Tabla de Contenidos

Dodig-Crnkovic, G. Where Do New Ideas Come From? How Do They Emerge? Epistemology as Computation (2007)

en Calude, C.S *Randomness and Complexity. From Leibniz to Chaitin* World Scientific, Singapore, 2007
Disponible online: researchgate.com

This essay presents arguments for the claim that in the best of all possible worlds (Leibniz) there are sources of unpredictability and creativity for us humans, even given a pancomputational stance. A suggested answer to Chaitin's questions: "Where do new mathematical and biological ideas come from? How do they emerge?" is that they come from the world and emerge from basic physical (computational) laws. For humans as a tiny subset of the universe, a part of the new ideas comes as the result of the re-configuration and reshaping of already existing elements and another part comes from the outside as a consequence of openness and interactivity of the system. For the universe at large it is randomness that is the source of unpredictability on the fundamental level. In order to be able to completely predict the Universe-computer we would need the Universe-computer itself to compute its next state; as Chaitin already demonstrated there are incompressible truths which means truths that cannot be computed by any other computer but the universe itself.