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PSYCHOLOGY OF CONSPIRACY THEORIES

The 9/11 terrorist strikes are not only among the most impactful events in modern history but also among the best-documented ones. Professional news crews and New York City residents made live video recordings as this terrible event unfolded, which were widely broadcasted. We all have seen the footage of United Airlines Flight 175 crashing in the South Tower of the World Trade Center from any possible angle and were able to see how these impressive buildings collapsed like a house of cards. But although the footage is objectively the same, people appear to differ widely in what they are seeing in these recordings. Many people see how a passenger plane that was hijacked by suicide terrorists exploded upon collision, ultimately causing the destruction of the Twin Towers. Many other people, however, see direct evidence for controlled demolition: Not suicide terrorist but the US government was responsible for the plane crash, and not the impact of the plane but explosives that were hidden within the buildings caused the destruction of the Twin Towers.

The allegations that the US government helped to cause 9/11 are reflected in conspiracy theories that one can easily find on Internet and social media. Large groups of concerned citizens – such as the “9/11-for-truth” movement – made documentaries, published books and articles, and organized rallies to convince the public that the US

government is withholding the truth about these events. Furthermore, there are many different variants of 9/11 conspiracy theories. The relatively “milder” variants propose that the US government is merely an accessory, and for instance assume that public officials knew that the terrorist strikes were coming yet deliberately failed to prevent them. Other variants make allegations of a more active role for the US government and propose that public officials directly organized and carried out these attacks. These latter conspiracy theories often portray the 9/11 strikes as a “false-flag operation” – an attack that was designed to look as if it were carried out by other countries or organizations in order to justify far-reaching actions such as war. These false-flag 9/11 conspiracy theories are well known for claims such as that the airplanes were remote-controlled, that explosives caused the destruction of the Twin Towers, that the Pentagon was hit by a rocket instead of a passenger plane, and so on.

Whether we believe in them or not, such conspiracy theories surely are fascinating. Conspiracy theories appeal to a basic, dark fear that we all are string puppets under the control of powerful, sinister, and invisible forces. Conspiracy theories refer to hidden, secret, and malignant organizations that influence our lives without us being aware of it. Many conspiracy theories elicit a sense of “What if?” among people: Can these theories be true, and what would that imply for how we live our lives? Do we really understand the way that the world operates, or have we been deceived all along? There is something irresistibly mysterious, intriguing, but also frightening to a credible conspiracy theory, and therefore conspiracy theories have the potential to capture the attention of a broad audience.

Such widespread appeal can for instance be seen in the prominent place that conspiracy theories have in popular culture. Many well-known blockbuster movies are based on the central idea of people being deceived or threatened by a conspiracy of evil and hidden forces. In *The Truman Show*, the lead character played by Jim Carrey is unaware that his whole life actually is a popular reality show under the control of a TV station. Everyone he knows – his friends, his family, and even his wife – are part of the conspiracy designed to

trick him into believing that he leads a normal life. Another example, which seems very different but is actually based on the same conspiratorial principle, is *The Matrix* – a movie in which viewers are led to believe that life as we know it is a virtual reality illusion that has been deliberately pulled over our eyes. Human beings actually are prisoners of a conspiracy of hostile and highly intelligent computers, who utilize our life energy as efficient batteries.

What connects *The Truman Show* and *The Matrix* is that they portray rather existential conspiracy theories, implying that our life in its most minor details can be controlled by a conspiracy without our knowledge. But there are also many movies that are based on more common conspiracy theories, depicting how government agencies or other organizations use excessive power to persecute citizens. Often these conspiracies have highly advanced technology at their disposal, which enables them to effectively track down their victims (e.g., *Eagle Eye*, *The Net*, *Enemy of the State*). Personally I am a big fan of the Netflix original series *House of Cards*, which describes how a corrupt politician makes a career (all the way to becoming US president) through lies, deception, bribery, intimidation, coercion, and even murder. These movies and series all share a key element of many conspiracy theories, which is a depiction of powerful people or institutions as evil-minded, dangerous, and largely operating in the shadows.

One factor that contributes to the widespread appeal of conspiracy theories is the possibility that they might actually be true – and in fact, conspiracies sometimes can and do occur. An infamous example of a real conspiracy at the highest political level is the “Iran-Contra affair”, which took place during the 1980s. US government officials were found to have secretly facilitated the sale of weapons to Iran (even though Iran was subject to an arms embargo) and then used the profits to secretly fund the Contra Rebels in Nicaragua (even though further funding of the Contras had been explicitly prohibited by Congress). Another real conspiracy was the so-called Tuskegee-syphilis experiment, in which scientists pretended to offer free health care to African-American men. In reality, they studied the natural development of untreated syphilis, involving 399 men who had syphilis but

were unaware of their condition and 201 healthy men as a control group. The experiment lasted for 40 years (1932 to 1972). During this time, these men were never informed that they were taking part in an experiment, nor were they informed about their actual medical condition, and their illness was left untreated. As a result, many men suffered the consequences of untreated syphilis, including death.

The Holocaust also was the result of a real conspiracy. While Jews were already widely persecuted and killed in Nazi Germany in the 1930s and early 1940s, initially the Nazis had hoped that due to the hostile climate most Jews would leave the country voluntarily. This did not happen on the scale desired by Hitler, however, and in January 1942 a conspiracy of 15 high-ranked Nazis and SS-officers secretly gathered in a villa at Wannsee near Berlin. Although Hitler did not attend in person, the meeting had the purpose of designing a concrete plan to carry out Hitler's recent orders – which boiled down to “physically exterminating” all of the Jews in Europe. This meeting, commonly known as the “Wannsee conference”, marked the beginning of the mass deportation of Jews to Nazi death camps, where they were murdered in gas chambers on an unprecedented scale. The Holocaust is now recognized as one of the biggest tragedies in human history. Yet it was not until 1947 that a legal prosecutor found evidence that the Wannsee conference actually took place, by discovering the strictly classified minutes of this secret meeting.

This book is about the psychology of conspiracy theories. There are many different conspiracy theories that circle the Internet, some of them plausible or at least theoretically possible (e.g., perhaps secret service agencies sometimes do push the limits of what is legally or morally acceptable, as the Snowden revelations suggest), others are rather outlandish and highly unlikely to be true (e.g., the conspiracy theory that the earth is ruled by a race of alien lizards disguised as humans). Furthermore, there are many examples of actual conspiracy formation throughout history – ranging from modern times (Angela Merkel's mobile phone really was tapped by the US secret service) to for instance the Roman Senate conspiracy

that killed Julius Caesar – and hence, not all conspiracy theories are necessarily irrational. Despite all the differences among the conspiracy theories that people endorse, in the present book I will argue that people’s tendency to believe in conspiracy theories is rooted in similar, recognizable, and predictable psychological processes.

WHAT IS A CONSPIRACY THEORY?

Although various definitions of conspiracy theories exist, the one that I favor is “the belief that a number of actors join together in secret agreement, in order to achieve a hidden goal which is perceived to be unlawful or malevolent”.¹ This is a broad definition, and accordingly, conspiracy theories can take many forms and emerge in many different spheres of life. People can hold conspiracy theories about the government, or governmental institutions (e.g., secret service agencies). People can hold conspiracy theories about entire branches of industry (e.g., the pharmaceutical industry) or about scientific research (e.g., climate change conspiracy theories). Employees on the work floor also often hold conspiracy beliefs about their management, such as beliefs that managers have a hidden agenda to pursue selfish goals. Conspiracy theories may occur in sports (e.g., beliefs that the referee was bribed by the opposing team). Also in their personal life, people may hold conspiracy theories by thinking that others conspire against them personally – although the latter, more personally oriented forms of conspiracy theories are in scientific discourse regarded as examples of “paranoia” and are qualitatively different from conspiracy beliefs that make assumptions of how large groups of citizens are being deceived by formal authorities.

To specify the definition of conspiracy theories further, I propose that any belief needs to possess at least five critical ingredients in order to qualify as a conspiracy theory. They are:

- 1 *Patterns* – Any conspiracy theory explains events by establishing nonrandom connections between actions, objects, and people. Put differently, a conspiracy theory assumes that the chain of

incidents that caused a suspect event did not occur through coincidence.

- 2 *Agency* – A conspiracy theory assumes that a suspect event was caused on purpose by intelligent actors: There was a sophisticated and detailed plan that was intentionally developed and carried out.
- 3 *Coalitions* – A conspiracy theory always involves a coalition or group of multiple actors, usually but not necessarily humans (examples of nonhuman conspiracy theories are *The Matrix* and the “alien lizard” conspiracy theories). If one believes that a single individual, a lone wolf, is responsible for a suspect event, this belief is not a conspiracy theory – for the simple reason that it does not involve a conspiracy.
- 4 *Hostility* – A conspiracy theory tends to assume the suspected coalition to pursue goals that are evil, selfish, or otherwise not in the public interest. Certainly people may sometimes suspect a benevolent conspiracy, and benevolent conspiracies indeed do exist (as adults we conspire every year to convince children of the existence of Santa Claus). But in the present book, as well as in other literature on this topic, the term “conspiracy theory” is exclusive to conspiracies that are suspected to be hostile. Belief in benevolent conspiracy theories is likely to be grounded in different psychological processes than described in this book.
- 5 *Continued secrecy* – Conspiracy theories are about coalitions that operate in secret. With “continued” secrecy, I mean that the conspiracy has not yet been exposed by hard evidence, and hence its assumed operations remain secret and uncertain. A conspiracy that is exposed and hence proven true (e.g., the Wannsee conference) is no longer a “theory”; instead, it is an established example of actual conspiracy formation. Conspiracy theories are thus by definition unproven.

These five qualities distinguish belief in conspiracy theories from many other beliefs that people may hold. Take, for instance, the common supernatural belief that it is possible to get into contact with the souls of deceased relatives. Such belief in the existence of ghosts shares

at least two and arguably three of the key ingredients of conspiracy beliefs, but not all five of them. Belief in ghosts involves patterns (i.e., it makes assumptions of how life after death develops in a nonrandom fashion; furthermore, believing in ghosts is likely to influence how one causally explains mysterious events in life) and it also involves agency (i.e., the ghosts are typically assumed to have goals, emotions, and desires, and they are for instance capable of communicating with living people through a medium). Belief in ghosts does not require “continued secrecy”, but one might say that there are at least parallels with this ingredient, as ghost beliefs are also unproven, pertain to invisible forces, and are characterized by mystery. But the coalition and hostility elements are lacking, at least as necessary requirements for this belief. Ghosts may be considered to be hostile, but they do not necessarily need to be in order to believe in them. Furthermore, one does not need to make the additional assumption that groups of ghosts organize meetings to design plans of how to harm people. A core aspect of conspiracy beliefs that makes them unique as compared to other forms of belief is that such beliefs involve a secret and hostile group of actors.

PSYCHOLOGY OF CONSPIRACY THEORIES

“Have you ever considered the possibility that our theories might be true?” This is a question that I regularly get through email from Dutch citizens who are active on conspiracy websites. Often these messages have an angry tone, voiced by citizens who somehow feel offended by my research on conspiracy theories and who seem keen on persuading me that Ebola really was created in the lab, or that 9/11 really was an inside job. These messages typically (and wrongly) assume that if one studies the psychology of conspiracy theories, one necessarily proposes that all the conspiracy theories that people believe are invalid, or that people who believe in conspiracy theories are pathological. I have two responses to these email senders. The first is that, next time, they might wish to read the work of an academic more carefully before sending such an angry email – if they would have

done so, they would have found out that besides conspiracy theories I also do research (and recently published a book) on the human tendency towards cheating and corruption, which includes the question why people sometimes actually conspire to pursue selfish ends.² It is well known that corruption – and hence, actual conspiracy formation – is common, and I do not know of a single scientist who argues otherwise.

But second, and more importantly, the psychology of conspiracy theories is not a question of which conspiracy theories are true or false – it is a question of who does or does not believe in them. There are many conspiracy theories that can be considered irrational in the face of logic or scientific evidence, and the fact that many people nevertheless believe in them is good reason to study this topic (more about that later). Furthermore, I am willing to submit here that I am highly skeptical of some of the rather grandiose conspiracy theories that circle the Internet. I find it highly implausible that Ebola was created in the lab. Furthermore, I firmly believe that 9/11 was carried out by a group of 19 Al Qaeda suicide terrorists – and this is not a conspiracy theory by the given definition, because the evidence to support this claim is so overwhelming that it is safe to say that the conspiracy of these 19 terrorists has been exposed (i.e., there is no “continued secrecy”). Finally, while I consider it possible that Lee Harvey Oswald received help from unknown others while preparing to assassinate JFK (and hence that there may have been a conspiracy), I consider it unlikely that this help came from the CIA, the Russians, or the Cubans. But what I think about these conspiracy theories is not the focus of this book.

This book focuses on the *psychology* of conspiracy theories, which is the scientific study of why some people are more likely than others to believe in conspiracy theories. Typical questions that are part of the psychology of conspiracy theories are: What personality factors determine whether someone believes or disbelieves conspiracy theories? To what extent does belief in one conspiracy theory (e.g., about the pharmaceutical industry) predict the likelihood of believing in a different conspiracy theory (e.g., JFK)? In what situations are

people more and in what situations are people less likely to believe in conspiracy theories? And what are the consequences of conspiracy theories for believers' feelings and behaviors? To study these issues, one does not need the conspiracy theory that is under investigation to be necessarily false, nor does newly emerging evidence that an actual conspiracy occurred compromise any of the conclusions that are drawn in this research area.

Let me briefly illuminate this principle by drawing a comparison with the psychology of religion. Many social scientists study religious beliefs, and one typical finding in this research domain is that religious people cling more strongly to their faith in unpredictable, frightening situations. (I'm sure many readers recognize the desire to say a little prayer when they are scared.) The theory behind this finding is that people have a need to feel that they are to some extent in control of their environment. Unpredictable situations make people feel less in control, and as a consequence, people start relying more strongly on external sources of control – such as God.³ Is it necessary for this line of research to also prove or disprove – or at least make assumptions of – the actual existence of God? My answer would be a succinct “No”: The mere observation that people differ strongly in their religiousness is sufficient to raise the legitimate question why some people do, and others do not, entertain certain religious beliefs. The finding that people are more religious in frightening situations teaches us something about the psychological processes underlying religion. For instance, one possible interpretation of these research findings is that belief in God can be a source of comfort in scary situations. This conclusion does not make any judgment of the question whether God actually exists or not, nor does it imply a value judgment for believers or nonbelievers.

The principle for the psychology of conspiracy theories is the same: It is perfectly possible to study these beliefs without knowing for sure whether certain specific conspiracy theories are true or false. As a matter of fact, I know of one published research study that examined belief in a conspiracy theory that later on did turn out to be true. The study focused specifically on the Watergate affair. In 1972, a

group of five men were caught burglarizing the Democratic National Committee headquarters in the Watergate hotel, Washington, DC. The burglary was part of a bigger scheme that involved influential Republicans spying on the Democratic Party for political gain, which included bugging the offices of Democratic opponents and other abuses of power. Many high-ranking White House officials, including President Nixon himself, initially denied any involvement after the burglars were caught. In the investigation that followed, however, the evidence increasingly suggested that Nixon actively tried to cover up his personal involvement in the burglary and other illegal activities associated with it. Eventually, the public release of tape recordings that Nixon had of meetings held in his office supported his role in a cover-up, leading him to resign his presidency on 9 August 1974.

Two academic researchers, Thomas Wright and Jack Arbuthnot, conducted a study on how suspicious people were of the Watergate affair as it unfolded.⁴ The study was conducted in May 1973 – which was before the Senate hearings had taken place, before the Supreme Court had ordered Nixon’s tape recordings to be made public, and hence before the personal involvement of Nixon in the Watergate affair was proven beyond reasonable doubt. At that point in time, the allegation that President Nixon himself was an active player in the Watergate scandal was still a “conspiracy theory” according to all the five ingredients presented earlier. In their study, the researchers were particularly interested in the factors that would predict how suspicious people were of the possible role that Nixon might have played during Watergate. They focused on interpersonal trust and tested if people who have a structural tendency to distrust others would be more suspicious of Nixon’s involvement. They also examined the role of political ideology and tested whether Democrats or Republicans would be more suspicious of Nixon. The results indicated that the stronger people distrust others in their daily life, the more likely they were to perceive a conspiracy involving Nixon. Also, Democrats were more likely than Republicans to believe this conspiracy theory.

What followed is well known: Yes, it was true. Nixon actively tried to cover up his role in Watergate and was personally involved in the

illegal extraction of sensitive information about his political opponents, which he used to his political advantage. Nixon's personal involvement in the Watergate scandal no longer classifies as a "conspiracy theory", given that there is no continued secrecy anymore: The conspiracy has been exposed, it is therefore no longer a "theory", and Watergate has become a textbook example of an actual conspiracy that took place at the highest political level. Should we now abandon Wright and Arbuthnot's conclusions? Does the fact that this conspiracy theory turned out true compromise their results in any way?

I do not think so. While few people dispute the role of Nixon in Watergate nowadays, back in May 1973 this issue was still unproven and subject to intense public debate. The research question of Wright and Arbuthnot was not whether this particular conspiracy theory was true or false; the question was what personality and political factors would predict citizens' belief in it at a point in time when the evidence for this theory was still inconclusive. The results that they observed have been replicated by multiple researchers and in the context of many other conspiracy theories. People who are inclined to distrust other people are more likely to believe in conspiracy theories than people who are inclined to trust other people. Furthermore, people particularly believe in conspiracy theories about groups that are ideologically dissimilar. Democrats therefore are more likely to believe theories that involve a Republican conspiracy, and Republicans are more likely to believe theories that involve a Democrat conspiracy. These were the conclusions that followed from Wright and Arbuthnot's study, and these conclusions still hold today.

The psychology of conspiracy theories examines who believes or disbelieves these theories instead of whether a certain conspiracy theory is true or false. I have no more knowledge about the likelihood of certain conspiracy theories than other citizens, nor do I have access to classified government intelligence – and this is not necessary to study the psychology of conspiracy theories. In the chapters that follow, I will highlight situational and personality factors that predict how susceptible people are to conspiracy theories. In the remainder of this chapter, however, I will deal with two lingering issues regarding the

psychology of conspiracy theories: Should we care about whether or not people hold such beliefs, and should we pathologize people who believe in conspiracy theories – including the relatively absurd ones?

SHOULD WE CARE ABOUT CONSPIRACY THEORIES?

Psychology offers a scientific approach that helps to objectively establish what personality or situational factors determine belief or disbelief in conspiracy theories. Now that we have established that this approach implies that we are not trying to prove or disprove a particular conspiracy theory, an important question becomes whether we should care about conspiracy beliefs at all. If some conspiracy theories can be true, is it not desirable that groups of citizens investigate them? Should we consider conspiracy theories as a form of harmless entertainment? Or can conspiracy theories actually be detrimental to people's lives and to society at large, and should we be concerned about those beliefs?

My argument is the latter: We should be concerned, because in many cases conspiracy theories are irrational, yet they can do real harm to real people. Let me first establish that I am not saying that we should follow the leaders of our society – politicians, managers, powerful media figures – without any criticism or scrutiny. A healthy critical mind-set implies that we should carefully evaluate the actions of those in power and express concern if we see bad policy or suspect malpractice. Admittedly, sometimes there can be a thin line between healthy skepticism versus destructive conspiracy theorizing. But a critical mindset does not mean uncritically accepting any bizarre or far-fetched conspiracy theory. While one can surely find examples of actual conspiracy formation, the truth is that the vast majority of conspiracy theories that citizens have endorsed throughout the ages turned out to be false.⁵ My concern is particularly targeted at the many conspiracy theories that defy logic, ignore scientific evidence, or place blame on innocent people or groups – and in many ways belief in such conspiracy theories can be damaging. What people

believe drives their behavior; and the more irrational these beliefs are, the more irrational the behavior it produces.

At present the Internet is filled with misinformation about vaccines, making many people reluctant to get themselves or their children vaccinated. A lot of this misinformation is rooted in conspiracy theories. One pertinent idea that many people within the anti-vaccine movement have is that vaccines cause autism and that the pharmaceutical industry conspires to keep the evidence for this a secret. As a result, many people avoid vaccines, putting themselves, their children, and others at unnecessary risk for dangerous and avoidable illnesses. Scientific evidence shows no relationship whatsoever between vaccines and autism. The discovery of vaccines has been a major medical breakthrough that protects citizens from life-threatening illnesses, and we all have reason to be grateful for this important scientific accomplishment. Any responsible parents should make sure that their children get the appropriate vaccines at the right time. It is belief in conspiracy theories that makes many parents decide otherwise.

Conspiracy beliefs also influence voting behavior and can therefore determine the outcomes of elections that shape society. In Chapter 5 I will illuminate that belief in conspiracy theories is associated with a preference for relatively extreme political currents: radical socialist parties at the left end of the political spectrum and anti-immigration parties at the right end of the political spectrum. Donald Trump became US president in the highly polarized 2016 US presidential election, and I find it stunning how he managed to gather massive support – enough for him to win the electoral college – by spreading irrational conspiracy theories such as that climate change is a hoax perpetrated by the Chinese or that there is a conspiracy to hide evidence that Obama was not born in the US. What people believe determines their behavior; and if a political candidate propagates conspiracy theories that many people find appealing and plausible, voting for that candidate becomes a viable option.

Conspiracy theories can sometimes determine the most impactful choices at the highest political level. In 2002, former President

George W. Bush literally said, “Right now, Iraq is expanding and improving facilities that were used for the production of biological weapons.” Another, comparable quote (from 2003) was: “Intelligence gathered by this and other governments leaves no doubt that the Iraq regime continues to possess and conceal some of the most lethal weapons ever devised.” Compare these quotes with the five key ingredients of conspiracy theories: There are patterns (there is a threat and Iraq is causing it), agency (Iraq is doing this on purpose), a coalition (the Saddam Hussein administration), hostility (Iraq is not developing these weapons out of friendship), and continued secrecy (Iraq is concealing these weapons, and we have in fact never seen them). The belief that Iraq was hiding weapons of mass destruction fits any definition of conspiracy theories that I am aware of – and as history has taught us, it was a false belief. The uncomfortable conclusion is that the national and international support that Bush gathered to go to war against Iraq was based on an invalid conspiracy theory. This is by no means an anomaly: Historians have noted that most, if not all, wars that were fought in the past few centuries involved widespread conspiracy theories about the enemy group at both sides of the conflict.⁶

Conspiracy theories often are not a harmless pastime. They can be damaging to people’s health, they can stimulate aggression towards other people or groups, they can undermine necessary efforts to solve the real problems that pose a threat to our existence (e.g., climate change conspiracy theories), they determine what political leaders citizens vote for, and so on. There can be beneficial effects of conspiracy theories as well, sometimes: Conspiracy theories can improve transparency of leaders and open up a debate within society about important topics. But most of the effects of conspiracy theories are harmful: for believers, for their social environment, and for society. This suggests good reason to study these beliefs: Understanding the psychological roots of conspiracy theories might ultimately help in finding ways to make citizens more critically examine them – which is important for conspiracy theories that are highly unlikely to be true.

IS BELIEF IN CONSPIRACY THEORIES PATHOLOGICAL?

Passenger airplane engines often leave a condensation trail. These cloud-like trails in the sky are caused by water particles in the exhaust gases, which are quickly transformed into ice crystals due to low temperatures at high altitudes. But so-called “chemtrail” conspiracy theories assume an evil scheme behind these condensation trails. According to chemtrail conspiracy theories, airplane condensation trails are actually chemical or biological substances that an evil conspiracy – usually the government – sprays over the population in order to influence their behavior. For instance, one common variant of the theory is that these chemicals keep the population meek and docile, thereby allowing the government to carry out its evil plans without having to fear for a revolution by a righteously outraged crowd.

It is safe to say that this conspiracy theory is irrational. If passenger planes would indeed be equipped with technology to spray chemicals, airline technicians doing a routine check-up on a plane would easily discover this. Furthermore, scientific measurements would quickly detect the presence of strange, unknown, or harmful chemicals in the atmosphere and would also be able to track down where these chemicals come from. None of this has happened. Should we consider belief in this irrational conspiracy theory as pathological? Certainly it might be tempting to dismiss chemtrail believers as mentally ill. But the evidence suggests otherwise. Or, let me put it this way: If belief in such a relatively absurd conspiracy theory indicates pathology, we would live in a highly pathological society. In a representative sample conducted in the Netherlands in 2009, 3% of the Dutch population believed in chemtrails.⁷ This may not seem like much, but in a population of almost 17 million people, this boils down to more than 500,000 people in a small country like the Netherlands alone. These figures are hard to account for by pathology.

In fact, chemtrail conspiracy theories have been endorsed by well-known public figures who show no sign of mental illness. One believer

in chemtrail conspiracy theories was the deceased musical genius Prince. He believed in a different variant of a chemtrail conspiracy theory, namely the idea that these chemicals are sprayed specifically over Black neighborhoods to harm African-American citizens and cause them to aggress against one another. In an interview with Tavis Smiley in 2009, Prince explained how as a kid growing up in a Black community he frequently saw these condensation trails in the sky and then failed to understand why people around him suddenly became aggressive. Later on, he started seeing a causal connection (patterns) between the airplane trails and the aggression that emerged. Eventually, Prince sang about chemtrails in his song “Dreamer”:

Praying that the police sirens pass you by at night?
While the helicopter circles and the theory’s getting deep
Think they’re spraying chemicals over the city while we sleep?

Naturally, the unexpected death of Prince also led to numerous conspiracy theories. Many of them asserted that Prince was murdered for telling the truth about chemtrails.

If already a sizable number of people believe a relatively absurd theory like chemtrails, how common then are more mainstream conspiracy theories, such those as about the pharmaceutical industry or the 9/11 strikes? In a nationally representative sample of the US adult population, citizens were asked to indicate their agreement with the following statement: “[T]he Food and Drug Administration is deliberately preventing the public from getting natural cures for cancer and other diseases because of pressure from drug companies.” This is a statement that we cannot exclude with the same level of confidence as chemtrails, but still, it does assume an exceptionally evil mindset among a large number of medical professionals (including thousands of independent scientists and medical specialists around the world who know a few things about the actual effectiveness of these natural cures and are free to speak up). How many people believed this statement? As it turned out, 37% agreed to this statement, and yet another 31% was unsure (“neither agree nor disagree”). Only 32% of the sample

disagreed.⁸ As to the 9/11 strikes, in 2004 a Zogby poll revealed that 49% of New York City residents believed that US government officials knew that the attacks were coming and deliberately failed to act; and in a poll in 2006 drawn from the entire US population, 36% believed that US officials either carried out the attacks or deliberately did nothing to stop them.⁹

Conspiracy theories are far too widespread to dismiss belief in them as pathological. They are a common part of people's understanding of the world, just as various other forms of belief are. Many citizens believe that it is possible to predict the future from the lines in one's hand, or that the success of a newly formed romantic relationship depends on how well the zodiac signs of the two partners match. While these new age ideas are highly implausible in light of scientific evidence as well, belief in these ideas also is not considered pathological. Normal citizens, in all branches of society, endorse a variety of implausible beliefs, which includes certain conspiracy theories. In trying to understand the psychology of conspiracy theories, a wrong point of departure therefore would be clinical psychology (i.e., the study of mental illness). Instead, the psychology of conspiracy theories is the domain of social psychology: the study of how ordinary citizens think, feel, and act in their everyday life.

6

EXPLAINING AND REDUCING CONSPIRACY THEORIES

After an interview about conspiracy theories for the local journal of my university, the journalist asked if I would mind having my picture taken while wearing a tinfoil hat. Slightly off-guard, I agreed, and considered it a good joke at the time (although admittedly I might have reconsidered had I known that the picture would end up on the journal's front cover). But later on I thought more carefully about this request, and realized that it reflects the stereotypical image that many people have of conspiracy theorists: socially awkward individuals who have lost all touch with reality and believe rather outrageous theories such as that tinfoil hats would protect them from the radiation that the government uses to manipulate their brains. Some of the theories discussed in this book indeed are exceptionally bizarre, ranging from alien lizards to chemtrails to hollow earth theories.

But these bizarre theories notwithstanding, such "tinfoil-hat" characterizations do not do justice to the societal phenomenon of conspiracy theories, nor to the people who believe in them. While the number of citizens who believe conspiracy theories such as alien lizards or chemtrails is surprisingly high, it still is a small minority of the total population. More important is how widespread many "mainstream" conspiracy theories are, such as that the 9/11 terrorist strikes were an inside job, that climate change is a hoax, that the

pharmaceutical industry spreads dangerous illnesses, and so on. One does not need to be socially awkward or out of touch with reality to believe these mainstream conspiracy theories. On the contrary, large portions of normal, law-abiding, well-functioning citizens believe these conspiracy theories. Furthermore, while conspiracy theories are slightly more common in the lower educated segment of society, they are by no means exclusive to this segment, as they also emerge among high-profile managers, actors, scientists, lawyers, and even the current US president, Trump. Conspiracy theories are a common part of public discourse, and we do not need to go online to learn about them, as we can also hear them in bars, at parties, on the streets, in public transport, at the grocery store, and so on.

Why are conspiracy theories so widespread? In this final and concluding chapter, I will first summarize the insights of the previous chapters in an effort to understand conspiracy theories as a common societal phenomenon. One of the main mistakes that one can make in explaining conspiracy beliefs is to dismiss them as pathological. Instead, my conclusion will be that conspiracy theories emerge from regular and predictable psychological responses to feelings of uncertainty and fear. After my conclusions about the psychology of conspiracy theories, I will raise a few suggestions as to what policy makers can do to reduce conspiracy theories among the population.

WHY ARE CONSPIRACY THEORIES WIDESPREAD?

Negative emotions – particularly feelings of fear and uncertainty – form a key causal factor to explain why conspiracy theories are prevalent among large segments of the population. These negative emotions explain why conspiracy theories flourish in the wake of societal crisis situations. This includes both sudden crises such as terrorist strikes, natural disasters, or the unexpected death of a public figure and ongoing crises such as climate change, epidemics, or wars. But also in the absence of an unambiguous and objectively real crisis event, negative

emotions can cause conspiracy theories. Uncertainty about the future, feelings of alienation, fast-changing power structures in society, rapid technological advancement, or a deep-rooted distrust towards formal authorities can all stimulate conspiracy theories. Negative emotions elicit sense-making processes in which people assume the worst, increasing people's suspicious feelings towards powerful, dissimilar, or distrusted outgroups. These suspicious feelings can be dissected in a range of more specific psychological processes that characterize conspiracy theories and that can be summarized in terms of the following three complementary insights.

INSIGHT 1: CONSPIRACY THEORIES ARE ROOTED IN A DISTORTION OF COMMON AND FUNCTIONAL COGNITIVE PROCESSES, NOTABLY PATTERN PERCEPTION AND AGENCY DETECTION

People perceive patterns and detect agency, and these are highly functional properties of the human mind. Without our ability to perceive patterns we would be unable to distinguish the good from the bad, the healthy from the poisonous, or the safe from the dangerous. Pattern perception is all about the human capacity for associative learning: Through experience and observational learning we develop causal theories about the world that often are correct and that enable us to predict the consequences of our actions – such as that we might break our leg if we jump off a high roof or that we might regret smoking a cigarette while filling our car with gasoline. Furthermore, without the ability to detect agency, people would be socially helpless. Agency detection enables us to establish whether people performed certain acts on purpose or not, and it helps us to predict the future behavior of others by understanding their intentions. By correctly recognizing agency we can tell when others are flirtatious, aggressive, or just accidentally looking our way. Accurate agency detection also prevents us from being terrified each time we see a strange shadow and makes us able to estimate when a barking dog can be safely hugged or should be approached with caution.

Feelings of uncertainty and fear, however, cause an activation – and frequently, an overactivation – of the human tendencies to perceive patterns and detect agency. People sometimes perceive patterns in what actually are coincidences, and feelings of fear and uncertainty exacerbate such illusory pattern perception. Studies for instance show that when people lack control, they not only start seeing conspiracies, but they also start seeing patterns in other stimuli, such as images in random noise, patterns in stock market information, and superstition.¹ Likewise, people frequently detect agency where none exists, as indicated by the classic study by Heider and Simmel in which all participants ascribed agency to simple geometric figures on a screen. Feelings of fear and uncertainty stimulate the human tendency to detect agency, which may result in conspiracy theories, or in other beliefs that assume agency. For instance, under conditions of fear and uncertainty, people believe more strongly in personified, agentic gods.²

The cognitive processes underlying conspiracy theories hence are not pathological; they are regular processes that our minds perform continuously and that get more strongly activated as a response to uncertainty and fear. In many situations, the relationship between uncertainty and activation of these cognitive modules can be functional, too: When there truly is danger, pattern perception and agency detection help people to find out the nature of the threat and take appropriate action. One reason why conspiracy theories are widespread among regular citizens, therefore, is because they involve normal and otherwise functional cognitive processes.

INSIGHT 2: CONSPIRACY THEORIES ARE ROOTED IN PERCEIVED INTERGROUP CONFLICT

Humans are social beings. People have a natural tendency to affiliate with others and have a fundamental need to belong to social groups. The power of this “need to belong” becomes apparent particularly when people are excluded by others or by groups that they value – a romantic breakup, a rejection by people previously considered to be

friends, or a denial to attend a party that everyone else is invited to. Such social exclusion ranks among the most aversive experiences in life, which undermines self-esteem and lowers the feeling that one belongs, that one is in control, and that life is meaningful. Social exclusion hurts – in fact, neurological evidence suggests that experiencing exclusion activates the same brain regions as experiencing physical pain does.³ Why is social exclusion so painful? Because it is in our nature to desire having meaningful social relationships with other people, and social exclusion forms a threat to this desire. Instinctively we have a need to connect ourselves to valuable others, and to proudly call the resulting collective “we” and “us”.

But people do not connect themselves indiscriminately to all other people. When there is a “we”, often there also will be a “they” – a group of outsiders that is different from “us”. People continuously categorize their social world into ingroups and outgroups, and their own ingroups constitute an important part of their identity. As a consequence, people tend to hold an inflated view of their ingroups and, for instance, perceive their own groups as morally superior – implying that different groups are morally inferior. Feelings of uncertainty and fear increases the human tendency to categorize people into “us” versus “them” and fuels intergroup conflict.⁴ Such intergroup conflict can take many forms and may escalate to different degrees, ranging from an uncomfortable atmosphere at a soccer match to bloody wars and genocide. But what most instances of intergroup conflict share is that (1) people connect their own identity more strongly to the ingroup and (2) people perceive the outgroup as threatening.

Conspiracy theories are part and parcel of such perceived intergroup conflict and reflect the mutually suspicious feelings that emerge on both sides of the conflict. Specifically, research finds that conspiracy theories are intimately linked with the two elements of intergroup conflict. First, the more strongly people connect their own identity to the ingroup, the more concerned they are when a fellow ingroup member is harmed – and the more tempting it is to come up with conspiratorial explanations blaming an antagonistic

outgroup, particularly if the harm occurred under somewhat mysterious circumstances. Second, the more threatening an outgroup is considered to be – because the outgroup is more powerful, more technologically advanced, carries negative stereotypes, or because the outgroup outnumbered the ingroup – the more likely people are to believe in theories stipulating that members of this outgroup are conspiring against the ingroup. Combined, these insights suggest that conspiracy theories reflect a motivation to protect a valued ingroup from a potentially dangerous outgroup.

Also, the social processes underlying conspiracy theories therefore are not pathological: Conspiracy theories result from the basic human tendency to categorize the world into ingroups and outgroups and from the corresponding desire to protect one's ingroup from powerful outgroups that might be dangerous. The suspicious feelings that people often have about different groups do not have to be irrational and actually can have a protective function: Sometimes outgroups truly can be dangerous or deceptive and plan malevolent actions against one's ingroup. But as we have seen throughout this book, people make many mistakes in this process and frequently see conspiracies where there is unlikely to be one. In sum, there is an intergroup dimension to conspiracy theories: Uncertainty and fear stimulate conspiracy theories, particularly if there is a suspect outgroup to blame for harm experienced by ingroup members.

INSIGHT 3: CONSPIRACY THEORIES ARE ROOTED IN STRONG IDEOLOGIES

People have a moral perspective on the world, and evaluate the behavior of themselves and others as morally “right” or “wrong”. These moral judgments are closely related with people's norms and values and form the basis of people's ideological beliefs of what a good society should look like. Ideological beliefs are subjective, however, and people often appreciate that others may hold a different view on how to solve pressing societal issues. This ideological plurality is reflected in the many different political opinions that citizens have, the

different political parties in parliament, and intense debates between people about important topics such as climate change, poverty, and public health. But sometimes, people endorse their ideological beliefs with such zeal and conviction that alternative views appear unacceptable. Their ideological beliefs do not seem subjective anymore but appear to dictate an objective, undeniable truth. Such strong ideological beliefs lead people to support extremist political movements or religiously fundamentalist organizations.

Feelings of fear and uncertainty stimulate such rigid, extreme ideological beliefs. To some extent this assertion may seem paradoxical, given that one characteristic of ideological extremism is an excessive conviction in the objective correctness of one's views. But extremism tends to increase as a function of societal circumstances that elicit uncertainty and fear, such as economic recessions, societal turmoil, or the refugee crisis that the EU has seen recently. One psychological theory to explain this paradox is that uncertainty and fear lead to a process termed "compensatory conviction": People compensate for their uncertain feelings in one domain with increased certainty in other domains, most often their ideological beliefs.⁵ Such compensatory conviction as an explanation of extreme ideologies is consistent with macro-political insights on extremism. Political scientist Manus Midlarky extensively studied the rise of extremist regimes around the world in the 20th century and found support for a causal role of the insecurities that citizens experience through what he calls "ephemeral gains".⁶ Specifically, the rise of extremism in societies is typically preceded by, first, a short-lived period of prosperity (e.g., in terms of territory or economic growth), followed by a period of critical losses. The societal unrest that these losses generate lead many citizens to embrace extremist political movements that offer simple political solutions to reverse the losses and reinstall the country's previous glory.

As we have seen in Chapter 5, people who endorse extreme ideologies are more likely to believe conspiracy theories than people who endorse moderate ideologies. The evidence for this emerges from both historical sources (i.e., extremist regimes propagate more

conspiracy theories than moderate, democratic governments), psychological research (i.e., people who hold extreme ideological beliefs are more likely to believe conspiracy theories than people who hold moderate ideological beliefs), and qualitative research (i.e., underground extremist groups are highly likely to propagate conspiracy theories as part of their core ideology). The relationship between extremism and conspiracy theories is at least partly connected with the previous insight about intergroup conflict: Extreme ideologies have a strong tendency to frame the world into a conflict between “Us” versus “Them” (e.g., “Us” the people versus “Them” the corrupt elites). But there is also more to it than that. Extreme beliefs converge with conspiracy theories in offering clarity about the causes of societal problems. Instead of appreciating the complexity of many developments in society, extremist ideologies assert that societal problems occur for simple reasons – for instance, because they are caused deliberately by corrupt outgroups.

While radical and extremist ideologies have done much harm in the past century, they are not a result of pathology. Extreme ideologies can emerge when people have strong concerns about societal injustices that they perceive and when they endorse their moral beliefs with strong conviction. Furthermore, it should be noted that strong ideological convictions have given humanity not only a lot of bad but also a lot of good. Extremists typically are not stopped by highly agreeable people who are willing to make compromises on everything, including basic human rights. Instead, they are stopped by other extremists, such as activists and organized political movements that draw a firm line in the sand as to what is and is not morally acceptable. Strong ideologies have been responsible for terrorism, oppression, and slavery, but also for important societal change such as increased equality, democracy, and constitutional protection of basic human rights. It was not that long ago when favoring equal rights regardless of race was considered an extremist ideological position (a case in point being the apartheid system in South Africa, which ended in 1991). For better or worse, one aspect of strong ideologies is conspiracy theories, most often about groups holding opposite ideological beliefs.

These three complementary insights offer a straightforward explanation of the prevalence of conspiracy theories. Why are conspiracy theories widespread among normal citizens? Because conspiracy theories are rooted in normal psychological processes that are amplified by negative emotions. Situations that provoke uncertainty and fear overactivate the otherwise functional cognitive processes of pattern perception and agency detection; they also stimulate the human tendency to categorize people into conflicting groups of “us” and “them”; and they intensify people’s moral judgments, rendering them more susceptible to extreme ideologies. Furthermore, actual conspiracies can and do occur, making not all conspiracy theories irrational to begin with. It can be functional to be suspicious of powerful outgroups, even when people make a lot of mistakes in the process. Being susceptible to conspiracy theories may be a natural aspect of the human condition.

HOW CAN WE REDUCE CONSPIRACY THEORIES?

Given the observation that real conspiracies sometimes occur, I feel compelled to start a section on reducing conspiracy theories with a clarification: Reducing conspiracy theories is not the same as promoting gullibility among the public. It is also not an attempt to curb efforts to reduce corruption, to suppress dissent among citizens, or to excuse officials who actually commit corruption. Being a good citizen means being a constructively critical citizen who follows the actions of decision makers with great interest, and who speaks his or her mind when seeing bad policy or actual integrity violations. But as I have made clear throughout this book, many conspiracy theories are simply irrational, and often harmful as well. It is irrational and harmful to believe that pharmaceutical companies hide evidence that vaccines cause autism. It is irrational and harmful to believe that climate change is a hoax (perpetrated by the Chinese, corrupt scientists, or others). Members of the public can contribute to good governance with constructive criticism designed to improve policy, but they also can undermine good governance with conspiracy theories that have

no basis in reality and ignore the actual problems that society faces. Reducing conspiracy theories does not mean ignoring actual corruption; it means improving people's capacity to recognize when conspiratorial allegations are implausible.

A focus on irrational conspiracy theories would suggest that increasing rationality and offering rational arguments may help in reducing their appeal. This is indeed the case. Analytic thinking reduces the tendency to believe conspiracy theories, and, consistently, efforts to stimulate analytic thinking (e.g., education) are associated with decreased conspiracy beliefs.⁷ Furthermore, offering rational arguments can help the public to make an honest evaluation of the plausibility or implausibility of a conspiracy theory. Many conspiracy theories can appear persuasive at first by proffering a set of seemingly rational arguments, sometimes even grounded in scientific claims. An example is the 9/11 "melted steel" theory, which is based on the (scientifically correct) insight that steel does not melt at the temperatures produced by burning kerosene. Hence, so this theory proposes, it follows that it is "scientifically impossible" that the fires that erupted after the crash of the airplanes were the cause of the Twin Towers collapsing. Instead, the towers must have been brought down by a different cause – namely, through controlled demolition.

Arguments such as these can make conspiracy theories appealing to a broad audience: After all, how else should we explain the collapse of the towers if it cannot have been the kerosene fires? In an effort to reduce conspiracy theories, it is important to inform the public of what science actually has to say about these issues. Quite often conspiracy theories appear plausible at first, only to turn implausible if one adds only one crucial piece of extra information. Scientifically, the "melted steel" theory is flawed because it proposes a half-truth: Steel indeed does not melt at the temperatures produced by burning kerosene, but this theory fails to add that steel does not have to melt for the construction to collapse. The steel only needs to weaken up to a certain point for this to happen – and steel weakens enormously at the temperatures produced by burning kerosene, making it impossible to carry the weight of all the floors on top of the construction.

The steel construction of the Twin Towers responded exactly how it would be expected to respond to the plane crashes and the kerosene fires that erupted on that fateful day: It collapsed.

But besides rationality, I suspect that interventions designed to reduce conspiracy theories are particularly likely to be effective when they target the primary cause of conspiracy beliefs: Fear and uncertainty. If one manages to transform widespread pessimism into optimism, irrational conspiracy theories will decrease among the public. As these aversive feelings are closely coupled with feeling out of control, I propose that likewise making people feel in control reduces conspiracy theories. Put differently, people need to experience a sense of empowerment in order to become less suspicious: to feel that they can influence their own destiny and that they have a say in the decisions that affect them. Indeed, one study finds that having participants remember a time in their life when they felt completely in control reduced conspiracy theories as compared to a neutral baseline condition.⁸

The insight that empowering people reduces conspiracy theories has implications for what leaders can do to make their followers less suspicious. One basic insight from the leadership literature is that people can govern with different leadership styles, and these styles differ in terms of how much they empower their followers by involving them in decisions. In a study among employees in various organizations that I carried out together with organizational psychologist Reinout de Vries, we examined the question how different leadership styles would predict organizational conspiracy beliefs (that is, employees' beliefs about managers conspiring in secret to pursue evil goals). We specifically looked at four different and frequently occurring leadership styles. These four styles differed in whether they were destructive or constructive.⁹

The destructive leadership styles that we investigated were despotic leadership and laissez-faire leadership. Despotic leadership means being an authoritarian leader who is harsh towards followers and does not easily accept criticism. Laissez-faire leadership essentially means a lack of leadership, as these leaders do not intervene

until absolutely necessary. The constructive leadership styles that we investigated were charismatic leadership and participative leadership. Charismatic leaders inspire followers to make the organization's goals their own goals and instill the feeling among employees that their work matters. Participative leaders, in turn, include followers in decision-making processes by asking for their opinions about the decisions to be made that affect them all.

The results indicated that both the destructive leadership styles predicted stronger conspiracy beliefs among employees, which was due to increased feelings of insecurity about their jobs. Despotic leaders made people feel insecure, as these leaders do not appear concerned with the well-being or interests of followers. Likewise, laissez-faire leaders made people feel insecure, as it is difficult for people to get a sense of how much the leader values them if the leader is never around. If the goal is to reduce conspiracy theories, being destructive as a leader – through either active or passive means – is not the answer. Of the more constructive leadership styles, we found that charismatic leadership was unrelated to conspiracy beliefs. Charismatic leadership may influence people in many ways, often positively (e.g., it increases their motivation to exert effort for the collective), but it does not influence the probability that they believe conspiracy theories: People are equally likely to endorse conspiracy theories that involve charismatic or noncharismatic leaders.

There was one leadership style that did predict reduced belief in conspiracy theories, however, and that was the participative leadership style. Leaders who give their followers a voice when important decisions need to be made and who take the input and opinions of followers seriously in their management tasks elicited less conspiracy theories than nonparticipative leaders. The reason is that these leaders empower their followers: Followers feel that they can be part of important decision-making processes and that their opinions matter. In fact, it is not necessary for people to always get their way to experience these empowering effects of participative leadership. If people are included in decision-making process, they also have a better sense of the complexity of the decision to be made and to appreciate that

differences in opinion may exist on what the next steps should be. People can accept an unfavorable decision quite well provided that they believe the preceding decision-making procedure was fair. For people to feel empowered they first and foremost need to feel taken seriously and to feel like a respected member of their community. This can be achieved by leaders who make genuine efforts to listen to them and take their interests into account.

The essence of participative leadership is to utilize basic principles of procedural justice in decision making: to make decisions using procedures that followers consider to be fair. The effects of procedural justice on how people respond to decision-making authorities are well documented, and by and large this area of research finds that if people consider procedures to be fair they more easily accept subsequent decisions (even if they disagree with them), experience more positive emotions, feel more respected by authorities, and trust authorities more. Procedural justice thus more generally improves the quality of the relationship between leaders and followers, and this is largely due to people's feelings of empowerment, which are stimulated by authorities who grant them a voice in important decisions, who take them seriously, and who regard them as a full-fledged member of their community. As a consequence, procedural justice may be a powerful tool to reduce conspiracy theories.

Providing people with voice in decision-making processes is only one possible way to improve the perceived fairness of decision-making procedures, but there are also other aspects of procedural justice that I would expect to be conducive in reducing conspiracy theories. Besides voice, procedural justice criteria that seem relevant in particular for conspiracy theories are transparency and accountability. Many conspiracy theories originate from beliefs about what authorities discuss in secret and the ulterior motives that they have to endorse certain policies. Increased transparency and accountability are likely to reduce such suspicious thoughts by providing the public with insights into the difficult dilemmas that authorities often face and the reasons why authorities endorsed a certain course of action over alternative possibilities. In that sense, transparency and accountability also

empower the public because they enable people to honestly and critically evaluate policy and to hold leaders accountable for their actions in a more constructive fashion than through conspiracy theories.

To reduce conspiracy theories, one can hence combine interventions that promote rationality with interventions that reduce uncertainty and fear. I would specifically advocate a combination of carefully analyzing widespread conspiracy theories through rational arguments and a full assessment of the available evidence, along with procedural justice interventions that empower people and make them part of important decision-making processes. While these interventions may fail to persuade a relatively small group of people that is strongly invested in the belief that the world is governed by evil conspiracies, they are likely to persuade a much bigger majority that is susceptible to both conspiratorial and nonconspiratorial explanations of impactful societal events.

TO CONCLUDE

Conspiracy theories are not endemic to our modern era – they have occurred throughout human history. People have always experienced uncertainty and fear in response to possible danger, and, as a means of effectively coping with these aversive feelings, people become vigilant to the possible conspiratorial activities of powerful, and possibly hostile, other groups. Such vigilance is not pathological: It is a natural defense mechanism that involves regular psychological processes. Conspiracy theories therefore are common and will continue to be in the foreseeable future. Nevertheless, the fact that some conspiracy theories are common does not make them true or rational. At present the world is facing serious challenges that require responsible solutions but that are also frequent targets of conspiracy theories – including populism, climate change, intergroup conflict, public health, poverty, immigration, unemployment, public governance, and so on. I therefore hope that the insights about the psychology of conspiracy theories that are offered here may contribute to a less paranoid society.