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#flo

## 1 | Strong Inference

### 1.1 | > Scientists these days tend to keep up a polite fiction that all

science is equal :CUSTOM\_ID: scientists-these-days-tend-to-keep-up-a-polite-fiction-that-all-science-is-equal

We speak as though every scientist field and methods of study are as good as every other scientist's, and perhaps a little better.

Isn't this mutually exclusive?

diff in advance speed of diff fields

### 1.2 | The reason why some fields are better than others, supposedly.

Formula thyme!

1. Making alt hypothesis
2. good experiment, as defined by alt possible outcomes which will exclude hypothesis
3. carrying out the experiment cleanly to get a clean result
4. (prime?) "recycling the procedure, making sub-hypotheses, or sequential hypotheses..."

These are all fair, but the reason why some fields are advancing faster than others cannot be chalked up to this difference in approach. In fact, speed of advancement itself regardless of comparison with other fields can also not be chalked up to this approach

"method oriented" rather than "problem oriented."

Wait, so he made a method about how to not follow methods...? hmmm...

Ah so it's about how we go about doing, and teaching science. Calling it now, the ISOS class will be about how we cannot just view science from a reductionist methodical standpoint?

There is no such thing as proof in science – because some later alternative explanation may be as good or better – so that science advances only by disproofs.

*wait what?*

Equations and measurements are useful when and only when they are related to proof: but proof or disproof comes first and is in fact strongest when it is absolutely convincing without any quantitative measurement.

2 |

*Discussion point :*

This seems like another reading about inherent human error in the scientific process. It provides solutions for fighting bias and error with a four step method, mostly based around hypothesis creation. While this can in fact reduce human intervention getting in the way of progress, I wonder if we can truly get to a point where human error is eliminated. If we can't, what does this mean about the nature of science? Is this like Godel's theory but with the real world? (I know that's a stretch)