

The Grounding Problem and Intrinsically Composed Colocated Objects

In (Sutton 2012) Catherine Sutton considers one of the most challenging questions for *colocationism*. *Colocationism* claims that two or more non-identical objects can be composed, at the same time, of the same parts. Therefore, they would also share, at that given time, the matter from which they are made and the region where they are situated.

Let me present the case-study in terms of which the question is usually formulated. Imagine an artist who creates a statue, STATUE, from a piece of clay, CLAY, which comes into existence at the same time as STATUE. Imagine, as well, that STATUE and CLAY cease to exist at exactly the same time. Then, STATUE and CLAY have exactly the same parts and share their matter and spatial location. However, colocationists think that they are different objects: they have different properties (for example, they have different sortal properties) and, by Leibniz's Law, they are different objects.

One of the most challenging questions for this position is the so-called 'grounding problem'. Sutton formulates it in the following way. What grounds the difference in properties (for example, in sortal properties or in modal properties) of STATUE and CLAY? For, Sutton says, they are in the same environment and inherit properties from the same composing parts. But differences in properties should be grounded.

Sutton's solution is the following. First, a couple of definitions:

Extrinsic Composition: an object O is extrinsically composed iff O's being composed (and thus O's existence) is grounded, at least in part, by relations that O's parts stand in to things that are not parts of O.

Intrinsic Composition: an object O is intrinsically composed iff O is not extrinsically composed.

Now, Sutton claims that two colocated objects share their parts, but at most one of them is intrinsically composed. Moreover, when the two objects are extrinsically composed, the relations that their shared parts stand in to other external things are different. This is Sutton's answer to the grounding problem: the different relations that the shared parts of two colocated objects enter into ground the objects' different sortal properties.

After presenting Sutton's analysis I argue, against what she claims (and is essential for her proposal), that lumps or pieces of matter are intrinsically composed. This means that there will be cases in which two different intrinsically composed objects are colocated, and Sutton has no answer to the grounding problem for this kind of case.

In the rest of the paper I formulate my own account, which although it has some features in common with Sutton's, it takes appropriately into account the cases in which the two colocated objects are both *intrinsically composed*.

The first thesis of my proposal is that objects come into existence in virtue of 'processes of coming-into-existence'. For every kind of object there is its corresponding kind of process of coming-into-existence. For example, the process of coming-into-existence in virtue of which STATUE comes into existence and is of the sort *statue* involves certain small objects, the x_s , and the relations that they stand in to the relevant human intentions about statues. Moreover, the process of coming-into-existence in virtue of which CLAY comes into existence and is of the sort *piece of clay* involves the same x_s and certain intrinsic relations in which the x_s stand to each other.

The second thesis of my proposal is that processes of coming-into-existence can be different even if they share the same 'material component'. For example, the processes of coming-into-existence of CLAY and of STATUE are different: one involves relations to human intentions and the other does not. However, the material component of the two processes is exactly the same, the x_s .

The third thesis of my proposal (here I will just consider intrinsically composed objects) is the following. I will argue that there exists what I will call the 'minimal internal structural configuration' of objects of a given sort. The minimal internal structural configuration of the

objects of a given sort is the number, kind, etc. of relations that the parts of these objects bear to one another and the displaying of which determines (at least partly) that they are objects of this sort. It is the internal configuration of an object that determines (at least partly) that the object is of the sort it is. It is something, then, that is common to all the objects of a given sort and the displaying of which by the parts of an object determines that the object is of that sort.

Finally, I will show how my proposal provides an appropriate answer to the grounding problem: the fact that two objects have different sortal properties is grounded in the fact that the processes of coming-into-existence of the two objects are different in a significant way.

For example, the fact that STATUE and CLAY have different sortal properties is grounded in the fact that the processes of coming-into-existence of STATUE and CLAY differ in aspects which are relevant to determine the sortal property of the processes' resultant objects. The process of coming-into-existence of STATUE involves the relation that the x_s stand in to human intentions about statues. However, this relation is not involved in CLAY's process of coming-into-existence. And the presence or absence of this relation to human intentions about statues in a process of coming-into-existence is relevant to determine the sortal property of the resultant object.

In cases of two intrinsically composed colocated objects (like in a case where a diamond is colocated with a lump of carbon atoms) my solution to the grounding problem will be the following: the fact that they have different sortal properties is grounded in the fact that they have different processes of coming-into-existence differing in sortal-determining features: their different minimal internal structural configurations exemplified by their common material component.

Reference

Sutton, C. S. 2012: 'Colocated Objects, Tally-Ho: A Solution to the Grounding Problem'. *Mind*, 121, pp. 703–30.