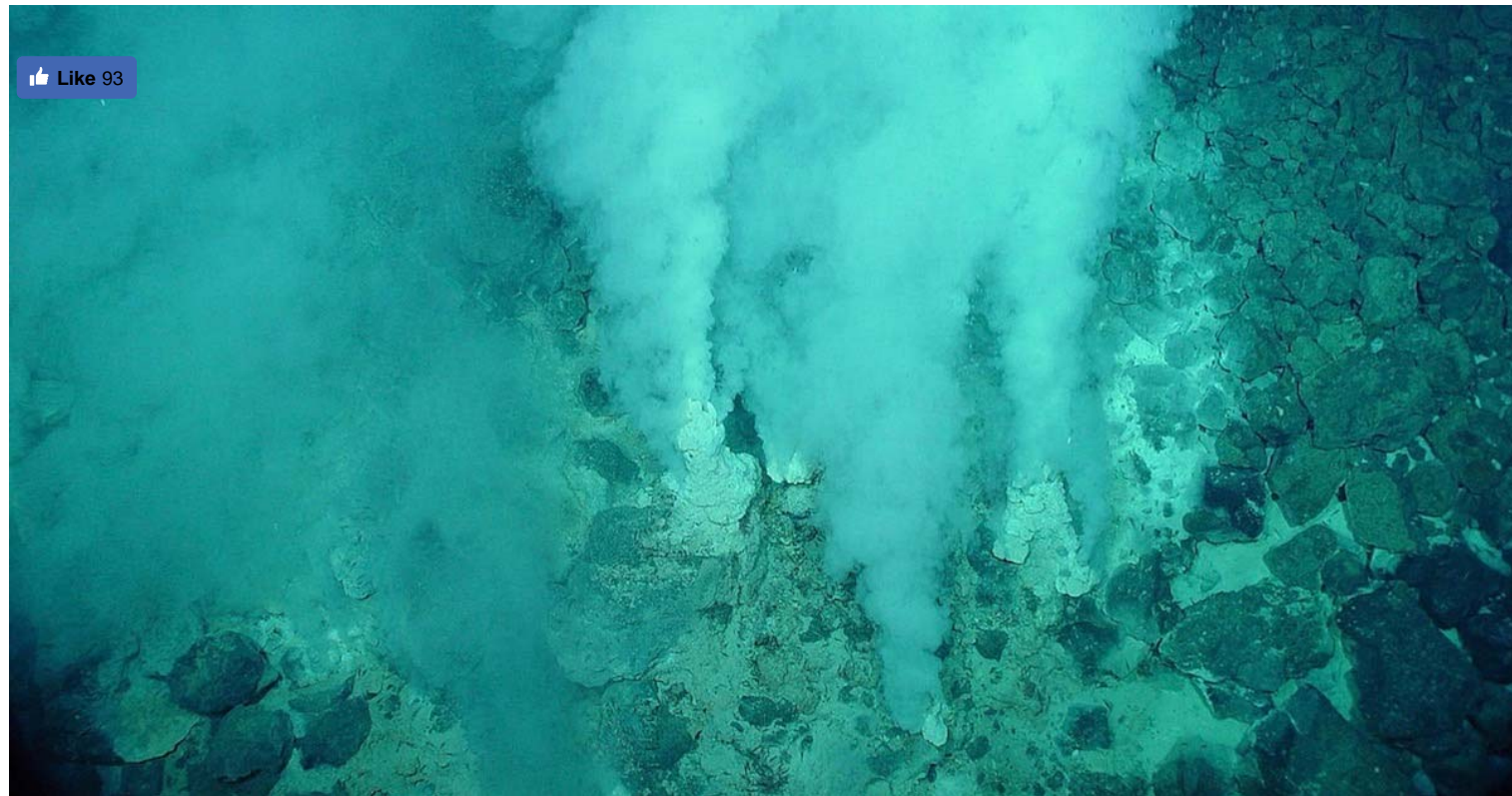


Inferential Science – What Could Go Wrong?

Kirk Durston (<https://evolutionnews.org/author/kdurston/>)

April 15, 2019, 1:38 PM



One of my student summer jobs was as field assistant for a geologist mapping the nickel-belt region in northern Canada for the provincial geological survey. For a couple days, we were joined by another geologist and I listened as the two of them discussed what might have happened to produce some of the rock structures we observed. They did not always agree. From the same observations, they inferred two different conclusions. They could not re-wind the clock and re-run the experiment. There were far too many possible variables, involving thousands of square kilometers of geological activity, to obtain the observed results. Instead, they could only draw conclusions based on inferences.

Inferring conclusions that go further than what we can experimentally reproduce is a very large part of modern science. This category of science can be called *inferential science*. We begin with observations or other experimental results to infer a conclusion that, itself, we are not in a position to experimentally prove. We can only say that, given the data, there is good reason to think it might be right.

The most common type of inference used in modern science is *inductive*. This is where the probability of the conclusion, given the data, is high enough to warrant the inference (<http://www.butte.edu/departments/cas/tipsheets/thinking/reasoning.html>). It is this area of science where tension between science and faith often arises, not because of actual experimental results, but because of inductive conclusions that we are not in a position to reproduce.

So What Can Go Wrong?

As a scientist, I am often dismayed at the naïve faith in science that I see in the general public, including Christian leaders, in their tacit assumption that the interpretations and inferences of science are the final arbiter of how we must understand the Bible. They assume that if there is a tension, it is the Bible that must be on the defensive. In reality, science is no more immune from the frailties of human nature than someone's interpretations of Scripture. For the following reasons, the inferences of science must be examined just as critically as any other set of beliefs.

A. Lack of Accountability

As I wrote in an earlier post (<https://evolutionnews.org/2019/03/experimental-science-and-its-implications-for-faith/>), “perverse incentives” such as competition for funding, academic prestige, and the pressure to publish have resulted in a reproducibility crisis in

