عنوان مقاله:

The Mathematical Basis of the Phenomenal World

نویسنده:

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خلاصه مقاله:

In the Critique of Pure Reason Immanuel Kant said that cognition (objective perception) is acquired in the unity of sensibility (the receptivity of the mind to receive empirical representations of things, which yields intuitions) and the understanding (in which concepts - general representations of things - arise), and is mediated by the imagination. Here, it is shown that numbers, either pure or denominate, are cognized in the synthesis of intuition and mathematical concept, and that the phenomenal world of the cognizer is shaped accordingly. Any number can be related to any other number through a general mathematical formula conceived by the cognizer for the purpose. The judgment of the cognizer is manifest in the specifics of the mathematical relationship established between the two numbers in cognition. If the cognized number is the numerical value of a physical constant then in the (consistent) phenomenal world it will always have been of the value found in cognition, which explains why the universe seems to be fine-tuned for life. If the cognized number is the numerical value of a physical variable, then the number will be subject to change in accordance with physical laws. Symmetry is a recurrent feature of the phenomenology. A mathematical formula conceived by the cognizer may also relate, one to one, the numerical values of quantities in one set with the numerical values of quantities of different dimensionality in another set, which suggests that physical laws are human inventions and that causality is a pure concept of the understanding.

کلمات کلیدی:

Number, cognition, concept, Mathematics, science, Phenomena

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