

Conspiracy Theories and Science

2019

Thomas A. Burns Ph.D.

Klamath Falls, Oregon

Science is open to all points of view because it recognizes that its knowledge about the natural and social worlds is always incomplete and that the theories that result from that incomplete state of knowledge must therefore be tentative. There are no absolutes. There are just the best assessments given all of the known relevant evidence “to date.” But good science does require that the conclusions drawn in scientific assessments must reflect a rigorous process. Realistically, little of what purports to be good science lives up to all of the ideals of this rigorous process. But the standards are there, and offerings are subject to examination in accord with these standards. It is adherence to this rigorous process that mainly distinguishes conspiracy theories from scientific theories.

What follow are the questions which reveal the points at which conspiracy theories part company with respectable scientific assessments and theories:

- 1) Is all of the relevant evidence/data included or is the data selected to support the hypothesis/interpretation/conclusions? Conspiracy theories are rife with only supporting evidence being cited while any evidence that does not support the argument is ignored. In addition, conspiracists often bring together isolated facts into a collective where these unrelated facts are together made to seem more convincing than the argument really justifies.
- 2) Is all of the relevant evidence fairly evaluated for its importance? Conspiracy theorists typically demean the evidence of competing arguments claiming it is irrelevant or insufficient without providing the required detailed analysis. Of course, when one conspiracy theory is debating another, it is relatively easy to poke holes in the opponent’s argument for any number of reasons.
- 3) Are alternative views/assessments/theories fully considered and fairly evaluated? Conspiracy theorists are generally so wrapped up in presenting their own perspective and argument that they rarely fairly evaluate arguments that come to different or opposing conclusions. While it is not required to convincingly challenge what may be the many other alternative conspiracy theories, it is necessary to fully review what amounts to the “official” or “standard” argument that is offered by “the authorities” - usually the government.
- 4) Is the argument, or at least the major contentions within it, confirmed in fully independent scientific studies/analyses/reports? Conspiracy theories are famously one offs where many of the major contentions are not independently confirmed.

5) Do the authors/proponents avoid calling into question the motives of the parties who offer alternative views? It is common for conspiracists to attribute questionable motives to those presenting arguments that do not support their conclusions.

6) Do the authors/proponents avoid dismissing alternative views as efforts to cover up the “truth,” a “truth” that just happens to correspond to their argument? Conspiracists commonly assert that alternative arguments constitute cover ups.

7) Do the authors/proponents avoid compounding their otherwise dismissive assertions with claims that their argument is being suppressed by a vague cabal of opposing forces [a claim of nested conspiracies]? Conspiracists often complain that their views are not covered by the established media because this media is under the control of a vast, overarching conspiracy of information suppression. This contention is even made in democratic societies with a free press and open access for the public to all information sources on the internet.

8) Do the authors/proponents tend to see a world filled with evil individuals, groups, and/or institutions that are “against” them and their efforts to reveal the “truth”? Many conspiracists entertain a worldview that is borderline paranoid.

9) Do the authors/proponents avoid complexity and subscribe to the principle in science that the simplest explanation that fairly considers all of the evidence is likely to be the better argument/theory? Conspiracy arguments are often hugely complex, especially with respect to all the different individuals, groups, and/or institutions that would have to be complicit for their arguments to be credible.

10) Do the authors/proponents recognize that in all but authoritarian societies, while conspiracies do exist, they tend to be small in scope and involve few parties if they are to be “successful”? On the contrary, conspiracy theories tend to be formulated around major public events that are very large in social scope – the kind of situations where real conspiracies are most likely to be exposed by all kinds of investigators and “whistle blower” entities. [eg. Trump can only keep secret for a couple of weeks his duplicitous phone call to a Ukrainian leader!]

11) Do the authors/proponents attribute unreasonable and unsupported motives to the parties that are held to be the responsible participants? Conspiracists often ascribe motives to participants in their proposed conspiracies for which they provide very little evidence, and which would often make fools of these participants for the extreme risks that they would be taking.

12) Do the authors/proponents tend to move from asserting one conspiracy to another to yet another, sometimes attempting to relate these conspiracies as they attribute cause and responsibility? Committed conspiracists often view virtually all of social reality through a conspiratorial lens. A reputation as a promoter of conspiracy theories is not a reputation with which any legitimate

scientist wants to even rub shoulders. Respectable main stream journalists and established media organizations also tend to avoid covering conspiracy theories. Why? Lack of credibility is the primary reason, not the frequently claimed conspiracy of media suppression. Being denied coverage in the standard media, conspiracists offer their theories in the blogosphere where there is virtually no filter for the validity of the information presented and where their offerings have a chance to go viral. Most conspiracy theories are like very elaborate rumors; they thrive in environments where critical thought is not engaged and emotions of fear or anxiety are invoked.

Any of the above twelve markers of conspiracy arguments separate conspiracy theories from science, and the great majority of such theories exhibit many of these characteristics.

To get a sense of what the overall picture looks like when it comes to any major event that attracts conspiracy theories, I suggest looking at the fairly representative example covered in the extensive entry titled “9/11 Conspiracies” [and related entries] in Wikipedia. This entry reveals the range of different theories about this event, all of which center on two different primary causes. From that point, conspiracists claim nearly a dozen different responsible parties. Each conspiracy theory has its own collection of identified evidence and its claim as the exclusively credible argument. All of this is set against the “official” position/argument for how the towers came down and who was responsible.

Apply the above 12 criteria for determining the most credible argument to account for 9/11, and it is difficult to avoid selecting the “official” argument for cause and responsibility, even allowing for the anomalous character of the WTC building 7 collapse. The explosive demolition core argument for potential cause is itself credible, and it has its advocates, but the associated arguments identifying the responsible parties that would have to be associated with such a primary cause are individually and collectively astonishing. This is especially the case given the clear evidence for the key involved parties: the previous attack by Islamic fundamentalists on the World Trade Center; the Al Qaeda/Wahabi-Saudia Arabia associated, funded, and coordinated hijackers; and the repeated claim of exclusive “credit” for the multiple attacks by Bin Laden and the Al Qaeda organization. An inside job by the CIA, FBI, and of course, the Clintons?

For those interested in exploring the issue of conspiracy theories, especially in the American context, I suggest the following two books:

1) Kurt Andersen, [Fantasyland: How America Went Haywire: A 500 Year History](#), N.Y., 2017. Andersen is a highly respected investigative journalist; and he examines the long American tradition of conspiracy assertions and the problematic thinking process that underlies them.

2) Michael Barkun, A Culture of Conspiracy: Apocalyptic Visions in Contemporary America, Berkeley, CA [UC Berkeley Press] 2nd edition, 2013. As a research social scientist at UC Berkeley, Barkun examines the process and assumptions that underlie conspiracy thinking and theories. [Be sure to get the second edition as it includes two chapters on the 9/11 conspiracy theories].

To the analyses offered by these two researchers on the nature and process associated with conspiracy theories, I would add the following observations: Humans are by nature both competitive and cooperative. It is one of the essential tasks of all societies to keep these two opposed ways of relating to reality – including social reality – in balance. The conspiratorial perspective places extreme emphasis on the self-interested, competitive, untrustworthy aspect of humans [fundamental “evil”] and fails to adequately recognize the cooperative, community benefit dimension to which humans are also committed. If this conspiratorial perspective was accurate, it would be impossible to account for how human societies would be able to reach the stage of bands and tribes – much less the vastly greater organizational structures of complex society. Cooperation would simply be too weak to support these coordinated human groupings beyond the extended family.

Yes, complex society has a problem keeping the forces of competition and cooperation in balance, and yes there are some conspiracies that are real – mostly quite restricted in scope in democratic societies, if they are to be successful for very long. But to be proposing mega conspiracies that require multiple individuals in multiple institutions of democratic governments to be coordinated conspirators who are protected by a complicit, controlled media is at best far fetched. Such conspiratorial behavior would make major criminals of entire collectives of our political and institutional leaders, and subject them to an indictment for treason and a potential death sentence. All of this motivated by WHAT?

Careers in public service promoting the common good can not exist under the social conditions that are required for many proposed conspiracies to be real. So, do we believe there are no such honorable people with correspondingly honorable careers? Not in my world where, along with what I think applies for most others, my personal and professional experience across the country and internationally reveals an enormous number of individuals and groups seeking the best for others with the most minimal regard for their personal aggrandizement.