Atoms, void and life

Post by “Godfrey” of September 4, 2020 at 9:20 PM

I've been reading the book Breath, by James Nestor, and came across this description of an idea by Albert Szent-Györgyi. I've actually never heard of him before, but in 1937 he won the Nobel Prize in Physiology or Medicine.

"Szent-Györgyi wanted to understand the process of breathing, but not in the physical or mental sense, or even at the molecular level. He wanted to know how the breath we take into our bodies interacts with our tissues, organs, and muscles on a subatomic level. He wanted to know how life gained energy from air.

"Everything around us is composed of molecules, which are composed of atoms, which are composed of subatomic bits called protons (which have a positive charge), neutrons (no charge), and electrons (negative charge). All matter is, at its most basic level, energy. 'We can not separate life from living matter,' Szent-Györgyi wrote. 'Inevitably, studying living matter and its reactions, we study life itself.'

"What distinguishes inanimate objects like rocks from birds and bees and leaves is the level of energy, or the 'excitability' of electrons within those atoms that make up the molecules in matter. The more easily and often electrons can be transferred between molecules, the more 'desaturated' matter becomes, the more alive it is."

Seems like Epicurus would agree: no god of the gaps here.