

From:

Edward O. Wilson *Consilience; The Unity of Knowledge* Vintage 1999

The Ionian Enchantment

Edward O. Wilson speaks of his experience of the Ionian Enchantment, which he explains as an expression coined by physicist and historian Gerald Holton "It means a belief in the unity of the sciences- a conviction, far deeper than a mere working proposition, that the world is orderly and can be explained by a small number of natural laws". He sees the Enchantment expressed in the attempt of physicists to unite the four known universal forces into a GUT. "Einstein was Ionian to the core... he said ... 'It is a wonderful feeling to recognize the unity of a complex of phenomena that to direct observation appear to be quite separate things.'"ⁱ.

Wilson argues that the enlightenment, with its emphasis on rationality and science, basically had it right. He supports the enlightenment concept of unity of knowledge, based on reductionism, as the best means of protecting the environment, as well as humanity.

This is not to say that Wilson is in opposition to the science of complexity. He supports the concept of emergent properties. For example, while he believes that physical processes produce the mind, he also believes we lack a sufficient grasp of the emergent, holistic properties of the large number of neurons, neurotransmitters, and hormones that make up the physical brainⁱⁱ. Wilson understands complexity theory to be a search for algorithms used in nature that display common features across many levels of organization. He believes the techniques used to generate the algorithms used in "artificial life" are heavy on non-linear transformations and light on system facts. All too often any emergent behavior seen in developing algorithms is attributed to some natural significance.ⁱⁱⁱ

ⁱ Edward O. Wilson *Consilience; The Unity of Knowledge* Vintage 1999 p. 4 f.

ⁱⁱ *Consilience* p. 119.

ⁱⁱⁱ *Consilience* p. 95.