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# **DIALOGUES**



# Science and Mysticism: A Complex Distinction

#### **DAVID TRAFIMOW**

email: dtrafimo@nmsu.edu

Department of Psychology, MSC 3452 New Mexico State University P.O. Box 30001 Las Cruces, NM 88003-8001

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In their interesting article, Trevors and Saier (2012) strongly distinguished between science and mysticism. I quote the last two sentences of their conclusion:

Science has allowed some humans to understand the universe at a profound level. Other have decided that the best way to understand the universe is through supernatural entities.

Although there is a difference between the two, the difference is less clear than Trevors and Saier make it out to be.

Trevors and Saier argue at some length that science and mysticism are distinguishable because scientific content is testable whereas mystical content is not. I disagree. Mystical content often is simply wrong. For example, consider Genesis, where it states explicitly: "And God said, 'let there be a firmament in the midst of the waters, and let it separate the waters from the waters" Do our spacecraft crash into the firmament when we send them into outer space? Do they splash into the upper waters? The answer to these questions, and other potentially embarrassing questions, is a resounding "no!" It is easy to search mystical sources and show that content is plain wrong or even self-contradictory. Therefore, because much mystical content already has been falsified, it clearly is testable.

Let us briefly consider the testability of scientific theories. It is well established that scientific theories make predictions only in combination with auxiliary assumptions that set initial conditions or fulfill other purposes. If a prediction fails, it could be the fault of the theory or of at least one auxiliary assumption (e.g., Lakatos,

1978). Thus, even in science, absolute falsification is impossible and we are stuck with something less than that, which we might term "reasonable" falsification. In addition, as Trafimow (2009) demonstrated, unless a theory has been combined with all possible sets of auxiliary assumptions to see if a testable prediction results, which is impossible to do in practice, there is no way to prove that the theory cannot make a testable prediction. Even mystical content, that many think cannot be tested, might be testable with appropriate auxiliary assumptions (see Trafimow for examples). Because much mystical content already has been proven wrong under the standard of reasonable falsification, and it is likely that additional mystical content will be proven wrong in the future, it is invalid to insist that mystical content is untestable.

The valid distinction is not between scientific and mystical content, but rather between scientific and mystical people or traditions. For example, many Jews or Christians either ignore or reinterpret obviously wrong biblical content. It is possible to take scientific or mystical sources more or less at face value, and to be more or less interested in testing for the truth of scientific or mystical content. Also, the same person can be scientific and mystical — scientific to function well in the world and mystical for emotional satisfaction. The person's mysticism might interfere with, aid, or not influence scientific functioning.

In conclusion, the science-mysticism distinction does not represent a true dichotomy, or even two poles of a single continuum. The differences between science and mysticism are more complex, and are to be found at least as much in people and traditions, as in content.

### REFERENCES

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