The Paradoxes of Material Constitution
October 7th, 2002

1. An argument for the claim that there is no statue on the table

The facts: at 10 am, I took a lump of modelling clay that I bought this morning in an art supply store, and I shaped it with my fingers until it took on this (approximate) statue-shape.

1. If there is a statue on the table, it is a lump of clay.
2. If there is a statue on the table, it did not exist at 9 am.
3. All the lumps of clay that are on the table existed at 9 am.

4. Therefore, there is no statue on the table.

At 11.20 am, I will roll the clay back up into a ball. Now we can run another argument for the same conclusion:

1. If there is a statue on the table, it is a lump of clay.
2a. If there is a statue on the table, it will not exist at 11.30 am.
3a. All the lumps of clay that are on the table will exist at 11.30 am.

4. Therefore, there is no statue on the table.

Each of these valid arguments presents us with four options: we could give up one of the premises, or accept the conclusion. Which option should we take?

2. No statues at all

Surely, if there are any statues at all, there was one on the table at 11.10 am. Hence, if 4 is true, there are no statues at all.

If you're not convinced by this, notice that there are similar lines of reasoning involving other statues: bronze statues and pieces of bronze; Michelangelo's David and a piece of marble, etc.

And it's not just statues, either. There are very similar arguments for the non-existence of cups, tables, books, trees, cats... (Although of course it's possible to endorse some of these arguments and reject others.)

3. One response: give up 2 (and 2a)?

One idea would be that we should give up 2 and 2a. This is clearly the right response to the following argument for the non-existence of college professors:

1b. If there is a college professor in the room, he is a human being.
2b. If there is a college professor in the room, he did not exist in 1990.
3b. All the human beings in the room did exist in 1990.

4b. Therefore, there is no college professor in the room.

Nobody should be convinced by this argument: 2b seems clearly false. What's true is not 2b but the following quite different true claim:

2b*. If there is a college professor in the room, he was not a college professor in 1990.

Analogously, someone might say, 2 and 2a are false; they seems true only because we confuse them with the following quite different true claims:

2*. If there is a statue on the table, it was not a statue at 9 am.
2a*. If there is a statue on the table, it will not be a statue at 11.30 am.

4. Yet another argument for the non-existence of statues

Suppose that at 3pm I will grow dissatisfied with my handiwork: I rip off its arms and cast them into the furnace. But at 4pm I will repent; I will make some new arms out of new clay, and reattach them to the mutilated torso. Now consider this new argument for the claim that there is no statue on the table:

1c. If there is a statue on the table, it is a statue-sized lump of clay.
2c. If there is a statue on the table, it will exist at 4pm.
3c. If there is a statue-sized lump of clay on the table, it will not exist at 4pm.

4. Therefore, there is no statue on the table.

The response to the first two arguments which we considered in section 2 can't help us here. For if 2c is false, so is

2c*. If there is a statue on the table, it will be a statue at 4pm.

So the fact that 2c seems true can't be explained by the claim that we confuse it with 2c*.

5. Another response: give up 1 (and 1c)

One very important way to resist the conclusion is to deny 1 (and 1c). According to this view, there is a statue on the table, but it is not a lump of clay.

Here is an important argument for 1:

A. If there is a statue on the table, it is now in exactly the same place as some lump of clay.
B. It never happens that two things are in the same place at the same time.
Therefore, if there is a statue on the table, it *is* a lump of clay.

Since this argument is valid, anyone who wants to deny 1 must deny one of its premises.

If you deny premise A, you must say that there is no "statue-shaped" lump of clay on the table. But how can that be? Was there a lump of clay on the table before I started my artistic endeavours? If so, did my artistic endeavours somehow make it the case that there was no longer a lump of clay on the table? That seems very hard to believe. Perhaps the least implausible way to deny A would be to claim that there *are no lumps of clay*.

The most popular approach has been to deny premise B. According to most of those who take this option, it happens *all the time* that two material objects are in the same place at the same time. Each clay statue is in the same place as some distinct lump of clay; each tree is in the same place as some distinct "aggregate of wood molecules"; etc.

6. Paradoxes

A *paradox* is a set of sentences each of which *seems true*, but which are jointly inconsistent.

Whenever there is a valid argument with premises which *seem true*, and a conclusion that *seems false*, there is a corresponding paradox: the set whose members are the premises of the argument and the negation of its conclusion.

So corresponding to the first argument in section 1, we have the paradox whose members are 1, 2, 3 and the sentence 'there is a statue on the table'.

The paradoxes corresponding to the arguments we have been considering, together with other similar paradoxes, are known as the *paradoxes of material constitution*.

To *resolve* a paradox, one has to give up one of its constituent sentences, and give a principled reason for doing so. (It doesn't count to just point out that the negation of this sentence follows from the other sentences that constitute the paradox!) We have been considering the question how (certain of) the paradoxes of material constitution should be resolved.