti (2015, 15). Consider any relational[5] empirical truth 'aRb'.

(T1)   'aRb' has a truthmaker.

(T2)   *a*, *b*, *R* play a role in the truth of 'aRb' yet they are not sufficient to provide a truthmaker for 'aRb'; *a*, *R*, *b* have to be *unified* in a relevant sense.

(T3) $a+R+b$, the mereological sum of *a*, *R*, *b* is not sufficient to provide a truthmaker for 'aRb' either;[6] $a+R+b$ is still *dis-unified* in a relevant sense.[7]

(T4)   The *fact aRb* is the *unification* of *a,R,b*.

(T5)   *aRb* is the truthmaker for 'aRb'.

(C)   We need facts.

We have reconstructed the argument this way for two main reasons. First, the connection to the *unity problem* is somewhat explicit; second, it makes immediately clear that the 'composition' relation between fact-constituents and facts is *not mereological composition*. Before moving on to Betti's critique, let us say a few more words about the *unity problem*, for this lies at the heart of the first part of *Against Facts*.

According to Betti this traces back to the theory of relations in Russell (1913). There Russell introduced an obscure distinction between *relations* and *relating relations*. A *relating relation* is a relation that actually relates the *relata* (Betti 2015, 40):

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[4] In the following, *a*, *b* are objects, *R* a relation between them, 'aRb' is a proposition, $a + R + b$ is their mereological sum, and *aRb* is a fact which is the alleged truthmaker of 'aRb'.

[5] Betti focuses on relational statements but this is not essential as she herself recognizes.

[6] The argument would be the same we gave before. Consider the case in which Hargle is eating an apple and Argle is reading *Finnegan's Wake*, and the *lying on the lap* relation is instantiated by Maude Gonne and William Butler Yeats. You can still take a mereological sum of Hargle, Argle and *lying on*—Betti is assuming *Unrestricted Composition*—yet this will fall short of making (*Hargle/Argle*) true.

[7] See the previous footnote.

> [T]he fundamental aspect of the difference between relations and relating relations is the modal difference between what *could* be related in the world and what *does* actually get related in the world. (Betti 2015, 41).

In other words: relating relations form a truly unified whole with their actual relata, whereas relations *simpliciter* do not. Given as much, the *unity problem* is then simply stated:

> (*Unity Problem*): What grounds the difference between relations and relating relations? (Betti 2015, 41)

And the argument for facts can be simply phrased:

> (*Argument for Facts*): Facts—entities *over and above* their constituents—are needed because their constituents alone cannot get us a world where relations relate their *relata*. (Betti 2015, 48)

In other words: the TA argument allegedly shows that only unified wholes can play the truthmaker role for empirical truths. The mereological sum $a+R+b$ is not such a truly unified whole. The fact aRb, on the other hand, is truly unified. That is why we need facts. The *unity problem* asks what is the ground for the difference between $a+R+b$ and aRb. This makes clear why the solution of the *unity problem* is what is behind TA: T2, T3, T4 just say that nothing short of facts (T4), i.e. neither constituents alone (T2), nor their mereological sum (T3), can solve the *unity problem*, thus giving us Russell's relating relations.

This is why Betti—rightly we believe—claims that the *unity problem* is actually more fundamental than the TA argument. The thought is that facts can act as truthmakers only insofar as they solve the *unity problem*.

2. The Master Argument Against Facts

In chapters 2 and 3, Betti puts forward her two main reasons to undermine TA and facts-based solutions to the *unity problem*. The first charge is *ad-hocness*. The *ad-hocness* charge is twofold. On the one hand, facts are *ad-hoc* entities because they are introduced for the sole purpose of solving the *unity problem*. On the other hand, they are *ad-hoc* insofar as

> [T]hey come down to a *primitivist* solution to the problem. (Betti 2015, 59)

We shall focus on this second aspect. Recall that on one formulation the *unity problem* is that of grounding the difference between $a+R+b$ and aRb. The

argument Betti deploys is an eliminativist argument. She considers several candidates that could ground that difference, namely (A) the *constituents themselves*, (B) *one or more additional components* of the complex, (C) *something outside the complex* (Betti 2015, 51) and puts forward plausible reservations against all of them. Then she settles for option (D), the *complex itself*. The discussion of option (D) is detailed and insightful. Limitations of space prevent us from going into detail here. Suffice to say that, in the end, Betti claims that:

> [W]hoever endorses option D does actually endorse the foot-stamping claim that complexes (*aRb*) differ from sums (*a+R+b*) because complexes differ from sum. (Betti 2015, 61)

This is the sense in which the *fact solution to the unity problem is primitivist*: it amounts to endorsing a *primitive difference* between complexes and sums. Now, as Betti herself acknowledges,

> [A]d hocness is an alarm, but not the last word (…). So we ask: is problem X (the unity problem) genuine? If so, we look for alternatives that are not ad hoc (…) If instead the problem is not genuine, then we look for alternatives in which the problem does not even arise. (Betti 2015, 63)

And in fact Betti believes there is a (dis)solution to the *unity problem* which is *not ad-hoc*. She labels this solution *Comply*.[8] The main ingredient of *Comply* is a particular metaphysics of relation. Say that a relation R is *external* iff it is not grounded in the properties of the *relata*. An external relation is thus a genuine entity on top of its relata (Betti 2015, 89). Say that a relation R is *relata-specific* iff it is *in its nature* to relate specific *relata* (Betti 2015, 89).[9] Suppose R holds between a and b. If R is relata-specific, it relates a and b as soon as it exists. Following Betti, we will use the notation $_aR_b$ for such a relation. *Comply* now simply amounts to the claim that any external relata-specific relation can do the relating work by itself. Go back to our initial formulation of the *unity problem*: what grounds the difference between relations and relating relations? The thought here is that external relata-specific relations are relating relations. In other words, we asked what was the ground of the difference between $a+R+b$ and aRb. In fact, this was just a

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[8] In fact, she explores yet another solution, namely *Resist* (see Betti 2015, 87). Insofar as she explicitly admits she finds *Comply* the better solution, we will stick to that.

[9] For the notion of relata-specific relations, see, e.g., Maurin (2002, 163–166) and Wieland and Betti (2008).

reformulation of the *unity problem*. But, this was based on an implicit assumption that *R* was relata-unspecific. In fact, when relata-specific relations are brought into the picture, the unity problem is (dis)solved, for there is really no difference to account for:

> Consider *Comply*. As we saw, this involves denying that *R* is unable to do the relating work by itself and thus complying, because we reject (…) the assumption that there is a difference between the complex *aRb* (relating relations) and the sum of constituents $a + R + b$ (relations). If *R* is relata-specific, and thus it is in the nature of *R* 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* (…) and the unity problem (…) is dissolved. (Betti 2015, 92).

In the light of this, we can reconstruct Betti's *Master Argument Against Facts* as follows:

(M1)   Facts are *ad-hoc* entities in two respects: (a) they *only* solve the *unity problem* and (b) the solution they provide to the unity problem is *primitivist*.

(M2)   If we have better alternatives to solve the problem at hand that do not invoke ad-hoc entities and do not rely on some mysterious primitive distinction, we should prefer those alternatives.

(M3)   We have a better, non-primitivist alternative (dis)solution to the *unity problem*, namely *Comply*, that dispenses with ad hoc entities, insofar as it uses only (specific kinds of) relations.

(M4)   We should prefer the alternative fact-free solution to the unity problem.

(C)   We have no reason to admit facts in our catalog of the world.

3. Facts for facts: or facts against 'Against Facts'

Consider this last argument. M4 follows from M2 and M3. We will not take issue with M2 here. This leaves M1 and M3. And in what follows we will raise concerns about both.

Let us start with M1, in particular M1a. It could be argued that facts do indeed play a role in combinatorial theories of modality, and also in some theories about laws of nature. In fact Armstrong himself has put forward a theory of laws in which facts play a crucial role, e.g. in Armstrong (2010). When dealing with a problem for his own earlier anti-Humean views, his response is in fact:

[I]t is *state of affairs*[10] that should be appealed to in the first place. We need the notion of a *state of affairs type*. (Armstrong 2010, 38)[11]

So, there might be reasons to be skeptical about M1a.[12]

Let us move on to M1b. Betti (2015, 62) recognizes there is indeed a natural D-candidate[13] to ground the difference between $a + R + b$ and aRb, namely the "composition relation", which in the first case is mereological fusion, whereas in the second is non-mereological. But she goes on to claim that:

[E]ven though, as mentioned, non-mereological composition has its followers, an appeal to general acceptance of non-mereological composition is not enough to support the kind of primitivism defended in option D. Why is this? Because of the following. Suppose we grant that *a certain kind* of non-mereological composition, call it *Comp+*, is plausible. Then we have two options: either (I) we show that the non-mereological composition of the complexes at issue, namely, facts, is exactly the same kind of non-mereological composition as *Comp+*, or a special case of it (*indirect arguments*); or (II) if the non-mereological composition of facts is *not* exactly the same kind of non-mereological composition as *Comp+*, we give good reasons to accept the particular non-mereological composition of facts, reasons independent of the need to solve the Unity Problem (*direct arguments*). (Betti 2015, 61)

Her discussion of indirect arguments focuses on the analogy with the debate on *material constitution*. Yet, one might think, this is unnecessarily restrictive. A view has been put forward—most notably in Fine (2010)—to the point that:

[I]t is important to take the operation of composition as primitive rather than the more familiar relation of part-whole. (Fine, 2010: 565)

In a larger context Fine's suggestion is that we should take composition relations ($\sum (...)$) as primitive and distinguish them by the formal principles they obey. He lists four of them:

Absorption: $(\sum(..., x, x, ..., y, y,...) = \sum (..., x, ..., y, ...))$;
Collapse: $(\sum(x) = x)$;

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[10] Betti agrees that Armstrong's states of affairs are what she calls facts.

[11] To mention another example: Sattig (2015) puts forward a metaphysics of ordinary objects in which particular facts—conjunctive facts labeled *K*-paths—play a crucial role. This is interesting insofar as Sattig is able to offer a new solution to the problem of material constitution, and Betti herself uses an argument by analogy with that very problem in order to argue against facts.

[12] One might respond that the point is really that the Unity Problem is basic. Once this is solved it is only natural that other problems can be solved too. We believe that this response already concedes a lot. For the entire point of M1a is that facts only play *one* role. And the only thing the skeptic is pressing is that they can in fact play more than one, which they do—if you endorse the views on modality and laws we addressed in the main text.

[13] See Section 2.

Leveling: $(\sum(..., \sum(..., x,y, ...), ..., u, v, ...) = \sum(..., x, y, ..., u, v, ...));$
Permutation: $(\sum(..., x, y, z, ...) = \sum (..., y, x, z, ...)).$

Mereological fusion obeys all four. If we take Fine's view seriously we might, for example, say *something informative* about the composition relation that has facts as values, e.g. that it does not obey *Permutation*.

This is to say, that even if Fine's suggestion boils down to a form of *primitivism* for composition relations, it is not clear that such primitivism is harmful. In the end, primivitism could be quite informative and, arguably, in some cases, it will play an explanatory role.[14]

On top of that, one might be skeptical about the overall strategy that Betti pursues. Fact-theorists might simply claim that facts are the *basic* ontological category of the world, and particulars and universals are simply *abstractions* from them.[15] According to this view, the *unity problem* does not even get off the ground exactly because *it gets things backwards*, so to speak. It is not the case that we have constituents and a particular composition relation that takes these constituents as arguments and provides facts as values. Rather, *we start from facts* and we get what we usually call constituents *out* of them.

Finally, let us discuss M3. We saw in the previous section that basically *Comply* boils down to the following: an external relata-specific relation $_a R_b$ is able to (dis)

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[14] Betti does not hide her concerns for primitivism in general: "[T]his is a general problem with metaphysical positions in which controversial notions are taken as primitive. It is a bad move, for the simple reason that if our primitive notions are problematic, we will sooner or later end up in question-begging reasoning" (Betti 2015, 243, endnote 26). One might then side with Betti and argue that there should be non-trivial constraints on what we can take as primitive. For without any constraints it is almost always possible to justify primitivism via informativeness. Granted. The point we want to make is that significant work has been done to admit composition relations that go beyond mereological composition. For example, it is controversial that mereological composition is enough to recover the full strength of set theory. If so, one may admit a composition relation for sets that is different from mereological composition—e.g. it does not obey *Collapse*. Defenders of facts might look at this literature and try to build an argument for compositional pluralism.

[15] This might be the view defended in, for example, Wittgenstein's *Tractatus*—though there might be some exegetical problems—and developed more recently in Turner (2015). Sometimes Armstrong seems to think in these terms, as per the following passages: "[T]he universal is a gutted state of affairs; it is everything that is left in the state of affairs after the particular particulars involved in the state of affairs have been abstracted away in thought" (Armstrong 1997, 28–29); "states of affairs hold their constituents together in a non-mereological form of composition, a form of composition that even allows the possibility of having different states of the affairs with identical constituents. Suppose, for instance, that we have non-symmetrical R, particulars *a* and *b*, and that there obtain two wholly independent states of affairs: *a's having R to b* and *b's having R to a*. [...] The 'relation' or 'ties' between the constituents, the two different 'relations' or 'ties' that in this case are associated with the two states of affairs, are not anything additional to the two states of affairs. It is often convenient to talk about instantiation, but *states of affairs come first*" (Armstrong 1997, 118); "[T]here is no call to bind together the constituents of a state of affairs by anything beyond the state of affairs itself. The instantiation of universals by particulars is just the state of affairs itself" (Armstrong 1997, 119).

solve the *unity problem* without inflating either our ontology or our ideology. Recall that a relata-specific relation is such that *it is in its nature* to relate particular *relata*. As soon as the relation exists, it relates those relata. Now, crucially Betti thinks that *Comply* is neutral when it comes to universal VS trope theories of properties:

> Despite the fact that the discussion of relata-specificity offered above is presented within a trope-theoretical framework, there is no reason to restrict it to tropes, and thus to let particularity and relata-specificity collapse. In other words, relata-specific relations can still be universals. In such a case, it is in the nature of relations to relate many different pairs (or triples, quadruples, etc.) of relata at once. The universal variant is complicated, and I will not expound upon it here. But it is important to keep this variant in mind, because there are theories that acknowledge only universals: the solution to the unity problem I will present is open to these theories as well. (Betti 2015, 91)

Suppose that you endorse the view that properties are *universals*, and consider now the following empirical truth about the actual world @:

(*Hargle/Argle**) Hargle is one meter apart from Argle.

Being one meter apart is the paradigmatic example of an external relation. *Comply* suggests that it is relata-specific. Now consider another possible world *w*, where the following holds:

(*Maud/William*) Maud is one meter apart from William.

In *w* the external relation of being 'one meter apart' is instantiated. This is the same relation—if we are to assume a universalist account of properties—that is instantiated by Hargle and Argle in @. And it follows from its being a relata-specific relation that, as soon as it exists, it relates its relata. And so it follows that Hargle and Argle are one meter apart in *w* as well. Actually, all that is required from *w* is that it is a world in which 'being one meter apart' is instantiated. So, the argument establishes that there is no possible world in which this relation is instantiated and Hargle and Argle fail to be one meter apart. This seems quite a controversial consequence, and surely one that is in some tension with combinatorial theories of possibility,[16] such as the one Armstrong held.[17]

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[16] Not to mention theories of possibilities that hold the so-called principle of *plenitude*. See, e.g., Lewis (1986).

[17] Here is another way of phrasing the point. Given the relata-specific nature of relations, if these are to be interpreted as universals, it would follow that worlds in which the same relations are instantiated, they are instantiated by exactly the same things. There would be no variation across possible worlds with the same relations. This seems at odds with a broadly Humean principle of recombination, and many philosophers might be reluctant to give such a principle up. A natural way to undermine the argument would be to settle for a trope-theory of properties and relations.

This shows that it might very well be that *Comply* is ontologically and ideologically parsimonious, when it comes to solve the *unity problem*. Yet, it might be that *Comply* has theoretical drawbacks that go beyond that problem and its solution. And we should probably factor them in, when we are faced with a question of theory choice.

4. Conclusion

One may doubt that Betti's criticism of facts is conclusive, insofar as there are options available to fact-theorists, some of which we explored in the previous section. Yet the fact remains that this is a superb book. It provides a much needed clear overview of different issues related to facts in metaphysics and philosophy of language. It puts forward new arguments that any defender of facts will have to seriously engage with. On top of that, it provides new, potentially fruitful insights on related topics, most notably the metaphysics of relations and some thorny questions in meta-metaphysics, about, for example, theory choice in metaphysics. Should we be worried that arguments against facts are not conclusive? Why? Which philosophical arguments really are? This is analytic metaphysics at its best. Whether there are facts or not, that's a fact.*

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