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A SUBSTANTIVE NON-SOLUTION TO THE PROBLEM OF UNITY¹

The Story of a Forged Confession

ABSTRACT: Russell is commonly accused of failing to solve Bradley's problem of unity. In this paper I argue that the problem doesn't really pose a distinctively philosophical question; that Russell's account of unity exposes the problem as unworthy of an answer. I accept that this isn't a *solution*, but it does constitute a *substantive non-solution*! Furthermore, some scholars have read in Russell's writings a confession of guilt to the effect that he was defeated by the problem of unity: this, I argue, is a misreading of the texts in question.

1. INTRODUCTION

Peter Hylton (1990) and Donald Davidson (2005)² both make the following accusation: Russell was defeated by the problem of unity. Focussing on different excerpts from *Principles of Mathematics* (Russell 1903) – henceforth *PoM* – Hylton and Davidson both believe themselves to be in possession of a signed confession: Russell admits that the problem defeats him and accepts that he has no response. In what follows, I seek to undermine this consensus: though he does accept that, given certain assumptions, the problem of unity is such that it cannot be solved, or even avoided, Russell nevertheless gives us principled grounds upon which to refuse to be perturbed by the problem. This,

I grant, isn't a solution, but it is a *response*. Russell is innocent of the charges that Hylton and Davidson press upon him and only a misinterpretation of the text allows you to read a confession of guilt – the confession was forged.

2. THE PROBLEM OF UNITY

In his response to *PoM*, Bradley poses a problem for Russell:³ Russell was committed to two theses that were incompatible. The first thesis was Russell's metaphysical pluralism. This thesis asserts that many things exist; it was a denial of the then dominant Hegelian monism – the doctrine that only one thing is *Real*; that only one thing exists: the *Absolute*. The second thesis was mereological realism. This thesis claims that complex entities – that is to say, entities that have parts/constituents – are among the (many) things that exist. These two theses, we have reason to think, are independently plausible. In fact, these two theses seem to underpin the notion of compositional analysis: the chemist believes in the existence of water molecules; at the same time she believes that she can analyse these molecules into their independently existing parts: each molecule can be analysed in terms of two hydrogen atoms and an oxygen atom. Seemingly, this whole process is underpinned by her conviction that many things exist (the molecules, the hydrogen atoms, the oxygen atoms and all the other things she attributes existence to), and by her conviction that some entities are complex (by which she means that they can be analysed into their parts).

Bradley believed that these two convictions give rise to an insoluble problem: the problem of unity – which formed the basis for his most profound attack against the notion of an external relation. The problem of unity is that the simple entities posited by the pluralist are such that they cannot conceivably come together to create the complex entities posited by the mereological realist.

Take the following complex entity:

- (1) Charles loves Camilla.

For our purposes, it doesn't matter whether we're dealing with the fact that Charles loves Camilla, or the event of his loving her, or the proposition *that* he loves her. This complex entity has parts: Charles, *love*, and Camilla.⁴ *Love* is a relation, but, because it's an *external* relation,

no particular quality of Charles or Camilla explains why it is that he loves *her* as opposed to somebody else.⁵ So why is it, exactly, that love holds between these particular relata?

We could posit a new relation: *glue 1*. This relation would stick Charles, *love* and Camilla together. But, if *glue 1* is an external relation, what is it about Charles and *love* and Camilla that makes *glue 1* stick them together? We could posit another external relation – *glue 2* – to stick the parts of this ever growing complex together but, because this new relation also has to be external, we won't be able to give an account of what it is about *glue 1*, Charles, *love*, and Camilla that makes *glue 2* stick *them* together. It seems that we shall never be able to answer this question: we're already some way down a clearly infinite regress in which we will be forced to posit more and more glue without ever sticking anything together!⁶

Russell's two doctrines force Bradley's regress upon him. This is the problem of unity. The two doctrines that give rise to this concern are so closely wedded to the notion of analysis that anyone in the analytic tradition should be moved to find a response.

3. ESCAPING THE PROBLEM OF UNITY

There are two assumptions that give rise to the problem of unity. If one were to deny either one of these assumptions, the problem would evaporate. This wouldn't be a way to *solve* the problem so much as to *dissolve* it, or escape it. Each of the two escape routes has been tried and tested.

3.1. Bradley's escape route

Bradley denied metaphysical pluralism despite, in a sense, adhering to the thesis of mereological realism. It was, for Bradley, *somewhat* true that the *Absolute* has parts:⁷ you are a part of the *Absolute*, and so am I. But, by denying Russell's metaphysical pluralism, Bradley could reverse the intuitive direction of dependence: rather than thinking of complex entities as depending upon their parts for their existence, Bradley, who thought that only the *Absolute* really exists, argues that the parts depend upon the *Absolute* for *their* existence. The *Absolute* is, in some sense or other, more *real* than its parts. Bradley doesn't have to explain how the

simples comprise the complex, for in a very real sense, *the simples don't exist*, and *the complex isn't complex*!⁸

3.2. Mereological nihilism

The second escape route is to deny mereological realism. The mereological nihilist denies that there are *any* entities that have parts: all entities are simple. This doesn't mean that the mereological nihilist must deny the truth of claims such as 'There is a table in my room'; 'I exist'; and/or 'The United States is a federation of 50 sovereign states.' Rather, they might want to preserve the truth of these sentences by offering them a non-traditional analysis. Despite appearances, these sentences, so the mereological nihilist can argue, are not *about* complex entities. The traditional analysis of 'There is a table in my room' reads as follows:

- (2) $\exists x((x \text{ is a table}) \ \& \ (x \text{ is in my room}))$

On this reading, for the proposition to be true, some *thing* (i.e. the table) will have to satisfy the description in question. For this to be possible, the table itself must dwell within the domain of the quantifier – the table must *exist*. But the table is a complex entity – it has parts: legs, a surface, this half, that half, etc. etc. The traditional analysis, if the sentence in question is true, is thus committed to mereological realism: complex entities, such as tables, *exist*. If the mereological nihilist wants to preserve the truth of 'There is a table in my room', she will have to offer us an alternative analysis. On the adoption of a plural logic, this becomes possible.

Plural logic introduces the notion of a plural quantifier. Unlike traditional quantifiers, plural quantifiers don't quantify over *single* entities – one at a time. Rather, a plural quantifier quantifies collectively over pluralities. When I talk about the Beatles, I needn't be taken to be quantifying over some abstract *entity* – the reified collection of four Liverpoolians – rather, I quantify collectively over John, George, Ringo and Paul. ' $\exists x$ ' reads: 'there exists some singular entity *x*, such that it ...' ' $\exists xs$ ', on the other hand, reads: 'there exists some *xs* such that collectively they ...' This doesn't mean that we're talking about the *collection* considered as an *entity* – rather, we're talking *collectively* about the members of the collection, as we do when we say 'The Beatles recorded an album.' The album wasn't recorded by an entity called the *Beatles*;

it was recorded collectively by John, George, Ringo and Paul – the plural subjects of my proposition. ‘There is a table in my room’ can now receive a new analysis:

- (3) $\exists(xs)((xs \text{ are arranged table-wise}) \ \& \ (xs \text{ are in my room}))$

The sentence, analysed in this way, can be true without there being a table. Rather than there being a single table *entity*, this sentence is made true by a collection of simple atoms arranged *table-wise*.

Bradley escapes the problem of unity by denying that the parts of a complex – such as *Charles loving Camilla* – really exist. The mereological nihilist escapes the same problem by denying that parts ever truly compose a whole: Charles and Camilla may be arranged *love-wise*, but this does not mean that they form a complex *entity* of some sort.⁹

3.3. Evaluating the escape routes

Before we try to solve, or respond to, the problem of unity, we are duty bound to test the assumptions that give rise to it. Can either of them plausibly be denied? Bradley denied one, and the mereological nihilists deny the other. In this sub-section, I evaluate their respective escape routes. Ultimately, we shall see that Russell’s response to his critics bears a striking resemblance to the nihilists’ response to theirs.

Bradley’s escape is a non-starter. It undermines the whole notion of analysis: the chemist was nearer the truth *before* she broke a whole up into its parts. Our complex entity – *Charles loving Camilla* – is more *real* than Charles, *love*, and/or Camilla. And the complex itself isn’t as real as the *Absolute*, of which it is merely a part. Such an attitude seems antithetical to the mindset of science. It also gives rise to a metaphysical account of truth that is antithetical to the concerns of classical logic (cf. (Candlish 1999)).¹⁰

The mereological nihilist clearly has a better escape than Bradley. Her nihilism doesn’t undermine the notion of analysis. We *can* analyse a water molecule into its parts, even though, strictly speaking, the molecule doesn’t exist. But her position isn’t cost free. Three objections can be raised against the mereological nihilist. None of them admit of a response: they constitute the cost of mereological nihilism. The three objections are as follows:

1. The atoms appealed to by the mereological nihilist are peculiar entities.
2. The mereological nihilist must demand that the universe is ultimately particulate (*i.e.* not gunky).
3. Mereological nihilism seems to be incompatible with essentialism.

The first objection is unavoidable. What are the atoms that *ultimately* comprise collections? They’re clearly not the atoms of physics: the physicist’s atoms are complex; once the chemist has analysed her water molecules into their constituent ‘atoms’, those ‘atoms’ can be further analysed; the *atoms* that the mereological nihilist appeals to, on the other hand, admit of no such further analysis. These atoms are peculiar entities. This is a bullet that the mereological nihilist has to bite. The second objection is likewise unavoidable. A gunky object is one whose parts all have parts, and whose parts-of-parts all have parts, *ad infinitum*.¹¹ More succinctly: a gunky object is not comprised of indivisible *atoms*. The mereological nihilist cannot accept that such objects exist – they cannot accept that the universe might be gunky – because if, for example, my table was gunky, it could not be described in terms of indivisible atoms being arranged table-wise. The nihilist’s universe needs to be particulate. I turn now to the third objection.

An essentialist claims that some particulars instantiate at least one of their properties *essentially*. The claim is uncontroversial with regard to some properties. All entities, for instance, have the property of *being self-identical* essentially. A more contentious claim is that a human being is a particular that is *essentially* human; that Quine could not have been a fish without ceasing to be Quine. One of the costs of mereological nihilism is that it can’t accommodate such an essentialism. Take the claim that Quine could not have been a fish. The mereological nihilist will give it the following analysis:

- (4) Necessarily, if a collection is arranged Quine-wise, it cannot be arranged fish-wise.

But (4) is ambiguous between (4a) and (4b):

- (4a) If a collection, *a*, is arranged Quine-wise, then there is no possible world at which the members of *a* are arranged fish-wise.

- (4b) A collection cannot simultaneously be arranged both Quine-wise *and* fish-wise.

The mereological nihilist can't accommodate (4a). Presumably, the nihilist's atoms are all alike. If some atoms can be arranged fish-wise, then *any* sufficiently large collections of atoms can be arranged fish-wise: the members of a human-wise arrangement, it seems, *can* be arranged, in another possible world or at another time, as a fish. Of course, the nihilist can accommodate (4b), but (4b) is a much more trivial claim; not a claim about Quine, or the atoms that compose him, but a claim about what it means to be arranged Quine-wise: the claim that when atoms are arranged in a Quine configuration they cannot simultaneously be arranged in a fish configuration. The essentialist demands something more.

Had Quine chosen to eat something different for breakfast one morning, different atoms would have come to constitute him. Atoms, it seems, come to constitute human beings quite accidentally. The mereological realist can accommodate the essential properties in question because, for them, Quine is something more than the atoms that happen to constitute him. For the realist, the atoms that constitute Quine can constitute a human accidentally even though Quine *himself* can be *essentially* a human. Other than the relatively trivial reading given by (4b) (a claim about being configured Quine-wise), the mereological nihilist is quite incapable of accommodating the claim that *Quine* had to be human.

Objection three therefore constitutes one more cost to mereological nihilism. But, unlike the other costs, this burden will not bother the nihilist. In response to the first objection, they will concede that their metaphysical atoms are somewhat peculiar. In response to the second objection, they will concede that their universe cannot be gunky despite how useful gunk may be in explaining certain phenomena. But, given their nihilism, they cannot regard incompatibility with essentialism as any cost whatsoever. As far as they are concerned, the essentialist asks worthless questions, as I shall endeavour to explain.

For the nihilist, 'Quine' plurally refers to a collection of atoms arranged Quine-wise. And it's quite obvious that any of those atoms could have belonged to fish-wise arrangements. The essentialist will be perturbed and may ask: 'but why is this human being, essentially a human

being?' Our essentialist thinks that to be a human being is to be essentially a human being, so their question reduces to: 'why is *this* human being a human being?' But, given the nihilist conviction that a human being is just a plurality of atoms arranged human-wise, the essentialist's question further reduces to: 'why is this collection of atoms arranged human-wise?'

'Well,' the nihilist might respond, 'the biologist or the physicist owes us a causal explanation as to how one particular collection of matter came to be arranged organism-wise, and how another collection of matter came to be arranged inanimate-object-wise, and how any collection of atoms came to be arranged as they are. But, once the causal story has been given, once we have explained how things function in the world and how they came to have this function, we simply have no further obligation to explain why each metaphysical atom behaves as it does.' Given mereological nihilism, the essentialist's question reduces to: 'why is this collection of atoms arranged human-wise?' But, this seems like a plausible place to impose some sort of limit upon what we can reasonably be expected to explain. Short of invoking the Divine will, there seems to be no way to answer this question.¹² The best response to the essentialist's question, as understood by the nihilist, will be the principled refusal to respond.¹³

Imagine a child in a physics class pointing to a diagram of two atoms. The child asks, 'why is that electron over there, orbiting the atom on the left when it could have been orbiting the atom on the right?' How should the teacher respond? Should she respond at all? To the extent that the essentialist asks meaningful questions, they can be answered: what it means to be a Quine configuration rules out simultaneously being a fish configuration; the nihilist can preserve the truth of such a modal claim: It's not possible for a Quine to be a fish. But, if they ask 'why is *this* collection of atoms a human rather than a fish?' they fail to ask a question that's worthy of response.

Mereological nihilism, despite its costs, constitutes a plausible escape from Bradley's puzzle. But, as I shall endeavour to argue, the mereological nihilist's escape from the problem of unity is analogous to Russell's response. Both tactics are forced, in the end, to meet their critics with a principled silence.

4. RUSSELL'S ACCOUNT OF UNITY

In this section, I focus on Russell's account of unity, before assessing in what sense he is able to respond to, or solve, the problem of unity.

4.1. Frege's 'solution' to the problem of unity

Russell's account of unity is best put forward in contrast with the 'solution' that Frege is most famously thought to have suggested to the problem of propositional unity (as it's not clear that Frege believed in complex entities such as states-of-affairs, or facts, we have to concentrate on how he allegedly sought to unify the proposition). Frege thought that there was a fundamental logical distinction between a complete expression and an incomplete expression. A complete expression has no gaps in it. An incomplete expression, on the other hand, does have gaps, plugged merely by place-holding variables. Thus $(2 \cdot 2) + 4$ is a complete expression that names the number 8. An example of an incomplete expression, on the other hand, would be $(y \cdot 2) + 4$ – this expression names no *object*: the expression is incomplete – we would have to replace its variable with a number before the phrase would name an *object*. Corresponding to the distinction in logic between complete and incomplete expressions, Frege posited an ontological distinction between, as it were, complete and incomplete *entities*.

Complete entities are called 'objects'. Complete *expressions* name objects: $(2 \cdot 2) + 4$ names 8. But what do incomplete expressions name? $(y \cdot 2) + 4$ names no specific *number*, but it can be used to plot a graph: it names a *function* – a specific function that names different *objects* depending upon the value of 'y'. A function isn't an *object*: it is an inherently incomplete entity that is named by an inherently incomplete expression. We can now, so Frege's argument is said to run, answer the problem of unity without dropping either of the doctrines that gave rise to it. Our complex proposition – *Charles loves Camilla* – is said to be held together in the following way: of the three simple entities that comprise our complex, one is incomplete; Charles and Camilla are *objects*, but love is a *relation* (i.e. a function) picked out by the incomplete expression, 'x loves y'; the incomplete entity has, as it were, two gaps in it (corresponding to the two variables in its incomplete name); Charles and Camilla saturate these gaps and thus the complex holds together

like a jigsaw puzzle. This is often said, albeit erroneously, to be Frege's solution to the problem of propositional unity.¹⁴

4.2. Russell's argument against Frege¹⁵

Russell considered this way of solving the problem of unity but, at least in *PoM*, he refused to adopt it. He argued against this Fregean position in the following way. 'x is wise' is an incomplete expression; according to the Fregean view, it names an incomplete entity: a *concept*. But, the following phrase, 'the referent of 'x is wise'', is a complete expression: it names an *object*. But, if the referent of 'x is wise' is a *concept*, and if the referent of 'the referent of 'x is wise'' is an *object*, and if whatever is an *object* isn't a *concept*, then, the referent of 'x is wise' will have to be a distinct *entity* from the referent of 'the referent of 'x is wise''. But this is absurd. As a result of this sort of *reductio ad absurdum*,¹⁶ Russell rejected the claim that there was a fundamental ontological distinction between *objects* and *concepts*: the referent of 'x is wise' is, of course, the same entity as the referent of 'the referent of 'x is wise''. Russell wouldn't be able to make the fundamental Fregean distinction between complete and incomplete entities that was supposed to answer the problem of unity.

Russell decided, on the basis of this sort of argument, that every entity is a *term* – Call this commitment, termism. What it means to be a *term* is to have the ability to occur as the subject of a proposition. Frege's incomplete entities were not such that they could occur as the subject of a proposition: this is what led to absurdity. There can be no entity such that it cannot be the subject of a proposition, for the very statement that it cannot be the subject of a proposition violates the doctrine that it cannot be the subject of a proposition! Nevertheless, Russell thought that there was an important distinction to draw between different *sorts* of term.

Russell distinguished *things* from *concepts*. A *thing* was a term that could only occur in a proposition if it was to appear as one of its subjects.¹⁷ A *concept*, on the other hand, has a 'curious twofold use': it can occur as a subject of a proposition (as can all terms), but is unique in that it can also appear in a proposition *without* being its subject. 'Socrates is wise' expresses a proposition about *Socrates*. The referent of 'x is wise' – *Wisdom* – also occurs in this proposition, but not as its

subject. Thus *wisdom* is a *concept*: it can be spoken about – ‘wisdom is a virtue’ – but it can also feature in propositions that aren’t about it.

4.3. Relating relations

We can now sketch Russell’s *account* of unity. One sort of *concept* is a *relation*. *Relations* don’t just have the capacity to be spoken about; they have the capacity to *relate* things. *Love* isn’t actually relating anything in the proposition expressed by ‘Love is blind’. But when a relation features in a proposition (or in any other sort of complex) *without* being its subject, it actually *relates* the remaining constituents. *Charles loves Camilla* is (whether we’re talking about the fact, the proposition, the event or what have you) a complex entity. It is unified because some entities have the capacity to relate others and in this case, *love* relates Charles to Camilla. This, in a nutshell, is Russell’s account of unity. It faces four problems. It can solve three of them. The remaining problem – *the problem of unity* – it doesn’t solve, but it has good reason to ignore.

5. PROBLEMS WITH RUSSELL’S ACCOUNT

The four objections that Russell’s account of unity has to respond to are as follows:

1. The truth/falsehood problem: Russell’s account of unity, given his account of the nature of a proposition, threatens to make all propositions true.
2. The no-reference paradox: Russell’s argument against Frege depends upon the principle that an entity that can’t be referred to generates a paradox. Russell’s response to the problem of unity threatens to revive this paradox.
3. Russell’s account of unity violates the reference principle. Co-referring phrases should be intersubstitutable in extensional contexts. Russell’s thing/concept distinction, and his insistence that things and concepts both belong to the fundamental category of terms, which are at the heart of his account of unity, gives rise to co-referring phrases that fail to be intersubstitutable.

4. The problem of unity isn’t solved. Even if we accept that some entities have the capability to relate others, we can still ask: why does this external relation happen to relate these relata, rather than some other relata?

In what follows I shall explain how to solve the first three problems, explain Russell’s *substantive non-solution* to the fourth problem, and defend Russell against the accusation that he conceded defeat.

5.1. The truth/falsehood problem¹⁸

Russell’s account of unity, given his other commitments, leads him to a bizarre and untenable theory of truth. Ultimately, his account of unity runs counter to the following platitude:

- (5) aRb is a true proposition $\leftrightarrow a$ is R-related to b

Russell thought that *propositions* were complexes that contained the very entities that they were about and the very properties/relations that they assert as constituents (unlike Frege, he didn’t think that propositions were comprised of abstract senses). Thus Russell’s account of the unity of *a proposition* amounts to the following claim:

- (6) $(\Phi)(x)(y)(x\Phi y \text{ is a proposition} \leftrightarrow x \text{ is } \Phi\text{-related to } y)$

That is to say: $x\Phi y$ is a proposition, rather than merely a list, iff x is actually Φ -related to y . Φ ’s actually relating is what accounts for the unity of the proposition in question. But the combination of (5) and (6) quickly leads to absurdity. (6) tells us that *all* propositions are such that their relation actually relates their relata; and a right-to-left reading of (5) tells us that in such cases, a proposition is true: thus the combination of (5) and (6) allows us to infer (7):

- (7) $(\Phi)(x)(y)(x\Phi y \text{ is a proposition} \rightarrow x\Phi y \text{ is a true proposition.})$

(7) means that every proposition is true.¹⁹ Clearly, Russell couldn’t accept (7), so, as soon as he realised that this was a corollary of his account of unity, he denied (5). But denying (5) was undesirable on two counts: firstly, it’s a platitude, and therefore seemingly self-evident; secondly, without this platitude, the distinction between truth and falsehood becomes inexplicable – if aRb ’s being true has nothing to do with

a 's being R -related to b , then what does it mean for it to be true and not false?

Russell's response, along with Moore, was to accept a primitivism about truth. At first glance, this might seem fair enough. Russell and Moore were both uneasy about the correspondence theory of truth, for, among other reasons, it divorced truth-bearers from truth-makers and thereby compromised on the directness of their realism (cf. Moore's entry on 'Truth' in Baldwin's dictionary (1901)). Russell (1910a) had attacked coherence theories of truth and pragmatist theories of truth, on good grounds. Furthermore, Moore had argued that the argument for any definition of truth, would presuppose the notion of truth – because the very notion of a valid argument is already dependent upon the notion of truth (Moore, 1899, pg. 181). Russell and Moore's primitivism about truth was, therefore, well motivated: we shouldn't expect to be able to give a discursive account as to what makes some propositions true and others false.

This response to our dilemma isn't entirely satisfying. One can be a primitivist without giving up on the platitude, as long one doesn't understand the platitude to be any sort of *definition*. For the time being, we can note that Russell had three options: 1) he could give up the platitude, as he explicitly did in 1904 (Russell, 1904, pg. 76); 2) he could deny that propositions actually exist, as he did in 1910 with his multiple relation theory of judgement (Russell, 1910b); or 3) he could deny direct realism about propositional content, which is what he did in 1919 (Russell, 1919) – If the proposition that Charles loves Camilla doesn't really contain Charles and Camilla, but representations of them, then unifying the proposition's constituents (even by the actual relation of *love*), will not force the real Charles to love the real Camilla – it will not make the proposition automatically true.

The truth/falsehood problem is far from a *damning* concern for Russell's account of unity – For one thing, it only attacks the account as it applies to *propositions*; Russell's account of the unity of facts and complex objects is left untouched; for another, it leaves room for three apparently plausible responses. Russell's *PoM* account of unity isn't threatened: his *PoM* notion of a proposition might be!²⁰

5.2. The no-reference paradox

As we have seen (cf. §4.2 above), Russell was convinced that, on pain of contradiction, everything can be the subject of a proposition. Something that can't be *referred* to would be paradoxical (hence Frege's famous struggle with the concept Horse.). Russell seems to think that this argument threatens his notion of a relating relation. The reason for this is that as soon as you make a relating relation the subject of a proposition, it stops *being* a relating relation. *Love* may well be the relating relation in the fact that Charles *loves* Camilla – call this fact F – But, any proposition *about* love, such as the proposition that '*love* is a relating relation in F ', will fail to treat the entity in its subject position as *its* relating relation – relating relations cannot be spoken about and they therefore undermine Russell's termism:

Thus the contradiction which was to have been avoided, of an entity which cannot be made a logical subject, appears to have here become inevitable. This difficulty ... is one with which I do not know how to deal satisfactorily.
(*PoM*, pg. 48)²¹

From this excerpt we should note two things: firstly, Russell thought that his account of unity, given the notion of a relating relation, committed him to a seeming contradiction; secondly, Russell thought that his account of unity was nevertheless the right one – he just didn't know how to obviate the contradiction that it 'appears' to give rise to.

Russell seems to be under the confusion, in these passages, that a relation and a relating relation must be ontologically distinct just because they're not intersubstitutable. In what follows, I explain the failure of substitution that's worrying Russell and seek to resolve it.

Take the following two facts:

- (8) Wisdom is a virtue
- (9) Romeo loves Juliet

I could replace *wisdom* in fact (8) with *love* in order to generate a new fact:

- (10) Love is a virtue

But if I take the relating relation of fact (9), *loves*, I'll find that I cannot swap it with *love* in fact (10). There can be no fact such that *Loves* is a virtue. If *loves* and *love* fail to be intersubstitutable in this way, how can they be the same relation? And, if *loves* can never saturate the subject position of a fact, then how can it be a term?

But this failure of substitutivity is only rooted in the fact that a relation cannot occur referentially (i.e. as subject) and predicatively (i.e. as the relating relation) in one and the same occurrence. That doesn't mean that we can't speak about relating relations – it's just that we can't speak about them *and* use them in the same breath. It's merely a feature of the words we use to express these facts and substitution attempts that makes it look as if *love* and *loves* are something distinct. This leads us nicely to the next concern.

5.3. The reference principle

Our response to the no-reference paradox was simple: a relation cannot occur as subject and predicatively all at once. But this response magnifies our next concern. The reference principle states that two co-referring expressions should be intersubstitutable *salve veritate* in extensional contexts.²² If certain referential and predicative expressions co-refer, then why don't they admit of intersubstitution? If the noun 'love' really does pick out the same entity as the verb 'loves', if the two phrases are co-referring, then they should be intersubstitutable. But they're not. Witness the sentences 'Romeo loves Juliet' and 'Love is blind'.

If we don't want to reject the very plausible reference principle, we need to find non *ad hoc* grounds for suspending it in our class of troubling cases. Our role model should be Quine. He found non *ad hoc* reasons for suspending the reference principle in intensional contexts. 'Giorgione' and 'Barbarelli' are co-referring. Nevertheless, 'Giorgione was so-called because of his size' is true, and 'Barbarelli was so-called because of his size' is false. As Quine explains: 'Failure of substitutivity reveals merely that the occurrence to be supplanted is not *purely referential*, that is, that the statement depends not only on the object but on the form of the name' (Quine, 1953, pg. 140).

MacBride (2006) gives us similar grounds for suspending the principle in *our* case. In short, his suggestion is as follows: 'wisdom' refers

to *wisdom*; so does 'is wise'; but 'is wise' does more than simply refer: it attributes its referent to the subjects of the sentences in which it occurs; the reason you can't always substitute co-referring phrases for one another is that some phrases do more than merely refer – the reference principle should be amended: co-referring phrases should be intersubstitutable *salve veritate* in extensional contexts, *ceteris paribus*. If one of the phrases *merely* refers to a concept, and the other phrase refers to the same concept but says something extra to boot, then *all things are not equal*, and the principle doesn't apply.

As with the no-reference paradox, Russell was worried that his account of unity leads us into this difficulty (as soon as we refer to a relation with a noun, we seem to have lost something). Russell wasn't sure how to solve the difficulty, but he seemed to believe that his account of unity must be right nevertheless. With MacBride's help we can maintain Russell's account of unity without maintaining Russell's attendant concern.

6. RUSSELL'S RESPONSE TO THE PROBLEM OF UNITY

6.1. What Russell's response wasn't!

Russell's detractors might concede the following: Russell's account of unity can avoid the truth/falsehood problem; it neither gives rise to the no-reference paradox nor does it violate the reference principle; but they won't accept that he has a response to the problem of unity. He cannot answer Bradley's question. Bradley wants to know the following: accepting for the sake of argument that some entities have the capacity to relate other entities; why do the relations that exist happen to relate the relata that they relate? Why does *love* relate Charles to Camilla rather than Charles to someone else? And can you explain this fact without positing further relations (such as *glue1* and *glue2*)? Russell, so the accusation runs, was silenced by this question. He confessed that he had no response. In order to demonstrate that Russell *did* have a response, let me explain what he *didn't* say. Russell's response to the problem of unity was not the following:

[PoM #1]

The problem: Take our complex entity; how are its constituents – Charles and Camilla – united?

The solution: There is a third constituent in this complex: a relating relation – *love* – that relates Charles to Camilla and thereby creates the unity.

This account would clearly run counter to the lesson that Bradley's regress teaches us: positing new external relations will not help to explain the unity of a complex – in this direction regress looms. But what we have to realise is that Russell was committed to the existence of *love* as an entity long before he sought to respond to the problem of unity. Russell posited the existence of relations for a variety of reasons, as we shall see:

Epistemological

Russell's epistemology placed great weight upon the relation of acquaintance. Acquaintance is the primitive relation between the mind and elements of the mind-external world. One cannot be acquainted with that which doesn't exist. Acquaintance with *x* is therefore a valid proof of *x*'s existence. *Relations* are what we are acquainted with when we notice that the same relation holds between two different collections of entities – if we are acquainted with relations, then relations must exist.

Grammatical

Russell's doctrine of linguistic transparency committed him to the thesis that every meaningful word had an entity as its meaning. Relations and properties were therefore needed as the meanings of verbs, adjectives, adverbs, and their nominalisations. Even without this doctrine, it seems plausible to think that (some) predicates refer, especially if we think that their verbal/adjectival nominalisations do.

Mathematical

Russell wanted to found mathematics upon symbolic logic. He took symbolic logic to have three parts: the calculus of propositions, the cal-

culus of relations and the calculus of classes. The subject matter of the calculus of relations is *relations*. Relations are said to have properties such as direction, transitivity, intransitivity, non-transitivity, symmetry, asymmetry, non-symmetry and so on. The calculus of relations and these relational properties are to play a fundamental role in the foundations of mathematics – so, according to Russell, relations must exist.

If Russell postulated relations to account for unity then his position would be unstable, but he didn't! The following is, therefore, a more accurate characterisation of Russell's *PoM* response to the problem of unity:

[PoM #2]

The problem: Take our complex entity; we have independent reasons for thinking that its constituents are Charles, Camilla and the relation of *love*. How are these constituents united so as to generate the complex?

The response: Unity is a brute fact.

We can see why the first account invites Bradley's regress; how does the second account differ so as to avoid doing so? First of all, note that where the first account offers a solution, the second merely offers a *response*. The second account makes it clear that relations are not posited to bring about unity; it then goes on to respond to the problem of unity by taking unity to be a brute (or inexplicable) fact. As we shall see, this isn't exactly what Russell did. Rather, this move has been made by subsequent thinkers. For example, Van Inwagen has responded to Bradley's regress in this way:

But is there really a puzzle here? Suppose that the fact that a certain external relation holds between two objects is a brute fact. What's so bad about brute facts? Surely there must be some brute facts somewhere in the world?

(Van Inwagen, 2002, pg. 36)

But Russell's response was more nuanced than this – as we shall see.

6.2. Russell's non-solution

My understanding of Russell's *PoM* response to the problem of unity is this:

[*PoM* #3]

The problem: Take our complex entity; we have independent reasons for thinking that its constituents are Charles, Camilla and the relation of *love*. How are these constituents united so as to generate the complex?

The response: The property that a relation can have of actually relating its relata is the property responsible for bringing about unity. This property is primitive and unanalysable.

The difference between a complex and a list of its constituents isn't merely that the constituents are unified in one and not in the other. The difference is that in the complex, the relation is actually *relating* its relata. Russell found it very important to emphasise that the relation of *love* is doing the *work* in unifying our complex (this is where Russell's account achieves a level of sophistication missing from Inwagen's treatment of the problem). It is only because relations relate in different *ways* that we can talk about different relational directions and different relational properties. Direction and other relational properties are essential to Russell's mathematical ambitions, so Russell has to make it clear that *relations* do the *work* in bringing their relata together. But, this relatedness of a relation to its relata is a primitive notion that doesn't allow for any further definition (the brute property is a property of the relating relation, not, as Inwagen might be thought to imply, a property of the whole).

Russell's notion of a *relating relation* is neither circular (a relating relation isn't *defined* as a relation that is actually related to its relata) nor regress begging (it isn't *defined* as a relation that is related by further relating relations to its relata);²³ on the contrary, Russell *has* no definition. His response to the problem of unity is no *solution* at all. He knows unity when he sees it: he knows the difference between a relation appearing as a term, which forces upon us the use of a verbal noun, and the appearance of that same relation as a *relating relation*, which

forces upon us the use of a verb. He tells us (*PoM*, §100): '[A] relating relation is distinguished from a relation in itself by the indefinable element of assertion'. Just because the distinction between the two roles of a relation cannot be *defined* without inviting regress or contradiction, it does not mean that there is no such distinction; it merely indicates that the distinction is primitive.

6.3. The substantive part of the non-solution

Bradley asks 'What unifies complexes?' Russell answers that relations are the source of unity. Bradley accepts, for the sake of argument, that some entities have the capacity to relate others, but he asks: given any two entities – say Charles and Camilla – why is it that *love* holds between them rather than between another pair; how can Russell resist positing *glue* and falling into the regress? Though Russell never makes this explicit, it is clearly open to Russell to respond to this question in the following way: the question doesn't ask anything philosophical. Just as it isn't reasonable to demand an explanation as to *why* a certain atom/collection of atoms does the job it does rather than some other job (cf. §3.3 above); just as it isn't reasonable to ask why this electron orbits that atom, when it could have orbited another; it isn't reasonable to demand to know *why* a relation happens to relate the relata it does rather than some other available collection of relata. We owe a causal story: how did Charles come to love Camilla? But we owe nothing more than that. Bradley's question creates no obligation upon Russell to answer. This is a *substantive non-solution* to the problem of unity.²⁴

7. FORGING A CONFESSION

Davidson (2005, pg. 104-6), following Linsky (1992), quotes Russell's attempt to draw a distinction between the two roles of a relation before quoting his admission that 'I do not know how to give a clear account of the precise nature of the distinction.' Davidson and Linsky see in this quote an admission of defeat: Russell's whole response to the problem of unity centres on his distinction between a *relation* (after analysis) and a *relation relating* (before analysis): a distinction that Russell admits he can't define. But, our understanding of Russell's response to the problem of unity should make it clear that this quote is no admission

of defeat: it is a manifestation of the fact that the property of being a *relating relation* is primitive. Of course Russell can give no precise account of the distinction in question – he isn't trying to *solve* the problem of unity, he is offering a *substantive non-solution*. There is no confession where Davidson and Linsky claim to have found one.

Hylton (1990) calls the problem of unity an 'unsolved' (pg. 12) problem within Russell's philosophy, which is, strictly speaking, true. But he finds that this 'undermines much of the force of his opposition to Idealism' (pg. 178). This is unfair. Russell may not have *solved* the problem, but he did *respond* to it. Hylton quotes what he takes to be Russell's admission that the problem of unity 'is one with which I do not know how to deal satisfactorily.' But this quote is taken completely out of context. It is not the problem of unity that Russell didn't know how to deal with; he knew that his distinction between a *relation* and a *relating relation* was the right response. As we have seen (cf. §5.2 above), the paragraph that Hylton quotes from makes it clear that Russell was happy with his response to the problem of unity, but he didn't know how to obviate the seeming contradiction (*the no-reference paradox*) that appeared to come in its wake. Russell assumed that it *could* be overcome, but at the time of writing *PoM* he just didn't know how. We have seen that it *can* be overcome (cf. §5.2 above): it is possible to speak about *relating relations* despite the fact that verbs and their nominalisation fail to be intersubstitutable.

Russell admits (*PoM*, §138) that analysis falsifies. This might be read as a further confession that he has no real response to the problem of unity. The constituents of a complex yielded by analysis can't be put together again because Bradley's problem is insoluble: therefore, analysis falsifies. Once again, this would be a misreading. Russell's admission that analysis falsifies is a response, not to the problem of unity, but to the paradox of analysis. Langford (1942, pg. 323), puts the new paradox as follows:

Let us call what is to be analyzed the analysandum, and let us call that which does the analyzing the analysans. The analysis then states an appropriate relation of equivalence between the analysandum and the analysans. And the paradox of analysis is to the effect that, if the verbal expression representing the analysandum has the same meaning as the

verbal expression representing the analysans, the analysis states a bare identity and is trivial; but if the two verbal expressions do not have the same meaning, the analysis is incorrect.

In the case at hand, the analysandum is expressed by 'Charles loves Camilla', the analysans is expressed by 'Charles, *love*, Camilla'. The first phrase has meaning. The second is a list. The two phrases are not equivalent. How can the analysis be correct? Surely the analysis has falsified something. Russell simply accepts that the analysis *has* falsified:

[I]t is important to realize the very narrow limits of this doctrine [that analysis falsifies]. We cannot conclude that the parts of a whole are not really its parts, nor that the parts are not presupposed in the whole in some sense in which the whole is not presupposed in the parts ... In short, though analysis gives us the truth, and nothing but the truth, yet it can never give us the whole truth. This is the only sense in which the doctrine is to be accepted. In any wider sense, it becomes merely a cloak for laziness, by giving an excuse to those who dislike the labour of analysis. (*PoM*, §138)

What has been lost from the analysandum is something that is itself unanalysable and primitive: *unity*. The analysans picks out all of the constituents of the analysandum, but, the use of a noun, rather than a verb to pick out *love* – the source of the unity – loses the extra semantic information contained in the verb. The paradox of analysis is resolved when we realise that unity itself is unanalysable.

Bradley adopted the doctrine that analysis falsifies for a different reason entirely. He thought that analysis falsifies because there are not many things, but one thing. Russell thought that Bradley was here using monism as 'a cloak for laziness'.

8. CONCLUSION

In this brief paper I have tried to show that the three problems that seem to arise from Russell's account of unity can all be dealt with. I have also

tried to undermine those scholars who criticise Russell for failing to solve the fourth problem: the problem of unity itself. He didn't solve the problem, it's true, but this is no cause for criticism: he did *respond* to the problem. One cannot criticise a substantive non-solution for not being a solution.

Notes

¹An early draft of this paper was read at the University of Latvia, at the 4th Symposium for Cognition, Logic and Communication: '200 Years of analytical philosophy'. I am very grateful to Sandra Lapointe and Jurgis Skilters for organising the conference. I was particularly fortunate to have the opportunity to discuss my ideas there with Bernard Linsky and James Levine. I am grateful also to Nick Jones, Steven Metheven, and Gabriel Citron for their comments and suggestions on these topics, to the AHRC for the research grant that funded this work, to an anonymous referee, and most of all to my supervisors Fraser MacBride and Dorothy Edgington.

²Very much under the influence of Leonard Linsky's classic paper – (Linsky 1992).

³(Bradley 1910) cf. page 179: there Bradley puts the problem as a corollary of the two assumptions that I detail. It was a problem that Bradley had posed before *PoM* (in Bradley 1893); a problem that, as we shall see, Russell was acutely aware of in *PoM* itself.

⁴Or, in the case of a Fregean (as opposed to a Russellian) proposition: something corresponding to Charles, something corresponding to love, and something corresponding to Camilla

⁵The pluralist mereological realist cannot appeal to *internal* relations to build complexes from simples, because *internal* relations aren't simple: she is forced to treat *love* as an *external* relation.

⁶Russell seems to worry that at each level of the regress, we'll actually have to posit more than *one* glue. This seems to be Russell's concern in *PoM*, §100: '[T]he *is* and *than* must form part of "*a* is greater than *b*," which thus contains more than two terms and a relation. The *is* seems to state that *a* has to *greater* the relation of referent, while the *than* states similarly that *b* has to *greater* the relation of relatum.' We have the complex, Charles-loving-Camilla, but, because the relation in question is non-symmetric, Charles will have to be related to that complex by a distinct relation to the relation that relates Camilla to the complex: Charles is the *lover*, and Camilla is the *loved*. There is clearly a threat of regress here: Charles stands in relation 1 to the complex; Camilla stands in relation 2, but this gives rise to two new non-symmetric complexes: Charles-standing-in-relation-1-to-the-original-complex, and Camilla-standing-in-relation-2-to-the-original-complex; call these new complexes, complex 1 and complex 2 respectively; Charles will have to be related to complex 1 by a different relation to the relation that relates the original complex to complex 1; Similarly, Camilla will have to be related to complex 2 by a different relation to the relation that relates the original complex to complex 2. Thus the regress, in Russell's hands, when the original relation is non-symmetric, introduces more than one new relation at each level. See footnote 23 for an account of why Russell wasn't too bothered by this profusion of relations and complexes.

⁷For Bradley, truth came in degrees – cf. (Candlish 1999, §V).

⁸This escape route is mirrored in Frege and Wittgenstein's treatment of the unity of the proposition. They argue that the proposition is more ontologically basic than its parts, which are mere abstractions. This doesn't mean that they adopt Bradley's monism: they still believe that many things exist; but the response is *structurally* similar to Bradley's: when explaining the unity of a complex – in Bradley's case, the Hegelian *Absolute*, and in their case, one of the infinite number of independently existing Fregean propositions – you can deny independent existence to its parts to free yourself of the problem of unity. Linsky (1992) defends the historical claim that this response was Frege's and Wittgenstein's, and broadly defends it.

⁹Though Russell doesn't attempt to *escape* the problem of unity, the mereological nihilist owes Russell a great deal: the tactic of analysing troublesome ontological commitment away is precisely the tactic adopted by Russell's theory of descriptions; and the method with which the mereological nihilist secures this analysis – plural logic – was first developed by Russell (though this latter point isn't well known: cf. (Oliver & Smiley 2005)).

¹⁰Even the Fregean/Wittgenstenian modification of Bradley's tactic applied to *propositions* (Cf. (Linsky 1992) and footnote 8 above) fails to attract. If the constituents of a proposition have no independent existence, then they can only occur in more than one proposition in a very loose sense.

¹¹The term, 'gunky' was first used by David Lewis (1970, 1991). Dean W. Zimmerman (1996) defends the possibility of a gunky universe.

¹²This appeal to Divinity needn't be read in a cynical tone. Wittgenstein, in the *Tractatus* [6.372], writes: '[P]eople today stop at the laws of nature, treating them as something inviolable, just as God and Fate were treated in past ages ... both are right and both wrong: though the view of the ancients is clearer in so far as they have a clear and acknowledged terminus, while the modern system tries to make it look as if *everything* were explained.' There is something appropriate about appealing to the Divine will, if what you intend to do is to signal a terminus to the possibility of further investigation. Wittgenstein also argued that Euthyphro's approach to piety (that the pious is pious because it is loved by the gods) was more profound than the alternative (that piety was loved by the gods because of its piety) because Euthyphro's approach 'cuts off the way to any explanation 'why' it is good, while the second interpretation is the shallower, rationalist one, which pretends 'as if' you could give reasons for what is good' (McGuinness 1979, pg. 115). We appeal to the Divine will as if to say: there is no possible *explanation* here. Thanks to Gabriel Citron for pointing me towards these Wittgensteinian insights.

¹³Of course, the essentialist can respond as follows: 'My question does ask something substantive. The fact that the nihilist is committed to an analysis of language that undermines the significance of my question is a reason to reject mereological nihilism – not essentialism.'

¹⁴There's good evidence that Frege thought that this metaphor, the metaphor of an incomplete entity waiting to have its gaps saturated by complete entities, would be of some use in explaining propositional unity. Nevertheless, it seems to me that this is no solution at all: it merely relabels the problem in metaphorical language; the most it does, it seems, is to locate (as Russell does) the source of unity – it claims that a *relation* is, in some sense, responsible for the unity of this complex. I believe that Frege's most considered response to the problem of unity was the 'solution' developed by Wittgenstein,

discussed in (Linsky 1992), cf. footnotes 8 and 10 above.

¹⁵Here I rework Russell's real argument. You can find his argument in §49 and §52 of *PoM*. He also refers to it in §475. I rework the argument so as to avoid what may be thought to be a slew of use-mention confusions on Russell's part. In truth, he isn't really as culpable as he seems to be on this charge: his doctrine of linguistic transparency made the distinction between a phrase and its meaning less important than it became in subsequent years.

¹⁶Similar in kind to the 'concept horse' paradox.

¹⁷Or, of course, as its only subject.

¹⁸This statement of the problem is indebted to (Weiss 1995).

¹⁹This formulation of the argument has focused exclusively on propositions containing dyadic relations. But the argument could clearly be extended to propositions of all logical forms: the platitude, for example, could be rephrased so as to state, 'for any n -adic relation R , and any entities x_1 through to x_n , ' $R(x_1, \dots, x_n)$ ' will be a true proposition iff x_1 through x_n are R -related.'

²⁰An anonymous referee raises the following question 'What about negative or hypothetical facts? They present the same sort of problem as propositions: Charles needn't love Camilla in order for a hypothetical fact such as *if P then Charles loves Camilla* to obtain ... doesn't this mean that Russell doesn't even have a solution to the problem of the unity of the fact, contrary to what [the] au[thor] alleges?' This is clearly a pressing question. But it relies upon the notion that we should be committed to the existence of molecular facts. If atomic facts are sufficient to determine the truth/falsity of molecular propositions, then it's not clear that we'll need to believe in the existence of molecular facts, which in turn would host false atomic constituents. It is true that Russell, in *PoM*, is best viewed as committed to molecular facts, but, once we adopt the multiple relation theory of judgement, we'll have no need for molecular facts at all. My extension of the multiple relation theory to cover molecular assertions without the need for molecular facts, an extension that Russell never provided, can be found in Lebens (2010, chapter 12).

²¹Russell here, in fact, alludes to two problems: the problem that we've looked at – the property of *relating* is lost when one speaks about a relating relation; and the related problem that a proposition loses its property of *assertedness* when we stop asserting it and start speaking *about* it.

²²For a history of the principle, see MacBride (2006).

²³*PoM* does contain a distinction between a vicious and a non-vicious regress. Russell's account of unity doesn't lead to Bradley's regress: his *account* of the unity of a given complex will not need to posit an infinite number of relations. Nevertheless, Russell accepts that the existence of complex aRb might entail the existence of a distinct complex in which a relation relates a to the original complex, and another complex in which a relation relates b to the original complex. Each new complex in turn gives rise to two more complexes of their own *ad infinitum*. Thus, Russell's account of the unity of one complex may give rise to an infinite number of other complexes. This isn't a regress in his *explanation*. It is merely a profusion of complexes in his metaphysics (see §55 and §100 of *PoM*). Burge (2007) makes the same distinction: regress must be avoided; profusion, on the other hand, is inevitable given our best account of unity.

²⁴The following quote constitutes the most concise statement of Russell's best response to Bradley: 'I suspect that the meaning which I attach to the word "external" is different

from Mr. Bradley's meaning; in fact he seems to mean by an "external" relation a relation which does not relate.' (Russell 1910), page 374. Russell is at a loss to see Bradley's problem. This is as close as Russell comes to telling us that the problem isn't truly philosophical or pressing: if Bradley means by 'external relation' a relation that doesn't relate then of course there can be no unity! But Russell clearly wasn't confident in his conviction that he'd dealt with the problem satisfactorily: in a letter (dated 30th January 1914) he told Bradley that he would search for a solution to the problem of unity for as long as he lived (cf. (Griffin 1993), page 159). Russell may not have been confident that his response was substantive enough, but he should have been. Irrespective of his lack of confidence, Russell's account of the unity of a complex remains constant right throughout his many philosophical evolutions. Surely, if he thought his account was sorely lacking, he would have changed it – he changed most of his other philosophical convictions!

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