

Can Determinism Be Reconciled With Epicureanism? (Admin Edit - No, But Let's Talk About Why Not)

Post by "Martin" of September 28, 2022 at 4:21 PM

In response to #16:

Anyone who has done chemical lab courses can probably confirm that some chemical reactions are difficult to reproduce, which may make passing a lab course in time difficult. Chemistry students make jokes about this, e.g., there is a reaction called Mannich reaction, named after Carl Mannich. Instead, you can interpret the name of the reaction as in the verbal German phrase "ma' nich'" (in written German "mal nicht" for "once not"), so it is the reaction which sometimes works and sometimes not.

Joking aside, the reason for such difficulties is usually that the reaction is very sensitive to the experimental conditions. It is conceivable that this sensitivity is associated with amplification from an atomic level subjected to quantum indeterminacy to the macroscopic level in some cases, especially if we have a microscopic cell structure with complex connections and interplay between chemical reactions and charge transport at every connection.

Now, let us take a simplistic model of the brain with domains for sensory input, memory, internal drives and a domain for random generation sensitive to quantum indeterminacy, all connected to a domain for reasoning, which in turn is connected to a domain for decision-making and a domain which controls actions. Especially the domains for memory and internal drives distinguishes an individual person from others.

If the sensory inputs indicate a problem, the domain for reasoning tries to find a solution. The domain for memory may provide something which worked in the past, but the case may appear too different to mechanistically repeat a past action. The domain for random generation produces a series of random patterns, whereby almost all of them are useless nonsense but a few might represent solutions. The domain for reasoning discards the nonsense and picks a workable solution, possibly one which is based on experience modified by an idea from the domain for random generation.

There is no proof that this model is adequate for decision-making of the human brain or that there are amplification mechanisms in the brain to get from quantum indeterminacy to a different output of a domain. However, the model does provide a conceivable explanation how quantum indeterminacy (i.e. the swerve) can lead to free will / agency of the individual in a world which is mostly deterministic at the macroscopic level.