

# Limits On The Fallacy Of Composition

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The Fallacy Of Composition is inferring that something is true of the whole from the fact that it is true of some part of the whole. I will show some examples where this is true, and I will show some examples of where it is false. I will then attempt to differentiate them.

Let's say you have a pile of copper slugs. While each slug may be round, and the pile is made up of nothing but copper slugs, it still doesn't mean the pile is round. That would be the fallacy of composition. Also, each slug weighs one ounce, and the pile is made up of nothing but one ounce copper slugs. That doesn't mean the pile is one ounce. That too would be a fallacy of composition.

On the other hand, each slug is made entirely of copper, so the pile is nothing but copper. No fallacy of composition there. Each slug weighs one ounce, so a pile of 1,000 slugs weighs 1,000 ounces. No fallacy of composition there either!

The first thing we note is that one cannot attribute the fallacy of composition in every case. More careful analysis is necessary.

If we take two, one ounce, copper slugs, how does that compare with only one? Are two slugs always the shape as one? Are two slugs the same weight as one? Are two slugs the same material as one? Are two slugs twice the weight as one?

In the case of neurons, it is hard to imagine someone not agreeing that a neuron can be completely explained by deterministic physical properties (with perhaps an element of randomness). There are no other elements in operation. Now, when you take two neurons, although they may be able to represent a more complex relationship, there is still nothing more than deterministic physical properties (with perhaps an element of randomness). There is no supernatural element.