

All.Net Analyst Report and Newsletter

Welcome to our Analyst Report and Newsletter

A few words on causality

A lot of people have problems understanding causality, and one of the reasons is because (I just used causality – did you notice) they miss the mechanism.

Cause acts through Mechanism to produce Effect

The Mechanism is what most people miss. They might say things like “You opened your hand, so the apple fell”. Opening your hand was the cause of the falling apple. But of course that is not really right.

If you open your hand in a zero gravity (actually micro-gravity – there is no actual zero gravity) environment, the apple would not fall. In fact, in a negative gravity situation, the apple will actually rise, rise being relative to how you are standing or some such thing.

The mechanism is gravity.

The missing step

So cause and effect seems to have a missing step, the mechanism, that once filled in, provides a testable scientific hypothesis.

But not really...

There is always a missing step, at least for now, because we don't have complete knowledge of the nature of the universe. And that goes down the chain toward full understanding of physics as well as up the chain to full understanding of social interaction.

Before is not because

Just because (not that word again) I open my hand and the apple falls, does not mean opening my hand caused the apple to fall.

But without before you don't have because - assuming time runs forward.

Correlation is not causality

Just because they are statistically related doesn't mean one causes the other.

But without correlation, you don't have causality.

Causality is fractal

So-called proximate cause is just one of the elements to what's really going on. Gravity, what causes it? And as a basic property of nature according to physics, this is one of the simplest and most testable hypotheses for a causal chain. So whatever we attribute as the cause of gravity (perhaps a mass in proximity?) what caused that? The entire causal chain? The Big Bang?

Summary

Causality is tricky. It's about “why”. And as a result, it's complicated, fractal, and hard to get a handle on. Because I said so!