



EVIDENCE / RESEARCH / SCIENCE

It's Complicated: Examining Our Relationship with Science

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Describing something as *scientific* has become shorthand for designating it authoritative. We have bumper stickers that declare, "In science we trust," and yard signs that state, "Science is real." But what do we mean by the word *science*? And where does its authority come from?

Science is a method of discovering knowledge. The scientific method begins with observations and inferences, which combine to suggest a hypothesis, which is then tested to determine whether it is false or not. You've probably learned this method in school countless times. But for most of us, it remains a relic of the classroom far from the reality of our daily lives.

Nevertheless, the scientific method undergirds much of what we believe today because we rely so heavily on scientists who employ the method to inform us. Scientists create knowledge that is reported in peer-reviewed journals, then presented in the media by journalists, incorporated into medical standards of care, or referenced to guide policy. Science is used to explain and predict the world around us and permeates all we do.

And yet, we filter what we know via science through the current social paradigm. In other words, what we already believe as a society influences what conclusions we draw from the results of research. The COVID pandemic exemplified this. From quarantine to masks to vaccines, COVID brought forth the simmering national controversy regarding how to handle scientific knowledge, a controversy that continues to burble as COVID recedes from our collective focus.

On one side, we have those who say trust the science. Science is fact. Science is the only way to know anything, and to question it is to shun true understanding. The other side says what purports to be science is actually the voice of the moneyed and powerful, who benefit from our obedience and shame us for asking questions. In my experience, neither side is all right or all wrong. However, laypeople who say unequivocally that science is real miss the essence of the discipline's hallmark method.

To treat science as a collection of unchanging truths is to shun both the open-mindedness and the skepticism that scientists must adopt. To keep an open mind means you will entertain the idea presented. To be skeptical means you need quality evidence to be convinced that the idea is valid.

As a chiropractic patient and practitioner, I have been prompted to open my mind to different ways of thinking about health and the human body. I remember as a chiropractic student wondering how I would explain to the people in my life the way I was being transformed by the new ideas presented. I was learning to question biomedical hegemony, and I was learning to recognize and unleash the body's self-healing capabilities.

Questioning prior knowledge that I had once trusted, and considering a new framework of thought, I yearned for truth and its evidence. Yet how could I discern truth from illusion? What could be trusted? How could I share what I was experiencing without sounding like a zealot?

I had to face that chiropractic research has been historically underfunded and perpetually de-emphasized in favor of clinical practice. Thus, the field has a lot of work to do to provide the evidence that would satisfy skeptics. It's a tricky spot to be in. I know how chiropractic has improved my health and my patients' health, yet how can the potency of clinical practice compete with the value our society places on scientific evidence above all else?

I want so badly to be able to say that chiropractic is scientific unequivocally, because I want people to trust it, and to know it is real the way that I know and trust chiropractic to be real. As a chiropractor and an individual, I was left questioning the power of science as a discipline to define knowable facts. It's a position I'm not alone in, as our society has shown over the pandemic.

I remind myself that science as dogma is an abuse of science. Researchers do not see what they do as black-and-white fact-finding. Instead, it is we who consume and apply their findings who often lose the nuance in hopes that we can make clear-cut decisions and define truths to rely on. We ask too much of science when we look to it as a uniformly infallible authority. Science is a method that involves constantly refining what we think we know, and it is a process that never ends.

I believe the scientific method is an essential way of knowing about the world around us. However, I also believe that our conclusions from science are colored by what we already know (or think we know) and that science is not the only way to discover truths that matter in our lives. Keeping an open mind, tempered by skepticism, allows us to do our very best as scientists, clinicians, and individuals in the search for what is true and trustworthy.

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