

## Why Counterpart Theory and Three-Dimensionalism are Incompatible

Suppose that God creates *ex nihilo* a bronze statue of a unicorn; later he annihilates it.<sup>1</sup> The statue and the piece of bronze occupy the same space for their entire career. If God had recast the bronze as a mermaid, the piece of bronze, not the statue, would have survived. As nothing can have and lack the capacity to survive the same change, they are distinct. Yet many philosophers find it incredible that two material things coincide ever, not to mention for their entire career. Here we have an apparently irrefutable argument for the apparently impossible conclusion that distinct physical things coincide in space and time.

Counterpart Theory (CT) offers a solution (see Lewis 1986, sect. 4.5; Sider 2001, p. 113). Suppose that the statue and the bronze are the same enduring three-dimensional object (three-dimensional things persist by existing in their entirety at different times). The statue cannot survive being recast as a mermaid, the bronze can. According to CT, the first claim is true because no statue-counterpart of the statue is mermaid shaped and the second is true because the bronze has a mermaid-shaped bronze counterpart. Counterpart relations are similarity relations. As one thing can have resemblance relations to different sets of things, depending on which of its features we emphasize, the fact that the bronze can, but the statue cannot, survive the same

change does *not* entail that they are distinct.

It is well known, however, that the threat to the principle of 'one object to a place' re-emerges. CT cannot by itself provide a general solution to coincidence puzzles. Suppose the statue and the bronze are the same persisting three-dimensional thing. Suppose the counterpart theoretic account of the truth conditions of modal claims is correct; consequently it is true that the statue cannot survive radical shape-change but the bronze can. God now (t<sub>10</sub>) recasts the bronze in a mermaid-shape. As the statue cannot survive this change, it perishes; as the bronze can, it survives. As the bronze, not the statue, has the feature that it outlasts the statue, they are distinct. The premisses entail that the statue and the bronze are and are not identical. To preserve CT, therefore, we must reject either three-dimensionalism (TD) or the identity of the statue and the bronze. If CT and TD are both correct, two whole things coincide before t<sub>10</sub>, the statue (y) and the piece of bronze (z).

While this failure of generality is not itself a serious difficulty for CT as an account of modal claims, it leads to one. Counterpart relations are similarity relations, so z has multiple counterpart-relations depending on which of its features we emphasize. z is unicorn shaped (indeed, it is an artifact so shaped for aesthetic reasons); so considered, z's counterparts are y's statue-counterparts. y is a thing made of bronze

molecules; so considered, y's counterparts are the bronze-counterparts of z. As y and z are indiscernible as far as the relevant counterpart-relations go, CT cannot explain why z survives and y perishes. (If we insist that y thought-of-one-way survives but thought-of-another-way perishes, we are denying the Indiscernibility of Identicals (II), for the same thing does and does not exist at t11.<sup>2</sup> Further, as y and z are distinct, if y survives *qua* thing made of bronze molecules, we are left with two coincident pieces of bronze after t10, y and z.) Surely the explanation of why z survives and y perishes is that z, but not y, can survive being recast as a mermaid. It follows that the truth-makers of these claims cannot be reduced to counterpart relations; so CT is mistaken.

Might not CT at least deal successfully with the original example of the statue and the bronze? As God does not recast the bronze, they are identical; if he did, they would be distinct. They are *contingently* identical (see Gibbard, 1975). This leads to bizarre consequences, however. It is now up to God, or myself if I am a sculptor, whether one or two three-dimensional objects came into being in the past. I might have retroactive powers over the number of whole things that existed hundreds of years ago.<sup>3</sup> Confronted with fifty God-created unicorn statues, we should say: 'Probably some of these are identical to the constituting bronze and some are not, but without foresight we cannot tell them

apart.' There could be two whole unicorn statues, molecular duplicates, only one of which is identical to the bronze. As all of this is well worth avoiding, we should say that the statue (y) and the bronze (z) are two, not one, whether or not God recasts the bronze.

This second failure of generality leads to another serious problem for CT. In virtue of what are the statue and the bronze distinct in the original example? The most plausible explanation is that they are distinct because the bronze but not the statue can survive being recast. But this explains nothing if CT is correct, for, according to CT, the difference in persistence conditions is consistent with the identity of y and z. Given CT, in fact, the statue and the bronze are entirely indiscernible throughout their whole career: they have the same monadic and relational properties. It is no use objecting that y alone is unicorn-shaped *essentially*; for this sort of claim is meant to be cashed out in terms of CT, and z stands in the same counterpart relations. Nor will it help to say that y alone is a statue, for the real force of this is that y has its shape essentially. y and z are both statues. Their diversity, therefore, is a primitive fact if CT is correct; they *just* are distinct.

This leads to absurdity: we have no principled way to deny an infinity of indiscernible statues and pieces of bronze in the same place. Or two statues and three pieces of bronze, or four

hundred sixty-three statues and seven hundred thirty-two pieces of bronze; an infinity of possible worlds would differ in just these respects. Once we allow that coincident indiscernibles can 'just be' distinct, the Lockean constraint that there cannot be distinct coincidents of the same type (e.g. statues) becomes *ad hoc*; for what motivates it but the concern that distinct coincident indiscernibles are impossible? There are famous counter-examples to the Identity of Indiscernibles (necessarily, objects with all the same features are identical) that depend on similar objects being dispersed in time or space (Black, 1952): nothing can be at a distance from itself. Part of the metaphysical importance of the principle of 'one object to a place' is that it enables us to abandon the Identity of Indiscernibles without accepting multiple indiscernibles in the *same* place. If we abandon the principle, we avoid the absurdity only by insisting that distinct objects in the same place must have different features--the Lockean constraint, which is undercut by CT.

The best damage control available to counterpart theorists is to admit that CT and TD are incompatible. But even if we shift to four-dimensionalism, the counterpart theorist now must make plausible his account of the truth conditions of modal claims. Given its failure on the three-dimensional model, why believe it?<sup>4</sup>

## Bibliography

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## Endnotes

1. This is a version of an example from Alan Gibbard (Gibbard, 1975): we make a statue by joining two pieces of clay, so the piece and the statue come into being simultaneously; then we smash the piece, destroying the statue too.

2. Counterpart theorists affirm II. I set aside the response to the argument against generality, above, that the statue and the bronze are identical *temporarily*, which, on its face denies II; also it violates the Transitivity of Identity.

3. I do not have this retroactive power if four-dimensionalism is correct. Whether or not I recast the bronze at time  $t_{10}$ , only one whole thing (call it  $O$ ) came into being an hour ago at that location--the initial stage of the bronze and the statue.

4. Thanks to Berit Brogaard for helpful discussions. Special thanks to Judith Crane.