Mathematical Proofs from Specified Complexity

Mathematician William Dembski developed the theory of Specified Complexity, and documented it in his ground-breaking book The Design Inference. In his work, Dembski proved a number of mathematical theorems about Specified Complexity, including the Law of the Conservation of Information (LCI) and the No Free Lunch Theorem (NFL).

The LCI proves how the complex specified information in living cells could not have originated from chance events. The NFL proves how novel biological information could not have randomly appeared from copies of existing information, as has been postulated for gene duplication. In both cases, the amount of random trials required to produce functional biological information far exceeds the available resources of the entire Universe over its entire history.

Many Darwinists misunderstand or misrepresent specified complexity by equating it to Shannon Information. Shannon Information analyzes how sequences of characters and symbols are transmitted across communication channels. The sequences may be completely random, or they may contain semantic messages. Specified complex information (SCI) is a subset of Shannon information. SCI contains information that specifies the function of an external process that exists outside of the information sequence. The SCI can be understood and processed by a machine that is designed to read the sequence and perform the function. The amount of Shannon information in an SCI sequence is generally less than or equal to the amount of Shannon information in a random unspecified sequence.

Dembski's work on the LCI and NFL led to his development of the Design Explanatory Filter. This filter "helps us to use normal logic to infer when design was a cause involved in creating an object".

Dembski's mathematical proofs for specified complexity have been validated in a number of application areas, including field observations, laboratory research and computer simulations. These are discussed in their respective linked pages.