

1996 William J. Beaty

Extracted from: <u>http://amasci.com/pathsk2.txt</u> main page: <u>http://amasci.com/weird/wclose.html</u>

Many members of the mainstream scientific community react with extreme hostility when presented with certain claims. This can be seen in their emotional responses to current controversies such as UFO abductions, Cold Fusion, cryptozoology, psi, and numerous others. The scientists react not with pragmatism and a wish to get to the bottom of things, but instead with the same tactics religious groups use to suppress heretics: hostile emotional attacks, circular reasoning, dehumanizing of the 'enemy', extreme closed-mindedness, intellectually dishonest reasoning, underhanded debating tactics, negative gossip, and all manner of name-calling and character assassination.

Two can play at that game! Therefore, I call their behavior "Pathological Skepticism," a term I base upon skeptics' assertion that various unacceptable ideas are "Pathological Science." Below is a list of the symptoms of pathological skepticism I have encountered, and examples of the irrational reasoning they tend to produce.

(Note: all the quotes are artificial examples)

1. Belief that theories determine phenomena, rather than the reverse.

"The phenomenon you have observed is impossible, crazy stuff. We know of no mechanism which could explain your results, so we have grave suspicions about the accuracy your report. There is no room for your results in modern theory, so they simply cannot exist. You are obviously the victim of errors, hoaxers, or self-delusion. We need not publish your paper, and any attempts at replicating your results would be a waste of time. Your requests for funding are misguided, and should be turned down."

2. Erecting barriers against new ideas by constantly altering the requirements for acceptance. (A practice called "moving the goalposts.")

"I'll believe it when 'X' happens" (but when it does, this immediately is changed to: "I'll believe it when 'Y' happens.")

Example:

"I won't believe it until major laboratories publish papers in this field. They have? That means nothing! Major labs have been wrong before. I'll believe it when stores sell products which use the effect. They do? That means nothing, after all, stores sell magic healing pendants and Ouija boards. I'll believe it when a Nobel Prize winning researcher gets behind that work. One has? Well that means nothing! That person is probably old and dotty like Dr. Pauling and his vitamin-C..." etc.

3. Belief that fundamental concepts in science rarely change, coupled with a "herd following" behavior where the individual changes his/her opinions when colleagues all do, all the while remaining blind to the fact that any opinions had ever changed.

"The study of (space flight, endosymbiosis, drillcore bacteria, child abuse, cold fusion, etc.) has always been a legitimate pursuit. If scientists ever ridiculed the reported evidence or tried to stop such research, it certainly was not a majority of scientists. It must have been just a few misguided souls, and must have happened in the distant past."

4. Belief that science is guided by consensus beliefs and majority rule, rather than by evidence. Indulging in behavior which reinforces the negative effects of consensus beliefs while minimizing the impact of any evidence which contradicts those beliefs.

"I don't care how good your evidence is, I won't believe it until the majority of scientists also find it acceptable. Your evidence cannot be right, because it would mean that hundreds of textbooks and thousands of learned experts are wrong.

5. Adopting a prejudiced stance against a theory or an observed phenomena without first investigating the details, then using this as justification for refusing to investigate the details.

"Your ideas are obviously garbage. What, try to replicate your evidence? I wouldn't soil my hands. And besides, it would be a terrible waste of time and money, since there's no question about the outcome."

6. Maintaining an unshakable stance of hostile, intolerant skepticism, and when anyone complains of this, accusing them of paranoid delusion. Remaining blind to scientists' widespread practice of intellectual suppression of unorthodox findings, and to the practice of "expulsion of heretics" through secret, back-room accusations of deviance or insanity.

"You say that no one will listen to your ideas, and now the funding for your other projects is cut off for no reason? And colleagues are secretly passing around a petition demanding that you be removed? If you're thinking along THOSE lines, then you obviously are delusional and should be seeking professional help."

7. Ignoring the lessons of history, and therefore opening the way for repeating them again and again.

"Scientists of old ridiculed the germ theory, airplanes, space flight, meteors, etc. They were certain that science of the time had everything figured out, and that major new discoveries were no longer possible. Isn't it good that we researchers of today are much more wise, and such things can no longer happen!"

8. **Denial** of the lessons of history. An inability to admit that science has made serious mistakes in the past. Maintaining a belief that good ideas and discoveries are never accidentally suppressed by closed-mindedness, then revising history to fit this belief.

"Throughout history, the *majority* of scientists never ridiculed flying machines, spacecraft, television, continental drift, reports of ball lightning, meteors, sonoluminescence, etc. These

discoveries are not examples of so-called 'paradigm shifts', they are obvious examples of the slow, steady, forward progress made by science!"

9. Using circular arguments to avoid accepting evidence which supports unusual discoveries, or to prevent publication of this evidence.

"I do not have to inspect the evidence because I know it's wrong. I know it's wrong because I've never seen any positive evidence."

"We will not publish your paper, since these results have not been replicated by any other researchers. We will not publish your paper, since it is merely a replication of work which was done earlier, by other researchers."

10. Accusing opponents of delusion, lying, or even financial fraud, where no evidence for fraud exists other than the supposed impossibility of evidence being presented.

"Don't trust researchers who study parapsychology. They constantly cheat and lie in order to support their strange world views. Very few of them have been caught at it, but it's not necessary to do so, since any fool can see that the positive evidence for psi can only be created by people who are either disturbed or dishonest.

11. Unwarranted confidence that the unknown is in the far distance, not staring us in the face.

"Your evidence cannot be real because it's not possible that thousands of researchers could have overlooked it for all these years. If your discovery was real, the scientists who work in that field would already know about it."

12. Belief that certain fields of science are complete, that scientific revolutions never happen, and that any further progress must occur only in brushing up the details.

"Physics is a mature field. Future progress can only lie in increasing the energies of particle accelerators, and in refining the precision of well-known measurements. Your discovery cannot be true, since it would mean we'd have to throw out all our hard-won knowledge about physics."

13. Excusing the ridicule, trivialization, and the scorn which is directed at 'maverick' ideas and at anomalous evidence. Insisting that sneering and derisive emotional attacks constitute a desirable and properly scientific natural selection force.

"It is right that new discoveries be made to overcome large barriers. That way only the good ideas will become accepted. If some important discoveries are suppressed in this process, well, that's just the price we have to pay to defend science against the fast-growing hoards of crackpots who threaten to destroy it."

14. Justifying any refusal to inspect evidence by claiming a "slippery slope." Using the necessary judicious allocation of time and funding as a weapon to prevent investigation of unusual, novel, or threatening ideas.

"If we take your unlikely discovery seriously, all scientists everywhere will have to accept every other crackpot idea too, and then we'll waste all of our time checking out crackpot claims."

15. A blindness to phenomena which do not fit the current belief system, coupled with a denial that beliefs affect perceptions.

"Thomas Kuhn's 'paradigm shifts' and sociology's 'cognitive dissonance' obviously do not apply to average, rational scientists. Scientists are objective, so they are not prone to the psychological failings which plague normal humans. Scientists always welcome any data which indicates a need to revise their current knowledge. Their "beliefs" don't affect their perceptions, scientists don't have "beliefs", science is not a religion!

16. A belief that all scientific progress is made by small, safe, obvious steps, that widely-accepted theories are never overturned, and that no new discoveries come from anomalies observed.

"All your observations are obviously mistakes. They couldn't possibly be real, because if they were real, it would mean that major parts of current science are wrong, and we would have to rewrite large portions of we know about physics. This never occurs. Science proceeds by building on earlier works, never by tearing them down. Therefore it is right that we reject evidence which contradicts contemporary theory, and recommend that funding of such research not be continued."

17. Hiding any evidence of personal past ridicule of ideas which are later proved valid. Profound narcissism; an extreme need to always be right, a fear of having personal errors revealed, and a habit of silently covering up past mistakes.

" X is obviously ridiculous, and its supporters are crack-pots who are giving us a bad name and should be silenced."

But if X is proved true, the assertion suddenly becomes:

"Since 'X' is obviously true, it follows that ... "

18. Belief in the lofty status of modern science but with consequent blindness to, and denial of, its faults. A tendency to view shameful events in the history of modern science as being beneficial, and a lack of any desire to fix contemporary problems.

"It was right that Dr. Wegner's career was wrecked; that he was treated as a crackpot, ridiculed, and died in shame. His evidence for continental drift convinced no one. And besides, he did not propose a mechanism to explain the phenomena."

19. A belief that Business and the Press have no tendency towards close-mindedness and suppression of novelty, and that their actions are never are guided by the publicly-expressed judgment of scientists.

"If the Wright Brothers' claims were true, we would be reading about it in all the papers, and flying-machine companies would be springing up left and right. Neither of these is occurring, therefor the Wright's claims are obviously a lie and a hoax.

20. Refusing to be swayed when other researchers find evidence supporting unconventional phenomena or theories. If other reputable people change sides and accept the unorthodox view, this is seen as evidence of their gullibility or insanity, not as evidence that perhaps the unconventional view is correct.

"I'll believe it when someone like Dr. P believes it."

But when Dr. P changes sides, this becomes:

"Dr. P did some great work in his early years, but then he destroyed his career by getting involved with that irrational crackpot stuff."

21. Elevating skepticism to a lofty position, yet indulging in hypocrisy and opening the way to pathological thinking by refusing to ever cast a critical, SKEPTICAL eye upon the irrational behavior of scoffers.

"Criticizing skeptics is never beneficial. It even represents a danger to science. One should never criticize science, it just gives ammunition to the enemy; it aids the irrational, anti-science hoards who would destroy our fragile edifice."

22. Belief that modern scientists as a group lack faults, and therefore clinging to any slim justifications in order to ignore the arguments of those who hope to eliminate the flaws in Science.

"I think we can safely ignore Thomas Kuhn's STRUCTURES OF SCIENTIFIC REVOLUTIONS. Despite his physics training we can see that Kuhn was an outsider to science; he obviously doesn't have a good grasp on real science. Outsiders never can see things in the proper positive light, it takes a working scientist to see the real situation. Also, he stressed his central themes way too much, so I think we can ignore him as simply being a sensationalist. And besides, if he's digging up dirt regarding science, then he must have a hidden agenda. I bet we'll find that he's a Christian or something, probably a creationist."

23. Blindness to the widespread existence of the above symptoms. Belief that scientists are inherently objective, and rarely fall victim to these faults. Excusing the frequent appearance of these symptoms as being isolated instances which do not comprise an accumulation of evidence for the common practice of Pathological Skepticism.

"This 'Pathological Skepticism' does not exist. Kooks and crackpots deserve the hostile mistreatment we give them, but anyone who does similar things to skeptics is terribly misguided. Those who criticize skeptics are a danger to Science itself, and we must stop them."

See also:

"Zen and the art of debunkery," Dan Drasin http://amasci.com/pathskep.html

Seven Warning Signs of Bogus Skepticism http://www.suppressedscience.net/seven%20warning%20signs.html