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# [Commentary] The Basic Fault in the Philosophy of Science

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## Abstract

The basic fault in the philosophy of science is simple enough to put in words and now it is time to do that. This basic fault puts the food on the table for philosophers and scientists, so it is hard to actually get the word out. That is not my problem, though. The basic fault is that we still assume that there is some kind of stuff that ‘everything’ consists of. My aim is to show how we can make it right.

*Numbers, dreams, marbles and chickens*, according to this assumption (that there is some kind of stuff that ‘everything’ consists of), must consist of this kind of stuff. By the famous equation of Albert Einstein, the modern version of the assumption is that everything, in the final analysis, is physical energy. Numbers, at least, accordingly, have no existence of their own. Would they, *nota bene*, the physical world as we know it, would not exist.

The informed reader may now ask, ‘How could it be otherwise? Is it not analytical, that anything consists of only one kind of stuff?’ On the surface, yes. All material things are physical and therefore made of physical energy (this is a bit simplified). The problem is the potential existence of *non*-physical things. If there were such, how could they interact with the physical things? Traditionally, since the question was raised by Princess Elisabeth, the answer has been that there cannot be any interaction between things of different *ontological* kinds. Things of different ontological kinds are, in short,

by themselves, *too* different.

In order not to be forced to deny the existence of, say, *numbers* and *dreams*, philosophers and scientists tend to say that they in the final analysis somehow are physical (if they exist, they are not *non-physical*).

The informed reader may now be bored. ‘We have heard this. Over and over again. What is your point?’ Fair enough. ‘We are not a simulation.’ That is the short answer. We are what we are (humans). Numbers are what they are (mathematical entities). The crucial question is not how physical things relate to mathematical entities or how physical things relate to, say, dreams. The crucial question is — I do not know how to say this... — if we can let go of the past and consider things that are not made up of only one kind of stuff?

I know that it may sound grotesque but what I have in mind is something like this.

Consider the imaginary numbers and the real numbers. No imaginary number is a real number and vice versa. Based on the imaginary numbers and the real numbers we can define *complex* numbers with both imaginary parts and real parts. Accordingly, we can define *complex* things consisting of more than one kind of stuff. My favourite candidates are *consciousness* and *black hole singularities*. We could define consciousness as having both biological parts and (non-biological) subjective parts. Likewise, we could define black hole singularities as having both physical parts and (non-physical) mathematical parts.

I will stop here for now. Some of the things I have stated I have touched upon before. See especially (2017, 2021a, 2021b, 2023a and 2023b).

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