

Science Is A Process

Since Science serves as a gatekeeper to protect society from poor technical ideas, it has been targeted by special-interest lobbyists and other parties. Their plan is that the more that they can undermine the public's confidence in Science, the less of an obstruction it will be to their self-serving agendas.

A primary tactic used by these anti-science agents, is to utilize off-the-reservation scientists to purposefully confuse the public about Science.

The strategy used by these anti-science parties, is to utilize the fact that the public does not appreciate the major distinction between **Science** and **scientists**. Are all priests holy people? **No!** Are all lawyers law-abiding citizens? **No!** Likewise, are all scientists practitioners of Science? **NO!**

Unfortunately it has been relatively easy to get scientists to abandon their professional standards (i.e., of apolitical objectivity). This comes about through peer pressure, financial inducements, interest in promoting an agenda (e.g., climate change), etc.

So how do we tell when a study done by some scientists is genuinely scientific?

Surprisingly, it's relatively easy!

To begin with, we need to be clear about what "Science" actually is. The simplest, most accurate definition is: "**Science is a process.**"

"Science is a **way of thinking**, much more than it is a body of knowledge... Our species needs, and deserves, a citizenry with minds wide-awake, and with a basic understanding of how the world works." – [Dr. Carl Sagan](#) (Astro-physicist)

The point of the Science *process* is to give us the best understanding of the technical truths of our existence.

"Science has its weaknesses and it doesn't have a stranglehold on the truth. However, Science has a way of approaching technical issues that is a closer approximation of truth than any other method we have."

– [Dr. Richard Muller](#) (Physicist at Berkeley)

Many people have heard of the [Scientific Method](#). That is not the same thing as the scientific **process**, but rather it is a very important *procedural overview* of how the **process** should work.

When we took Science classes in high school (and most of us did), the main purpose was **not** to prepare us to be scientists, as only a small number of students end up in science careers. **The real objective was to show us how to solve problems!**

In high school Science classes, we were presented with a hypothesis (a *potential* solution to a problem) and were taught how to properly evaluate this proposed idea to see if was legitimate.

In high school things were simplified and short-cuts taken. However, the process that professional scientists are supposed to use to accurately assess the legitimacy of a hypothesis, is to do studies that are:

- 1) Comprehensive,
- 2) Objective,
- 3) Transparent, *and*
- 4) Empirical.

That is the Science Process in a nutshell.

That is a simple but powerful test that the public can use to see if scientists are adhering to real Science, when they are presenting us with studies to support their claims. We need only look at those four criteria to see if said studies are legit.

If they fail one or more of the four essential elements of the Science process, then what we are likely dealing with is *political science*, not genuine **Science**.

Political science is a concoction designed to promote a political agenda – where real **Science** is about getting a better understanding of the truths of our existence. BIG difference! Consider that:

Real Science is an exacting business.

Politicians, on the other hand, want approximations.

Real Science takes considerable time and effort.

Politicians want to cut to the chase.

Real Science requires a strong foundation to build on.

Politicians just want the credit for getting something put up.

Real Science is based on real-world empirical evidence.

Politicians are enamored with computer models and consensus.

Real Science is anathema to self-serving salespeople.

Politicians are closely aligned with lobbyists.

The bottom line is that if we want to assess the accuracy of our societal technical issues (energy, climate, COVID-19, etc.), then closely look at the underlying studies for their adherence to the four necessary elements of the Science process. If they diverge, then we are dealing with political science.