

Prof. José Ferrater Mora.  
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Diciembre 1956.

Estimado profesor:

Con motivo de la lectura de su libro "Lógica matemática", me permito felicitarlo por haber logrado sintetizar en tan pocas páginas un tema tan vasto, y ponerlo al alcance de los lectores de habla castellana en forma tan clara y didáctica.

Al mismo tiempo me aventuro a sugerirle con respecto a su afirmación de la página 60: "Hans Reichenbach ha manifestado, por ejemplo, la utilidad de la lógica trivalente para la física cuántica ..." la crítica formulada por Henry Margenau en su libro "The nature of physical reality, McGraw Hill Book Co. Inc. 1950, página 462 "Reichenbach believes that quantum mechanics represents an application of many-valued calculi to physics. We fear that his suggestion does violence to the straightforward habits of that branch of science. On the experimental side, an observation always reveals one of only two alternatives: it answers yes or no to every acceptable question. So far as measurement is concerned, an electron is either present within a given volume or it is not. The fact that one may not draw the usual inferences concerning the electron's fate from such an observation is the responsibility of the laws of nature and not the laws of logic; it is in a basic sense not more significant than the triviality that the size of a ship allows no conclusion as to the name of its captain.

"And on the side of theory the situation is in essence equally simple although different. When the state of an electron is given, then a statement like "The electron is at xyz" is indeed neither true nor false; it is in fact as obscure as "The electron is blue" and equally uninteresting. It is not asked, nor is any part of the theory based on it. But the prediction "The probability of finding an electron in a given volume (properly interpreted as frequency of observations) has the value  $\frac{1}{2}$ " is always either true or false and can be verified or confuted."

14-7-56

Aprovecho esta oportunidad para saludarlo atte.,

Prof. Hector F. Leguizamon.  
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