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# THE ROLE OF EVIDENCE IN CONSPIRACY THEORIES

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### ***Abstract***

This paper discusses the role of evidence in conspiracy theories. It will answer the question: *What exactly is the role evidence plays in constructing and believing conspiracy theories?* Evidence is important to conspiracy theorists but the way they select and deal with evidence is often faulty. The nature of conspiracy theories and the way conspiracy theorists use evidence makes it difficult to deal with them. This is due to certain biases at work in conspiracy theorizing. The way conspiracy theorists deal with evidence is unethical and dangerous. That is why we should try to diminish the belief in false conspiracy theories by debunking them and ,more importantly and effectively, by dealing with underlying psychological and social causes for conspiracy theorizing.

# **1. Introduction**

On the sixth of January 2021 a group of people stormed the US capitol. They believed that there was a conspiracy going on, keeping their presidential candidate out of the White House. Some of them believed in the QAnon conspiracy theory, a theory that states that Satanist and pedophile elites try to control both the media and politics (Roose, 2021). A NPR/Ipsos poll showed that 17 percent of Americans believed this to be true (Newall, 2020). This goes to show the relevancy and possible impact of conspiracy theories.

This thesis is meant to improve our understanding of belief in conspiracy theories. I will explore this phenomenon from a philosophical perspective. More specifically I will focus on the role of evidence in conspiracy theories. My main question is: *What exactly is the role evidence plays in constructing and believing conspiracy theories?* I will argue that the way conspiracy theorists use evidence is often faulty and that this is unethical and dangerous which makes it necessary to find ways to diminish beliefs in false conspiracy theories.

In chapter 1, I will give a definition of the concepts 'conspiracy theory' and 'evidence' so it is clear what I mean by these concepts when I use them throughout the rest of the chapters.

After this I will use chapter 2 to show what kinds of evidence are being used in conspiracy theories. I will discuss the use of errant data to disprove 'official theories', naive realism and the role of experts and witnesses. I will do this by using the flat earth conspiracy theory as an example.

Chapter 3 will be concerned with the ways conspiracy theorists deal with evidence. I will discuss a couple of biases that affect the way conspiracy theories use evidence in their theories. To illustrate the way these biases work in a conspiracy theory I show how they were present in conspiracy theories surrounding the AIDS epidemic.

In the fourth chapter I will claim that the way conspiracy theorists deal with evidence is actually unethical. To explain why this is the case I will use an essay titled *The*

*ethics of belief* by William Clifford. To show possible dangers of conspiracy theories I discuss 'anti-vax' conspiracy theories'.

The fifth and final chapter deals with the implications of the role of evidence in conspiracy theories for the way we should deal with them and the people who believe in them. I will claim that the best way to deal with conspiracy theories is by looking into them and debunking them when they are not based upon sufficient evidence but that this does not help those believing in these conspiracy theories. Instead, we should focus on dealing with psychological and social issues that conspiracy theorists often deal with.

## ***2. Conspiracies and evidence***

If we want to answer the question about the role evidence plays in conspiracy theories, we should first give a definition of both 'evidence' and 'conspiracy theory'.

What 'evidence' is, is subject of furious debate within the field of epistemology. And what a conspiracy theory exactly entails is a question that keeps sociologists, political scientists and philosophers busy. So, in this chapter I will explain what I mean when I mention conspiracy theories or evidence.

### ***What is a conspiracy theory?***

What is a conspiracy theory? We see this term being used almost every day in the media to refer to all sorts of beliefs. What is it exactly that we mean if we call something a conspiracy? Despite the frequency we use or hear others use the term conspiracy theory "the term conspiracy itself has often been left undefined, as though its meaning were self-evident" (Barkun, 2003, chpt. 1). If we want to meaningfully discuss the role of evidence in conspiracy theories we must first know what a conspiracy and what a conspiracy theory is.

A conspiracy is two or more people working in secret toward a certain goal. Now we know what we mean by 'conspiracy', we can look at conspiracy theories.

What we don't want to do in answering the question of what a conspiracy theory is, is to make it an a priori negative or pejorative term. It is easy to dismiss conspiracy theorists and their theories as foolish but this will give us a distorted picture of the way conspiracy theories are formed and embraced by a lot of people. Simply ridiculing conspiracy theories will not help us learn to understand this phenomenon and can even disincentive proper research on the subject. As German philosopher Karl Hepfer stated:

"Besonders die inhaltliche Extravaganz, die die meisten Verschwörungstheorien auszeichnet, sowie ein nicht unerheblicher Teil ihrer Anhängerschaft, machen es oft leicht, Verschwörungstheorien auf dem Haufen der wahnhaften und wirren Ideen abzuladen, mit denen eine

ernsthafte Auseinandersetzung einfach nicht lohnt. Sie dort zu deponieren ist dennoch vorschnell.” (Hepfer, 2015, p.12)

I agree with Hepfer that dismissing conspiracy theories without examination is rash. Even if it is only because of the vast amount of people believing in them and the fact that the behavior of these people can be influenced by their beliefs in conspiracy theories. Another reason not to be too dismissive of conspiracy theories is the fact that conspiracies do exist and theories about some of them have turned out to be true in the past. A recent example might be the way the US government lied in order to justify a war in Iraq. “There is little doubt in the public or scholars that NATO, and many other governments, were intentionally misled and manipulated into this war, particularly by the U.S. government” (Basham & Dentith, 2016, p.14).

Basham and Dentith mention some more historical examples of conspiracy theories that have turned out to be true, like the denials of a North Vietnamese attack on the US in the Gulf of Tonkin, and the fact that the holocaust started out as a conspiracy. So the definition we use when talking about conspiracy theories must be one that does not dismiss them beforehand.

Matthew Dentith tries to give us clear and simple definition: “[...] a conspiracy theory—if we break down the term into its constituent parts—is just a theory about conspiracy; to wit, a theory about two or more people working together in secret toward some end” (Dentith, 2017, p. 2244).

This is a very limited definition that is not very useful for our purposes, because it is too permissive. It allows for too many things to be called conspiracy theories. It would for example be possible to call your suspicion that some friends are planning a surprise birthday party for you a conspiracy theory. It involves two or more people, they try to keep their plans a secret for you and others that may tell you about their plans. They also ‘conspire’ toward some end, namely; to surprise you with a party on your birthday. And for whatever reasons you have developed a suspicion about your friends plans: you have developed a theory. We can think of all sorts of examples like this if we want to. Theories about your friends ‘plotting against you in a game of Risk’ or about your boyfriend cheating on you can all be conspiracy theories within Dentith’s definition.

These kinds of examples are generally not what we mean when talking about conspiracy theories. They are commonly just seen as types of secrets, not necessarily conspiracies. They are not the kind of things I will be talking about in this paper. Instead, we will look at conspiracy theories like the flat earth conspiracy theory or anti-vax conspiracy theories. So, Dentith's definition is too far removed from what we intend to capture with our definition. In order to come up with a better one I think we should add some criteria, creating a more restrictive definition.

We find some useful criteria in the book *A Culture of Conspiracy* by American political theorist Michael Barkun. He adds that the *intention* of the conspirators is always seen as *malevolent*. Furthermore, he claims that there are three principles that are found in most conspiracies (Barkun, 2003). These principles serve as characteristics describing conspiracy theories and help to exclude simple secrets from falling within our definition.

The first of these principles is that in a conspiracist worldview '*Nothing happens by accident*'. Important and impactful events that happen, happen for a reason and that reason is that there is a conspiracy making these things happen. So, for example, a disease like COVID-19 does not occur and spread naturally, it is presented worse than it is, or it is used to control people (Shackle, 2021). There is no room in a conspiracy theory for coincidences, like that COVID-19 is a zoonotic disease that just happened to be transferred from animals to humans.

The second principle is what Barkun calls: '*Nothing is as it seems*'. This characteristic of a conspiracy theory becomes especially important when we will discuss why it is so difficult to refute them. It is in the very nature of a conspiracy that the people responsible for certain events (like the COVID-19 outbreak) don't want you to know what is really going on. And so that which can be seen as an obvious refutation of a conspiracy theory can become part of the very conspiracy it would refute in the first place. It also means that a conspiracy theorist has no reason to believe experts (because they can be in on the conspiracy as well) or other people that seem to try to do good. For example, the idea that Bill Gates' plea for vaccinations might seem nice, but is actually art of an evil plan to put microchips in people (Wakefield, 2020).



The third and last principle Barkun mentioned is that in a conspiracy theory '*Everything is connected*'. This is related to the first principle. "Because the conspiracists' world has no room for accident, pattern is believed to be everywhere, albeit hidden from plain view" (Barkun, 2003, chpt. 1). This is for example something we see in conspiracy theories about Jewish world domination where almost every geopolitical event or situation is linked to an imagined Jewish Cabal responsible for it all.

We can now add these principles to the definition given by Dentith. Our definition would then look like this:

*A conspiracy theory is a theory about two or more people secretly working together towards a malevolent end, in which it is assumed that nothing happens by accident, nothing is as it seems, an everything is connected.*

By adding certain characteristics and the malevolent intention of the conspiracists as criteria for calling something a conspiracy theory we solved the problem of the definition being too broad and permissive. At the same time the definition becomes more in line with what we usually mean by calling something a conspiracy theory, without being a priori dismissive about conspiracy theories in general. It now applies both to actual and alleged conspiracies.

### ***What is evidence?***

On what grounds do people believe in conspiracies? What is the evidence they present? Prior to answering such questions, we need to know what we mean by 'evidence'.

We will use a 'justification' and 'evidentialist' approach towards evidence. In epistemology the main question asked is: What is knowledge? The traditional answer is: justified true belief. This goes back to the *Theaetetus* by Plato (Plato & McDowell, 1973) In order to call something knowledge it must meet three conditions: it has to be true, it has to be believed, and it has to be justified.

The first condition is *truth*. In order to know something, it must be true. This means that it corresponds with the facts. "Most epistemologists have found it overwhelmingly plausible that what is false cannot be known" (Ichikawa et al., 2018).

Secondly, in order to know something, you must *believe* it. "Failing to believe something precludes knowing it" (Ichikawa et al., 2018). So, knowledge is something that you believe that is true. In addition to this your true belief should also be *justified*. I will say some more about that last condition.

In the justification approach towards evidence, evidence is the thing that makes a belief 'justified'. As philosopher Jaegwon Kim said: "one thing is evidence for another just in case the first tends to enhance the reasonableness or justification of the second...." (Kim, 1988, p. 390). This is a simple claim about the relation between evidence and a theory or hypothesis. Evidentialists claim something similar as Kim does in his definition.

Proponents of evidentialism, like the philosophers Conee and Feldman, argue that the justification of a belief is determined by evidence for that belief. They formulate it as follows: "Doxastic attitude D toward proposition p is epistemically justified for S at t if and only if having D toward p fits the evidence S has at t" (Feldman & Conee, 1985, p.15). A doxastic attitude is the epistemic attitude toward a proposition, so for example holding the proposition to be true or false. So someone is epistemically justified to believe something at a certain time when the evidence one has fits this belief.

Furthermore, they claim that someone ought to believe the things one's evidence is pointing to. This means that what one's justification to believe depends on evidence and that one has to form beliefs based on the available evidence. Evidence then is the facts, information and observations which can justify the belief in a proposition.

But then the question remains what counts as evidence for something and why? What is evidence? In theory all sorts of things can be evidence. Experiences, statements by experts, propositions, witness reports etc. For example: a statement by a witness can be evidence in a criminal case. An experiment with heating water can be evidence for the theory that water boils at 100 degrees Celsius. And a professor of medicine stating that drinking a certain amount of water is good for your health can be presented as evidence if you try to convince someone to do this.

These can be evidence as they can enhance one's reasonableness in believing something. But it seems fair to say that not all evidence is equally valuable. The

observations of a drunk eye witness, for example, are in general not as reliable as those of someone who is sober.

Another thing we will be concerned with in this paper is how conspiracy theorists pick and choose evidence. Even if you have good evidence to support your theory, it gets problematic when you choose to ignore or simply don't look for evidence that would refute your theory. This phenomenon is called 'cherry picking' and we will further discuss it in chapter 3.

So, the definition of evidence used in this paper is one that is quite simple:

*Evidence is something that enhances the reasonableness of one's beliefs and serves as reason to justify having these beliefs.*

In relation to conspiracy theories this means that if we want conspiracy theories to "[...]be assessed on their evidential merits" (Dentith, 2017, p. 2244) the most interesting question is not what evidence is. Instead, the more important question will be how evidence is selected, used and weighed, by conspiracy theorists in order to form conspiracy theories. As Dentith says "[...] the kinds of evidence conspiracy theorists appeal to when proposing or defending their conspiracy theories are not that problematic when considered properly. If there is an issue with the evidence used in support of conspiracy theories, then it is an issue of principle: the evidence is being abused or just not being used appropriately." (Dentith, 2017, p. 2244). By being not too restrictive in our definition of evidence it allows us to assess conspiracy theories in a fair and serious manner, preventing an initial bias in favor of "non-conspiracy theories".

### **3. What counts as evidence in conspiracy theories?**

Given the definition of evidence I presented in chapter 1 I will now look at what kind of evidence is presented in favor of conspiracy theories. I will discuss naive realism, the role of experts and the use of *errant data* to disprove 'official theories'. Is (all) the evidence used in conspiracy theories bad evidence? I will explore these issues by using the flat earth conspiracy theory: the theory that the earth is not a sphere but flat and that this fact is purposefully being kept secret. Let me start by elaborating on this conspiracy theory.

There is a popular idea that humans are only recently aware of the fact that the earth is a globe but actually people learnt this centuries ago. The ancient Greeks already learned that the earth was round by studying lunar eclipses and star patterns (Steffen & Bruzda, 2019). There is a clear consensus among scientists about the earth being a globe and this consensus does exist for quite a while now. Yet, in recent years, 'flat earth theory' has become a popular subject on the internet. In 2016 the *Guardian* published an article titled *Flat-Earthers are back: 'It's almost like the beginning of a new religion'* (Dure, 2016). In it Dure is exploring the flat earth conspiracy theory. He mentions, among other things, how far conspiracy thinkers are willing to go in their beliefs that there exists a large conspiracy in order to make people believe the earth is a globe. Dure mentioned that some conspiracy theorists believe in a Jewish conspiracy to suppress flat earth thought, or even that they believe that there is an elaborate psychological experiment going on to test how much people are willing to believe. Despite the flat earth conspiracy theory being quite far-fetched, it found more and more popularity making people doubt whether the earth is a globe. A survey from the US shows that only 66% of millennials firmly believe that the earth is a globe (Foster, 2018).

Two years after Dure's article in *The Guardian* the documentary *Behind the Curve* (Clarke, 2018) was released. It is a documentary about people and organizations that claim that the earth is not a globe but actually is flat. This documentary became incredibly popular, resulting in even more attention for flat earth theory. This attention came for a large part from people who were just curious about what was going on in

these communities built upon their belief in a flat earth. But there must have been people who became compelled by the beliefs themselves. As Mark Sargent, one of the leading figures in the flat earth community, pointed out that his popularity has grown since the release of the documentary, saying his email load has doubled since *Behind the Curve* was released (Gilman, 2019).

Mainstream media became more and more aware of the growing popularity of this belief online and started to show interest in the topic as well. The BBC had a video titled *Flat Earth: How did YouTube help spread a conspiracy theory?* (Silva, 2019) and Rob Picheta made an article for CNN with the clever title: *The flat-Earth conspiracy is spreading around the globe. Does it hide a darker core?* (Picheta, 2019). It seems that the growing attention for the flat earth theory resulted in more and more people being convinced that it is true. I say that it seems this way because actually knowing how many people believe in a flat earth conspiracy is difficult. There are definitely people that pretend to believe it but are doing so 'ironically'.

Despite the fact that we cannot be sure about the exact number of people that are willing to believe the earth is flat it is safe to say that there are a lot of people that put lots of time and effort into their conviction. They write about their theories on online fora and social media or even making semi-professional, documentary style, content for YouTube. Perhaps the most striking example of this is the attempt to prove the earth is flat by former stuntman Mike Hughes who built rockets to do this. "In numerous interviews, he had stated that the goal of his rocket launches was to prove that the planet was not spherical (as, again, all scientific evidence indicates), but "Frisbee-shaped" (Dickson, 2020). He died when one of his rockets crashed in 2020.

It's in this content that we find the evidence that flat earthers lay out to convince others that the earth is flat. Important to note is the way they try to approach a scientific way of inquiry. So, it is not that these people disregard science. Exemplary for this is a statement by Mark Sargent - one of the leading figures in the modern day flat earth movement – at a flat earth convention:

I like science, I always have. I flew here on the back of science. You took what should have been easy observations and twisted them to suit your

needs and make us feel small. We are not small and we are not an accident.

*In fact we are the new scientists.* (Sargant, 2018, 14:28)

Let's see what evidence these 'new scientists' present for their hypothesis that the earth is flat. And how these examples are comparable with the evidence used by regular scientists. First there is the remark in Sargent's statement that scientists took "what *should* have been easy observations". It is the evidence presented in favor of a flat earth that is perhaps the easiest to understand. If you take a look outside the earth simply appears to be flat. Why not trust our senses and accept what we see? This line of thinking is some form of naive realism. Naive realism is the idea that the properties that we perceive things to have are actually there in those objects, independent from our perspectives. Or as the philosophers Crane and French claim:

Consider the veridical experiences involved in cases of perception; cases where one genuinely sees or otherwise perceives an object for what it is. [...] naive realists hold that such experiences themselves consist of relations of awareness to objects. [...] So the naive realist holds [...] that the veridical experiences involved in genuine cases of perception consist, in their nature, of relations to ordinary objects. And this is put to work in explaining the phenomenal character of such experiences. (Crane & French, 2021)

Flat earthers take this line of thought and expand on it. Not only is there the world which can be directly perceived by us, also what we perceive is reality as it is. So, simply put, if we perceive the earth to be flat it is flat. This is not a new argument. In his 1885 book *One Hundred Proofs the Earth is not a Globe*, English printer and author William Carpenter presents us his eighteenth proof:

The best possessions of man are his senses; [...] Every man in full command of his senses knows that a level surface is a flat or horizontal one; but astronomers tell us that the true level is the curved surface of a globe! [...] Since this is the best that astronomers, with their theoretical science can do

for their fellow creatures—deceive them—it is clear that things are not as they say they are; and, in short, it is a proof that Earth is not a globe. (Carpenter, 1885)

We find a similar line of thought as presented by Carpenter in people who believe that climate change and global warming is a conspiracy due to the fact that they experience a cold winter with snow. It is allowing experiences and observations as convincing evidence for their theory. Mind the way in which Carpenter is dismissive of “astronomers with their theoretical science”: observation and common sense are superior to the mathematical abstract theories and scientific evidence that that provide good reasons to believe that the earth is a globe. The earth is flat because we can see it is flat.

### ***What experts say***

The people working on these scientific theories at institutions like NASA could be considered the experts in this matter (I’ll get to why this is in a moment).

Since the growth in popularity of the flat earth conspiracy some of these experts felt the need to speak out against flat earth theories. YouTube is filled with videos ‘debunking’ flat-earthers, some of these videos include people that are big names in their fields. One of them is Neil deGrasse Tyson who is an astrophysicist and holds the Frederick P. Rose Directorship of the Hayden Planetarium. In a video on the YouTube-channel *StarTalk* titled *Neil Tyson Demonstrates Absurdity of ‘Flat Earth’*, Tyson discusses some evidence that the earth is a sphere. It has been watched over 7 million times (Tyson, 2018). Other famous scientists do similar things, like Michael Kaku, who holds the Henry Semat Chair and professorship in theoretical physics at the City College of New York. In a YouTube video on the *BigThink* channel he explains why there are still flat earthers at all, calling their beliefs “nonsense” (Kaku, 2019).

Also, scientists that have less media presence like the Assistant Director of Science Communication at NASA, Michelle Thaller appear in these kinds of videos. In a video on the same channel, she expresses her disbelief in the fact that she even needs to

defend the fact that the earth is a sphere, saying: “That's a hard thing for me to even start talking about because there are so many proofs that the Earth is round, it's difficult to know where to start. And it's not okay to think that the Earth is flat. This is not a viable argument” (Thaller, 2018). There are many more examples of experts (e.g.: NASA astronomer Laura Danly, astronaut Chris Hadfield, physicist Brian Cox, etc.) pointing out the problems they have with flat earth theories and why we can be certain that the earth is a sphere.

There is a lot of evidence these experts present in favor of the claim that the earth is a sphere. Like the fact that we can see it from out of space; photographs and videos have been made on which you can see a round earth. They can point out that during a lunar eclipse the earth casts a round shadow on the moon regardless of the angle the sun is at, this is only possible if the earth is a sphere. Another way to prove the earth is a globe is by looking at ships when they disappear out of view on the horizon. If the earth was flat this ship would simply seem smaller and smaller until it is too far to see. Instead, what we see is that the ship seems to sink into the horizon, with the bottom of the ship disappearing out of view before the mast does. This is the result of the curvature of the earth. Just like the curvature of the earth is the explanation for the different angles in which objects cast shadows in different places at certain times of the day.

How can it be that the people believing in a flat earth don't believe what all of these experts tell? The videos are publicly accessible and the explanation is not technical or hard to understand.

In order to answer this question, we must first look at *social epistemology*. This is the branch of epistemology concerned with the way we pursue knowledge as people in a society “*with the help of, or in the face of, others*” (Goldman & O'Conner, 2021). In social epistemology one of the main questions is: When is someone an expert and how do we recognize expertise? The main problem is that it is hard to recognize expertise if you are not very knowledgeable on a certain topic.

So, what qualities does one possess in order for us to call a person an expert? A simple definition might be this one from philosophers Goldman and O'Connor: “By an expert [...] we shall mean someone who—in a specified domain—possesses a



greater quantity of (accurate) information than most other people do” (Goldman & O’Connor, 2021). Besides this, I think we can add a social aspect. Simply calling yourself an expert will not make you one. You must actually be considered an expert by others too. This would explain why academic titles add to one's credibility as an expert. People with a PhD in a certain field must have had their knowledge tested by their peers. Philosopher Grundman gives some assumption we might have when we think of experts. According to him experts and non-experts are fundamentally different. The experts work in professions and sciences where they possess certain manual or intellectual skills. And the advice given by experts can be trusted because they are impartial (Grundman, 2017, p. 26).

This definition and the characteristics of what an expert is, are still debated in social epistemology but it is clear enough for our purposes: to explore the way in which conspiracy theorists deal with experts. And their problems with experts is not the fact that they are considered experts or to actually criticize them on their expertise. It is reasonable to say that by the definition of an expert provided above it is fair to describe people like Tyson, Kaku and Thaller as experts in their fields.

My claim is that flat earth conspiracy theorists will not necessarily have to argue that these experts are not experts. Dentith asks three questions concerning the role of experts with regards to conspiracy theorists: “(1) Who are the experts in this case? (2) Are these experts acting sincerely? and (3) Are the experts conspiring?” (Dentith, 2018, p.192). The focus for conspiracy theorists is on questions two and three.

That conspiracy theorists focus mainly on the sincerity of experts and whether they are in on the conspiracy, is because of Barkun’s second principle of conspiracy theories as mentioned before in chapter one: the *nothing is as it seems* principle. Scientists like Thaller for example may be well educated and knowledgeable on topics concerning the shape of our planet: she might indeed be an expert, But apparently this is not enough reason for conspiracy theorists to believe that she is telling the truth. She works for NASA and flat earth theorists often accuse NASA of cover-ups and conspiring with the goal to hide the fact the earth is flat. At flat earth conventions we can find people discussing the ways in which NASA is covering up the facts, as a journalist of *the Guardian* reporting on a flat earth convention in Great Britain writes: “Around the room, there is general consensus that NASA is in the

habit of doctoring its imagery, and the agency is considered untrustworthy” (Moshakis, 2018). In a YouTube video on the channel *Globebusters*, a channel promoting flat earth conspiracies, similar things are told. An example is the following about the camera footage shot in space by NASA: “the stuff that NASA was putting out was clearly fake, it was clearly CGI. There was no actual footage of anything” (Globebusters, 2021, 17:31).

These experts, like Thaller, often are connected to institutions like universities, governments or other organizations like NASA - institutions the conspiracy theorist might not trust at all. It is therefore that one might be in possession of expertise and might be considered an expert by most – even by the conspiracy theorists – but that means little to nothing if you can also be part of the conspiracy. Bob Knodel, a famous flat earther, suggests that the people at NASA have a financial reason to lie. He talks about the money going to the “space industry”: "If you take the music industry and add to that the movie industry, add to that the box office industry, add to that the video game industry, you're not even close to the space industry. People fail to realize how massive the space industry is" (Gallagher, 2019).

So, we get to a situation in which expert opinions are disregarded by conspiracy theorists not due to their content, or the fact that they are experts, but because they experts are believed to be part of the conspiracy. So, the evidence provided by experts does not have to count as evidence in the eyes of a conspiracy theorist. Hence, they can dismiss it and stick to their belief in the conspiracy theory.

### ***Errant Data***

We have just seen that the conspiracy theorists have an easy strategy to dismiss the evidence of the experts. But what kind of evidence do conspiracy theorists present in order to defend their conspiracy theory? Here they often rely on so called *errant data*. Errant Data is data that is either unaccounted for by a theory, or data which, if true, contradicts a theory (Keeley, 1999, p.118).

The errant data is often presented in the form of a question: “But how do you explain this?” We can see such errant data being used, for example, in the conspiracy theory about 9/11. Conspiracy theorists claim that molten steel had been found after the

collapse of the towers. The official theory states that airplanes were flown into the buildings, that the jet fuel caught fire, and that this resulted in the collapse of the buildings that were constructed by using steel beams. But jet fuel can't melt steel beams! So, how can the official theory account for this molten steel? This must obviously have been the result of something different than airplanes flying into the buildings.. The molten steel is errant data opposing the official theory. And therefore, it is impossible that the destruction of the Twin Towers is the result of airplanes crashing into them.

The question becomes how – according to the conspiracy theorists – the official theory would account for this information? The conspiracy theorist must believe that the official theory cannot do this and in not being able to do this, the official theory should be dismissed. This is the line of thinking we can find in *Loose Change* an amateur documentary made by Dylan Avery in 2005 (Rowe, 2018) which became one of the main sources of inspiration for 9/11 conspiracy theorists. In it the narrator says things like: "And to think that the government would have us believe that these massive structures were destroyed by 10.000 gallons of jet fuel" (Rowe, 2018, 30:33).

Dentith thinks coming up with errant data is on its own not problematic. He claims that: "Normally, if we discover evidence which contradicts a particular explanatory hypothesis, then that is reason enough to reject it" (Dentith, 2019, p. 2249).

There are however two problems with this use of errant data by conspiracy theorists. The first problem is that despite the errant data being used to discredit the official theory it is not itself evidence in favor of the conspiracy theory. The conspiracy theorist still has all its work ahead of it. As philosopher Wagner-Egger says: "Conspiracy theorists should not only try to find negative clues or "proofs" against the official version, but positive clues or "proofs" in favor of the conspiracy hypothesis." (Wagner-Egger et al., 2019, p.54) And then this conspiracy theory must be able to account for the errant data the conspiracy theorist presented and the data that the official theory did account for.

And secondly there is the factuality of the errant data. Is the errant data in fact true? (It was in fact true that jet fuel can't melt steel beams, but no molten steel has ever

been found) (Thomas, 2019). And, if it were true, is it actually unaccounted for by the official theory? (The steel beams did not need to melt in order for the buildings to collapse, just be weakened. This happens at a lower temperature) (Shermer, 2005). So, in the example of the 9/11 conspiracy the data that is considered to be errant data is first of all not true. Before errant data can be useful it must be true and it “[...] must be first kept unexplained, and corroborated by other sources, in order to become a clue (but still not a proof) against the official version (Wagner-Egger et al., 2019, p.53). So, even if errant data is presented and it is actually good errant data it is still not proof that there is indeed a conspiracy.

What we have seen so far are some kinds of evidence and how they are used in conspiracy theories. I explained naive realism as a form of evidence used in the flat earth theory, in which what you see with your own eyes should be more important than what experts say. We saw that experts, no matter how much expertise they have, can be dismissed by conspiracy theorists because they could be part of the conspiracy. And finally we looked at the use of errant data by conspiracy theorists. In the next chapter we will look at why errant data, despite its problems, is still presented as evidence in favor of conspiracy theories and the ways in which conspiracy theorists do this.

## **4. Biases**

Is there a clear difference with the way evidence is gathered and selected when formulating a scientific theory or is it, as philosopher Dentith claims, quite similar? In this chapter I will look at possible cognitive biases that result in conspiracy theories and the way conspiracy theorists deal with evidence. I will show that the way conspiracy theorists are influenced by biases make that there is a difference in the way they deal with evidence.

Dentith warns us that we must be careful in the way we assess conspiracy theories and that we should not declare them unscientific too easily. “The prima facie suspicion of conspiracy theories generally, before assessing the particulars of individual theories, gets things back-to-front. Conspiracy theories—like any theory—should be assessed on their evidential merits” (Dentith, 2019, p. 2244).

One of the possible explanations for some people’s tendencies to believe conspiracy theories is to say that they are (more) prone to certain cognitive biases than others. A cognitive bias is a fast way to process information, which can lead to false beliefs. I will show that there are certain biases that affect conspiracy theorists more than others and a biases that affect everyone which make it hard to abandon conspiracy theories even when evidence points toward the theory being false. I will illustrate the ways these biases work by looking at how they are prevalent in conspiracy theories surrounding the AIDS epidemic.

### ***Conspiracy theories about AIDS***

In the early 1980’s seemingly healthy young men got hospitalized with rare infections. The victims where predominantly young gay men and by the end of 1981 there were 270 reported cases of severe immune deficiency. As the number of victims grew and more was learned about these cases it became clear that its cause was a virus which was named HIV (human immunodeficiency virus) which caused AIDS (acquired immune deficiency syndrome).

AIDS spread rapidly and by the end of the decade there were an estimate of 400.000 cases worldwide. Another two decades later – in 1999 – the WHO estimated that there were around 33 million people living with HIV: it had become the fourth biggest

cause of death in the world with 14 million victims dying from it since the beginning of the pandemic. The reported cases were now mainly coming from the African continent (Avert, 2019).

The virus was frightening, being invisible, spreading rapidly and killing seemingly healthy people. It is not strange that the question of why and how it happened was asked by many. The mostly agreed upon explanation was that the virus was transmitted somewhere in the 1920s from chimpanzees to humans. This happened probably in the Democratic Republic of Congo by chimpanzee blood getting in the wounds of hunters (Avert, 2019).

The idea of something as impactful as the AIDS pandemic coming from something as simple as contact between a hunter and the blood of a chimpanzee must have been hard to believe for some, as conspiracy theories begin to pop up rapidly. Even today there are people that believe these conspiracy theories to be true.

Perhaps the most notorious of the conspiracy theories surrounding the origin of AIDS was the theory that the virus was made by humans in a lab. Specifically: that it was created by the CIA with nefarious intent. According to Nicoli Nattrass of *the AIDS and Society Research Unit* at the University of Cape Town “This acquired immune deficiency syndrome (AIDS) conspiracy theory has been recorded in many countries. Survey data from the United States (US) and South Africa (the only countries for which quantitative data exists) suggest that a significant minority of people endorse such beliefs and that this matters for public health” (Nattrass, 2013, p. 113).

### ***Proportionality bias***

A study by Leman and Cinnirella shows why conspiracy theorists might have gotten this belief that AIDS must have been human made. In this the study the role of proportionality bias in the process of accepting conspiracy theories as an explanation for an event was researched. Proportionality bias is the bias that we think that big events must have big causes. In the study participants were asked about a hypothetical shooting of the president. Some were presented with vignettes in which the president died and some with vignettes in which the bullet missed. Cases in which the president died lead to more distrust of the information about what had happened. “Participants were more likely to endorse a conspiracy theory to account

for events when the consequences were major (the President dies) rather than comparatively minor (the president survives)” (Leman & Cinnirella, 2007, p.2). This shows that when something has a large impact people are more willing to say that there is something like a conspiracy to blame. “These results, taken together, point towards major event major cause bias affecting the attribution of a conspiracy theory” (Leman & Cinnirella, 2007, p.13). It is consistent with the principle mentioned in chapter one that conspiracy theorists believe that ‘nothing happens without a reason’, this is especially true in the case of a major event. It explains why so many conspiracy theories deal with events that speak to the imagination, like the moon landing, 9/11 or indeed pandemics like the AIDS epidemic.

### ***JTC-bias***

People were aware of the fact that the USA experimented with bio warfare and did all sorts of medical experiments. As earlier experiments were mainly targeted at black Americans, like experiments with the use of LSD and the infamous Tuskegee experiments which left black Americans with syphilis secretly untreated, many saw a pattern and believed this to be something created to specifically target black people. It was easy for some people to come to the conclusion that AIDS was a product of experiments (Natrass, 2013). The conspiracy theory that the US created the virus was false. That conspiracy theorists still came to believe this was possibly the results of two types of biases that seem to be more prevalent in conspiracy theorists.

First of all, the JTC-bias plays a role here. (JTC is an abbreviation for jumping to conclusions). It is a cognitive distortion which leads to forming conclusions without having enough evidence to support that conclusion. A study from 2020 showed that: “Subjects who displayed the JTC-bias presented a more pronounced belief in conspiracy theories” (Pytlik et al., 2020). In this study they had 519 people give their opinion on 20 different conspiracy theories in order to measure how prone they were to believe conspiracy theories. They could assess them on a scale from 1 to 5, 1 meaning ‘I do not agree at all’ and 5 meaning ‘I fully agree’. They also took a ‘beads test’ in order to measure how prone they were to the JTC bias. The beads test is a test in which participants need to choose how much information they want before reaching a conclusion. This is done by having two jars with beads, one filled with 15 green ones and 85 pink ones and the other filled with 85 green ones and 15 pink

ones. Participants are told that one of these jars is randomly selected, then beads are drawn from the selected jar and the participants are asked whether they want to see more beads being drawn or if they can decide with certainty which of the two jars it is from. When a participant thinks they can know what jar it is after a small number of beads drawn, they are more likely to fall victim of the JTC bias: the study shows that participants that believed more in conspiracy theories were faster in claiming to know what jar the beads in the 'beads test' came from. So, they were more prone to the JTC-bias. In the case of the AIDS conspiracy theories the jump from 'the US conducts experiments to the US is somehow responsible for creating AIDS is an example of JTC.

### ***Illusory pattern perception***

Another cognitive bias conspiracy theorists seem to be more susceptible to is so-called 'illusory pattern perception'. It is the phenomenon that people see patterns and causal relations where there are none. A study from 2017 concluded that "illusory pattern perception is a central cognitive mechanism accounting for conspiracy theories and supernatural beliefs" (Van Prooijen et al., 2017). In the study they showed that participants who suspected that there was a pattern in a series of random coin tosses also considered a, by researchers developed, conspiracy theory to be more likely than those who believed the results of the coin tosses to be random. In the example of the Aids conspiracy theories this might have resulted in seeing more of a pattern in the US experiments than there actually was.

Despite the conspiracy theory about a human made AIDS virus was proven wrong, for people believing the conspiracy theory a narrative had been formed in which a human made virus fitted perfectly. New evidence was either ignored or being interpreted selectively. For example, the statements made by the deputy director of the Department of Defense Donald MacArthur. He had testified before a house committee in 1969 saying that there were ideas about creating an infective microorganism and that the army believed it to be possible in a span of 5 to 10 years. This was considered convincing evidence for conspiracy theorists that the US was indeed behind the AIDS virus. It was even presented as evidence in court when the HIV-positive Boyd Graves sued the US government for being responsible for the creation of AIDS. He lost the case. Donald MacArthur had also said in his statement



that the project in order to create an infective organism did never really kick off. This was ignored by people believing the conspiracy theory. As Natrass states: “To the suspiciously minded, however, MacArthur’s testimony was the smoking gun that proved the laboratory origin of AIDS” (Natrass, 2013). Besides this being an example of illusory pattern perception, it is also an example of confirmation bias and something Hepfer called ‘selective coherentism’. Let me elaborate on those two biases.

### ***Confirmation bias***

People in general tend to look for evidence that fits the beliefs that they already hold and ignore or dismiss evidence that would counter their beliefs. This is called confirmation bias. “[...] once one has taken a position on an issue, one’s primary purpose becomes that of defending or justifying that position” (Nickerson, 1998, p.177). This bias is one affecting everyone and could explain why people who believe in conspiracy theories (like Graves) are not easily convinced by counter evidence. They might not even notice this evidence as they tend not to look for it. And when confronted with counterevidence it is easier to dismiss it in order to prevent cognitive dissonance. “Cognitive dissonance refers to a situation involving conflicting attitudes, beliefs or behaviors. This produces a feeling of mental discomfort leading to an alteration in one of the attitudes, beliefs or behaviors to reduce the discomfort and restore balance” (McLeod, 2018). It would work the other way around as well; evidence presented in favor of a conspiracy theory would be accepted faster when one already thinks the conspiracy is real. “Moreover, evidence that is deemed to confirm an individual’s existing beliefs will tend to be unquestioned and accepted whereas disconfirming evidence will often be critically evaluated and rejected (see again Lord et al., 1979)” (Leman and Cinnirella, 2013, p2).

### ***Selective coherentism***

Carl Hepfer claims that conspiracy theories are at least partially the result of something he called ‘selective coherentism’ (Hepfer, 2015, p. 92). Hepfer describes it as follows: “dass ihre Anhänger Behauptungen allein deshalb für ›wahr‹ halten, weil sie sich ohne Brüche und Widersprüche in ihre Theorie einfügen und hier außerdem jede ernsthafte Auseinandersetzung mit den Gegebenheiten der Erfahrungswelt entfällt” (Hepfer, 2015, p.92). So, the evidence that is accepted suits

a view, a 'story' of how the world works, which is coherent not only within itself but in relation to other beliefs that are held. As Leman and Cinnirella point out:

Over time individuals display a tendency to assimilate new events in a manner that is consistent with existing beliefs. This connects with (Wood et al., 2012) research showing that individuals have broad general beliefs—monological belief systems—in conspiracy that can make them endorse new conspiracy theories. (Leman and Cinnirella, 2013, p. 7)

The creation of a coherent narrative is often something a conspiracy theory can help with. It gives explanations for large and important events like the AIDS epidemic. Conspiracy theories can in this way fulfill our desire for a clear explanation of events while in fact the things that happen might not fall in such a narrative. There are people purposefully making events happen instead of it being the result of coincidence. And these people (the conspirators) are the source of the bad things happening in the world.

The desire to have a definite answer that is clear and certain to the question where AIDS came from and how humans contracted it is partially the result of something called 'the need for cognitive closure'. NFCC is the desire of people to have a straight and clear answer on the questions they have and an aversion for ambiguity, uncertainty or doubt.

### **NFCC**

A study conducted by Leman and Cinnirella on the topic of the need for cognitive closure (NFCC) in relation to the belief in conspiracy theories shows another possible reason why it might be difficult to abandon false theories. In the study they measured the participants NFCC with a questionnaire with 46 statements that the participants could grade with a number between 1 (strongly disagree) and 6 (strongly agree). They found no connection between participants' NFCC and the willingness to adopt a conspiracy theory (which they tested by asking how likely participants thought it was that the death of a fictional president was the result of a conspiracy based on certain evidence they were presented with). But they discovered a connection between the level of NFCC and the way evidence was interpreted in

relation to conspiracy theories. Which is to say that: With lower NFCC individuals are more motivated to both attend to and scrutinize in more detail the evidence. (Leman and Cinnirella, 2013, p.7)

So, NFCC does not necessarily make us adopt conspiracy theories faster but a high need for cognitive closure makes it less likely that we examine evidence critically. And thus, when someone with higher levels of NFCC adopts a conspiracy theory, abandoning it due to counterevidence becomes more difficult.

### ***A vicious circle***

The combination of these biases leads to a somewhat vicious circle. The JTC-bias, proportionality bias and the illusory pattern perception bias make people susceptible for believing or forming conspiracy theories even when there is not enough evidence. Then, when they are committed to the conspiracy theory the confirmation bias makes it difficult to change or abandon their belief. The desire people have for cognitive closure, although not being a reason to believe a conspiracy at first, can make it more difficult to change one's mind on a conspiracy theory when confronted with new opposing evidence. Dentith is wrong when he says we should see conspiracy theories in the same way as we see other theories. There are indeed biases that are no different for 'normal' theorists than with conspiracy theorists. But there are also biases that have a larger effect on conspiracy theorists than on 'normal' theorists. It is the combination of these biases at work in conspiracy theorists that makes them deal with evidence differently. It leads them to believe things based upon very little or no evidence. How much of a problem this is will be discussed in the next chapter.

## **5. The Ethics of Belief**

### **Clifford and James**

In the last chapter I argued that, contrary to what someone like Dentith would say, we can make general statements about conspiracy theories: conspiracy theories do have certain characteristics. These lay in biases that are prevalent in the way conspiracy theorists deal with evidence. In this chapter, I will look at whether we should consider conspiracy theories and the way that their proponents deal with evidence as a danger to themselves and society.

In order to show that this is problematic I will make use of a paper by the mathematician William Kingdon Clifford titled *The Ethics of Belief* in which he defends an ethical normative view on how to come to certain beliefs. In it he asks the question when it is morally justified for someone to believe something. By answering the question, he also implicitly claims something about the way we form our beliefs, namely that this happens largely 'voluntary', which implies that we are ethically responsible for them. The main claim Clifford makes in *The Ethics of Belief* is that "it is wrong always, everywhere, and for anyone, to believe anything upon insufficient evidence" (Clifford, 1877, p. 5). Philosopher Peter Van Inwagen would later call this position 'ethical evidentialism' (Van Inwagen, 2009). I will also look *very briefly* at an opposing view as postulated by the philosopher William James. Using the examples of anti vax conspiracy theories I will illustrate the negative consequences for society as a result of the belief – based upon insufficient evidence – in conspiracy theories.

Clifford illustrates his claim that it is wrong to believe anything upon insufficient evidence by a story about a ship-owner. The ship-owner wants to send an emigrant-ship to sea. The ship however has its problems: it was not that well-made, was old, and had needed many repairs. The ship-owner had his doubts about the ship's safety and these doubts were well grounded but uncomfortable to have. He started to convince himself that nothing was wrong and all would be fine. "In such ways he acquired a sincere and comfortable conviction that his vessel was thoroughly safe and seaworthy" (Clifford, 1877, p. 1). It was not seaworthy, it sank and the story ended with the now famous line: "and he got his insurance-money when she went down in mid-ocean and told no tales" (Clifford, 1877, p. 1).

According to Clifford the ship-owner was at fault, his behavior was immoral. Because the ship-owner had no good ground to believe the ship was seaworthy based on the evidence he had. Even if the ship had made it to its destination, it would have been wrong for the ship-owner to believe that the ship was seaworthy. As Clifford states: "The man would not have been innocent, he would only have been not found out. The question of right or wrong has to do with the origin of his belief, not the matter of it; not what it was, but how he got it; not whether it turned out to be true or false, but whether he had a right to believe on such evidence as was before him" (Clifford, 1877, p. 1). It is not someone's incorrect belief in something but the way someone gets this belief. The doubts the ship-owner had should not have been suppressed that easily but should have been investigated. The ship-owner had enough evidence, things that justified a belief that the ship was not at all safe to set sail. He chose to ignore this evidence and his doubts. But looking into your doubts is a *moral duty* according to Clifford.

This, Clifford argues, is not only the case when we form ideas on important issues which directly involve the lives of others and can cause immediate damage when acted upon, but it applies to all beliefs: "No real belief, however trifling and fragmentary it may seem, is ever truly insignificant; it prepares us to receive more of its like, confirms those which resembled it before, and weakens others; and so gradually it lays a stealthy train in our inmost thoughts, which may someday explode into overt action, and leave its stamp upon our character for ever" (Clifford, 1877, p. 3). So here Clifford is saying that even beliefs we have that might *seem* unimportant actually are important because these beliefs shape our actions. I will now apply Clifford's principles on conspiracy theories.

If we look at conspiracy theories we can argue that there are conspiracy theories which seem to be less dangerous than others. The flat earth theory might be considered mostly innocent. There are not many direct actions that result from having the belief that the earth is flat. For Clifford it would still be immoral to have this belief because this belief is based on insufficient evidence and having this belief influences the way we think about other things. And those beliefs might be dangerous to others.

Clifford says that it is wrong to hold beliefs on wrong grounds despite that it seems like this belief does not have a direct consequence but this does not mean Clifford is not interested in consequences. His view is one that matches the idea of the pragmatist philosophers that our beliefs shape the way that we act in our lives. Our actions are the results of what we believe and so if I have false beliefs this can influence my actions in a negative way. So, a belief in false beliefs can potentially be harmful to ourselves and to others. It is therefore that we should actively try to reduce the false beliefs we have. Applied to conspiracy theories we could say that Clifford would argue that it is wrong to believe the relatively innocent Flat Earth Theory, because it might lead to other beliefs that - when acted upon – do cause other people harm.

Research does indeed show that if someone believes in one conspiracy theory it is more likely that they believe in other conspiracy theories (Swami et al., 2010). The chance that someone believes in the 'Red Bull conspiracy', which is a conspiracy made up for a psychology study is higher if they also believe in other conspiracies (Swami et al., 2011). In this study Swami and his research team created a list of conspiracy theories about the brand Red Bull. These were conspiracy theories like that the slogan "Red Bull gives you wings" came from the fact that test animals grew rudiment wings, or that Red Bull paid large amounts of money in order to appease food controllers. Whether participants would believe these theories was best predicted by looking at whether they also believed in real world conspiracy theories. So, people that believe conspiracies like those surrounding the murder of JFK and the moon landing are more likely to believe the Red Bull conspiracy than those who don't believe in conspiracy theories.

The Red Bull conspiracy is obviously false (it was made up for experimental reasons). But conspiracy theories that turn out to be right would also not be beliefs that are moral to have if they are not the result of a proper assessment of the evidence available. As Clifford says: "the question is not whether their belief was true or false, but whether they entertained it on wrong grounds" (Clifford, 1877, p. 2). In the case of the Red Bull conspiracy there was no evidence to support the conspiracy at all so believing it is wrong. And if, contrary to what all the evidence suggests, the earth turns out to be indeed flat it would still have been wrong for the flat earth

theorists to believe it is flat, due to the fact that they held this belief on insufficient grounds. Clifford warns us that people who are right even if they are so on wrong grounds could be mistakenly considered trustworthy even if they are not.

The claim that “it is wrong always, everywhere, and for anyone, to believe anything upon insufficient evidence” (Clifford, 1877, p. 5) has later been opposed by philosopher William James. Traditionally James is brought up in discussions about Clifford. In his paper *The Will to Believe* he claims that there are cases in which it is morally justified or even necessary to believe something without sufficient evidence. This, for James, is the case with things like the belief in free will, the immortal soul and god. These are examples about which James would say that you have to make a decision about whether to believe them even if there is not enough evidence. James states: “our passional nature not only lawfully may, but must, decide an option between propositions, whenever it is a genuine option that cannot by its nature be decided on intellectual grounds” (James, 1896, p. 6).

The questions conspiracy theorists and their theories are concerned with are in fact questions that can and should be answered on intellectual grounds. As James says, he himself is “a complete empiricist so far as my theory of human knowledge” (James, 1896, p. 8). So although it is traditionally the case that Clifford and James are used to show contrasting views on the topic of the ethics of epistemology, they did agree on the way we should deal with evidence when concerning conspiracy theories, because these are beliefs about the world for which it is possible to evaluate the evidence. Let me apply Clifford’s ideas about beliefs, evidence, and ethics to anti vax conspiracies to illustrate how these ideas show the possibly dangerous consequences of conspiracy theories.

### ***Anti vax conspiracies***

Wild animals, natural disasters, and other humans have always posed threats to humans. One might arguably claim that its biggest enemy is disease. From the bubonic plague, killing half the European population when it ravaged the continent in the fourteenth century, to the Spanish flu in the early twentieth century killing more people than the first world war did. Luckily, humanity found a way to combat a lot of life-threatening diseases in the form of e.g. vaccinations. Large scale vaccination programs have diminished the threat of many diseases like polio and smallpox.

Smallpox, an infectious disease killing 400.000 people annually in 18<sup>th</sup> century Europe, was even declared eradicated worldwide in 1980 by the WHO. This was the result of a successful worldwide campaign including a large-scale vaccination program (Riedel, 2005).

Despite overwhelming evidence of vaccines being able to prevent diseases there are people that refuse to get vaccinated. This has become such a problem that the WHO in 2019 stated on its website that vaccine hesitancy had become one of ten threats to global health that they needed to tackle stating: “Vaccine hesitancy – the reluctance or refusal to vaccinate despite the availability of vaccines – threatens to reverse progress made in tackling vaccine-preventable diseases” (WHO, 2019).

Vaccine hesitancy can occur because of multiple reasons. It might, for example, be the result of religious arguments. The reason we are interested in is the belief that vaccination programs are somehow the result of a conspiracy. Research done at the University of Kent has shown that belief in conspiracy theories about vaccinations does negatively impact vaccination intentions of people. In the study participants had to complete a measuring scale, measuring their beliefs in vaccination conspiracy theories like ‘vaccines are harmful, and this fact is covered up’. They then had to answer whether they would vaccinate their child against a disease with serious symptoms. The study concluded that: “[...] it has been demonstrated that beliefs in anti-vaccine conspiracy theories – such as the belief that research on vaccine efficacy is manipulated to make profits for pharmaceutical companies – are associated with reduced vaccination intentions” (Jolley & Douglas, 2014, p. 6).

This is a problem in a time where anti vax conspiracies can be, and are being, spread with ease due to the internet and social media. The most current examples could be found when looking at the COVID-19 vaccines. A vast amount of conspiracy theories have spread about these vaccines. *The Atlantic* posted an article titled: *The Utter Familiarity of Even the Strangest Vaccine Conspiracy Theories* in which a couple of these conspiracies surrounding the COVID-19 vaccines are mentioned. One example is that the vaccine contains a microchip placed by Bill Gates. The Bill Gates conspiracy is based upon the idea of a certain technology called quantum dots which is not at all a microchip and has not even been tested on humans yet. The only thing it can do is produce light (Evstatieva, 2020). Another is



that the vaccine was created to alter the DNA of people (Lee, 2021). These kinds of conspiracy theories have been fact checked and refuted many times yet there are people who believe in them despite the evidence to the contrary and no evidence in support of these theories.

The belief in conspiracy theories surrounding vaccinations create a danger to the health of people. Not only to the individual acting upon these conspiracy beliefs but also to others by not contributing to herd immunity (this is a collective immunity, a disease can't spread because most people are vaccinated), which poses a danger to those who cannot be vaccinated, like very young children and people with a weak immune system. On the website of the NHS it is stated that measles and mumps are starting to appear again in England despite the fact that they are preventable by vaccinations. That is because in order to have herd immunity against, for example, measles you need to have a 95 percent vaccination rate (the percentage of people vaccinated). If this herd immunity is not being realized vulnerable groups of people have a greater risk of contracting diseases like measles which are potentially deadly. Damage can also be done to the children of anti-vax parents when they decide not to vaccinate their children against preventable diseases. These children, and children that are not yet vaccinated due to their age, fully rely on herd immunity in order to stay safe. So, choosing not to vaccinate can have very serious consequences (Oxford Vaccine Group, 2019).

It is clear that acting upon conspiracy theories despite the overwhelming evidence proving the effectiveness of vaccines would be something Clifford would call immoral. It shows that the beliefs you hold can lead to actions (or inactions, like not getting vaccinated) and that conspiracy theories, like the ones surrounding vaccinations, can have terrible results. Believing conspiracy theories upon insufficient evidence is not harmless as these beliefs can eventually inform your actions in the world, affecting yourself and others. As Van Inwagen writes:

And any moral person will take care to minimize the extent of his false beliefs.

This is the moral course of action because a person with false beliefs is ipso facto dangerous [...] Any moral person, obviously, will want to minimize the

danger he presents to himself and others, and an essential part of realizing that end is to believe only those things for which one has sufficient evidence.

(Van Inwagen, 2009, p.33)

In the case of anti-vax conspiracy theorists, it is clear why their false beliefs are dangerous. Even though in the case of other false conspiracy theories that are based upon insufficient evidence it may not be that clear what possible actions might follow from their beliefs it should be a moral duty to reduce these beliefs. Since the beliefs of the conspiracy theorists are dangerous to innocent people, it is imperative that they change their beliefs. But in chapter three we have seen why it is very unlikely that they will change their unsupported and dangerous beliefs. Is there anything we can do? I will address this question in chapter five.

## ***6. What to do about conspiracy theories?***

Last chapter I showed why conspiracy theories based upon insufficient evidence pose a danger to the individuals who hold these beliefs and to others. I concluded, in line with Clifford, that it is our moral duty to actively reduce the false beliefs we have. As discussed in chapter 3, the way many conspiracy theorists deal with evidence that opposes their theories does not contribute to a reduction of false beliefs. Now that we have established all of this, the question that remains is how we, as individuals and as a society, should deal with these conspiracy theorists and their theories.

I already showed that we can make general assertions about conspiracy theories due to certain characteristics they share. So perhaps it is also possible to formulate a general answer as to how we should deal with conspiracy theories in general. My claim will be that the way conspiracy theories deal with evidence makes it that we should look for an answer in different solutions than simply presenting counterevidence and disproving these theories. That is not to say that we do not need the counterevidence. Let me start by saying a few words about that.

### ***Fact checking, counter evidence and debunking***

Because we risk being presented with false or misleading information, especially on uncontrolled online platforms, it is not weird that as a result things like fact checks have become a popular thing. Papers like *The Washington Post* and *The New York Times* have fact check pages on their websites. *The Annenberg Public Policy Center* of the University of Pennsylvania started a project with a website named *FactCheck.org* where they debunk all sorts of false claims among which are claims about conspiracies surrounding the COVID-vaccine (Fichera, 2021) and the attack on the US Capitol on January 6 (Fichera, 2021).

Not only organized news media try to fact check and debunk conspiracy theories. One can also find a lot of videos on YouTube in which people try to show why certain conspiracy theories are false. For those looking for evidence opposing conspiracy theories that are not well founded it is not too difficult to find it online.

These fact checks and debunkings often focus on singular statements by people or on a specific theory. One would think that a philosopher like Dentith might like this, as he thinks we should look at conspiracy theories one by one. Although Dentith does not like the term debunking because:

The word ‘debunk’ carries with it certain connotations: ‘to debunk’ is, after all, to ‘expose the falseness of something’. As such, as soon as we use the term ‘debunk’ with respect to, say, some conspiracy theory, then we are—*implicitly* or *explicitly*—inferring that said conspiracy theory is almost certainly false.

(Dentith, 2020)

Dentith’s problem with the word seems to be that it conveys an initial attitude towards a conspiracy theory, which is one of disbelief. It does not seem to matter much if we replace the word ‘debunk’ with other words like ‘disprove’ or even a more positive word like ‘investigate’ (as Dentith himself proposes) if the attitude towards conspiracy theories is the same.

Similar claims about debunking are made by philosopher Kurtis Hagen, who states that “if scholars are to maintain the appropriate type of neutrality, they should not *set out to debunk* conspiracy theories.” Hagen, like Dentith, believes we should look at conspiracy theories on an individual bases instead of making general claims and dismissing them a priori. “If scholars want to contribute productively to the evaluation of conspiracy theories, they ought to begin from this understanding and address the particulars of particular theories with open minds” (Hagen, 2020).

I think Dentith’s and Hagen’s objections toward debunking are problematic for a couple of reasons. First of all: to be doubtful of claims could just as much be considered a respectable quality of those who are set out to disprove conspiracy theories as it is, according to Dentith, for conspiracy theorists themselves.

Secondly: In the philosophy of science the idea that the right way to approach a theory is one with the intention to disprove it is not that odd. Karl Popper famously propagated ‘falsificationism’ as the best way to deal with theories in general. This

critical approach towards conspiracy theories becomes even more logical if you accept the idea that “extraordinary claims require extraordinary evidence”. This principle is famously put forward by Carl Sagan who himself distilled it from a piece by David Hume on miracles. (Deming, 2016) Many conspiracy theories would be extraordinary when they would turn out to be true, their conformation would shock the world and deeply change the way we look at things. This can be said for example about flat earth theories, conspiracies about aliens being among us or the claims made by QAnon that a satanic pedophile network is controlling the government. These theories are indeed extraordinary and to prima facie consider them at least to be unlikely until proven is perfectly acceptable. Or, as Clifford would say: do not believe anything upon insufficient evidence.

And finally Dentith and Hagen think the way they do about debunking because of their belief that we should only “address the particulars of particular theories” (Hagen, 2020). The way Dentith and Hagen want to approach conspiracy theories is called the ‘healthy’ view, that is that “we should consider each conspiracy theory on its own merits (particularism), and not discard all of them as non-rational beliefs (generalism)[...]” (Wagner-Egger et al., 2019, p. 50). By looking at conspiracy theories in this way it would indeed make less sense to be more suspicious about them than one would be toward other ‘normal’ theories. But I already showed that we could in fact make general statements about conspiracy theories as a category (see chapter 3).

In addition to the arguments I present in chapter three, the ‘healthy’ approach would also pose practical problems. This has to do with, what philosopher Wagner-Egger called, the ‘statistical argument’. This is that statistically the majority of conspiracy theories are false. “In any case, the huge majority of conspiracy theories are false. In view of this statistical argument (one CT that turned out to be true against thousands of false or at best unverified CTs), when considering all conspiracy theories to be false, we will be correct at a very close rate of 100%” (Wagner-Egger et al., 2019, p.50). They further point out that the amount of conspiracy theories is enormous. If we follow the healthy approach, it seems like we should consider all the conspiracy theories viable options until they are debunked. This, I think, seems unreasonable.

Instead, I would prefer, what I will call, a 'Russellian' approach. Philosopher Bertrand Russell famously came up with an analogy for religious belief. In this analogy Russell says that a statement like 'a teapot is circling the sun' is similar to the claim that there is a god. First of all they are similar, because the burden of proof is with the one making the claim and secondly that it is perfectly acceptable not to act as if it is false until it is proven true (Russell et al., 1997). We can look at conspiracy theories in a similar way, the burden of proof lies with the theorist and we don't have to take them into account in practice until they are proven to be true.

All of this does not say that conspiracies can never occur, just that there are good reasons to be skeptical about them. The problem Dentith and Hagen have with debunking is not actually a problem but a rational initial position.

I believe that there is a contradiction in the way Dentith and Hagen think about debunking conspiracy theories. They want us to look at conspiracy theories critically on their own merits. But they fail to see that the extraordinary claims made by conspiracy theorists demand a critical outlook. The attempt to disprove (or debunk) these claims *is* taking them seriously.

So, trying to debunk conspiracy theories is fine and things like fact checking can actually help people to easily look whether, for example, politicians speak the truth. : If we want to change the minds of the conspiracy theorists, we do need to have fact-checked their beliefs and have sufficient evidence that their beliefs are not true. But does debunking conspiracy theories work if we want to do something about the belief in conspiracy theories that are false?

### ***People and ideas***

So fact checking statements by conspiracy theorists and setting out to debunk their theories is a good thing to do. Simply because you want to investigate whether there is truth in them and if not (which is statistically more likely) you want to share that as well. Presenting people with the results of debunkings and fact checks might prevent them to start believing false theories. But I claim that debunking conspiracy theories on its own will probably not convince conspiracy theorists to drop false beliefs they hold.

We have seen that conspiracy theorists are more prone to certain cognitive biases like the confirmation bias. This can result in them not taking into account counter evidence presented against the theories they believe. Furthermore, there are the inherent characteristics of conspiracy theories: one problem being that the evidence presented against their theories might be considered to be part of the conspiracy.

This makes it epistemologically logical to try to disprove conspiracy theories but the evidence you present against conspiracy theorists might not do much to convince them. So, if not by simply showing how they are wrong how do we deal with conspiracy theorists with false beliefs?

This question seems to be one that many people have, as they see relatives or friends believing things that are obviously wrong to them. The same question might be bothering journalists who try to figure out how to report on conspiracy theorists. It is also a relevant question for people in public service because the belief in false conspiracy theories can, as argued for in chapter 4, present a real danger to society.

That many people question how they should deal with conspiracy theorists can be seen by the fact that different media channels posed the question. The *BBC* had an article titled: *How should you talk to friends and relatives who believe conspiracy theories?* (Spring, 2020). In this article five tips are given about how to deal with conspiracy theorists in your family. An opinion piece in *The New York Times* has the same intention and is titled: *How to Talk to Friends and Family Who Share Conspiracy Theories* (Warzel, 2020). And the Guardian published an article titled: *It's only fake-believe: how to deal with a conspiracy theorist* (Robson, 2021).

These articles have something in common when it comes to how they think we should approach conspiracy theorists: we should be 'kind'. "Don't be a scold. Be gentle, compassionate and patient" Warzel says (Warzel, 2020). Robson in his article cites professor Karen Douglas saying: "It would not be constructive to go into the conversation in a hostile manner, because this delegitimizes their concerns and might alienate them even more"(Robson, 2021). And Spring, who is the BBC's

specialist disinformation reporter, gives the advice to keep calm and to not be dismissive.

Not only news outlets give this as advice on the official site of the EU have a page dedicated to conspiracy theories and how to recognize them and how to deal with them. Among the tips on how to talk to people that believe in conspiracy theories are: “Don't ridicule. Try to understand why they believe what they believe.” and “Show empathy. Often the person may be truly fearful and distressed” (European Commission, n.d.).

That people believing conspiracy theories often deal with being fearful and distressed is indeed backed up by scientific research. A 2011 study shows a connection between the belief in conspiracy theories and paranoid ideation and schizotypy. The 120 participants in this study first took a questionnaire to determine their levels of believe in conspiracy theories. Then they took a ‘Schizotypal Personality Questionnaire’ and a ‘Paranoid Ideation Scale’. By analyzing the outcome of these tests the researchers came to the conclusion that there were “two related factors associated with conspiracy beliefs – paranoid ideation and schizotypy” (Darwin et al., 2011, p. 1292). Another study using similar methods show a link between conspiracy ideation interpersonal and affective deficits (March, 2019)

There is also a link between social factors and conspiracy ideation. A study from 2020 showed a connection between feelings of ostracism and vulnerability and willingness to believe conspiracy theories. “The current research showed that ostracism increases people’s tendency to believe in politically related conspiracy theories, which is mediated by increased vulnerability” (Poon et al., 2020, p. 1243). They tested this by having the 211 participants filling out questionnaires measuring their feelings of ostracization and vulnerability. Then they were presented 14 political conspiracy theories (e.g. the 9/11 conspiracy theory and one on SARS being produced as a bioweapon) that they could grade between 1 and 7 (1 being ‘I strongly disagree’ and 7 being ‘I strongly agree’). The people reporting more experiences of ostracism reported more feelings of vulnerability and endorsed more conspiracy theories. (Poon et al., 2020)



These kinds of studies show the personal problems that may contribute to people's beliefs in conspiracy theories. It suggests that there are psychological and social reasons why people are prone to believe conspiracy theories that are more important or fundamental than epistemological reasons. This would mean that if we want to deal with conspiracy theories in an efficient way we should focus on the mental health and social position of people who believe conspiracy theories. By doing this you could reduce the susceptibility for conspiracy theories.

Dealing with underlying issues conspiracy theorists might deal with could very well be much more effective than focusing on their theories themselves and trying to debunk them. This is also the case because of the way conspiracy theorists deal with evidence, making it very hard to convince them by presenting counterevidence and 'debunkings'.

## ***Listing the conclusions***

What we have seen is that evidence is considered to be important by conspiracy theorists but at the same time the way they deal with evidence is often flawed. Expert opinions are disregarded because experts can be part of the conspiracies. Instead, conspiracy theorists like to believe their own eyes (which makes them naive realists). Official theories are dismissed by presenting errant data, which if it is good errant data, should still not be considered evidence for a conspiracy.

That conspiracy theorists present things like errant data as evidence is due to certain biases. Some of these biases are more prevalent with conspiracy theorists than with other people. This is the case with the JTC-bias, the proportionality bias and illusory pattern perception. In combination with the general need for cognitive closure and confirmation bias, conspiracy theorists get into a vicious circle in which conspiracy theories are formed upon insufficient evidence and then defended against opposing evidence because it is difficult to abandon a theory that you accepted.

The way these conspiracy theorists deal with evidence can be considered immoral. Conspiracy theories and the way that their proponents deal with evidence are a danger to themselves and to society. This is because our beliefs inform our actions. That conspiracy theories can have dangerous consequences was seen in the example of anti-vax conspiracies. Reducing beliefs in false conspiracies should then also be a moral duty.

One of the ways people try to deal with conspiracy theories that are based upon insufficient ground is by 'debunking' them. This is a useful practice if we want to know what is wrong with certain conspiracy theories. But I claim that it is not helping us much in convincing those who already believe in false conspiracy theories. This is precisely because of the role evidence plays in conspiracy theories and the way conspiracy theorists deal with this evidence.

If we really want to reduce belief in wrong conspiracy theories, we should focus on the reasons certain people believe them in the first place. Research shows that there are psychological and social problems making people more susceptible to conspiracy theories.

How to move in from here? Future research should focus on how treating these problems influences the belief in conspiracy theories and what measures are most effective in diminishing beliefs in false conspiracy theories. This can help with finding ways to prevent dangerous situations created by the beliefs in false conspiracies. If we find ways to do this we might prevent things like the storming of the US Capitol from happening in the future.

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