



Global Faculty Initiative

**The Faculty Initiative
seeks to promote the integration
of Christian faith and academic disciplines
by bringing theologians into conversation with scholars
across the spectrum of faculties
in research universities
worldwide.**

www.globalfacultyinitiative.net

Preview Response

TOP-DOWN CAUSATION DISPROVES REDUCTIONISM AND PHYSICALISM

Barbara Drossel

Professor of Theoretical Physics, Technical University of Darmstadt, Germany

I like the text, and I have a comment concerning the remark on the laws of physics and quantum chance: pure chance that depends on nothing would not help with "freedom" in the sense we humans understand it. What is essential is that chance is contextual, and that there are top-down influences. We must get rid of a reductionist understanding of chance (and more generally of physics). I have mentioned some of this here:

<https://henrycenter.tiu.edu/2021/07/how-the-laws-of-nature-leave-room-for-gods-action/>

My piece deals with God's freedom to act in the world, but the reasoning applies as well to the freedom of nature to evolve and be creative and to the freedom of humans to be causal agents in this world. See, for instance, my closing paragraphs:

"The influence of the wider context on an object is called "top-down Causation". Its omnipresence at all levels of complexity and in all fields of science disproves reductionism and physicalism. To me, top-down causation is also the best approach to explaining God's action in the world. I have argued above that top-down influences may be immaterial, like our intentions or the laws of logic. How this immaterial realm interacts with the material world is not understood, but its influence is well substantiated. Some thinkers, among them John Polkinghorne, have suggested that this interaction might happen via the input of information.

Now, is it true that God never violates a law of nature when he acts in the world? As far as his everyday action is concerned, I am convinced of this. But what about special miracles, such as the resurrection of Jesus? Sometimes I ask myself what a team of physicists would have measured if they had been able to measure everything measurable during the resurrection of Jesus. Perhaps they would not have found any violation of the laws of physics. But since the resurrection of Jesus and also his other miracles foreshadow God's new creation, it seems more plausible to me that these events transcend the laws of the

present creation. Here we have reached the limits of what we can know . . .?

For more information

www.globalfacultyinitiative.net