

# Diet Pills and Persistent Error in Health and Science

Earlier this year, I was doing a deep dive into virology. Coincidentally, this was before Covid, in effort to solve my own health-related problems and mysteries. I had the same experience I've had when I went deeper into any field. A realization that nobody in the field knows what the hell is going on.

I don't know what viruses are or how they work exactly (no one seems to really), but I came across enough published work to discover the current theories are insufficient to explain reality. There are many things observed and documented in the world that would not be possible if the dominant theories were true.

It is a disconcerting notion. An entire body of science with widespread and accepted beliefs, billions in money and man-hours, and real-world implications could be operating partly or mostly in the dark? Yes. In fact, that is the norm in the history of science, not the exception.

People tend to respond to such claims with indignance. A common argument goes something like this:

*If a theory were incorrect, and being incorrect had real-world implications, the theory would not persist. The fact that it does persist, and so many experts and laypeople alike believe it and billions are spent on the assumption it is true, must mean it is true.*

Let's see if we can disprove the above argument. All you need to disprove a claim like that is a single example of where it does not hold. Then it can no longer be used as a proof. And we have such an example.

Diet pills.

Magic pills that make you thin have been around for a long time. The theories they are based on are faulty, AND this faultiness has real world implications, i.e. people buy the pills and don't get the results.

Yet millions are spent on them and they don't vanish.

This clearly proves that a false theory, with real-world implications for being false, can persist. But why?

Because people benefit.

If an incorrect theory that leads to outcomes that disprove it can benefit people, they can keep on believing in it for a very long time. The people making and selling diet pills benefit

in terms of money. The people buying them also benefit. They get to relieve some psychic discomfort about their weight and appearance by buying a pill and feeling like they're at least doing something. They are buying hope. Trust in experts. Marginal relief from feeling like they're not making progress, all the while avoiding the hard work.

So it persists.

The majority of theories in human health can be explained the same way. The more you dig, the more you find that almost all the dominant theories are incorrect. There are too many stubborn facts that contradict them. But they persist because it benefits the researchers to have a theory, it benefits policymakers to have a specific target to which to direct money, and it benefits the public to feel safer believing that the health troubles in the world are understood by experts and have cures. Most are not and do not.

This is different than placebo. Placebo is probably the most effective and efficient form of treatment in the history of health. Unlike these incorrect theories, placebo actually works. We just can't explain the causal mechanisms that make it work. Incorrect theories and diet pills have theories we can explain, but they are incorrect and do not work. They are anti-placebos; beliefs that makes us feel better but make our outcomes no better or worse.

Science at large faces this problem far more than the diet pill industry. Many if not most theories that are treated as fact fail to produce outcomes they'd predict. They are demonstrably false. But because no clearly correct theory can be found, pretending to understand persists. Researchers get money for concrete claims of knowledge. Policymakers get to have definable problems and solutions to tout. The public gets the comfort of "knowing" how it works, complete with cute little animated posters and 3-step action plans.

Nobel Prize winning biochemist Dr. Kerry Mullis, inventor of the PCR process (incidentally this is the process used in Covid tests, despite its inventor's insistence until his death that this was not valid use of the process), spent the last years of his life fighting against the claim that HIV causes AIDS. I was shocked when I came across him and the other researchers and a substantial community around the AIDS not caused by HIV claim.

I do not claim to know whether this is true, but according to Mullis, he watched his own technology (PCR) be misapplied to diagnose disease, and he watched sloppy science get rushed out to meet a social and political demand for an answer to AIDS. The money, press, and public would rather have an answer than take the time to prove the answer correct. He said he watched nearly all his colleagues shoehorn their unrelated research into AIDS-related research, because billions were being doled out, as well as status and fame, all because the political class, media, and public wanted to believe there was a known cause and therefore clear research to be done to cure it.

Mullis maintained that no one had yet figured out what caused AIDS. There were some theories, some with fewer problems than the HIV theory, but none of them were free from contradictory evidence in the real world. He said, however, that public science cannot abide the very thing science is supposed to do best; questions. It needs answers. Incorrect theories that provide clear action steps, even if they lead to broken outcomes, exist and persist.

The history of science and medicine confirm this. Theories have been believed and acted upon even while making the problem worse. Over and over and over.

The odds are incredibly, ridiculously slim that that is not happening right now with almost every theory. The more public and political the health or science issue, the greater the odds that the theories funded are incorrect. The incentives are just stacked too far against the truth, which is usually something like, "We don't really know what's going on, but sometimes this helps some people."

This is why science tends to progress in sudden, violent lurches, instead of the smooth linear path you might expect. Incorrect theories are prematurely turned into gospel by the scientists with the best political skills because the incentives to have an answer are so strong. This means falsifications and superior theories face an incredible battle and require a massive cataclysmic shift and/or changing generations to break through.

*PS - One of the more interesting things I came across was the many cases through history of healthy sailors at sea for months (long after the incubation period claimed by viral theory) suddenly contracting the flu at the exact same time as people on land a thousand miles away. This has been observed and studied for several hundred years, and to date, no mainstream viral theory can explain it. Therefore, all current viral theories must be incorrect or incomplete. How unsatisfying.*