

Separation of concerns

It seems that in many sciences (at least math and linguistics, the only sciences I am really familiar with), entanglement has become a virtue. When people confront a phenomenon, they feel it necessary and indeed advantageous to deal simultaneously with any and all related phenomena. The result of this is a jumbled argument whose proponents would have a hard time pinpointing exactly why each assumption or design decision was made.

This is perhaps not surprising, given that most scientific arguments are created by invention, by instinct or intuition, rather than by design. How to design a scientific argument is far from a trivial question, but unfortunately, this fact does not seem to incite much excited investigation and research, but rather seems to be used as evidence for why design is not worth investigating. I suspect for many people working on such problems would make them feel much less “productive” .

In the past few days, I have come to the conclusion that with most scientists these issues are not worth discussing. For such conversations would only be worthwhile to me if people could give me some good reason why they do things the way they do. I have never encountered such a reason.

Here are a few examples of entanglement I have seen in linguistics:

- Using natural language words in example sentences, when only phrase structure is relevant to one’s argument.
- Using data when an argument is purely logical.
- An argument is given to explain a phenomenon. This argument breaks down for a certain class of data, which exhibits some other phenomenon, which has nothing to do with the first. An explanation of the other phenomenon is then deemed crucial (or relevant) to the original analysis.

I have been told many times that separation of concerns is unscientific. It would not surprise me if the majority of scientists felt this to be the case. I can only insist on my quiet persistence in investigating issues I feel are important and interesting, through a sound and well-reasoned methodology.

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