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# **Statues and Their Constituents:** Whether Constitution is Identity

#### I. Introduction

Gibbard (1975) has us imagine that "a clay statue starts to exist at the same time as the piece of clay of which it is made, and ceases to exist at the same time as the piece of clay ceases to exist" (p. 190). Suppose, for instance, that the artist makes "a clay statue of the infant Goliath in two pieces, one the part above the waist and the other the part below the waist," and once the two halves are finished, the artist sticks them together, "thereby bringing into existence simultaneously a new piece of clay and a new statue" (p. 191). Also imagine that a day later, the artist destroys the statue by smashing it to bits, simultaneously bringing an end to the statue and the piece of clay. Following Gibbard, let us call the statue, *Goliath*, and the lump of clay, *Lump*. The question is whether Goliath and Lump are identical.

The reason for thinking that they are identical is that they completely coincide both spatially and temporally. Gibbard writes,

They began at the same time, and on any usual account, they had the same shape, location, color, and so forth at each instant in their history; everything that happened to one happened to the other; and the act that destroyed the one destroyed the other. (p. 191)

He warns that if we think Goliath and Lump are not identical despite their perfect coincidence, then "statues seem to take on a ghostly air" (p. 191).

Gibbard's verdict that Goliath and Lump are identical relies on an intuition we might call the *Coincidence Thesis*, according to which,

CT: For any concrete items, x and y, if x and y completely coincide spatially and temporally, then x = y.

If CT is true, then there is a type of *constitution* that qualifies as identity. If x constitutes y in such a way that x completely coincides with y spatially and temporally, then x is identical with y.

But there is also reason to think that Goliath and Lump are not identical. They seem to have different *modal* properties. If being a statue is a definitive feature of Goliath, then Goliath can exist only while being a statue. That is,

## (1) Goliath is necessarily a statue.

But Gibbard notes that "[i]n a typical case, a piece of clay is brought into existence by breaking it off from a bigger piece of clay." Then it "gets shaped, say, into the form of an elephant," and "[w]ith the finishing touches, a statue of an elephant comes into being" (p. 190). So in the typical case, the lump of clay comes into existence before the statue, which shows that

## (2) Lump is not necessarily a statue.

Since Goliath and Lump have different persistence conditions, we can use Leibniz' Law, the *Indiscernibility of Identicals*, to conclude that

# (3) Lump is not identical with Goliath.

And now we have a problem. If we accept this conclusion, how do we avoid having statues take on a ghostly air?

One way to avoid the problem is simply to deny essentialism. Suppose that essentialism is false. In particular, suppose the truth-value of claims of the form 'x is necessarily F' is a function of the descriptions used to refer to the object x. Then it might be that the very same object is necessarily F under one description but not necessarily F under another description. For instance, it might be that an object, *qua statue*, must remain a statue, but the same object, *qua lump of clay*, need not remain a statue. If so, then the argument for non-identity (hereafter, NI) qualifies as an *intensional* context, in which case, we cannot use Leibniz' Law to infer that Goliath is not identical with Lump<sup>3</sup>. So anti-essentialists have nothing to fear from NI, for they can easily insist that the argument is invalid.<sup>4</sup>

But suppose that essentialism is true. Then, assuming (1) and (2) are true, it is not simply that an object can be considered necessarily F when described one way but not necessarily F when described another way. Rather, if (1) and (2) are true, then we have a case in which an object is necessarily F *simpliciter*, and an object is not necessarily F *simpliciter*. Given that the context is extensional, we can use Leibniz' Law to validly infer that Goliath is not identical with Lump. So the real problem presented by NI is: how can the *essentialist* avoid having statues take on a ghostly air?

As an essentialist, one might accept NI and concede that constitution (even the sort that relates Lump to Goliath) is not identity. That is, one might concede that even when the constitution relation involves complete coincidence, the 'is' of constitution is distinct from the 'is' of identity. If we were to accept this conclusion, our next task would be to explain how the connection between Goliath and Lump can be so much like identity without actually being identity. We might appeal to Baker's (1999 and 2000, ch. 2) rigorous analysis of the constitution relation; her analysis would help us explain how Goliath could fail to be identical with Lump despite their coincidence.

However, here I argue that it is premature, even for an essentialist, to conclude that constitution is not identity.<sup>6</sup> In section II, it is shown that even assuming NI is valid, it is more reasonable to reject the argument than to accept it. The ideas presented there can also be used to question an argument for non-identity related to NI. This is discussed in section III. In section IV, it is shown that even if we were to accept the arguments for non-identity, we could still retain the intuitions that underlie CT, and thereby believe that there is a type of constitution that counts as identity.

# II. Rejecting NI

Premise (2) seems plausible. It does seem that Lump can exist without being a statue. "A clay statue," Gibbard notes, "ordinary begins to exist only after its piece of clay does . . . In such cases, it seems reasonable to say, the statue is a temporal segment of the piece of clay -- a segment which extends for the period of time during which the piece of clay keeps a particular, statuesque shape" (p. 192). Since a clay statue ordinarily starts to exist only after the piece of clay does, Gibbard is suggesting that in the typical case, the statue is not only a temporal part but a *proper* temporal part of the

clay, a part before which the lump of clay already existed (and perhaps after which it will continue to exist).

But despite its plausibility, Della Rocca (1996) thinks an essentialist should question (2). Della Rocca proposes that the essentialist respond to this premise in the same way that Kripke (1971) responds to the claim that

(4) heat is not necessarily molecular motion.

According to Kripke, the only reason we are inclined to accept (4) is that we misinterpret it as stating that

(5) there is a possible situation in which something produces S in us but is not molecular motion,

where S is the sensation that heat produces in us. (5) is certainly true; it is logically and even metaphysically possible that something other than molecular motion produces the sensation of heat in us. But (4) makes a stronger claim -- namely, that

(6) what actually does produce sensation S in us -- namely, heat -- is such that *it* could have been something other than molecular motion,

and it is entirely unclear why we should accept (6) along with (5). Thus, Kripke successfully explains the *illusion* of contingency that motivates (4).

Della Rocca argues that the same line of response applies to premise (2) of NI. The essentialist can resist NI by claiming that we might be inclined to accept (2), but only because we interpret it as

- (7) there is a possible situation in which the artist, on that particular occasion, took the two constituent pieces and produced something that is not a statue.
- (7) is certainly true; the artist could have produced a lump of clay other than Lump, and perhaps a lump of clay that is not even a statue. However, NI is valid only if (2) is construed as making a stronger claim, for (7) clearly allows that what the artist actually did produce on that occasion is a statue. NI is valid only when (2) is read as

(8) the object that was in fact produced on that occasion by the artist -- namely, Lump -- is not necessarily a statue.

The proponent of NI might insist that premise (2) is true under interpretation (8) as well. But why should we accept (8)? According to Della Rocca, it seems that the only reason to do so is the assumption that Goliath is not identical with Lump. For if we believe premise (1), which is the claim that Goliath is necessarily a statue, then unless we already accept the non-identity of Goliath and Lump, it seems we have no reason to believe (8). Della Rocca concludes that even by essentialist standards, the best that can be said for NI is that it begs the question.

That is one way for the essentialist to respond to NI. However, I think there is a stronger response available. Questioning premise (1) seems to yield a more powerful objection.

Why should we think that Goliath is necessarily a statue? We might focus on the descriptive content of the name 'Goliath' along with the trivial *de dicto* idea that *necessarily, anything that is a statue is a statue* -- i.e.,  $\Box(\forall x)(Sx \to Sx)$ . In that case, (1) would be construed as stating nothing more than

(9) necessarily, if Goliath is a statue, then it is a statue --  $\Box(Sg \to Sg)$ .

However, the conclusion of NI follows only when based on the non-trivial de re claim that for any statue, x, x is necessarily a statue --  $(\forall x)(Sx \rightarrow Sx)$ . In that case, we get the following interpretation of (1):

(10) for any x such that 
$$x = Goliath$$
, x is necessary a statue  $-(\forall x)[(x = g) \rightarrow \Box Sx]$ .

The crucial issue is not whether to accept (9), which is trivially true, but whether to accept (10). Gibbard claims that

[a] clay statue consists of a piece of clay in a specific shape. It lasts, then, as long as the piece of clay lasts and keeps that shape. It comes into being when the piece of clay first exists and has that shape, and it goes out of existence as soon as the piece of clay ceases to exist or to have that shape (p. 190).

Granted, the statuesque shape is present only when the statue is present. But that claim amounts to nothing more than (9). It does not follow that the entity that has the statuesque shape can *itself* (independently of its being described *as a statue*) exist only while being a statue.

One might argue for (10) by claiming that the concept *statue* is a *substance concept*. Wiggins (1967) describes substance concepts as those "which present-tensedly apply to an individual *x* at every moment throughout *x*'s existence" (p. 7). For any substance concept *F*, it is necessarily the case that if x exemplifies F at one time, then x cannot fail to exemplify F at another time without failing to exist. Wiggins distinguishes substance concepts from *phase sortals*. A phase sortal describes a feature that an object might have for only part of its career. The concepts, *bartender*, *dancer* and *philosopher* are examples of phase sortals. A bartender might have existed (and usually does exist) before becoming a bartender and long after leaving the profession. Likewise, Olson notes that to become "a philosopher is not to come into existence *simpliciter*, and to cease to be a philosopher is not necessarily to cease to exist altogether" (1997, p. 29).

If the concept statue were a substance concept instead of a phase sortal, then (10) would true; there would be no time at which Goliath exists and fails to be a statue. However, it seems more reasonable to think that statue is not a substance concept. Wiggins claims that substance concepts "give the privileged and (unless context makes it otherwise) the most fundamental kind of answer to the question 'what is x?'" (1967, p. 7). Even if x is a dancer, answering the question "what is x?" with "x is a dancer" does not describe x's fundamental kind, for one can respond with the further question, "what exactly is it that is a dancer?" One might wonder, for instance, whether x is a dancing human, a dancing bear, or a dancing pig. Likewise, it seems that answering "what is x?" with "x is a statue" does not specify x's most fundamental kind. For even if we know that x is a statue, we can still wonder "what kind of thing is it that is a statue?" The reply that x is a hunk of clay or steel or marble would seem to indicate a kind that is more fundamental than being a statue, especially given that clay, steel, and marble are natural kinds while statuehood is not.9

Note that this objection to (10) cannot be accused of begging the question. The reasoning is that *statue* does not seem to be a substance concept, since being a statue does not seem to qualify as an object's fundamental kind. This does not presuppose that Goliath is identical with Lump. It does assume that in addition to being a statue, Goliath is also a

lump of clay. But the assumption that Goliath is a lump of clay does not entail that Goliath is identical with Lump, for it might be that the two coincidents, while distinct, both exemplify the property of being a lump of clay.<sup>10</sup>

Another objection to (10) is that it seems to conflict with a main reason for accepting the second premise of NI -- the claim that Lump is not necessarily a statue. One obvious reason for thinking that Lump is not necessarily a statue is that Lump belongs to a kind that is more fundamental than statuehood (i.e., the kind, clay) and that this more fundamental kind vies with and excludes statuehood from being an essential feature of Lump. But if statuehood is not one of Lump's fundamental kinds, why should it be one of Goliath's fundamental kinds? Goliath, after all, is a lump of clay as well. And if we deny that being a statue is one of Goliath's fundamental kinds, then perhaps we should also deny that it is one of Goliath's essential kinds.

Indeed, for an essentialist, it seems that *any* reason to accept (2), even one that does not appeal to fundamental kinds, is reason to reject (10). For suppose that (2) is true. Then it is possible for an item (such as Lump) to exist without being a statue. This means that *statue* is a phase sortal; it indicates a feature that an object might have for only part of its career. But if statue is a *phase sortal*, then Goliath might exist without being a statue, in which case, (10) is false. Recall that (10) is the interpretation of premise (1) needed to make NI valid. So it seems that, for an essentialist, any reason to accept the second premise of NI is a reason to reject its first premise. (No question is begged here either. The reasoning assumes that Lump is a statue, for if Lump were not a statue, then (2) would not entail that *statue* is a phase sortal. But the assumption that Lump is a statue does not entail that Goliath is identical with Lump, for in addition to completely coinciding, the two individuals might both exemplify the property of being a statue.)

Of course, given that (2) conflicts with (10), even if we were to find some compelling reason to accept (10),<sup>11</sup> this would also count as a good reason to reject (2). For if (10) is true, then *statue* is a substance concept -- at least in the sense that if the concept applies to an individual at any time, it does so throughout that individual's career. So if (10) is true and Lump is now a statue, then Lump is necessarily a statue.

It seems, then, that the essentialist need not, and should not, be swayed by NI. There is a non-question-begging reason to reject (10), (10) being the interpretation of premise (1) needed to make NI valid. There is

also a non-questioning-begging reason to think that (10) conflicts with premise (2).

However, to make sure we avoid the conclusion that constitution is not identity, there is another argument for the non-identity of Goliath and Lump that must be dealt with.

## III. Necessary Identity

Since we were focusing on persistence conditions in the discussion of NI, premise (1) was interpreted as stating that *for as long as Goliath exists, it must exemplify the property of being a statue*. That is,

(11) for any object x, and any time t, if x = g at t, then necessarily x is a statue at  $t - (\forall x)(\forall t)(x = g$  at  $t \to \Box$  Sx at t).<sup>12</sup>

But (1) might also be construed as claiming that *Goliath is necessarily* identical with the thing that now exemplifies the property of being a statue. That is,

(12)  $(\exists x)(x \text{ is now a statue } \& \Box g = x).$ 

To see that (11) and (12) are distinct claims, note that (12) does not entail (11). If the concept *statue* is a phase sortal, then it is possible that at some time, Goliath is something other than a statue, in which case (11) is false. But even if (11) is false, (12) might still be true. It might be that Goliath is *necessarily identical* with something, x, that is currently a statue, but x once was or could some day become something other than a statue.<sup>13</sup>

If we shift our focus from the necessity of being a statue to the necessity of identity, then we get a different version of the argument for non-identity. Obviously, everything is identical with itself. It also seems that everything is *necessarily identical* with itself. That is, in addition to the obvious de dicto truth that  $\Box(\forall x)(x = x)$ , the de re claim that  $(\forall x)(\Box x = x)$  also seems true. If so, then

(13) Goliath is necessarily identical with Goliath (i.e.,  $\Box$  g = g).

However, if it were the typical situation, where the lump of clay exists prior to the statue, then Lump would not be identical with Goliath (since they would have started to exist at different times). So it seems that

(14) Lump is not necessarily identical with Goliath.

But Marcus (1961) and Kripke (1971) note that if x is necessarily identical with x and x = y, then x is necessarily identical with y. For if x and y are not necessarily identical, then x has a feature that y lacks (i.e., being necessarily identical with x), in which case, we can use Leibniz' Law to conclude that x is not identical with y. So it follows from (13) and (14) that

(15) Goliath is not identical with Lump.

Call this second argument for non-identity, NI\*. Although NI\* and NI are often not clearly enough distinguished in the literature, the distinction is worth making clear, for since Gibbard's statue argument is presented to show that there can be *contingent identities*, NI\* is a more accurate formulation of his target than NI.

How should the essentialist respond to NI\*?<sup>14</sup> Suppose that *statue* is not a phase sortal; that is, suppose a statue could fail to be a statue and still exist. Premise (13) is not threatened. As noted above, (13) does not require that Goliath always remain a statue. It might be that Goliath is necessarily identical with something that is currently a statue but that either was or could become something other than a statue. So the reasons for questioning the first premise of NI (presented in section II) do not threaten the first premise of NI\*.

But what about the second premise of NI\*? The second premise, premise (14), states that Lump could have been something other than Goliath. Why suppose that this is true? One might support (14) by claiming that

(16) Goliath could not have been something other than a statue

and

(17) Lump could have been something other than a statue.

If (16) and (17) are true, then Goliath is not necessarily identical with Lump (for in that case, they are not even identical). But note that if we infer non-identity from (16) and (17), then our reasoning is equivalent to the original version, NI, and therefore susceptible to the objections offered in section II. So without some additional reason to accept (14) -- a reason other than (16) and (17) -- NI\* is just as dubious as NI. It is entirely unclear, however, what this additional reason might be.

But suppose one were to find reasons other than (16) and (17), and compelling reasons as well, for accepting premise (14) of NI\*. Or suppose it could be shown that premise (1) of NI (under the required interpretation, (10)) is true, and also that premise (1)'s conflict with the second premise could be resolved. Then, as essentialists, we might have to accept the conclusion that Goliath is not identical with Lump. However, in the next section, it is shown that even if we were to concede that Goliath is not identical with Lump, we could still honor the intuitions that underlie CT, and thereby avoid denying that there is a type of constitution that counts as identity.

### IV. Necessary Coincidence

Thomson (1983) has us imagine that a Tinkertoy house H "came into existence on a shelf at 1:00 and that all the Tinkertoys it was then made of, indeed, all the bits of wood, indeed, all of the stuff it was then made of, came into existence at 1:00 along with H." She also has us suppose that "the whole thing rested quietly on the shelf until 5:00, and then everything -house, bits of wood, stuff -- all went out of existence together" (p. 218-219). We might think that H and the collection of wood, W, are identical given that H and W completely coincide, both spatially and temporally. More specifically, we might assume that H is identical with W on the basis of the following mereological thesis presented by Thomson (p. 216):

(18) x = y if and only if for any time t, if either x exists at t or y exists at t, then x is part of y at t and y is part of x at t.

On the other hand, we might focus on the fact that H and W have different persistence conditions. Normally, "the Tinkertoys [the collection of wood, W] existed before the house [H] did, and the house was then built out of

them" (p. 219). Or, as Thomson (p. 204) also notes, the Tinkertoy house H might survive the replacement of a few parts, but the collection of wood W would not; a new collection, albeit with most of the same parts, would now be on the shelf. For these reasons, we might be led to think that H is not identical with W. And if we were to believe this, we would have to reject (18).

But Thomson (p. 220) notes even if we reject (18), we can still honor the underlying mereological intuitions by endorsing the following modal version:

(19) x = y if and only if

necessarily, for any time t, if either x exists at t or
y exists at t, then x is part of y at t and y is part of
x at t.

And just as we can replace (18) with (19), we can also replace our original coincidence thesis CT with

CT\*: For any concrete items, x and y, if it is necessarily the case that x and y completely coincide spatially and temporally, then x = y; i.e.,  $(\forall x)(\forall y)$  ( $\Box xCy \rightarrow x = y$ ).

So even if we accept NI and NI\*, we can still believe that there is a type of constitution (i.e., complete and *necessary* coincidence) that amounts to identity. Then we can easily explain why the constitution relation between Lump and Goliath in Gibbard's scenario does not count as identity. The lack of necessary coincidence explains why Statue and Lump are distinct, and it does so without having statues take on a ghostly air.

#### V. Conclusion

We discussed two versions of the modal argument for non-identity, one that appeals to the necessity of being a statue (argument NI) and one that appeals to the necessity of identity (NI\*). It was shown that an essentialist need not and should not be swayed by either argument.

Regarding NI, it is questionable whether Goliath is necessarily a statue. One might focus on the connotation of the name 'Goliath,' and view it as referring exclusively to the temporal stage during which the ob-

ject is a statue. In that case, the first premise would be interpreted as stating nothing other than that the object will be a statue as long as it remains a statue. But for NI to be valid, the premise must be read as stating that the object itself, independently of its being described as a statue, cannot exist without being a statue. It is unclear why we should think this stronger claim is true. In fact, there are compelling reasons to find it false. Since the concept *clay* indicates a natural kind while the concept *statue* does not, the former arguably describes a more fundamental kind than the latter. Moreover, it seems that any reason for accepting premise (2) -- the claim that Lump is not necessarily a statue -- is a reason to reject the first premise, and this entails that even if we did manage to prove the first premise true by showing that statue is a substance concept, we would then have good reason to reject premise (2). And, regarding NI\*, it seems the only reason for thinking that Goliath is not necessarily identical with Lump is the belief that Goliath is necessarily a statue along with the assumption that Lump is not necessarily a statue, the former of which was already questioned in our critique of NI.

Note that the critique of NI and NI\* generalizes to other instances of the arguments for non-identity. Consider an animal (call it *Animal*) and a person (call it *Person*) who coincide completely. Despite the complete coincidence, one might argue that since

(20) Person is necessarily a person,

and

(21) Animal is not necessarily a person,

we may conclude that

(22) *Person* is not identical with *Animal*.

For this argument to be valid, (20) must be interpreted as stating not merely that the individual must remain a person so long as it remains a person, but also that the individual could not exist without being a person. However, on this interpretation, (20) may be resisted, especially given that the concept *animal*, which indicates a natural kind, seems a better candidate for being a substance concept than the concept *person*. In fact, the main reason for supposing (21) is true is that since the kind, animal, is a

more fundamental kind than the kind, person, an individual can survive without being a person so long as the individual remains an animal. Moreover, it seems that any reason to accept (21) is a reason to reject (20), for if (21) is true, then *person* is a phase sortal, in which case (20) is false. And it follows from this that even if one did manage to prove (20) true, we would then have reason to reject (21).

The corresponding argument

- (23) *Person* is necessarily identical with *Person*.
- (24) Animal is not necessarily identical with Person.

Therefore, (25) *Person* is not identical with *Animal*.

fares no better. It seems that the only reason for denying that *Person* is necessarily identical with *Animal* is the belief that *Person* is necessarily a person along with the assumption that *Animal* is not necessarily a person, the former of which was already found questionable.

The arguments for non-identity also apply to items other than *objects*, and in these cases, analogous objections are likely to arise. Consider a particular instance of pain; call that mental event, p. Also consider the neural event, n, with which p coincides. One might argue with Kripke (1971, pp. 161-163 and 1980, pp. 146-148) that p is not identical with n. For since event p is an instance of pain, it might be thought that p necessarily has qualitative character. But p does not necessarily have qualitative character; there is a possible world at which that neural event occurs but lacks qualitative character.

To refute the first premise of this argument, it is not enough to show that some instances of pain lack qualitative character (e.g., that some instances of pain might be non-conscious). It must also be shown that instance p itself could exist without qualitative character. Granted, it is necessarily the case that any mental event with qualitative character has qualitative character -- i.e.,  $\Box$  (Qx  $\rightarrow$  Qx). But it is not so clear that a mental event that has qualitative character must continue to have qualitative character in order to exist; in other words, it is questionable whether Qx  $\rightarrow$   $\Box$ Qx. For instance, it might be argued that being of such-and-such neural type N is a more fundamental feature of an event than having such-and-such qualitative character, and one might conclude from this that p can exist without qualitative character. Also, any reason for accepting the second premise of the argument (i.e., that n does not necessarily have qualitative character) is a reason to think that the concept, event with qualitative character

*acter*, is a phase sortal, and therefore that *p* might exist without qualitative character.

It seems, then, that in a variety of cases, the essentialist can resist the arguments for non-identity. Whether there is another instance that poses a more serious threat remains to be seen. But even if such an argument were found, the essentialist could still maintain that constitution is identity. It is arguable, as Thomson showed, that the type of constitution that counts as identity is not mere coincidence, however complete, but *necessary* coincidence (as CT\* claims). With the idea of necessary coincidence, we can easily explain why an item and its constituent matter are distinct, and we can thereby prevent the item from taking on a ghostly air.

#### ABSTRACT

This paper examines two popular arguments for the non-identity of the statue and its constituent material. An essentialist response is provided to one of the arguments; that response is then shown to undermine the other argument as well. It is also shown that even if we accept these arguments and concede non-identity, we can still avoid the further conclusion that constitution is not identity. These ideas are then extended to other applications of the arguments for non-identity (specifically, their application to a person and the constituent body, and to a mental event and its constituent neural event).

#### **NOTES**

- 1. Gibbard uses the more specific name, 'Lump1.'
- 2. CT is restricted to *concrete* objects, for since abstract objects lack spatial location, it is arguable that all abstract objects spatially coincide. Given that they also temporally coincide (by virtue of being eternal, if not atemporal), if CT were applied to abstract objects, we would risk having to say that there is only one abstract object.
- 3. The idea that modal contexts are extensional (i.e., that they honor the principle of substitutivity) is what Della Rocca (1996, p. 187) calls "a bare bones version of essentialism."
- 4. Gibbard, for example, argues that "[m]odal expressions do not apply to concrete things independently of the way they are designated . . . Modal contexts, then, do not attribute properties or relations to concrete things" (pp. 201-202) as such; so there is no violation of Leibniz' Law. Or one might appeal to counterpart theory and agree with Lewis' (1971) claim that modal predicates are ambiguous. The idea is that the name 'Goliath' is not purely referential; in addition to picking out an object, it indicates a particular counterpart relation (the statue-counterpart relation). The expression 'Lump' indicates a different counterpart relation (the lump-of-clay-counterpart relation). So NI equivocates on the predicate 'is necessarily a statue,' and is therefore invalid.
- 5. Johnston (1992) supports the idea that constitution is not identity by refuting the arguments in favor of CT. Also see Baker's (1997) defense of the claim that constitution is not identity.
- 6. And this would show that Noonan is wrong to claim that "a *necessary commitment* of the view that constitution is identity is that modal predicates are Abelardian," where "an Abelardian predicate is *a predicate whose reference* . . . *can be affected by the subject term to which it is attached*" (1993, p. 134).
- 7. Although Baker (1997, pp. 618-619) responds by describing a non-question-begging defense of (8).
- 8. I use the italicized 'F' to name the concept, and 'F' without italics to denote the corresponding property.
- 9. Olson (1997, pp. 31-37) makes analogous points against the idea that *person* is a substance concept.
- 10. Indeed, it would be very odd to think otherwise. Even if we deny that Goliath is identical with Lump, we surely would not want to deny that Goliath is a lump of clay. Although we might insist, with Baker, that Goliath is a lump of clay only *derivatively*;

she says that a statue derives the property of being a lump of clay (or marble or steel) from the constituent matter, which exemplifies the property *non-derivatively*. See her detailed account of having properties derivatively (1999, pp. 151-160 and 2000, pp. 46-58).

- 11. Baker (1997) claims that if (10) were false, not only could Goliath exist without being a statue, "but also, presumably, all the other artworks that do exist could exist without being artworks." So if (10) is false, then "there is another possible world that contains every individual that actually exists, but not a single artwork" (p. 620). This is a consequence that Baker finds unacceptable. But it is unacceptable only if we imagine that the individuals in this counterfactual situation have the same properties they have in the actual world. It would be highly implausible to think that an item could play the cultural, representational and expressive roles definitive of artworks without itself being an artwork. But our artworks do not play these roles in the possible world Baker has us imagine. So while that possible world contains all the items that actually exist, some of those items (the actual artworks) are very different, different enough that Baker's imaginary world ends up differing drastically, at least with respect to artworks, from the actual world. So we need a better reason to accept (10) than what Baker offers.
- 12. This is how Baker formulates the first premise of the argument for non-identity. To be exact, she talks about *Discobolus* instead of Goliath and formulates the idea that Discobolus is essentially a statue as " $(\forall x)(\forall t)[(x = Discobolus) \rightarrow \Box(x \text{ exists at } t \rightarrow x \text{ is a statue at } t)$ " (1997, p. 601).
- 13. The distinction between (11) and (12) corresponds to Rea's (1995, p. 527) distinction between the *essentialist assumption* that "if the ps compose an F, then they compose an object that is essentially such that it bears a certain relation R to its parts" and the *necessity assumption* that "if a is identical with b then a is necessarily identical with b." (12) is clearly an instance of the necessity assumption, and to see that (11) is an instance of the essentialist assumption, let F = statue and R = having parts arranged statue-wise.
- 14. I refer to essentialists, since like NI, NI\* is valid only on the assumption that modal contexts are extensional. Thus we have what Yablo calls a "paradox of essentialism." Yablo (1987) notes, "if essentialism is to be at all plausible, nonidentity had better be compatible with intimate identity-*like* connections," such as those relating Lump to Goliath, which "threaten to be inexplicable on essentialist principles" since they come dangerously close to being just like contingent identity (p. 295). "Hence, essentialism is confronted with a kind of paradox: to be believable it needs contingent identity; yet its principles appear to entail that contingent identity is not possible" (p. 296). Yablo, however, solves the paradox by explaining the difference between strict identity and coincidence (contingent identity); he argues that "things are contingently identical in a world if they have all the same *categorical* properties there" (p. 309, empha-

sis added), and they are strictly identical if they also share the same *hypothetical* properties at that world.

15. Recall the reference to Olson in note 9.

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