

Absolute vs Relational Theories of Space

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September 19, 2015

Motion

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Master Argument

What makes an argument right or left handed?

1. A hand is left or right either (a) solely in virtue of the *internal* relations among the parts of the hand, or (b) at least partly in virtue of the *external* relations of the hand to something outside it, either (i) other material objects, or (ii) space itself.
2. A hand is not left or right solely in virtue of its internal relations, since the internal relations are the same for right and left, i.e. the proportion and the position of the parts to one another of each hand are the same.
3. A hand is neither right nor left even partly in virtue of its relations to other material objects, since a hand that was all alone in the universe would still be right or left.
4. Therefore, a hand is left or right at least partly in virtue of its relation to absolute space.¹

1–3 state the premises of the argument. 4 states the conclusion. The argument is valid. If it is sound, then 4 must be true. Here are the arguments for the premises.

¹'Incongruent Counterparts and Higher Dimensions', by James Van Cleve

Internalism

Internalists accept 1 and 3, but they reject 2. They accept, 3, that a hand that was all alone in the Universe would still be a right or left hand, but they think that it's being left or right can be explained without looking outside the hand itself. The features of the hand alone will make it a right or left one. Hence, one needs no other material objects or space itself to explain these features.

- Kant assumed that the internal relation were distances between points and angles between lines. These are the same for both hands. If these are the only internal relations, then Kant is right to deny that internal relations can distinguish right from left handedness.
- But might there be other other internal relations that explain the difference between the left and right hand?
- Any candidates face a certain killer objection: if we can flip the hands in a fourth dimension to make them congruent, then right handedness and left handedness cannot be intrinsic properties of the hands.

Externalism

Externalists accept 1 and 2, but reject 3. They claim that being a left or right hand depends on a relationship to other material objects.

Objection: a world in which only a hand exists would either be left or right handed. (a) Suppose that there is a world in which only a hand, H, exists. (b) Now suppose that a body possessing no hands pops into existence. (c) H can fit only the left or the right wrist. (d) Therefore, H was right or left handed before the body popped into existence.

How would the existence of a fourth-dimension effect this objection, if at all? If 4th exists, then it was not right or left beforehand.

Absolutism

Absolutists accept each premises, and since the argument is also valid, they think the conclusion is true. Space, they claim, is absolute.

If we only accept the existence of 3 spatial dimensions, must we then accept that absolute space exists? I think the issue is that 4th dimension undermines the absolutists. The Externalist can appeal to 4th to say that they are not congruent at all. But then there is an issue of being incongruent in the 4th dimension.