

# Puzzles of coincidence and composition

PHIL 20229

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## 1 The problem of the statue and the clay

Imagine a sculptor taking a lump of clay, and fashioning it into a statue. It seems as though the sculptor has brought something new into existence — the statue. But it also seems as though the lump of clay, which pre-existed the sculptor's work, still exists. So it seems as though where there was formerly one thing, there are now two things. But this is very puzzling; after all, the two things are, for example, located in exactly the same location; ordinarily you would just regard the statue as one thing. What's going on here?

It will help to separate out the different assumptions of this argument, using Sider's names for them, while making explicit a few assumptions he does not mention:

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|--|-----------------|
| 1. Before the sculptor's action, a lump of clay exists;<br>after the sculptor's action, a sculpture exists.  | EXISTENCE       |
| 2. The lump of clay not only existed before the sculptor's action, but also continues to exist after it is over.   | SURVIVAL        |
| 3. The statue comes into existence when the sculptor makes it.   | CREATION        |
| 4. The statue and clay both exist after the sculptor's work is finished, and have different properties; the statue, for example, came into existence with the sculptor's activity, whereas the lump of clay did not. | (1,2,3)         |
| 5. If two objects have different properties at the same time, then they are distinct objects. (No object can have different properties than itself.)   | LEIBNIZ'S LAW   |
| 6. The statue and the lump of clay are distinct objects.   | (4,5)           |
| 7. The statue and the clay occupy the same location.   |                 |
| 8. Two distinct objects cannot occupy the same location.   | NO CO-LOCATION. |
| 9. The statue and the clay are identical.  | (7,8)           |
| C. The statue and the lump of clay are both identical and distinct (non-identical).  | (6,9)           |

## 2 Denying the existence of the statue, the lump of clay, or both

A natural thought about this argument is that by the time we get to premise (4), we are already in trouble; what we want to do is stop the argument before we get to the point at which we are obliged to admit that the statue and the clay exist at the same time.

It seems that to do this, we have to either deny that statues exist, or deny that lumps of clay exist. But you might think that these sorts of things are on par: either both exist, or neither do. So it seems that the most natural way to pursue the present response to the paradox is to deny that either statues or lumps of clay exist. But if these don't exist, what sorts of things do? No matter what sort of thing you think of, you can imagine a problem analogous to the problem of the statue and clay. Does that mean that the present line of thought leads to the conclusion that nothing at all exists?

Not quite. Consider something simple — something which has no parts. You can't recreate this problem for such a thing. So maybe the right view is that only simple things exist: no things which have parts exist. This is the view that Sider calls 'nihilism'.

Nihilism can seem plausible if you spend a while trying to answer the question: what does it take for some objects to compose another object? (See the optional reading from van Inwagen's *Material Beings* for some discussion of this question.)

How should the nihilist respond to the objection that we can see statues and lumps of clay, and that therefore they must exist? How about the objection that I exist, and yet have parts? What happens to this view if there are no simple things — if everything is made up of smaller and smaller parts? (This is related to our questions in connection with Zeno's paradoxes about whether space is continuous.)

## 3 Takeover: one thing at a time

But there's also another way to block the argument before we get to (4); we might admit that both the lump of clay and the statue exist, but deny that there is any one time at which both exist. If we could do this, then we would be able to deny that there was ever a time at which two objects occupied exactly the same location.

The natural thought here is that, when the statue comes into being, the lump of clay ceases to exist. If the statue is then smashed back up into a lumpy shape, the statue ceases to exist, and a lump of clay comes into being. In general, a collection of particles can only compose one thing at a time.

But this raises a problem: how do we tell what kind of thing some particles compose at a given time? One way to dramatize this is via imagining a disagreement of the sort Sider discusses, between the version of takeover theory discussed above and the 'outpiece' / 'inpiece' version. What would decide who is right?

Is the lump of clay which pre-existed the statue identical to the lump of clay which emerges when the statue is smashed up? Can something go out of, and then come back into, existence?

#### 4 Co-located objects?

If none of these options work, we might be tempted to reply to the paradox by rejecting NO CO-LOCATION, premise (8) of the original argument. Maybe we should just accept the appearance that we have a statue and a lump of clay, which are genuinely distinct things, but occupy the same space. Does this make sense?

It is clear that, if there are really two things here, they are related differently than normal pairs of objects. Suppose that the lump of clay weighs 10 pounds. How much does the statue weigh? How much do the two objects weigh together, if you try to lift them both at the same time?

There are differences between the statue and the clay – for example, the statue is more fragile, as is shown by the example of the sculptor squashing the statue, and thereby destroying it, without destroying the lump of clay. But does it make any sense to say that  $x$  is more fragile than  $y$  when  $x$  and  $y$  are exactly the same in every physical respect?

Is it suspicious that the statue and the clay seem only to differ with respect to other times, and to ways they might be, but actually are not? Can you think of any differences between the statue and the clay with respect to the here and now?

Suppose that we name the statue as the mascot of this class on paradoxes. Does that mean that there are now three things in one place — the lump of clay, the statue, and the class mascot? Would you say that the class mascot has been destroyed if we changed our minds, and voted my lectern as the class mascot?

#### 5 Four-dimensionalism

Consider the following variant on the paradox: consider the locations ‘Notre Dame’s campus’ and ‘the Pasquerilla Center’. These are clearly distinct objects, as is shown by the fact that Lafortune is a part of one, but not the other. And yet this classroom is both. Does that mean that ND’s campus and the Pasquerilla Center are distinct things which exist in the same place? Does this raise the same problems as the case of the statue and the clay?

The answer to this ‘paradox’ is pretty obvious: it’s not that this classroom *is* both, but rather that it is part of both; and there is no problem about two genuinely distinct things having overlapping parts. Nothing could be more common.

A final solution to the paradox takes this point to be the key to its solution: just as ND’s campus has spatial parts, so all things are made up out of temporal parts.

And just as things can overlap with respect to their spatial parts, they can overlap in their temporal parts. That is what is going on in the case of the statue and the clay. This is what Sider calls 'four-dimensionalism.'

Three objections to four-dimensionalism:

- Four-dimensionalism and the identities of persons.
- Objects which could have lasted longer than they in fact did.
- The problem of coincident objects that come into and go out of existence at the same time.