Review of: "Bell's theorem is an exercise in the statistical theory of causality"

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To my point of view, it is a very interesting article.

At the same time, the author did not take into account several uncertainties that must be taken into account before setting up the Bell experiment:

The formulating of the model structure is always preceds any experiment.

The model's accuracy is affected by the quantity of information it contains. The amount of information contained in a model can affect its accuracy in several ways. In general, a more complex model that contains more information may be more accurate than a simpler model, but only up to a point. Beyond a certain point, increasing the complexity of the model may actually decrease its accuracy.

The quantity of information in a model may impact its accuracy in complex ways. A more complex model may be more accurate up to a point, but beyond that point, increasing the complexity can lead to overfitting and decreased accuracy. Finding the right balance between model complexity and accuracy requires careful consideration of the specific problem and data at hand.

Considering the above, the construction of an optimal model structure for any experiment may include the representation of the model as a channel for transmitting information from the observed phenomenon to between the object of study and the developer (Menin, 2022). At the same time, in the modeling process (thinking act) it is assumed that the observed phenomenon is not subjected to external disturbances. Therefore, instead of the term "observer" or “experimentator”, who studies the object through measuring instruments, in what follows we must use the term "thinker.”

Two fundamental aspects of measurement theory emerge from this statement and are radically different from traditional classical reasoning. Firstly, the thinker plays an active role in describing natural phenomena, building a model with a certain qualitative and quantitative set of variables from any system of units and based on his philosophical views. The one currently widely used is the International System of Units (SI) (Davis, 2019). Its structure and its smallest achievable uncertainty directly depend on the will of the researcher. Secondly, models created by the human mind and preceding experiments can be selected in such a way as to provide the highest possible image throughput of the object with the lowest noise level. Under the conditions of the information method, representation of objective reality with high accuracy is not limited to philosophical reasoning, but involves practical implementation. This is achieved by calculating the value of

information characteristic of the optimal structure of the model of the selected phenomenon.