

STATUES, LUMPS, AND IDENTITY

by

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## ABSTRACT

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Statues, Lumps, and Identity

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In his 1975 article “Contingent Identity,” Allan Gibbard purportedly shows that not all identity statements containing proper names are necessarily true. The thrust of his argument comes from a clever statue-and-lump case. Specifically, Gibbard claims that two proper names that refer to identical objects could have referred to distinct objects. In my thesis I argue that the postulation of contingent identity immediately presents one with a contradiction—specifically, one where identity statements containing proper names are both necessarily true (i.e. true in all possible worlds) and yet also fail to be true in some possible world *W*. Furthermore, I argue that the proponent of contingent identity conflates an object with the properties used to fix the reference of a designator of the object. Ultimately, I show that upholding a Kripkean notion of naming and reference allows one to uphold the necessity of identity in light of Gibbard’s statue-and-lump case.

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## Overview

Since Kant there has been a big split between philosophers who thought that all necessary truths were analytic and philosophers who thought that some necessary truths were synthetic *a priori*. But none of these philosophers thought that a (metaphysically) necessary truth could fail to be *a priori*: the Kantian tradition was as guilty as the empiricist tradition of equating metaphysical and epistemic necessity.<sup>1</sup>

The announcement of identity between rigid designators as “...necessarily true (if true at all) and *a posteriori*... was a remarkable advance in semantics.”<sup>2</sup> According to Saul Kripke (1971, 1980), any proper name is a rigid designator that refers to the same object in all possible worlds. Thus, any true identity statement (whether *a priori* or *a posteriori*) formed with proper names is necessarily true if true at all.

However, in the 1975 article “Contingent Identity,” Allan Gibbard purportedly shows that not all identity statements containing proper names are necessarily true.<sup>3</sup> The thrust of his argument comes from a clever statue-and-lump case. Specifically, Gibbard claims that two proper names that refer to identical objects could have referred to distinct objects.

The issue I address in this paper is whether one can reasonably reject the necessity of identity claims that involve proper names as rigid designators in response to problematic statue-and-lump cases. The specific statue-and-lump case I examine is Gibbard’s. The thrust of it is that completely coincident objects, which appear to be identical, *could* have been otherwise. Such cases, according to Gibbard, are examples of contingent identity. In the first section I provide a brief explanation of Gibbard’s case. I then argue that the doctrine of contingent identity yields absurd conclusions. However, cases such as Gibbard’s provide problems for the

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<sup>1</sup> Hilary Putnam, “The Meaning of ‘Meaning,’” in *Mind, Language and Reality: Philosophical Papers Vol. 2* (Cambridge: Cambridge University Press, 1975), 233.

<sup>2</sup> Stephen P. Schwartz, “Kinds, General Terms, and Rigidity: A Reply to LaPorte,” *Philosophical Studies* 109 (2002): 270.

<sup>3</sup> Allan Gibbard, “Contingent Identity,” *Journal of Philosophical Logic* 4 (1975): 187.

necessity of identity which cannot easily be avoided. In the second section I focus on some common solutions to statue-and-lump cases. These solutions, which are compatible with the necessity of identity, look to the constitution of the statue and lump in order to find their answer. In the end, I show that this is a misguided approach to solving such problems. The final section of this paper approaches Gibbard's statue-and-lump case as an issue of language rather than material constitution. Specifically, I argue that the proponent of contingent identity conflates an object with the properties that are used to fix the reference of a designator of the object. In this section I show that upholding a Kripkean notion of naming and reference allows one to uphold the necessity of identity in light of Gibbard's statue-and-lump case.

## *I. The Necessity of Identity*

In this first section I present the case of Goliath and Lumpl, a quintessential example of statue-and-lump cases. After briefly describing the case, I argue that the conclusion Gibbard draws from it—that there are contingent identities—is unpalatable. Specifically, I argue that contingent identity results in the absurd conclusion that two objects  $x$  and  $y$  can be both necessarily identical (i.e. identical in all possible worlds) and yet also fail to be identical in some possible world  $W$ .

### *I.A Goliath and Lumpl*<sup>4</sup>

Suppose that a piece of clay  $P$  consists of a portion of clay. This piece  $P$  exists when all parts of  $P$  stick together and no part of  $P$  sticks to any portion of clay that is not part of  $P$ .<sup>5</sup> Thus it follows that a new piece of clay can be formed by either breaking off part of  $P$  or attaching more clay to  $P$ . However, remolding  $P$  into different shapes does not threaten the existence of  $P$ .

Now suppose that a statue comes into existence from the joining of two appropriately molded pieces of clay. One piece of clay is molded into the shape of the top half of a statue. A second piece is molded into the shape of the bottom half of a statue. When these two pieces stick together they form not only one statue, but a new piece of clay as well. Let us call the piece of clay ‘Lumpl’ and the statue ‘Goliath.’ Thus, we could say that Lumpl and Goliath came into

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<sup>4</sup> The following example is adapted from Allan Gibbard’s 1975 article “Contingent Identity.” Gibbard, “Contingent Identity,” 190-192.

<sup>5</sup> A piece or lump of clay is unlike a portion of clay. According to Gibbard, a piece has persistence criteria such that it ceases to exist when broken up or added to. A portion, however, can be dispersed and continue to exist. Gibbard, “Contingent Identity,” 188.

existence at the same time. However, suppose the sculptor who created Goliath has a mischievous child, and this child accidentally knocks the statue to the ground while playing baseball in the house. When the statue hits the ground, it breaks. And when it breaks, both Goliath and Lumpl cease to exist. Thus Lumpl and Goliath cease to exist at the same time.

Initially, it seems like Goliath and Lumpl are identical. Both the statue and piece of clay come into existence and cease to exist at the same time. Furthermore, throughout their entire existences, Lumpl constitutes Goliath. However, it seems possible that, before the sculptor's child has a chance to destroy the statue, the sculptor becomes dissatisfied with his own work. Suppose he is dissatisfied with Goliath only minutes after its creation—before the clay hardens. The sculptor then molds Lumpl into another, more aesthetically satisfying shape. If this was the case, we would then say that Lumpl outlives Goliath. Thus they would not be identical.

So, even if the statue and piece of clay come into existence at the same time  $t_1$  and cease to exist at the same time  $t_2$ , the piece of clay *could have* survived the statue. Thus if they are identical in the former scenario, they purportedly are not *necessarily* identical due to the possibility of the latter scenario. In fact, according to contingent identity theorists like Gibbard, if they are identical at all, they are so only *contingently*.

## I.B Contingent Identity

Consider a contradiction—one in which Goliath has some property  $S$  and not- $S$ —that follows from the contingent identity of Goliath and Lumpl:<sup>6</sup>

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<sup>6</sup> This argument is adapted from David Lewis's 1971 article "Counterparts of Persons and Their Bodies." David Lewis, "Counterparts of Persons and Their Bodies," *The Journal of Philosophy* 68 (1971): 204.



(1) In the first case, where both Lumpl and Goliath come to be and cease to be at the same times, Lumpl = Goliath.

(2) However, Goliath could not have survived being remolded into a different shape. Lumpl could have.

But if we use the identity statement in (1) in order to substitute ‘Goliath’ for ‘Lumpl’ in (2), we get:

(3) However, Goliath could not have survived being remolded into a different shape. Goliath could have.

Clearly, something has gone wrong in (3). But how might one avoid this absurd conclusion?

One might claim that the above contradiction is not actually a problem because Goliath and Lumpl are only contingently identical. Suppose we have two worlds  $W$  and  $W^*$ . Suppose that  $x = y$  in  $W$  guaranteeing that all properties of  $x$  in  $W$  are shared by  $y$  in  $W$ . However, this is not the case in  $W^*$ — $x \neq y$  in  $W^*$ . A proponent of contingent identity would claim that  $x$  and  $y$  are identical in  $W$  because in that specific world  $W$ ,  $x$  and  $y$  share all properties. The fact that they do not share all the same properties in all possible worlds is irrelevant to their world-specific identity relation. This would be a case of contingent identity, as  $x$  and  $y$  are only identical in *some* worlds.

To avoid the contradiction generated above, the proponent of contingent identity might argue that the identity substitution made in statement (3) is invalid. Consider Leibniz’s principle of the indiscernibility of identicals:  $(x) (y) (x = y \rightarrow [Fx \rightarrow Fy])$ . In other words, those things which are identical have all properties in common.<sup>7</sup> One might argue that Goliath and Lumpl in (1) are completely coincident. That is, throughout their entire careers, Lumpl constitutes

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<sup>7</sup> Gibbard claims that if  $x$  and  $y$  do not begin to exist and cease to exist at the same time, they are not identical. Their identity is to be understood as all properties being in common in a strict, timeless sense, “...not as mere identity during some period of time.” Gibbard, “Contingent Identity,” 188.

Goliath. They begin their existence at the same time and cease to exist at the same time. They share all their properties. And never at any point during their careers does one exist without the other. In this sense, they are identical. But this is not the same case as described in statement (2). The intuition encapsulated by statement (2) is motivated by the possibility of some other world (not the actual world) in which Lump1 and Goliath are only partially coincident—Lump1 outlives Goliath. Thus they do not share all properties and are not identical. Therefore one might suggest that the identity between Lump1 and Goliath is contingent such that the relation is merely world-bound. Their identity does not carry over to other possible worlds. Thus she might claim that if Lump1 and Goliath are not identical in  $W^*$ , it would be clearly wrong to substitute ‘Goliath’ for ‘Lump1,’ regardless of their identity in some other possible world. Similarly, if they are identical in  $W$  then their identity applies only to world  $W$ . To substitute ‘Goliath’ for ‘Lump1’ in  $W^*$  based on their identity in  $W$  would be wrong. Thus the identity relation in (1) does not apply to statement (2). For (1) refers to a world where Lump1 and Goliath are identical and (2) does not. And if this is true, we cannot properly substitute ‘Goliath’ for ‘Lump1’ as is performed in (3).

However, this appeal to contingent identity seems strange. For if two objects are identical, how can they be only contingently identical? I think it is intuitively clear that an object that exists is necessarily identical to itself:  $(x) \Box (x = x)$ . Now suppose we have objects  $A$  and  $B$ . We can conclude ‘ $\Box (A = A)$ ’ and ‘ $\Box (B = B)$ ’. And if they are numerically identical then ‘ $A = B$ ’. From this identity relation between  $A$  and  $B$ , we should be able to substitute ‘ $A$ ’ and ‘ $B$ ’ interchangeably. Thus we should be able to conclude ‘ $\Box (A = B)$ ’ or ‘ $\Box (B = A)$ ’. Therefore it seems that it should follow that those which are identical are necessarily identical:  $(x) (y) (x = y \rightarrow \Box x = y)$ . But can the proponent of contingent identity simply deny the substitution of

identicals here in a similar way she denies the substitution made in statements (1) through (3)?

No, I think not. Again, suppose we have two worlds,  $W$  and  $W^*$ . Now suppose in  $W$  terms  $A$  and  $B$  refer to the same thing. Thus, in world  $W$ , we should be able to substitute the object referred to by  $A$  for the object referred to by  $B$  and vice versa without any problems. However, it also seems clearly true that ' $\Box (A = A)$ ' and ' $\Box (B = B)$ '. Thus, in world  $W$ , if the object referred to by  $A$  is identical to the object referred to by  $B$  such that they are completely interchangeable, we should be able to get ' $\Box (A = B)$ ' or ' $\Box (B = A)$ ' without any difficulty. But if  $A$  and  $B$  do not refer to the same thing in world  $W^*$ , we arrive at an absurdity. From ' $A = B$ ' we can derive ' $\Box (A = B)$ .' And since ' $A = B$ ' is true in  $W$ , ' $\Box (A = B)$ ' is also true in  $W$ . But that means ' $A = B$ ' is true in all worlds. Thus ' $A \neq B$ ' is not true in  $W^*$ . Therefore, an absurdity results from simply claiming that the object referred to by  $A$  and the object referred to by  $B$  are identical in some scenarios but not in others.

Similarly, Kripke claims that those who accept the necessity of self-identity—' $(x) \Box (x = x)$ '—are committed to the necessity of identity.<sup>8</sup> Supposing that we can talk meaningfully about modal properties, we can talk about modality *de re*: that is, the necessary possession by objects of certain properties. And, given Leibniz's indiscernibility of identicals, if objects  $x$  and  $y$  are identical then all properties, including all modal properties, must be shared. This, according to Kripke, applies even to those properties which attribute other properties necessarily—in particular, the property of necessarily being identical to an object. If an object  $x$  has the property  $F$  such that  $F$  is the property of necessarily being identical to  $x$ ,  $y$ 's identity to  $x$  entails that  $y$  is also  $F$ . Thus, if ' $\Box (x = x)$ ' and ' $x = y$ ' then both  $x$  and  $y$  must share all the same properties, including that of being necessarily identical to  $x$ .

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<sup>8</sup> Saul Kripke, "Identity and Necessity," in *Identity and Individuation*, ed. Milton K. Munitz (New York: New York University Press, 1971), 164.

Still, this may not convince the supporter of contingent identity. The substitutivity principle resulting in ' $\Box (x = y)$ ' may still seem false.<sup>9</sup> Leibniz's principle of the indiscernibility of identicals is about properties and relations. According to the principle, if  $x$  and  $y$  are identical, then they share all the same properties. Similarly, for anything  $z$ , if  $x$  stands in relation to  $z$  then  $y$  stands in the same relation to  $z$ . This principle allows for substitutivity, one might argue, "...only for contexts that attribute properties and relations."<sup>10</sup> Therefore one might deny the substitution of identicals in ' $\Box (x = \_)$ ' because this does not attribute a property. According to this argument, as Gibbard describes it, modal expressions such as necessarily being identical to  $x$  are not properties that a thing can have or lack. This is because "modal expressions do not apply to concrete things independently of the way they are designated."<sup>11</sup> For example, a particular lump of clay may display certain properties (being Goliath-shaped, constituting a particular statue, etc.) but not others—specifically, they may not display their modal properties (possibly being vase-shaped, possibly being a ball, etc.). The problem here, according to Gibbard, is that these modal properties change depending on the way an object is designated. Suppose 'Lumpl' is designated as a particular lump of clay. When designated as such, Lumpl is essentially a lump of clay. However, suppose that it is not essential to Goliath that it be molded out of clay. If we instead use the term 'Lumpl' to designate the material that constitutes Goliath, Lumpl is no longer essentially a lump of clay. Instead, Lumpl now has the property of necessarily being Goliath-shaped. Thus concrete objects alone do not have or lack certain modal properties. It is the pair of the object and the way it is designated that has or lacks modal properties. Therefore,

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<sup>9</sup> Gibbard, "Contingent Identity," 201. The following objection to the substitutivity of identicals is mainly taken from Gibbard. He refers to this objection as "the usual answer" to the absurdity generated by substitutivity.

<sup>10</sup> Ibid.

<sup>11</sup> Ibid.

asking about a concrete object's modal properties independently of the way it is designated is meaningless.

Now, it seems that Gibbard and the essentialist are simply talking past each other. Consider the fact that they may agree about all the facts involved in the following sentence: "The material that constitutes Goliath could not have failed to be a lump of clay." They both may acknowledge that Goliath is a statue molded from a lump of clay—Lumpl. They both may even acknowledge the fact that Lumpl *could be* a different shape. However, they disagree about the truth value of the proposition in question. This disagreement occurs because the proponent of contingent identity assumes a *de dicto* interpretation of modal expressions while the essentialist assumes a *de re* one. Consider the object referred to by 'the material that constitutes Goliath.' Now, the question "Could the thing referred to by 'the material that constitutes Goliath' have failed to be a lump of clay?" seems like a perfectly coherent one. In fact, I believe the clear answer to this question is that it could *not* have failed to be in such a relation. Thus, the object referred to by 'the material that constitutes Goliath'—Lumpl—has the property of necessarily being a lump of clay. In fact, if 'the material that constitutes Goliath' just is Lumpl, how could it have been something else? However, this is clearly not the same as saying that the material that constitutes Goliath is a lump of clay necessarily. The *material* could have easily been wood or marble. This, I believe, is how the anti-essentialist interprets modal expressions when applied to concrete things. If one adopts a *de dicto* interpretation of modal expressions, the properties attributed to an object depend on the way that object is designated.

I find Gibbard's argument—that we should not endorse the substitution of identicals in modal expressions—unconvincing. This is because it relies on an unfounded assumption of the *de dicto* reading of modal expressions. Now, what reason would one have for adopting a *de*

*dicto* interpretation of modal expressions? As far as I can tell, we have none. Gibbard and the anti-essentialists provide us with no reason why the *de dicto* interpretation should override the *de re* one. In fact, it seems we have good reason to believe that the *de re* interpretation trumps the *de dicto* one. When we make claims like “Hesperus is Phosphorous,” we seem to be using the *de re* interpretation. By making such claims, we are acknowledging that Hesperus and Phosphorous are one and the same thing. So when someone tells us “Hesperus is the evening star,” we can further conclude that the object known as the evening star also pinpoints Phosphorous because ‘Hesperus’ and ‘Phosphorous’ *refer to the same object*. This is because singular terms in non-modal claims range over particular individuals. For example, in ‘Hesperus = Phosphorous’ the terms ‘Hesperus’ and ‘Phosphorous’ pick out the same planet-individual.

## I.C Concluding Remarks

In the last few paragraphs I have argued (i) that modal expressions attribute properties under a *de re* interpretation and (ii) that one has good reason to believe a *de re* reading of modal expressions trumps a *de dicto* reading. If both (i) and (ii) are true, then it seems that modal contexts do in fact attribute properties. And because of this, Gibbard and the proponent of contingent identity cannot block the substitutivity of identicals when applied to modal expressions. Thus, if we postulate contingent identity we are immediately involved in an absurdity—specifically, one where two objects can be both necessarily identical and possibly not identical. Therefore the doctrine of contingent identity is incoherent.

In the next section, I examine some possible solutions to lump-and-statue cases which are compatible with the necessity of identity. In particular, I examine two commonly proposed

solutions—(a) Statues and lumps are two distinct objects; (b) neither object exists, only their mereological simples do. Both strategies, in a misguided effort, propose solutions that examine the constitution of statues and lumps in order to address problematic statue-and-lump cases.

## II. *Solutions Compatible with the Necessity of Identity*

Even if contingent identity is implausible, the case of Goliath and Lumpl (and similar statue-and-lump cases) may force the proponent of the necessity of identity to embrace strange and counterintuitive views about concrete objects. There are many possible solutions to the problematic statue-and-lump puzzle. Some philosophers claim that material constitution is not identity because the statue and lump differ in their properties. Thus the statue and lump are distinct, non-identical objects. Others, however, reject the existence of ordinary things such as statues and lumps of clay, arguing that only the fundamental level of reality exists. In this section, I survey some proposed solutions to the puzzle of Lumpl and Goliath and discuss their plausibility. Even though the strategies I present are compatible with the necessity of identity, I argue that each solution runs into problems of its own and is not satisfying.

### II.A Two Distinct Objects

According to the necessity of identity, if Goliath and Lumpl are identical, it is necessarily true that they are identical. However, due to the possibility that Lumpl outlives Goliath, it seems like the proponent of the necessity of identity would have to claim that Lumpl and Goliath are *not* identical. But considering the first scenario where Lumpl and Goliath are completely coincident, how would one go about arguing that they are actually distinct objects? To argue this, one might claim that material constitution is not sufficient for identity. Let us call this the *constitution* view.



Consider the fact that Goliath is *made from* Lumpl. More specifically, Goliath is made from a particular lump of clay which happens to be named ‘Lumpl’. However, this does not mean that Goliath is identical to Lumpl. To see why constitution is not identity, let us start by contrasting the constitution relation with the identity relation. First, while identity is symmetrical, constitution is asymmetrical. For example: It would be correct to say “Goliath is made from Lumpl,” but incorrect to claim “Lumpl is made from Goliath.” This is because the constitution relation only points in one direction. However, as stated above, the identity relation is symmetrical. If Lumpl is identical to Goliath, then Goliath is also identical to Lumpl. And second, constitution is a dependence relation such that an object depends on what constitutes it. For example: If Goliath is completely constituted by Lumpl, then Goliath is nothing over and above Lumpl.<sup>12</sup> However, suppose Lumpl is identical to Goliath. The claim that Lumpl cannot exist unless Goliath exists, while true, only reiterates the claim that these two things are identical. This would be similar to saying Goliath cannot exist unless Goliath exists. The identity relation, unlike constitution, provides no information about dependence—it does no explanatory work.

Furthermore, let us take another look at Leibniz’s principle of the indiscernibility of identicals. According to this principle, if two things are identical, they have *all* properties in common. But what exactly does it mean to have *all properties in common*? Gibbard seems particularly interested in a common duration of existence. He wants to rule out the possibility that two objects can be identical even though one lives longer than the other. Thus he stipulates that for two things to be strictly identical they must both begin their existence at the same time  $t_1$

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<sup>12</sup> This dependence relation may cause problems for those who argue that constitution is not enough for identity. If an object is nothing over and above what constitutes it, how can it have different properties? This problem will be discussed in a following subsection.

and cease to exist at the same time  $t_2$ . Initially, it seems like he overlooks<sup>13</sup> other properties a thing may have—specifically their dispositional or modal properties.<sup>14</sup> Consider what

Wasserman says of the constitution view:

The defender of the constitution view makes three important claims. First, objects of the common sense ontology exist... Second, these objects have the sorts of *de re* modal properties and persistence conditions that common sense attributes them. Lumps of clay, for example, can survive being squashed, while statues cannot. Third, the defender of the constitution view claims that *constitution is not identity*... Given the first assumption above, the constitution theorist recognizes the existence of the statue and the lump and, given the second, the constitution theorist claims that these objects differ in their *de re* modal properties.<sup>15</sup>

Thus Goliath and Lumpl are distinct due to their difference in modal or dispositional properties.

For example, Baker argues against constitution as identity by appealing to essential properties.

In the case of Goliath and Lumpl, she argues:

- (1) Goliath is essentially a statue.
- (2) Lumpl is not essentially a statue.
- (3) Therefore, Goliath  $\neq$  Lumpl.

According to Baker, an essential property is one such that, if an object did not have it then it would cease to exist.<sup>16</sup> Therefore, the property ‘being a statue’ is essential to Goliath. If Goliath was not a statue, it would no longer be Goliath. However, if Lumpl were not a statue, it would (or rather might) still exist. Thus Lumpl is not essentially a statue. Similarly, one might appeal to dispositional properties. True, at  $t_1$  both Goliath and Lumpl may begin their existences, but

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<sup>13</sup> Gibbard eventually addresses dispositional and modal properties. This will be discussed later.

<sup>14</sup> Though this may be controversial, something’s capacity to do  $x$  seems like an appropriate candidate for a property that that thing might have. Thus if clay  $L$  has the capacity to be shape  $w$  but statue  $G$  could never be shape  $w$ , these are different properties. This may also be seen as potentialities—clay  $L$  has the potential to be shape  $w$  while statue  $G$  has no such potential.

<sup>15</sup> Ryan Wasserman, “The Constitution Question,” *Nous* 38, no. 4 (2004): 693.

<sup>16</sup> Lynn R. Baker, “Why Constitution is Not Identity,” *The Journal of Philosophy* 94, no. 12 (1997): 601-602.

they never have in common the capacity to change shape—only Lump1 has this property. Thus if this dispositional condition counts as a genuine property then, according to Leibniz’s principle, these are two different objects. However, this position faces problems. I will examine two problems in this paper: (i) Upholding this view forces one to accept the counterintuitive conclusion that two distinct objects exist in the exact same place and time, and (ii) different dispositional properties of completely coincident objects are ungrounded.

### II.A.1 Distinct Objects Co-located in Space and Time

One might argue that advocating the nonidentity of completely coincident objects such as Goliath and Lump1 leads to strange consequences. Specifically, it leads one to conclude that Goliath and Lump1 are two distinct objects. This seems counterintuitive. How can distinct, concrete objects be spatio-temporally coincident at all times? The constitution theorist’s answer: Distinct objects can occupy the same space at the same time if they are made from the same materials.<sup>17</sup>

According to the constitution theorist, Goliath and Lump1 exist in the same place and time because they share the same material parts. They share the same molecules, the same matter, the same parts, etc. And, seeing as the constitution theorist denies constitution as identity, these two spatio-temporally coincident objects are not necessarily the same. In fact, as mentioned in the previous subsection, Goliath’s being made from Lump1 entails their nonidentity. This is because constitution and identity are two very different relations—specifically, the former relation is asymmetrical while the latter is symmetrical. If Lump1

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<sup>17</sup> The ‘one object to a place’ reasoning, under the constitution theorist’s view, applies only to objects of the same sort. Thus the constitution theorist would reject the idea that two distinct statues (or lumps of clay) could occupy the same place and time.

constitutes Goliath, Goliath clearly does not constitute Lumpl. And for two things to be identical, they must share all the same properties, including relational properties. Thus Goliath and Lumpl are not identical, for they do not share all the same properties.

Unfortunately, the constitution theorist's answer only pushes the question back one step. While material coincidence may explain spatio-temporal coincidence, what explains material coincidence? The constitution theorist might claim that material constitution explains material coincidence: Two distinct objects are made of the same material because one object constitutes the other. In this case, Lumpl and Goliath are materially coincident because Lumpl constitutes Goliath. Thus it is only natural that they share all the same parts. However, what does it mean for Lumpl to constitute Goliath? If, as Wasserman believes,<sup>18</sup> every analysis of constitution must include "...a condition according to which  $x$  constitutes  $y$  at  $t$  only if  $x$  materially coincides with  $y$  at  $t$ ," then the constitution theorist cannot provide a sufficient answer to this question. For such an answer invokes the relation that constitution is being used to explain—that is, material coincidence. Now, this does not necessarily mean the constitution theorist believes that material coincidence is explanatorily prior to material constitution. (In fact, I believe the constitution theorist believes just the opposite—that material constitution is explanatorily prior to coincidence.) What this does mean, however, is that the constitution theorist cannot sufficiently explain what it is for two distinct objects to be materially coincident. This is because that which is explanatorily prior to material coincidence—material constitution—is defined in terms of material coincidence.

## II.A.2 Appealing to Non-Categorical Properties

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<sup>18</sup> Wasserman, "The Constitution Question," 707.

However, suppose two distinct objects could in fact occupy the same spatio-temporal location. Some proponents of the constitution theory, as noted above, argue that Goliath and Lumpl have different modal or dispositional properties. Thus they must be distinct. Again, consider Baker's argument: Goliath is essentially a statue while Lumpl is not. Thus Lumpl and Goliath have different modal properties; therefore they are distinct. However, such an appeal to modal or dispositional properties in order to show the nonidentity of Lumpl and Goliath is unsatisfactory. This is because, given the complete coincidence of Lumpl and Goliath, such differences in properties remain unexplainable.

Appealing to dispositional<sup>19</sup> properties may not sufficiently show Lumpl and Goliath as distinct. One reason for this is that nothing grounds these alleged properties. In virtue of what do they have these properties? Goliath and Lumpl are intrinsically and relationally indiscernible: They are the same shape, made from the same material, share the same atoms, the same distance from the Eiffel Tower, etc. Nothing about Goliath or Lumpl grounds their distinct dispositional properties. In other words, nothing intrinsically or relationally about Lumpl grounds the fact that it *could* have been a different shape. Similarly, nothing intrinsically or relationally about Goliath grounds the fact that it *could* have survived one of its arms breaking off.<sup>20</sup> Furthermore, consider

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<sup>19</sup> From here on, I combine my treatment of two different kinds of properties—modal and dispositional properties—referring to them simply as dispositional properties. This is because the following objections raised argue against the distinctness of two coincident objects with respect to their *possible* properties—properties an object would have given certain conditions—rather than their categorical properties.

<sup>20</sup> Answering this grounding problem is beyond the scope of this paper. For more information, see Bennett (2004), Baker (1997), and Sider (2008).

While Sider's paper is informative in laying out the problem, he approaches the grounding problem by appealing to supervenience. The problem with using supervenience, however, is that it is simply not the same as grounding. While grounding is a dependence relation, supervenience is a covariance relation. At best, it seems that supervenience *may* indicate the presence of a dependence relation, but fails to pinpoint the direction of this possible relation. This can be seen in the anti-symmetric nature of covariance. For example, the volume of a sphere supervenes on its surface area; but it is also true that the surface area of a sphere supervenes on its volume. Clearly there is a connection here between surface area and volume. And it seems very possible that there is an underlying dependence relation between the two. But supervenience does not shed any light on this possible relation. For more, see Kim (1984), Kim (1993), and Lowe (1994).

the fact that the constitution relation is a dependence relation. If Goliath is constituted by Lump1, then it is nothing over and above Lump1. If this is true, then how can these two objects be distinct? If Goliath and Lump1 are in fact distinct, then it remains unclear what the constitution theorist means by “nothing over and above.”

Now, the constitution theorist upholding a theory of temporal parts may argue, in the general lump-and-statue cases, that the lump of clay and statue are different sorts with different non-categorical properties due to their difference in temporal parts. However, even this answer will not work for Gibbard’s story of Goliath and Lump1. For they begin to exist and cease to be at the same times. Thus they share all their temporal parts as well as their categorical properties.

Even if one could solve this grounding problem for non-categorical properties, the contingent identity theorist might claim that it does not even make sense to appeal to such properties. One might argue that such properties are merely properties that an object has in another *possible* world, not properties it has in the *actual* world. Consider what Gibbard claims about the dispositional property solubility:

A disposition like solubility is a property which applies to concrete things, and it can be expressed as a counterfactual conditional: ‘x is soluble’ means “If x were placed in water, then x would dissolve.” This counterfactual conditional in turn means something like this: “In the possible world which is, of all those worlds in which x is in water, most like the actual world, x dissolves.”<sup>21</sup>

Thus these properties merely claim particular objects *could have been* different, not that they are in fact different. Of course, we may frequently attribute such properties to things in our everyday discourse. For example, I may claim, “Goliath and Lump1 are completely coincident, but they seem distinct because the former would not have survived being squeezed.” Here they only *seem* distinct, as I have not attributed any *actual* properties to either object. To say that

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<sup>21</sup> Gibbard, “Contingent Identity,” 209.

Goliath *would not* exist *if* you were to squeeze Lumpl does not attribute any *definite* properties to either Goliath or Lumpl.<sup>22</sup> Thus if we are to uphold the necessity of identity in light of statue-and-lump cases such as Goliath and Lumpl, appealing to non-categorical properties will not work.

## II.B An Eliminativist Objection

Initially one might think that something strange is going on in the Goliath and Lumpl case because one or both of these objects do not actually exist. While it may seem that we are naming two objects (a lump of clay and a statue), we are actually just providing a description of the newly formed lump of clay: This newly formed lump of clay, Lumpl, is Goliath-shaped. By doing this, one is not actually saying that some new object known as ‘Goliath’ exists. One is simply describing the current state of Lumpl. To see this, consider Socrates sitting down. Clearly no new object ‘seated-Socrates’ comes into existence when Socrates sits down. This is simply Socrates displaying the property of seatedness. And it seems we *could* say that Socrates and Socrates-sitting are identical. But this is trivially true. Similarly, one might argue, that saying Lumpl and Goliath are identical is trivially true because ‘Goliath’ is merely a description; it is neither a concrete object nor a rigid designator, just Lumpl in some particular shape.

Peter Unger (1979) makes similar claims in support of mereological nihilism. He argues that ordinary things, such as tables and chairs and statues, do not exist. Only objects with no proper parts exist, such as atoms. Unger supports this claim by providing *the sorites of decomposition by minute removals* argument.<sup>23</sup> <sup>24</sup> Suppose we have a stone, which is constituted

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<sup>22</sup> Ibid, 210.

<sup>23</sup> Peter Unger, “There are no Ordinary Things,” *Synthese* 41, no. 2 (1979): 120-121.

by  $n$  number of atoms. If we remove one of these atoms, we result in  $n-1$  number of atoms, but presumably we still have a stone. Now further suppose we gradually remove the atoms (eventually resulting in  $n-2$  number of atoms, then  $n-3$  atoms, and so on) until there are no atoms at all. It seems absurd to presume we still have a stone after removing all of the atoms, for the stone, as we have mentioned above, is constituted by a finite number of atoms. Thus, according to Unger, it seems that we must deny the existence of such ordinary things as stones above and beyond their mereological simples, such as their atoms.<sup>25</sup> Though this refutation of the existence of ordinary objects is a much stronger claim than the one provided in the above paragraph, a similar tactic is being used. Goliath does not actually exist. All that actually exists is that which composes Goliath.

Similarly, consider what Merricks claims about the *composing something* relation which holds between the parts of a composite object:<sup>26</sup> Seeing as people are physical organisms, they are made of parts, which are their atoms. Thus, according to Merricks, it follows that "... the *composing something* relation holds between the atoms of [the] body."<sup>27</sup> Therefore there are atoms that are arranged my-right-footwise and there are atoms arranged your-nosewise, but these objects do not come together to further compose another object. Similarly, the atoms arranged statuewise do not come into any further *composing something* relation to create a statue. Thus if

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<sup>24</sup> I use this argument here to show that mereological nihilism may have some intuitive appeal. Further discussion of this particular argument, I believe, is beyond the scope of this paper.

<sup>25</sup> Now, it is important to note that, according to Unger, there is no question whether a genuine object is present or not. That is, genuine objects do not have vague identity conditions such that the removal of their most minute particles results in there being no object at all. For example, consider the removal of a speck-of-dust's worth of particles from a stone. Now, presumably the effect of their removal is so minimal that a stone survives. If this is the case, then, as Unger claims, "...we can 'peel our onion' down to nothing." This might be something similar, say, to the gradual breakdown of boulders and rock formations from wind erosion in arid climates. See Unger, "Ordinary Things," 120-124.

<sup>26</sup> See also van Inwagen (1990).

<sup>27</sup> Trent Merricks, "No Statues," *Australasian Journal of Philosophy* 78, no. 1 (2000): 49.



10,000 atoms are arranged statuewise, the proponent of this view would claim that only 10,000 things exist (just the atoms), not 10,001 things (the atoms arranged statuewise *and* the statue). According to Merricks, other than the atoms arranged statuewise, nothing further exists. Thus there actually are no statues.

Initially, an eliminativist approach seems quite successful. It denies the existence of one or both objects. By doing this it avoids appealing to non-categorical properties because it never claims that two distinct objects share the same location in space and time. Also, because it does not appeal to non-categorical properties, it avoids the grounding objection which the constitution theorist must answer. However, in the next two subsections, I raise two problems with this approach: (i) The possibility that there is a fundamental level of objects is just as plausible as the possibility that there are no mereological simples, and (ii) even if there was a definite fundamental level of objects, we would still wind up with reference and identity problems.

## II.B.1 A Fundamental Level of Reality<sup>28</sup>

The eliminativist approach relies on the assumption that a fundamental level of objects exists. According to this view, only mereological simples—objects that consist of no proper parts—exist. But what evidence indicates that a fundamental level of reality actually exists?

According to Unger's *sorites of decomposition by minute removals* argument, the atom is assumed to be the fundamental level of reality which makes up ordinary things such as rocks. However, Unger mentions that the "...reasoning for this denial [of ordinary objects] does not

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<sup>28</sup> Much of the discussion for whether there is a fundamental level of reality is beyond the scope of this paper. However, I would like to at least show, in part of this section, that the discoveries made by the hard sciences indicate that a fundamental level is no more plausible than infinite division of parts. For more discussion on the justification of a fundamental level of reality, see Schaffer (2003), Zimmerman (1996), and Unger (1979).

require atoms or particles.”<sup>29</sup> In fact, he claims that his argument does not require any particular, minute unit. “For all we care,” according to Unger, “the only physical reality may be a single plenum.”<sup>30</sup> However, while he claims that his argument does not require any *particular* unit, a fundamental level of reality is necessary for his argument to hold.<sup>31</sup> To see this, consider Jaegwon Kim’s description of the overall fundamentalist view:

The Cartesian model of a *bifurcated* world has been replaced by that of a *layered* world, a hierarchically stratified structure of “levels” or “orders” of entities and their characteristic properties. It is generally thought that there is a bottom level, one consisting of whatever microphysics is going to tell us are the most basic physical particles out of which all matter is composed (electrons, neutrons, quarks, or whatever).<sup>32</sup>

In other words, the eliminativist approach takes a fundamentalist stance toward reality. And from this assumption of a fundamental level, Unger and other eliminativists can uphold an ontological attitude toward objects such that the fundamental level which constitutes these objects is primarily real. For, according to the eliminativist position, without a fundamental level of reality, either nothing would actually exist or the level at which objects actually exist simply seems arbitrary. Thus the eliminativist’s denial of the existence of ordinary objects only works if there is some fundamental level to reduce these objects to. Still, the question lingers, “Does this fundamental level of reality actually exist?”

Much of the motivation for upholding the intuition that there is a fundamental level of reality comes from the empirical work done by the hard sciences. The discovery of atoms and particles that make up larger objects, which in turn make up even larger objects, provides one

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<sup>29</sup> Unger, “Ordinary Things,” 120.

<sup>30</sup> Ibid, 122-123.

<sup>31</sup> Similarly, Merricks’s argument for the non-existence of things like statues rests on the assumption of a fundamental level.

<sup>32</sup> Jaegwon Kim, “The Nonreductivist’s Troubles with Mental Causation,” in *Supervenience and Mind: Selected Philosophical Essays* (Cambridge: Cambridge University Press, 1993), 337.

with the idea of a hierarchical system at work in nature. For example, a swimming pool (assuming it is filled with pure water) is made out of water, which is made from the molecule  $H_2O$ , which can be further broken down into hydrogen and oxygen atoms. What we see and interact with everyday can be broken down into simpler, more fundamental parts until we finally arrive at the most fundamental level of reality—one that cannot be broken down into smaller parts.<sup>33</sup>

Now, just because we assume an entity to be simple does not actually entail that there is in fact a fundamental level of reality. Consider the fact that at one point the atom was seen as the fundamental level of reality. But since then, protons and neutrons have been discovered. And since the discovery of protons and neutrons, quarks have been discovered. If this pattern continues, which seems perfectly plausible, it may be the case that there just are no mereological simples. Of course, one might point out that physics always points to a basic level that does causal explanatory work. However, a more basic level that also does causal explanatory work has always been discovered. Thus it is always discovered that these basic levels of reality can be broken down into smaller parts. “Indeed,” as Schaffer claims, “the history of science is a history of finding ever-deeper structure.”<sup>34</sup> Even quarks, it is hypothesized, are actually strings. Thus can we really look to physics to support the claim that a fundamental level of reality exists? Not until we have a complete picture of physics and microphysics.<sup>35</sup>

In fact, it may even be argued that infinite divisibility is methodologically preferable to the eliminativist fundamental level of reality. One reason many uphold the existence of a

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<sup>33</sup> This idea of levels seems to be similar to that of a part-whole relation where the parts of an object make up the whole object. The parts, in this case, would be more fundamental such that the whole is grounded in its parts.

<sup>34</sup> Jonathan Schaffer, “Is There a Fundamental Level?” *Nous* 37, no. 3 (2003): 503.

<sup>35</sup> For more examples involving the history of physics, see Schaffer, “Fundamental Level,” section five.

fundamental level is because it avoids a chain that infinitely regresses. It seems to provide one with a complete picture of the structure of nature. This picture includes *all* parts which ground the whole. Again, this picture of reality assumes a part-whole relationship where the parts ground the whole. However, the grounding relation is an asymmetric, irreflexive relation. Thus, unless the fundamental level is simply ungrounded, it seems implausible that there is such a level. For what explains the existence and workings of these ungrounded mereological simples? Infinite division, on the other hand, allows for such explanations to be given. The workings of each whole can be explained by the workings of their parts; and the workings of these parts can be explained by their parts. Such a world—one filled with substances with infinitely divisible parts—would be gunky. That is, the proper parts of every substance are also substances. Thus every substance can be further broken into proper parts *ad infinitum*.<sup>36</sup> Even though we may not have a “complete” picture, we would have one that embraces the part-whole structure of reality.

Still, one might want to maintain something similar to eliminativism without having to uphold its positive claim about the existence of a fundamental level of reality. This would be the weaker claim briefly mentioned at the beginning of the above subsection: Goliath is merely a property that Lump1 displays—Lump1 is shaped Goliathwise. So, instead of claiming that only the most fundamental level of reality exists, this view acknowledges the existence of the clay but not the statue. The problem with this view is that it is arbitrary. Why acknowledge that one level of reality exists but not the next? Is there any significant difference between Lump1 and Goliath such that we can deny the existence of Goliath without appealing to a fundamental level? I think not. If one denies the existence of Goliath on grounds of material substance, she is

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<sup>36</sup> Under such a model, one might adopt a theory of existence monism rather than mereological nihilism. The infinite division of substances may, instead, support the view that the world is the only simple, concrete object. For more, see Schaffer (2007).

committed to the nonexistence of Lumpl as well. This is because an even more fundamental level of parts constitutes Lumpl, which in turn also constitutes Goliath.

However, even if one could successfully argue for the nonexistence of Goliath without resorting to a fundamental level of reality, I do not think it (along with the standard eliminativist position) avoids the problems raised in the following subsection. Specifically, if we deny the existence of either of these material objects, we run into problems with reference and identity.

## II.B.2 Reference, Identity, and Eliminativism

When we talk about Goliath, the eliminativist, as I have described above, would either claim that the proper name ‘Goliath’ refers to a group of mereological simples in a specific shape (strong claim), or that it refers to a specific lump of clay in a particular shape (weak claim). However, this way of speaking runs into reference and identity problems. I will talk about the strong and weak claims individually, starting with the former.

As mentioned in the above subsection, the assumption of a fundamental level of reality is questionable and needs further justification, but let us suppose there actually is a fundamental level that the eliminativist can appeal to. Therefore, according to the stronger claim of eliminativism, the material objects, Lumpl and Goliath, are nothing more than the mereological simples which constitute them. However, initially it may seem like if we reduce these objects to their most fundamental level of reality, we lose something important about the object we refer to—specifically, we lose an object’s individuality. When we talk about a statue named ‘Goliath,’ we are concerned with a *specific* object. If I point to a replica of Goliath, not realizing that what I am referring to is merely a replica, and talk about the replica as if it is the real statue,

I am mistaken. For what I refer to is only qualitatively identical to Goliath, not numerically identical. Consider this example: Suppose we have a lump of clay, Lumpl, arranged Goliathwise. Thus we have a set of mereological simples arranged in a particular statuewise fashion. But now suppose that somehow, miraculously, Lumpl disappears and is instantaneously replaced (such that there is no time where an object is missing) by a different lump of clay, Flumpl, also arranged Goliathwise. Thus because a different object, Flumpl, replaces Lumpl, it would be wrong to refer to Flumpl when talking about Goliath. However, according to the eliminativist position, there seems to be nothing wrong with this, so long as the arrangement of their mereological simples is qualitatively identical.

Now, the eliminativist would demur, claiming that no such reference problems occur. Reducing material objects to their fundamental level does not strip away an object's individuality. Just because things only really exist at their atomic level does not mean that individual facts do not exist. Indeed, when the eliminativist talks about Goliath, she is interested in its mereological simples. However, she is also interested in a specific object. To be more precise, she is interested in the *specific* arrangement of mereological simples that constitute Goliath. Thus when we replace Lumpl with the qualitatively identical Flumpl, we are mistaken when we refer to the latter as 'Goliath'. This is because the particular atomic structure—the specific arrangement of mereological simples that compose Lumpl—is linked to Goliath. Similarly, such problems may be avoided with the weaker claim—one that acknowledges the existence of the clay material that constitutes the statue. Consider the example of Lumpl and Flumpl again. In the event in which Lumpl disappears and is replaced by Flumpl, the proponent of the weaker claim could appeal to the specific lumps of clay. She could argue that, even though Lumpl disappears, when we talk about Goliath we still mean Lumpl in such-and-such

shape. Thus when we point to Flumpl while talking about Goliath (because we are unaware of the switch that occurs), we are simply mistaken.

However, the problem that still lingers for the strong eliminativist claim is the fact that Goliath is nothing more than a particular arrangement of fundamental particles. This claim is too strong and has counterintuitive results. Suppose just the nose of Goliath breaks off. In this case the particular arrangement of mereological simples that compose Lumpl changes. And if we are solely concerned with the mereological arrangement, then it seems we have a new object. Given a lump of clay's persistence criteria, it seems okay to claim that Lumpl no longer exists.<sup>37</sup> More specifically, the atomic structure that once composed Lumpl changes, resulting in a new structure. Thus, the old atomic structure ceases to exist, as does Lumpl. But does this mean that Goliath no longer exists? Suppose we have a set of mereological simples arranged Goliathwise. Let us call this atomic structure C. Now suppose that the nose of Goliath breaks off. This results in the changing of atomic structure C. Let us call this new, noseless structure atomic structure D. If 'Goliath' is used to refer to a specific atomic structure—atomic structure C—then we are now mistaken when we use 'Goliath' to talk about D. However, given everyday use of language, we should not be mistaken. It seems perfectly plausible for Goliath to outlive Lumpl—or, in this case, the specific arrangement of mereological simples that constitute it. However, linking 'Goliath' to the specific atomic structure that composes it severely changes its persistence criteria. Goliath can no longer outlive a change in that which constitutes it. Thus the link between Goliath and its arrangement of mereological simples is too strong.

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<sup>37</sup> (This is taken from section 1.) A piece of clay *P* consists of a portion of clay. This piece *P* exists when all parts of *P* stick together and no part of *P* sticks to any portion of clay that is not part of *P*. Thus it follows that a new piece of clay can be formed by either breaking off part of *P* or attaching more clay to *P*. However, remolding *P* into different shapes does not threaten the existence of *P*.

Similarly, the weaker eliminativist claim holds that Goliath is merely a property of Lumpl. Thus whenever we talk about Goliath, we really mean Lumpl in a specific Goliathwise shape. But is this *really* what we mean when we talk about Goliath? Consider this version of the Lumpl and Goliath case:<sup>38</sup> Suppose two lumps of clay come together, simultaneously creating a new lump and a statue. Let us call the new lump of clay ‘Lumpl’ and the statue ‘Goliath’. Now suppose that the sculptor who created Goliath decides to break off its arms, replacing them with new pieces of appropriately molded clay. It is clear in this case that Lumpl no longer exists. However, if Goliath is merely a property that can be had by Lumpl, it seems that Goliath must not exist either. But would we claim that Goliath ceases to exist because Lumpl no longer exists? That seems strange. In fact, it seems clear that Goliath continues to exist while Lumpl does not since statues can survive certain changes that lumps of clay cannot.<sup>39</sup>

To give another example, consider this worry about numerical identity:<sup>40</sup> Suppose we maintain a wooden ship by replacing each old plank with new ones. Furthermore, suppose we change one plank each week. Now, it seems reasonable to claim that, after all the planks are changed, the same numerical ship exists. But if we *were* to argue that the new ship is numerically distinct (as both the strong and weak claims of eliminativism would uphold), at what point is the ship no longer the same? Is it after the 55<sup>th</sup> plank is replaced? or the 30<sup>th</sup>? If so, then why? Unless one argues that a new ship exists after the first replacement, it seems arbitrary. But

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<sup>38</sup> Mark Johnston, “Constitution is Not Identity,” *Mind* 101, no. 401 (1992): 89-90.

This different version of the Lumpl and Goliath case is taken from Johnston. Johnston simply uses it as the standard case of Lumpl and Goliath, but I think it is useful to show that Goliath is actually something independent of Lumpl.

<sup>39</sup> Some might argue that replacing the arms does in fact change the statue. But suppose we do not replace the arms at all. Thus we do not combine any new material with the original statue. Would we say that Goliath no longer exists? I suppose some might suggest that Goliath is not the *original* Goliath. But I am not sure if one would go so far as to say that it ceases to exist. Consider the Venus de Milo. Did a new statue come into existence when its arms and original plinth broke off?

<sup>40</sup> While Hobbes’s primary reason for presenting the Ship of Theseus is to present a problem of numerical identity where  $a=b$  and  $b=c$  but  $\sim (a=c)$ , there is a lingering worry about arbitrariness when denying the gradual replacement theory.



does a new ship really exist after *one* plank is replaced? This seems counterintuitive. In fact, it seems perfectly plausible that something like a ship, or a statue, can continue to exist even though some of its parts are replaced or even cease to exist. If so, then things like ships and statues are more than just properties held by that which constitutes them.

While resorting to eliminativism (or some weaker version of it) may seem like a plausible response to the Lump and Goliath case, as shown above, this viewpoint has potential problems and unjustified assumptions. The main problem, for both the strong and weak eliminativist claims, can be seen when trying to refer to a *specific* object that could either (a) be qualitatively similar to other objects or (b) exist longer than the material that constitutes it.

## II.C Concluding Remarks

The two common solutions to statue and lump cases addressed above—constitution theory and eliminativism—are unsatisfactory for a number of reasons. Both theories uphold counterintuitive claims: The constitution theory concludes that two distinct objects are spatio-temporally co-located, and eliminativism claims that ordinary objects do not even exist—only their mereological simples exist. Furthermore, the constitution theorist fails to provide a convincing argument for the acceptance of non-categorical properties as definite, distinguishing properties, and the eliminativist fails to justify the assumption that a fundamental level of reality exists. Even though these theories have their own individual problems, it seems to me that the main problem is they are simply misguided—specifically, they assume that Lump and Goliath must not be identical. So they address lump-and-statue problems as ones concerning material constitution. In the next section I argue that lump-and-statue cases are problems about language

and reference rather than material constitution. Furthermore, I claim that upholding a Kripkean notion of naming and reference allows one to uphold the necessity of identity in light of statue-and-lump cases.

### III. *Modal Intuitions and the Necessity of Identity*

In the first section of this paper I argued for the incoherence of the doctrine of contingent identity by showing that it leads to an absurdity. Thus if two things are identical, they are necessarily identical. However, as we have seen, statue-and-lump cases such as the one presented by Gibbard present a problem for the necessity of identity. This is because we have two completely coincident objects—Goliath and Lumpl—that seem to be identical but *could* have been otherwise. Thus it seems to follow that if one is to uphold that two things are identical if and only if they are necessarily identical, she must argue that Goliath and Lumpl are not actually identical in the case where they are completely coincident. And this is exactly what the proposed solutions examined in the second section do. They attempt to maintain the necessity of identity by arguing for the nonidentity of these two objects. And in order to do this, the proponent of either of these solutions examines the material constitution of these objects. The constitution theorist claims that the statue and lump of clay are not identical because the latter constitutes the former; and constitution is not identity. The eliminativist, on the other hand, argues that these objects do not actually exist—only their most fundamental particles exist.

But why must the proponent of the necessity of identity argue for the nonidentity of Goliath and Lumpl? It seems that the presupposition that Goliath and Lumpl must not be identical stems from the modal intuition that they *could have been* different. Clearly if Goliath and Lumpl are not completely coincident in some possible world  $W^*$ , they are not identical in  $W^*$ . And if they are not identical in  $W^*$  then they are not necessarily identical. Thus, because it seems that Goliath and Lumpl could have been not completely coincident, they must not be

necessarily identical. And so it follows that the proponent of the necessity of identity must argue for the nonidentity of Lump1 and Goliath.

In this section I argue that the proponent of the necessity of identity is in fact *not* committed to the nonidentity of Goliath and Lump1. In fact, one can coherently uphold that the two are not only identical, but necessarily identical. This can be done by reconstruing one's modal intuitions. The reconstrual method I use is one proposed by Kripke.

### III.A Reconstruing Modal Intuitions

Consider the following argument:

- (1) Hesperus is necessarily Hesperus.
- (2) Phosphorous is not necessarily Hesperus.

Therefore, (3) Hesperus is not identical to Phosphorous.

Assuming that 'Hesperus' and 'Phosphorous' are both rigid designators,<sup>41</sup> it is clear that this argument is valid. However, the conclusion is false. For we have empirically discovered that both 'Hesperus' and 'Phosphorous' refer to the same object—namely, Venus. But, as I have just mentioned, the argument is valid. So if the conclusion is in fact false, we must deny one of the premises. Clearly we cannot deny (1). For how can an object fail to be itself? Thus our only option is to deny premise (2). But what reason would we have for denying (2)?

Premise (2) is based on our modal intuition that 'Hesperus' *could have* referred to a celestial body different than what 'Phosphorous' refers to. We seem to have no trouble

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<sup>41</sup> Saul A. Kripke, *Naming and Necessity* (Cambridge: Harvard University Press, 1980), 109. 'Hesperus' is a rigid designator for the certain celestial body that can be seen in the evening at such-and-such location. 'Phosphorous' is the rigid designator for the certain celestial body that can be seen in the morning at such-and-such location.

imagining this possibility. Suppose that in world *W*, Mars happens to be the evening star and Venus happens to be the morning star. Thus in *W*, ‘Hesperus’ refers to Mars, not Venus. If this is the case, then it seems that ‘Hesperus’ and ‘Phosphorous’ are not identical in *W*. Therefore, it seems that Phosphorous must not necessarily be Hesperus. However, Kripke provides the essentialist with a method that allows her to coherently deny (2) by reconstruing her modal intuitions.

In order to reconstrue our modal intuitions, we must first recognize the distinction between metaphysical and epistemic possibility. To see this, let us briefly turn our attention to a different example.<sup>42</sup> Suppose I ask the following: “Could heat have been something other than mean molecular kinetic energy?” Now, it seems perfectly possible that the internal sensation which corresponds to the external phenomenon of heat could be produced from something other than the motion of molecules. But we would no longer be talking about *heat*. If heat just is mean molecular kinetic energy, then the possibility that heat might have turned out not to be mean molecular kinetic energy is merely an *epistemic* possibility, not a metaphysical one. Claiming that heat might really have been produced by something other than molecular motion—say, for example, light—is not to claim that *the particular external phenomenon that we refer to as heat* could be produced by light. It is to assert that one could have been in “...a situation in which a stream of photons would have produced the characteristic sensations which we call ‘sensations of heat’.”<sup>43</sup> Thus we could be having the same internal sensory experiences, but *heat* is replaced by *shmeat*—an external phenomenon identified in the same way as heat. As it turns out, if heat is identical to mean molecular kinetic energy, then it simply could not have turned out otherwise.

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<sup>42</sup> Example taken from Kripke, *Naming and Necessity*, 129-32.

<sup>43</sup> Ibid, 132.

Now suppose I ask the following: “Could Hesperus have turned out not to be Phosphorous?” This is a very similar question to the one asked in the previous paragraph. Just as ‘*heat*’ refers to a particular external phenomenon, ‘Hesperus’ and ‘Phosphorous’ both refer to a particular planet-object. In fact, they refer to the same particular object. Thus to claim that ‘Hesperus’ and ‘Phosphorous’ could have, or even might have, referred to different objects would be false. Of course, it is in fact possible that some other celestial bodies might have occupied the same position in the sky at the appropriate times—one in the morning and the other in the evening. Notice, though, that we are replacing a false statement with a true contingency. As Kripke claims, “The inaccurate statement that Hesperus might have turned out not to be Phosphorous should be replaced by the true contingency...: two distinct bodies might have occupied, in the morning and the evening, respectively, the very positions actually occupied by Hesperus-Phosphorous-Venus.”<sup>44</sup>

Notice that the examples mentioned in the above two paragraphs rely on a further distinction in order to draw out the distinction between epistemic and metaphysical possibility. Specifically, it relies on the distinction between a *name* and *the properties used to fix its reference*.<sup>45</sup> For example, I may fix the reference of the name ‘Hesperus’ as the celestial body that appears in the evening. But this does not entail that ‘Hesperus’ *means* the celestial body that appears in the evening.<sup>46</sup> If this was entailed, then it would be impossible for some other celestial body to have this property.<sup>47</sup> However, as shown in the example in the above paragraph, some other celestial body *could* have had the property of being the heavenly body that

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<sup>44</sup> Ibid, 143.

<sup>45</sup> Kripke, “Identity and Necessity,” 184.

<sup>46</sup> That is, ‘Hesperus’ is not *synonymous* with ‘the celestial body that appears in the evening.’

<sup>47</sup> Michael Della Rocca, “Essentialists and Essentialism,” *The Journal of Philosophy* 93, no. 4 (1996): 191.

appears in the evening. Thus this is merely a description of Hesperus. And the description used to fix the reference of a name is not synonymous with the name itself. More specifically, "...we use the name *rigidly* to refer to the object so named, even in talking about counterfactual situations where the thing named would not satisfy the description in question."<sup>48</sup> For example, we could imagine a case where Hesperus is not the celestial body that appears in the evening. But this does not mean that, in the imagined case, Hesperus would not have been Phosphorous. It simply means that some other celestial body occupies the very position that Hesperus actually occupies.

With the distinctions made in the above paragraphs, one can now coherently deny (2). Let us reexamine the modal intuition used to generate premise (2): Phosphorous is not necessarily Hesperus. Now, what is imagined is a possible case where some celestial body other than Hesperus happens to be the morning star. And from this counterfactual situation, the proponent of (2) concludes that Phosphorous must not be Hesperus because the morning star is no longer referred to by Hesperus. I will rewrite the conclusion of this intuition as (4):

(4) There is a possible situation where Phosphorous fails to be Hesperus.

However, this conclusion mistakenly takes a name and a property used to fix its reference as synonymous. The contingent property of being the celestial body that appears in the morning at a certain location *is* used to fix the reference of the name 'Phosphorous.' But this is merely a contingent property. 'Phosphorous' does not *mean* the celestial body that appears in the morning. Instead, 'Phosphorous' rigidly refers to the object picked out in the actual world, even if it does not have the contingent property used to fix its reference. From this distinction, we can instead conclude (4\*):

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<sup>48</sup> Kripke, "Identity and Necessity," 184.

(4\*) There is a possible situation where something that is not Phosphorous, but is identified in the same way that Phosphorous is identified in actuality, fails to be Hesperus.

According to Kripke, the essentialist arguing for the nonidentity of Hesperus and Phosphorous conflates (4) and (4\*).<sup>49</sup>

Now if the essentialist recognizes the distinction between a name and the description used to fix its reference, she can reconstrue her intuitions to allow for the identity of rigid designators and the necessity of identity. In the example provided, the essentialist is not committed to the nonidentity of Hesperus and Phosphorous. She simply needs to express her modal intuitions as (4\*) instead of (4). Thus Kripke has given the essentialist a plausible strategy which allows her to coherently uphold the identity between two rigid designators.

### III.B Reconstruing Intuitions about Lumpl and Goliath

Before we apply Kripke's method of reconstruing modal intuitions to the case of Goliath and Lumpl, I would like to first address Gibbard's claims about Kripke's account of rigid designators. He argues that "the claim that *Goliath* = Lumpl... is incompatible with Kripke's account of proper names."<sup>50</sup>

Gibbard acknowledges that, under Kripke's account of proper names, all proper names are rigid designators. However, he goes on to claim that if this is true then Goliath cannot be identical with Lumpl. He argues that rigid designators "...denote that thing in every possible

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<sup>49</sup> Kripke, *Naming and Necessity*, 143-4.

<sup>50</sup> Gibbard, "Contingent Identity," 194.



world in which it exists, and denote nothing otherwise.”<sup>51</sup> Thus in the case of Goliath and Lumpl, the designators ‘Goliath’ and ‘Lumpl’ denote those objects in every world in which they exist. Let us take another look at Gibbard’s case of Goliath and Lumpl. In the actual world *W*, Goliath and Lumpl are completely coincident—Goliath = Lumpl in *W*. However, in some possible world *W\** Goliath is squeezed out of existence before Lumpl hardens—Goliath ≠ Lumpl in *W\**. Now, Gibbard argues that, because Goliath = Lumpl in *W*, ‘Goliath’ and ‘Lumpl’ denote the same thing. And because Goliath and Lumpl exist in *W\**, they must denote the same thing in *W\** as well. But this is not the case, for Goliath ≠ Lumpl in *W\**. Thus, according to Gibbard, the claim that Goliath is identical to Lumpl is incompatible with Kripke’s account of proper names as rigid designators.

However, why must we conclude that the Goliath and Lumpl we are interested in exist in *W\**? Gibbard seems to believe that Goliath and Lumpl exist in *W\** because they have the same origin and persistence criteria as the Goliath and Lumpl of *W*.<sup>52</sup> According to Gibbard, once Goliath is created, nothing can change the origin of this particular statue. And as it comes into existence, a set of persistence criteria accompanies it. He claims, “Once I made my statue, that statue existed, and nothing that happened from then on could change the fact that it had existed or the way it had come to exist.”<sup>53</sup> There is a certain fact of the matter about how the statue came into being. Thus, he claims, the origin of the statue is what makes it the same statue.

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<sup>51</sup> Ibid.

<sup>52</sup> Of course, they also display all the same properties (shape, size, location, etc.).

<sup>53</sup> Gibbard, “Contingent Identity,” 195.

Indeed, Kripke has similar inclinations toward an origin theory of essentialism.<sup>54</sup> For example, he claims, “It seems to me that anything coming from a different origin would not be [the same] object.”<sup>55</sup> Thus even Kripke believes that the origin of an object is an essential property of that object. It is important to note, however, that Kripke’s theory of origin is weaker than Gibbard’s. Kripke is not excluding the possibility that some object *X* in another possible world may have the same origin as a distinct object *Z* in the actual world. For he claims: “I am not suggesting that *only* origin and substantial makeup are essential. For example, if the very block of wood from which the table was made had instead been made into a vase, the table never would have existed.”<sup>56</sup> He is simply claiming that having the same origin as it does in the actual world is a *necessary* criterion for its existence in some possible world, not a sufficient criterion.

Now, it seems perfectly plausible that two distinct objects could have some of the same essential properties. For example, being such that  $2 + 2 = 4$  is true is a necessary property shared by all things. And is it not possible that some object other than Goliath could have had the same origin? Of course some other object could have had the same origin. Consider the above quote from Kripke: “For example, if the very block of wood from which the table was made had instead been made into a vase, the table never would have existed.”<sup>57</sup> The vase and table have the same origin—they are made from the same block of wood, composed of the same molecules, made at the exact same time—but they do not share all the same essential properties. Specifically, the vase does not share the table’s essential property of *being a table*.<sup>58</sup>

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<sup>54</sup> See Kripke, *Naming and Necessity*, 111-113, 115 f. 56. In particular, in footnote 56, Kripke argues, “If a material object has its origin from a certain hunk of matter, it could not have had its origin in any other matter.”

<sup>55</sup> Kripke, *Naming and Necessity*, 113.

<sup>56</sup> *Ibid.*, 115 f. 57. Emphasis added.

<sup>57</sup> *Ibid.*

<sup>58</sup> *Ibid.*

Furthermore, is it not possible that, in some counterfactual situation, some other object with the same origin as Goliath could have also been named ‘Goliath’? Consider what Kripke says about the use of names in counterfactual situations:

Recall that we describe the situation in our language, not the language that the people in that situation would have used. Hence we must use the terms [‘Goliath’] and [‘Lumpl’] with the same reference as in the actual world. The fact that people in that situation might or might not have used these names for different [objects] is irrelevant. *So is the fact that they might have done so using the very same descriptions as we did to fix their references.*<sup>59</sup>

Thus Gibbard is simply conflating a name with the properties used to fix its reference. It just *seems* like the Goliath and Lumpl we are interested in exist in  $W^*$ .

Still, one might ask: “What reason do we have for believing that something with the same origin as Lumpl but fails to be identical to Goliath is not actually Lumpl?” Answer: Lumpl and this other object do not have all the same essential properties. Both objects may share the same origin, but, as Kripke claims, origin is not the only essential property of an object.<sup>60</sup> Now, in the first section of this paper I argued for the necessity of identity—that is, if two objects are identical, they are necessarily identical. Thus, if this is true, identity is a necessary relation. So if Lumpl is in fact identical to Goliath in the actual world, Lumpl has the necessary property of being identical to Goliath. However, the object described in Gibbard’s counterfactual situation does not have this essential property. Even though it is called ‘Lumpl’ and has the same origin

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<sup>59</sup> Ibid, 109 f. 51. Emphasis added.

<sup>60</sup> My goal here is not to provide an exhaustive list of essential properties. I only want to give at least one essential property that Lumpl has that the Lumpl-like object in Gibbard’s counterfactual situation does not.

as the Lumpl in the actual world, it does not have the essential property of being identical to Goliath.<sup>61</sup>

Now let us see how the essentialist can reconstrue her modal intuitions about Lumpl and Goliath. First, let us represent the essentialist argument for the nonidentity of Lumpl and Goliath with the following:

(5) Goliath is essentially a statue.

(6) Lumpl is not essentially a statue.

Therefore, (7) Goliath is not identical to Lumpl.

Premise (6) is based on the modal intuition that Lumpl could have been squeezed before it had a chance to harden. However, we can reconstrue this intuition as (6\*):

(6\*) There is a possible situation where something that is not Lumpl, but is identified in the same way that Lumpl is identified in actuality, fails to be a statue throughout its entire existence.

But consider the fact that the reference of ‘Lumpl,’ according to Gibbard, is fixed by a certain property—specifically, the origin of Lumpl in the actual world. Thus Lumpl is identified by the property of being “...formed by a certain artisan at a certain time by joining a lump in the shape of the top half of [Goliath’s] body and a lump in the shape of the bottom half of [Goliath’s] body.”<sup>62</sup> Let us refer to this property as *G*. If we recognize that *G* is merely a property of Lumpl used to fix its reference, it is clear to see how the essentialist can further specify her reconstrual of (6) as (6\*\*):

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<sup>61</sup> Notice that if the necessity of identity does attribute an essential property, there is no possible world in which Lumpl exists and is not identical to Goliath.

<sup>62</sup> Della Rocca, “Essentialists and Essentialism,” 197.

(6\*\*) There is a possible situation where something that is not Lump1, but has the property of *G*, fails to be a statue throughout its entire existence.<sup>63</sup>

Kripke has thus provided the essentialist with a method of maintaining that completely coincident objects are in fact identical without giving up the necessity of identity. Statue-and-lump cases, like the one proposed by Gibbard, lose their force once we recognize the distinction between a name and the properties used to fix its reference.

Now, a nonidentity essentialist might argue that the identity essentialist cannot properly argue for the identity of Lump1 and Goliath by appealing to modal intuitions. In fact, because the reconstrual of modal intuitions is available to the essentialist, she cannot properly argue for or against the identity of these objects by appealing to her intuitions. This is because the essentialist arguing for identity would have to show that (6\*\*) and not (6) is the correct way to express our intuitions.<sup>64</sup> And one arguing for nonidentity would have to show (6) is the correct intuition. However, to do this would be to argue over the identity of Goliath and Lump1. For, as Della Rocca claims: “We know that if identity holds then [(6\*\*)], and not [(6)], is the proper way to express our intuition and we know that if identity does not hold then [(6)] can be seen as the proper expression of our modal intuition.”<sup>65</sup> Now, with regard to the proper way to express our modal intuition, I believe Della Rocca makes a very good point. As an essentialist, to argue for or against the identity of Lump1 and Goliath based on our modal intuitions would be question begging. However, in light of the counterintuitive views<sup>66</sup> the essentialist must accept in order to

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<sup>63</sup> One might demur that Goliath, which is mentioned in the property of *G*, shows that at least Goliath exists in the counterfactual situation while Lump1 does not. And that, she might claim, is enough to show that they are not identical. However, I am merely appealing to the shape of Goliath, not Goliath itself. Clearly, something could be shaped like Goliath without actually being the particular Goliath we are interested in.

<sup>64</sup> Della Rocca, “Essentialists and Essentialism,” 196.

<sup>65</sup> Ibid.

<sup>66</sup> See section II.

uphold that Goliath and Lump1 are distinct, I believe serious doubts have been cast upon their position. Thus I believe the essentialist has better reasons to accept the identity<sup>67</sup> of completely coincident rigid designators rather than their nonidentity.

### III.C Conclusion

Throughout this paper I have argued against the doctrine of contingent identity. In the first section I argued that if we postulate the possibility of two things being contingently identical, an absurdity arises. Therefore if any objects are identical, they are necessarily identical. However, as we have seen, statue-and-lump cases present a potential problem for the necessity of identity. Specifically, Gibbard's case of Lump1 and Goliath is especially problematic because it presents a case where two objects that are identical seem like they could have been otherwise. And because of this modal intuition that Lump1 and Goliath could have been distinct, the proponent of the necessity of identity may feel committed to upholding their nonidentity. But, as I have shown in the second section, upholding the nonidentity of completely coincident objects leads one to accept very counterintuitive views about material objects. Under some views, it may force one to accept that there are distinct objects co-located in time and space. And under others, one might have to deny the existence of everyday objects such as tables and chairs. However, in the last section I argue that a more palatable option is available to the essentialist—one that avoids the problems the nonidentity theories cannot. If one recognizes the distinction between a name and the properties used to fix its reference, she can reconstrue her

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<sup>67</sup> That is, identity of the sort that holds necessarily if at all.

modal intuitions to accept completely coincident objects as identical without giving up the necessity of identity.

Now, notice that the reconstrual of one's modal intuitions simply allows the essentialist to acknowledge the identity of completely coincident objects without giving up the necessity of identity. Thus, by reconstruing her modal intuitions, the essentialist can uphold the necessity of identity without having to accept the view that two distinct objects exist in the exact same place and time. Acknowledging the identity of completely coincident objects lends itself well to common sense intuitions about objects—specifically, the idea that only one object occupies a particular place at a time. And because this view maintains identity, it also avoids attributing different dispositional properties to completely coincident objects.

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