Many well-educated, skeptical people suffer from a failure of logic when it comes to matters of health. Some studies even suggest that the more educated the person, the more likely they are to fall for some form of quackery. A major logical failing of the educated, although it is rarely recognized for what it is, is instead simply prejudice. Too many believe they have gained some secret insight because of their wealth or reading and decide that everything "organic" is good, while conventional "chemicals" are somehow unhealthy, that "natural" is good, and "artificial" is bad.

This is just prejudice. The wise question is not whether something is "natural" or "artificial", "new" or "old", "organic" or "conventional", but simply whether something is good or bad. Not all chemicals are bad, and not everything natural is good. And all that is original and novel is not necessarily good.

"It's easier to be original and foolish than original and wise (Liebnitz)."

SUBJECTIVE VALIDATION - When a person who believes fervently in some idea is confronted by evidence that they are wrong they may react emotionally and consider the evidence
to be a personal attack. They will then deny the evidence, no matter how strong it might be. This emotional reaction is part of common human nature; it takes a strong, objective mind to combat it, and it is exploited by quacks. Even my well-educated friends take vitamin supplements, despite the overwhelming evidence that they (and almost everyone else) don't need them. And I cannot, despite my eloquence and scientific demonstrations, shake their beliefs.

Evidence, to be acceptable, must follow the rules. Evidence based on logical fallacies, poorly designed or faked studies, testimonials and anecdotes, is not acceptable; these are the methods of quacks. We prefer science to pseudo-science. "Alternative" Medicine is a red herring; there is no alternative to proper treatment.

AUTHORITARIANISM - CREDENTIALS The fallacy of the appeal to authority is another pitfall exploited by the quacks. Credentials can be phony, can be meaningless, can be purchased. Even people with genuine credentials can be dead wrong. Citing credentials or quoting authorities are no guarantees of reliability. Uri Geller said, "If there is a God, I am right" but James Randi absolutely proved him wrong for Johnny Carson on "The Tonight Show". Many quacks boast of fancy sounding degrees from unaccredited mail-order diploma mills, and display impressive-looking plaques on the wall.

PSYCHOLOGY OF QUACKERY - Many intelligent people retain the rebelliousness of youth under the guise of "individuality". They are resentful of Authority and the Establishment; they may be jealous of "wealthy doctors"; they may harbor the desire to have trendy knowledge ("I'm smarter they they are, I'm up on the latest"). And a touch of paranoia can play its part ("the establishment is trying to conceal the truth about cancer, the environment, nutrition, but they can't fool me.")

Quackery can be appealing because it's consistent with the American notion of freedom and individuality and resistance to control and dogma.

QUACKS COUNT ON:

The placebo effect, which improves chronic symptoms about half the time. The quack is quick to take the credit.

The waxing and waning of chronic symptoms. When the symptom gets worse, the patient goes to the quack, who takes the credit when the symptom gets cyclically better, as it would have done anyway.

Misdiagnosis. A favorite quack trick: he tells you you have a disease you don't have, then he cures you.

Spontaneous remission. Occasionally, a serious disease improves or gets better for no detectable reason. The quack will loudly take credit, without mentioning his many failures.

Phony "prevention" programs. It's very easy to successfully treat a patient who has nothing the matter with him. Often the patient is a too-willing accomplice to the deception (or self-deception. Norman Cousins is an example.)

QUACKERY AND THE LAW - The public erroneously believes that it is protected from
Quackery by the law and this gives people a false sense of security. That makes it easier for the quack to deceive. In reality, quackery is not necessarily illegal; in any case, it is very difficult to prosecute even the most flagrant quackery.

Even if it is prosecuted, the quack is often able to hoodwink scientifically illiterate judges and juries, and then will point to the favorable law decision as "proof" of their beliefs. That is why the quack prefers the courts of Law to the courts of Science. The Law says "you are innocent until proven guilty". Science says the opposite: "You are guilty until proven innocent". A scientific treatment is no good and shouldn't be used until it is proven safe and effective.

**How Quacks Do It**

**Methods Of The Quack:** The Quack makes unscientific claims and defies you to disprove them whereas a real scientist develops and displays proof before making claims. A real doctor has scientific evidence that a treatment is safe and effective before they will use it.

The Quack uses complicated language and systems to cover up a simple but non-scientific principle. Chiropractic claims that all disease stems from mis-alignments of the spine, for example. The dental temporomandibular joint (TMJ) quack claims that numerous diseases come from misalignment of the jaw joint. They take simple concepts and then obscure them with all sorts of complicated pseudo-language.

Additionally, quack jargon commonly makes use of emotionally loaded catch words, such as alternative, holistic, prevention, nutrition, immune system, wellness and more.

That is why the Quack focuses on what I call the "quack-sensitive" ailments, such as arthritis, headaches, depression, loss of "vigor", malaise, multiple sclerosis, sexual difficulties, etc. These are real ailments characterized by chronic discomfort and often incorporating emotional factors; conventional medicine finds these difficult to treat successfully. The Quack hurls themself into the breach.

**Attack The Establishment For Profit**

The Quack always finds a way to make a profit on the latest beliefs. They rely on authoritarianism, logical fallacies, falsehoods, unsupported assertions, anecdotes, testimonials. They never defend methods by showing proof, but instead attack the "establishment". They respond to criticism by threatening to sue. Most importantly, they always comes up with something "new". As soon as one thing is disproved, they are ready with another, equally fallacious.

If a quack is wrong with 99 times patients and turns out to be right once, they claim to be a courageous pioneer. If a legitimate doctor is right 99 times and wrong once, the quacks only talk about how mainstream medicine (they will call it "allopathic", to make it sound like medicine is just a parallel to homeopathy, naturopathy, etc.) is wrong.

**Most Worrisome Is The Sincere Quack** - If a quack is sincere, and really believes in what they're doing, does that make it all right? I think it is safer to go to the quack who knows they are a quack; at least fear of legal reprisal may prevent them from killing you. A Long Island chiropractor,
35 years old, died in Mexico where his cancer was being treated with the "alternative holistic" methods he believed in.

"MAY you never know what we're preventing!" - This statement, from an advertising "newsletter" put out by a so-called "holistic" dentist, shows the Quack's "bait and switch" technique. The quack is, in essence, saying: "prevention is good" and if you don't get a disease, it worked. They pretend that because the first part is true (prevention is good) then the second part must also be true (what I do constitutes prevention). This is, of course, a disguised non-sequitur. If challenged, the quack defends the first half of their statement and condemns you for attacking "prevention", as if their methods and "prevention" were one and the same.

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