

The Michelson Fallacy

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Abstract: A new cognitive bias/fallacy is given definition so that it can be spotted in the future based on the author's experience with sharing a new understanding of nature.

A. A. Michelson:

"While it is never safe to affirm that the future of Physical Science has no marvels in store even more astonishing than those of the past, it seems probable that most of the grand underlying principles have been firmly established and that further advances are to be sought chiefly in the rigorous application of these principles to all the phenomena which come under our notice. It is here that the science of measurement shows its importance – where quantitative work is more to be desired than qualitative work. An eminent physicist remarked that the future truths of physical science are to be looked for in the sixth place of decimals."

-1894, dedication of Ryerson Physical Laboratory, quoted in Annual Register 1896, p. 159

To state the fallacy made above in meaningful terms:

"The belief that the fundamental principles of nature have already been discovered, and/or if there were something important to be known, the studying physicist who claims the former would be the first to know of it."

It is not true that experts in astrophysics would be the first to know of new principles, nor is it true they would be the first to discover them. It is an illusion or fallacy to assume such, as is the case with the discovery of the fundamental principles of stellar evolution/planet formation outlined by the author who is an outsider to the establishment. The Michelson Fallacy is an offshoot of the "Not Invented Here" stance adopted by institutionalized cultures based on turf wars and tribalism. The stance is if they did not invent, discover or understand the outside work, then it cannot possibly be valid or accurate.