

We have all enjoyed, if that is the right word, conversations with people who seem to have no great regard for the niceties of argument and evidence – people who tell you that homeopathy does work because it cured them of a common cold, in a few days... Or that the FBI (or other such agencies) deliberately created the AIDS virus (or crack cocaine) to destroy Africans (or black Americans)... In many cases, such epistemic lapses are context-specific – the same person who claims that homeopathy does work will insist on proper evidence when buying a dishwasher or deciding on a school for their children.

A recent book called [Panic Virus](#) by Seth Mnookin details the extraordinary story of the “vaccinations cause autism” meme. This started with some inconclusive but over-reported studies by a few marginal scientists, and soon ballooned up into a huge social movement, where thousands of distressed parents could exchange information, share their traumatic experience, and read or listen to many (some naive, some downright mendacious) “scientists” promoting wild theories (autism from vaccines, from the preservatives used in the vaccines, from radiation, from lack of vitamins, etc.) and often peddling expensive, untested and dangerous treatments (like painful testosterone injections).



As Mnookin relates, the movement soon acquired many characteristics of a cult...

Specially troubling is the acute paranoia that seems to pervade the online and physical meetings. Most webpages and presentations depict the “establishment” scientists as insensitive if not corrupt (being “shills” of the vaccination industry) and the fringe doctors as heroic mavericks in touch with parents’ and children’s experiences. Websites describe in detail the “obvious” collusion between the (US) government, Big Pharma and the American Pediatrics Association. Dissenters are not welcome. Even a neutral observer like Mnookin has great difficulty just interviewing some of the participants or being admitted to (officially public) meetings.

There are many other examples of such beliefs. I chose this because, contrary to standard cases (superstition, gods and ancestors, etc.), it is difficult here to make fun of the believers, if only from a sense of human decency.

The epistemic perspective

In circumstances like these, it would seem that people have shifted from their usual, highly adaptive, default-value epistemic vigilance to some form of epistemic recklessness. How does that happen?

Standard cognitive psychology has several answers. First, the epistemic equipment just isn't up to par. Humans minds are full of unjustifiable biases and unreliable heuristics. Second, the equipment may misfire because of performance issues - people are inattentive, tired, drunk, etc. Third, people's reason may be over-ridden by emotional processes. In this view, there are many beliefs that we hold because we want to hold them.

Our sophisticated readership will have noticed that these are not very good explanations. Indeed, they are terrible.

Orthogonal to all this, a traditional question in cognition and culture is how cognitive systems create both evidence-based, flat-footed commitment to verifiable beliefs on the one hand, and free-wheeling, brazen gullibility on the other. For instance, we know that many statements of belief are evidence for [reflective beliefs](#) - that when people say "bulls are cucumbers", their mental state is "[It is true that] bulls are cucumbers", or some such meta-representational frame.

This [epistemic perspective](#) starts from the assumption that cognitive system, on the whole, evolved to build useful and truthful representations of the environment. It then argues that occasional useless beliefs pose no great threat to that main epistemic function.

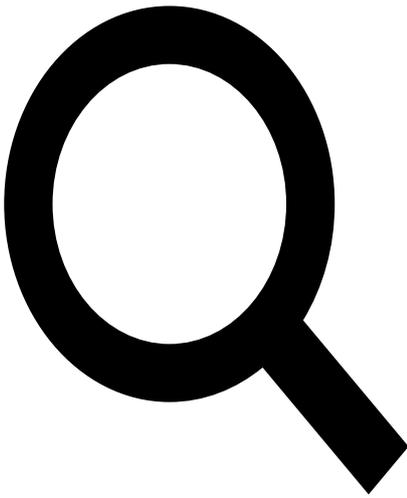
A non-epistemic perspective - communication for alignment

But we could take another perspective, one I would call strategic.

In this view one can distinguish between two (partly overlapping) categories of communication events (to simplify, I am only considering situations where some person A conveys to B that x is the case):

[1] Fitness-from-facts communication events. Here people provide and seek information that may provide benefits to self or others. Communication makes it possible to pool information and experience for mutual benefits - and occasionally for exploitation as well.

[2] Fitness-from-coalitional-knowledge events. Here people spread or seek information whose accuracy may be fitness-neutral, but such that knowing people's attitude to it (they believe it, they deny it, they are indifferent, skeptical, mocking, etc.) provides information about their coalitional alignment vis-a-vis the speaker.



Rumors like the ones mentioned at the beginning of this post ([the CIA created AIDS](#), [clothes stores in Orleans are a cover for white-slavery](#), etc.) provide a good example of this information-for-alignment situation. To simplify a great deal, when people tell me that crack cocaine was designed by the government to kill blacks, [a] they are saying nothing of great direct fitness value to us (we both knew crack was bad beforehand, we were not tempted to try - nothing has changed), but they are also receiving information about our coalitional alignment. If I scoff at the idea or call it an urban legend, I am definitely “out”. If I say that it is indeed terrible and scary, I am in some sense aligning myself with the speaker’s coalition (not that I or she necessarily know what specific coalition is at stake here).

Gossip is a bit more complicated, as it may combine both [1] and [2] processes. If you tell me that the boss is having an affair with her assistant, this may be directly fitness-relevant knowledge (I have better information about someone who may help/hurt me). This may also reveal that you and I are in the same clique inside the organization.

So here is the general proposal: In many contexts, humans seek and spread information that reveals or triggers coalitional alignment. They detect that some information is, as politicians would put it, “polarizing”. They orient to that information, they spread it, they seek other people’s reactions to it.

If this is true, the adaptive value of the process is non-epistemic, so to speak. It does not lie in the referential accuracy of the statements communicated, but in the indirect clues it provides concerning other people’s attitudes.

(Some versions of this were proposed by others, including [Tocqueville](#), [Robert Kurzban](#), [Dan Sperber](#), and, inevitably, [John Tooby and Leda Cosmides](#)).

Explaining motivation

The main advantage of the strategic view, as a complement to the traditional epistemic perspective, is that it could account for the obvious and important motivational aspects of these forms of communication. People who believe that crack cocaine is a conspiracy don’t just hold that belief. They want to share it, they want to tell many people but specially their friends and acquaintances. Also, people are highly interested in other people’s reactions. They are easily angered by skepticism, and often find that co-believers are sound, good people.

Social scientists have often pointed out that some issues are “polarizing”. But the standard

assumption is that [a] people have the beliefs and when they communicate their beliefs, conflict occurs because others have just as strongly held contrary beliefs. The present proposal is that, to some extent, people express these beliefs (and to some extent hold them) because they will have that effect.



This Caran d’Ache cartoon about the Dreyfus affair, A family dinner, is famous in France. Top panel: “Above all, let’s not talk about the Affair”. Bottom panel: “They did talk about it...”

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