

The social psychology of conspiracy theories: Key insights and future challenges

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Abstract

Conspiracy theories are a common feature of social and political debate, and of growing concern for governments and policymakers. Awareness of the importance of conspiracy theories has been facilitated by a rapid expansion of empirical research in the past 20 years, and the bulk of this research comes from social psychology. In the current chapter, we review this significant research progress, focusing on the antecedents of conspiracy beliefs and their consequences. As we review this literature, we refer to examples from our ongoing research programme. We then articulate what we perceive to be the main limitations of the research to date focusing on measurement, sampling and theoretical focus, and propose avenues for future research. Finally, we briefly discuss interventions to address the effects of conspiracy theories.

Keywords:

Conspiracy theories, conspiracy beliefs, predictors, consequences, communication, interventions, measurement, theory.

Conspiracy theories ran wild during the COVID-19 pandemic, ranging from the belief that the virus was a government hoax designed to control people, to the belief that it was a weapon designed in a Chinese laboratory to start the next world war. In early 2024, a photoshopped picture of Catherine, Princess of Wales and her children gave rise to claims that she was either dead and had been replaced by a body double or had been keeping out of the public eye to hide signs of domestic violence. The war in Ukraine sparked conspiracy theories that the war was a fake perpetrated by Western media and governments. Barely an important social or political event goes by without the emergence of conspiracy theories. Narratives like these are not new. The 1990s gave rise to conspiracy theories surrounding the death of Diana, Princess of Wales, the 2000s saw conspiracy theories about the 9/11 attacks in New York, and earlier in the 20th century conspiracy theories circulated about the assassination of US President John F. Kennedy and the Apollo moon landings. It seems that conspiracy theories have always been with us. There is even evidence of conspiracy theorising in the poetry and oratory of ancient Rome (Pagán 2012).

There is a growing appreciation amongst policymakers that conspiracy theories matter. The European Commission and UNESCO have published a set of educational infographics to help people recognise, debunk and counter conspiracy theories (European Commission, n.d). In the United Kingdom in 2024, members of parliament were issued with a guide to spotting conspiracy theories that can pose a threat to democracy (McKiernan, 2024). These developments have been influenced by significant advances in academic research on the origins and consequences of conspiracy theories. In the past 20 years, scholars—and especially social psychologists—have made meaningful progress in understanding the psychological, social, political, historical, and cultural factors that make conspiracy theories appealing to millions of people, and the intentions and behaviours that these beliefs can lead to (for reviews, see Douglas et al., 2019; Douglas & Sutton, 2023). In

this chapter, we provide an overview of this progress and illustrate our discussion with examples from our ongoing programme of research.

1. What are conspiracy theories?

Before we begin, it is important to define some terms. First, we refer to a *conspiracy theory* as “a belief that two or more actors have coordinated in secret to achieve an outcome and that their conspiracy is of public interest but not public knowledge” (Douglas & Sutton, 2023, p. 282). Whilst a *conspiracy* is a coordinated and concealed attempt to bring about a specific outcome, it need not have any political, social, or historical importance. For example, if a group of colleagues organises a surprise leaving party for another colleague, they are taking part in a conspiracy, but this conspiracy is unlikely to affect anyone outside the immediate circle of colleagues. This type of conspiracy is therefore likely to be of little scientific interest. In contrast, a *conspiracy theory* involves a situation or event of public importance. It alleges a conspiracy that the public should be aware of because their interests have been—or potentially could be—affected if it goes unnoticed and uncorrected.

Conspiracy theories have additional defining features that set them apart from other types of beliefs. Specifically, they are *oppositional* in that they oppose publicly accepted explanations of events and circumstances, assuming those to be false, misleading, and morally wrong. They also describe actions that are *malevolent* and against the public interest. They assume that the conspirators—regardless of their true status or power—possess the *agency* to execute plots of significant magnitude without others knowing. They are *epistemically risky*, or in other words more prone to falsification and lacking evidential proof than other types of beliefs. Finally, they are *socially shared beliefs* that have the potential to create new social realities and shape cultures (Douglas & Sutton, 2023).

We will return to these definitional features later in the chapter when we share our ideas about how to shape future research on conspiracy theories. However, with these basic

defining features in mind, we begin our journey into the psychology of conspiracy theories by first asking why these beliefs appeal to so many people. Indeed, this is where research on this topic began some years ago, so it is to these individual differences, cognitive factors, needs, motives, and social factors that we first turn our attention.

2. Why do people believe in conspiracy theories?

As is the case for many psychological constructs, belief in conspiracy theories is typically measured by presenting participants with a set of specific statements (e.g., “The Apollo moon landings were faked”; see Douglas et al., 2016) or general statements (e.g., “The power held by heads of state is second to that of small unknown groups who really control world politics”; see Brotherton et al., 2013) and asking them how much they agree with each of the statements on a Likert-type scale. A value based on the mean agreement across all statements is used as an index of belief in conspiracy theories. Such scales tend to be internally consistent and correlate with each other, and researchers have used such indices interchangeably to examine correlations between other variables in an attempt to understand when and why people are more likely to believe in conspiracy theories.

2.1. Individual motives

Increasing research interest in the psychology of conspiracy theories has generated a significant volume of research in recent years that attempts to understand their appeal. To synthesise this literature, we (Douglas et al., 2017) argued that people are attracted to conspiracy theories—compared to other explanations—when important psychological motives are not being met. We proposed that these are *epistemic* motives for knowledge, certainty, and closure (e.g., Marchlewska et al, 2018), *existential* motives for control and security (e.g., Jolley & Douglas, 2014a, b), and *social* motives for self-esteem and to maintain positive feelings about one’s social groups (e.g., Cichocka, Marchlewska, Golec de Zavala & Olechowski, 2016; see also Biddlestone et al., 2021). Since we conducted that

review, research studying the antecedents of conspiracy theories has grown even more, and there is now ample evidence supporting our framework (Douglas & Sutton, 2023). Our research also provides several examples demonstrating that individual motives are important predictors of belief in conspiracy theories. In the sections that follow, we outline findings from our research examining how and when such epistemic, existential, and social motives are unmet, people seem more likely to turn to conspiracy theories.

2.1.1. Epistemic factors

A wide range of evidence suggests that conspiracy theories are linked to basic cognitive processes that are associated with the epistemic motive to feel in possession of accurate, comprehensible, and useful information about important events and circumstances. In the following section, we outline how our research has advanced knowledge of some of these factors. In particular, we have examined how conspiracy beliefs are associated with a tendency to perceive agency and intentionality, a tendency to see illusory patterns to try to make sense of randomness, and a tendency to project one's own personal beliefs and action tendencies onto others when knowledge is limited.

2.1.1.1. Agency detection and anthropomorphism

People often perceive and attribute agency and intentionality where it does not—or is unlikely to—exist. For example, in a classic study, people interpreted the movement of geometrical figures on a screen as intentional actions and behaviours (e.g., chasing, running away), emotional responses (e.g., anger, frustration), and personal characteristics (e.g., bravery, aggression) much like those of humans (Heider & Simmel, 1944). Other research suggests that people often perceive machines—and even the weather—to act with agency and intentions (Waytz et al., 2010). According to Barrett (2004), this is an important evolutionary adaptation. If people are hypervigilant to the potential characteristics and motives of other entities in their environment, this is likely to keep them safe from potential threats. We

theorised that these tendencies could also predict the extent to which people endorse conspiracy theories. Conspiracy theories assume that people act with purpose, agency and intentionality. With often limited information to understand important events, people are perhaps likely to assign specific individuals and groups with agency and intentionality to perform malevolent acts.

We tested this theorising in two studies (Douglas et al., 2016; see also Brotherton & French, 2015). In the first study, participants from the USA rated the extent to which they agreed with a list of commonly known conspiracy theories (e.g., The attack on the Twin Towers was not a terrorist action but a governmental plot”). They then watched the Heider and Simmel (1944) animation of geometrical shapes moving about on a screen (Figure 1). After watching the animation, we asked participants to answer questions about the “actions” of the shapes (e.g., “Did you think the behaviour of the shapes was intentional?”) and about the characteristics of the shapes (e.g., “To what extent did you think the shapes were conscious?”). Together, these formed a scale of agency detection. We also asked participants to complete Waytz et al.’s (2010) anthropomorphism scale, which measures the extent to which people attribute human-like qualities to inanimate objects. Participants finally reported demographic information, including their education level.

Results revealed that both agency detection and anthropomorphism predicted belief in conspiracy theories. Furthermore, in this study and a second study which largely replicated the first (also with US participants), we found a significant relationship between conspiracy belief and education level, which was mediated by anthropomorphism. Specifically, people with lower levels of education were more prone to conspiracy beliefs, a relationship that was partly explained by people’s tendency to anthropomorphise inanimate objects. Together, these findings suggest that not only is conspiracy belief associated with a tendency to attribute agency and intentionality where it does not—or is unlikely to—exist, but that this

tendency might be affected by education. Though it is difficult to interpret correlations of conspiracy belief with education in causal terms, the finding is widely observed, and seems even to hold when adjusting for crystallised intelligence (i.e., general knowledge, Arnulf et al, 2022).

2.1.1.2. Pattern perception

Following this work, we theorised that the link between agency detection and conspiracy belief could be an example of a broader phenomenon in which people who are more sensitive to patterns in general are more likely to endorse conspiracy theories. Research suggests that people are typically averse to randomness and uncertainty and presume instead that there must be some kind of pattern or causal connection between events (Zhao et al., 2014). Two previous studies had explored this potential connection. Specifically, Whitson & Galinsky (2008) found that a manipulation of lower personal control increased belief in conspiracy theories. However, another study (Dieguez et al., 2015) found no relationship between perceptions of randomness (in sequences of Xs and Os) and conspiracy beliefs.

It was noteworthy that the stimuli used by Dieguez and colleagues were rather arbitrary, without social meaning. In five studies, we therefore investigated the role of pattern perception in conspiracy belief, and we did so by using stimuli with social meaning as is the case for events often associated with conspiracy theories (van Prooijen et al., 2018). In Study 1, US participants indicated their agreement with a list of conspiracy theories. We generated a random sequence of 100 coin tosses and showed these to participants in groups of 10. On a Likert-type scale, we asked the participants to rate the extent to which they thought the coin tosses were completely random or completely determined. In this initial study, the extent to which participants perceived patterns in the coin tosses predicted the extent to which they agreed with the conspiracy theories. Pattern perception also predicted belief in supernatural and superstitious phenomena such as mind reading and astrology (Eckblad & Chapman,

1983). The second study (also with US participants) involved an experimental manipulation of pattern search. Participants were asked either to specifically look for patterns in a set of coin tosses or were informed that the coin tosses were completely random. Participants were again asked to rate the extent to which they perceived the coin tosses to be random or determined. They also indicated their agreement with a list of conspiracy theories and their experiences of paranormal and superstitious phenomena. We found that the pattern search manipulation indirectly increased conspiracy belief and supernatural belief via pattern perception. Therefore, searching for patterns appears to increase the perception of patterns, and this predicts conspiracy and supernatural beliefs.

In the third study (again with US participants), we tested whether pattern perception in general, or more specifically *illusory* pattern perception, predicts conspiracy and supernatural beliefs. We asked participants to view paintings by the artist Viktor Vasarely (whose art contains clear geometric patterns), or by Jackson Pollock (whose art does not contain clear patterns). They were asked to rate the extent to which they saw patterns in these paintings and were then asked to rate their conspiracy and supernatural beliefs. We hypothesised that—if pattern perception in general predicts such beliefs—the relationship between pattern perception and both conspiracy and supernatural beliefs would be significant in both conditions. If, however, it is specifically perceiving illusory patterns that matters, the association should only be significant in the condition where participants viewed the paintings by Jackson Pollock. Findings supported the latter argument, indicating that seeing patterns in random stimuli (i.e., illusory pattern perception) predicts conspiracy and supernatural beliefs, but perceiving actual patterns does not. Two additional experimental studies with US participants further supported this conclusion. Further supporting our perspective, Sternisko et al. (2022) showed a small but significant effect of pattern perception on conspiracy belief in a large study with US and Swiss participants, and in a meta-analysis

of other research examining this effect (e.g., Adam Troian et al., 2019; Caroti et al., 2022; Dieguez et al., 2015).

However, real-world events—including events that attract conspiracy theories—are rarely randomly determined. For example, the deaths of Diana, Princess of Wales involved many non-random factors such as a reckless drunk driver, the actions of the paparazzi who were constantly following her, and the unsafe driving conditions in the tunnel where the fatal crash occurred. Events such as these can often be viewed as the outcome of many different personal, social, political, and practical causes. We therefore next set out to test whether the findings observed by van Prooijen et al. (2018) generalise to situations in which events are non-random. In other words, does the willingness to draw connections between events—even when events co-occur non-randomly—underpin conspiracy belief?

In Study 1 of this research (van der Wal et al., 2018), US participants were presented with a set of six spurious correlations (Vignen, 2015) such as a positive correlation between chocolate consumption and the number of Nobel Prizes won by a country. It was found that beliefs in well-known conspiracy theories (e.g., that 9/11 was an inside job) were positively correlated with the belief that the spurious correlations were due to a direct causal connection between the two variables. Conspiracy beliefs were not, however, related to perceptions that the correlations were due to a coincidence or some other cause (e.g., that people in wealthier countries consume more chocolate *and* produce higher quality research). In a second study, we showed that this effect was present after controlling for a range of other factors such as magical and lower analytic thinking (van der Wal et al., 2018). In a final study, we showed that conspiracy beliefs about an event such as the death of a journalist increased when it was described as part of a group of similar events compared to isolated events. Also, whether the events involved a group or not, participants' belief in the conspiracy explanations were stronger when events were described as causally connected (vs. unconnected). This finding

supports the conclusion that perceiving unlikely causal connections between events—even when those events are not randomly determined—contributes to conspiracy beliefs.

2.1.1.3. Projection and other cognitive factors

Hofstadter (1964) argued that conspiracy beliefs arise from unconscious conflicts and processes. One such process is *projection*, in which a person—when lacking reliable or objective information—relies on what they know about themselves when they draw conclusions about the thoughts, feelings, and behaviours of others (Ames 2004; Krueger, 2000). We examined the role of projection in conspiracy belief, theorising that in attempting to make sense of complex events, people would rely on their own feelings about how they themselves would act in the same situation. For example, people might be more likely to endorse the conspiracy theory that Princess Diana was killed by MI6 if they feel like they would personally do the same if they had the opportunity.

In an experimental study, we assigned British participants to one of two conditions (Douglas & Sutton, 2011, Study 2). In the first condition, participants were asked to think of—and write about—a time when they helped another person. Drawing on self-perception theory (Bem, 1967, 1972), we theorised that by recalling a time when they had behaved morally and decently, they would perceive themselves more positively and less likely to engage in negative acts. The second condition was a control group who did not engage in the task. Participants were then asked to rate their agreement with a list of conspiracy theories as in our research outlined in previous sections. Crucially, however, they were also asked to rate the extent to which they would conspire themselves (e.g., “If you were an MI6 agent, would you have participated in a plot to assassinate Princess Diana?”). They were asked to respond on a scale from “Never under any circumstances” to “Probably yes”. As expected, participants who had been asked to write about their moral and decent behaviour endorsed the conspiracy theories to a lesser degree than participants in the control condition. Also as

expected, this effect was mediated by the extent to which participants felt that they themselves would be willing to conspire. In other words, if people believe that they would personally take part in the conspiracy, it seems more plausible that the alleged perpetrators of the conspiracy would also have done so.

These findings complement a range of other findings in the literature that conspiracy belief seems in some part driven by basic cognitive and social cognitive processes associated with the pursuit of knowledge. For example, conspiracy beliefs have been linked to the conjunction fallacy in which people overestimate the likelihood of co-occurring events (Brotherton & French, 2015; Dagnall et al., 2017), teleological bias in which people attribute cause and purpose to natural entities such as gods (Wagner-Egger et al., 2018), and higher need for cognitive closure (Marchlewska et al., 2018).

Belief consistency also appears to be an important force in conspiracy belief. In line with the proposition that conspiracy theories are fundamentally oppositional (Douglas & Sutton, 2023), belief in conspiracy theories seems to be strengthened by the belief that whatever the authorities are telling us is a lie (see also Franks et al., 2017, for qualitative insights into the epistemologies of conspiracy believers). We found support for this in an archival examination of people's responses to news articles about the events surrounding the 9/11 attacks. In this study, people who endorsed conspiracist comments appeared to base their arguments on opposition to the official narrative rather than on proposing other explanations (Wood & Douglas, 2013; 2015).

In another set of studies, we found positive correlations between participants' endorsement of mutually contradictory conspiracy theories—for example that Osama bin Laden was already dead at the time the US administration claimed to kill him, and that he is actually still alive (Wood et al., 2012). This correlation appears to violate the principle of belief consistency. However, we should approach this conclusion with caution, since the

same correlation could arise from participants rejecting both conspiracy theories, rather than accepting them (van Prooijen et al., 2023). Thus, Miani and Lewandowsky (2024) argue that the product of the endorsement of two mutually exclusive statements is a better indication of belief inconsistency (to illustrate, a participant who rates their agreement with both of the contradictory Obama bin Laden conspiracies as 7 on a 1-7 scale receives a score of 49 on this metric, which indicates more belief inconsistency than a participant who rates both at 5, and so receives a score of 25). They found that this index of belief consistency was strongly correlated with participants' overall level of conspiracy belief. Further, in our own results, the positive correlation between mutually incompatible conspiracy beliefs was accounted for statistically by belief in a higher-order conspiracy belief about the event, namely that the US administration was covering up the truth about Osama bin Laden. Taken together, these results underscore the importance of consistency with higher-order beliefs, especially the belief that the truth is being concealed from the public (Wood & Douglas, 2013; 2015; Franks et al., 2017), and suggest that some inconsistency between specific lower-order beliefs may be tolerated by adherents of conspiracy theories (Sutton, 2018).

2.1.2. Existential factors

Research further suggests that people adopt conspiracy theories in an effort to try to feel safe and secure in the face of various threats, and to be able to exert control over what happens. Although this strategy appears not to be successful and might in fact make people feel worse (Liekefett et al., 2021), making them fall deeper still into the “rabbit hole” (Sutton & Douglas, 2022), these existential factors are consistently strong predictors of conspiracy theories. In the following sections, we outline our own research on some of these factors, including attachment anxiety, coping style, and emotion dysregulation.

2.1.2.1. Attachment anxiety

The origins of existential needs can be understood in part through the lens of attachment theory (Bowlby, 1969/1982). People need to feel attachment to others in order to increase a sense of security and decrease feelings of anxiety. When people have negative experiences with caregivers in their childhood, they can develop an insecure attachment style (anxious or avoidant), that can affect their relationships through their lives. Social psychological research has demonstrated that attachment styles can predict social psychological phenomena such as prejudice and discrimination (Boag & Carnelley, 2016), and a range of intragroup factors such as cooperation (McClure et al., 2013). In two studies, we hypothesised that anxious attachment style in particular would predict belief in conspiracy theories (Green & Douglas, 2018). Anxious attachment is characterised by a sensitivity to (and exaggeration of) threats, as well as negative views of outgroups and a preoccupation with feeling safe. People who are avoidantly or securely attached are not as sensitive to (and are less likely to) exaggerate such threats.

In the first study, which included participants from the USA and UK, we measured attachment anxiety, belief in conspiracy theories in terms of generic conspiracy beliefs (e.g., “The power held by heads of state is second to that of small unknown groups who really control world politics”; Brotherton et al., 2013), and controlled for other known predictors of conspiracy belief such as right-wing authoritarianism (RWA; Adorno et al., 1950; Altemeyer, 1981) and social dominance orientation (SDO; Pratto et al., 1994; Sidanius & Pratto, 1999), both of which have been found to be associated with conspiracy beliefs (Abalakina-Paap et al., 1999; Bowes et al., 2023; Bruder et al., 2013; Grzesiak-Feldman & Irzycka, 2009). As predicted, whilst controlling for other factors (and also at zero-order), attachment anxiety predicted belief in conspiracy theories, but attachment avoidance and security did not (Green & Douglas, 2018). We replicated this finding in a second study with British participants.

Beliefs in conspiracy theories therefore appear in part to be a response to a need for safety and security.

Following this research, we hypothesised that the tendency to catastrophise (i.e., to interpret situations in a more pessimistic way) would predict belief in conspiracy theories (Green & Douglas, under review). This prediction was guided by adult attachment theory (see Mikulincer & Shaver, 2017), which argues that people higher in attachment anxiety tend to use hyperactivating strategies (i.e., strategies to increase proximity with close others) when in distress, which includes catastrophising the seriousness of psychological and physical threats. Across six cross-sectional studies, alongside attachment anxiety and conspiracy belief, we measured a range of variables operationalised as manifestations of catastrophising. This included the experience of daily hassles (e.g., failing to get money that one expected; Kanner et al., 1981), pain (e.g., “I become afraid that the pain will get worse”; Sullivan et al., 1995) and stress (e.g., “I worry all the time about whether the stress will end”; adapted from Sullivan et al., 1995) catastrophising, and looming cognitive style (the tendency to construct mental scenarios and appraisals of unfolding threat and increasing danger; Riskind et al., 2000). We found that all manifestations of catastrophising predicted belief in conspiracy theories and mediated the relationship between attachment anxiety and such beliefs. These findings suggest that people higher in attachment anxiety are drawn to conspiracy theories at least partly due to their tendency to catastrophise various threats (see Mikulincer & Shaver, 2017). Therefore, they add more evidence that threatened psychological motives contribute to belief in conspiracy theories (Douglas et al., 2017).

2.1.2.2 Coping styles

We next explored whether endorsing conspiracy theories is an attempt to cope with these threats, and what type of coping strategies are associated with conspiracy beliefs. Specifically, we proposed that conspiracy beliefs would result from stress-avoiding coping

responses such as avoiding the problem or putting one's trust in religion. Because conspiracy theories tend to deflect from the realities of a particular stressful event, we hypothesised that people who tend to adopt avoidant (vs. approach) coping strategies would be more prone to believing in conspiracy theories because such theories offer a way to avoid the source of the stress. We tested this proposal in three studies (Marchlewska et al., 2022).

In the first study, we examined the relationships between different coping styles and belief in the conspiracy theory that the UK government routinely spies on the activities of the general public (Travis, 2016). UK participants responded to a series of conspiracy items (e.g., "The UK government extends the reach of state surveillance in order to manipulate British citizens" and the Coping Orientation to Problems Experienced inventory (COPE inventory; Carver et al., 1989) which measures self-sufficient coping (e.g., "I take direct action to get around a problem"), social support (e.g., "I talk to someone about how I feel"), avoidance coping (e.g., "I act as though it didn't happen"), and religious coping (e.g., "I put my trust in God"). Supporting our predictions, avoidance coping and religious coping (but not self-sufficient or social support coping), significantly predicted conspiracy belief. We conceptually replicated these results in a second study measuring general conspiracy beliefs (Brotherton et al., 2013) with a sample of UK participants. In the third study, we experimentally manipulated both avoidance and approach coping (plus a control group) to test whether—according to the correlational findings—avoidance coping style (but not approach) directly affects conspiracy beliefs. A sample of UK participants were asked to think of a stressful situation in which they either (a) denied what happened (avoidance coping), or (b) in which they accepted what happened and engaged with the situation (approach coping). Participants also indicated their conspiracy beliefs (Brotherton et al., 2013). As predicted, participants in the avoidance coping condition reported higher conspiracy beliefs than those in the self-sufficient and control conditions.

We conducted additional research on coping strategies and conspiracy beliefs during the COVID-19 pandemic (Molenda et al., 2024). In two studies conducted with Polish participants, we again found that avoidance and religious coping were positively associated with belief in COVID-19 conspiracy theories. Further, COVID-19 conspiracy beliefs mediated the relationship between both avoidance and religious coping and adherence to COVID-19 preventive guidelines. We also demonstrated that fear related to COVID-19 threats was strongest for those high in avoidance coping. Conspiracy theories therefore seem to represent a counter-productive way of dealing with stressful situations. Rather than facing problems head-on, people who are more prone to sweeping those problems under the carpet seem more likely to adopt conspiracy theories. By blaming another group, people have the opportunity to avoid tackling issues that are bothering them.

2.1.2.3. Emotions and emotion regulation

The above research helps explain why conspiracy beliefs appear in response to threats. In other work, we have examined how they might also serve as a psychological response to emotional dysregulation (Molenda et al., 2023). The ability to regulate one's emotions benefits people in various ways, such as helping them effectively perform tasks and goals (Aldao et al., 2015) and maintain positive mental health and wellbeing (Aldao et al., 2010). However, problem regulating emotions (i.e., emotion dysregulation) can negatively affect a person's mental health and wellbeing including increased anxiety (Roemer et al., 2009), and more negative outcomes as a response to threatening situations such as experiencing post-traumatic stress symptoms (Tull et al., 2007) and panic attacks (Tull & Roemer, 2007). Furthermore, emotion dysregulation has been linked to higher prejudice (e.g., Steele et al., 2019) and political intolerance (Halperin et al., 2014). Given that negative emotions can be exacerbated by conspiracy beliefs (e.g., Liekefett et al., 2021; Siddiqui et al.,

2021), we reasoned that deficiencies in the ability to regulate such emotions could be associated with conspiracy beliefs.

We tested this hypothesis in three studies in three different socio-political contexts. In the first study, US participants were asked to complete the difficulties in emotional regulation scale (DERS-18; Victor & Klonsky, 2016) which lists different ways in which people can regulate their own emotions (e.g., “When I’m upset, I become irritated with myself for feeling that way”). Participants also indicated their agreement with generic conspiracy beliefs (Brotherton et al., 2013), as in some of our other work. We found that lower scores on the DERS—indicating higher levels of emotion dysregulation—were associated with stronger conspiracy beliefs. We replicated this finding in a second study with UK participants and after controlling for a range of sociodemographic covariates such as age, gender, and political orientation. In the third study, we asked Polish participants to answer questions related to four different types of conspiracy beliefs (i.e., about vaccination, climate change, gender ideology, and the Polish presidential election). We found that emotion dysregulation significantly predicted all four types of conspiracy beliefs. These results provide further evidence that conspiracy beliefs might be more appealing for people who do not have sufficient ability to cope with psychological threat and distress.

2.1.3 Social factors

In addition to dealing with stressful events and circumstances (i.e., existential needs and motives), as well as with a lack of knowledge and certainty (i.e., epistemic needs), research suggests that people adopt conspiracy theories in an effort to defend and maintain positive views of the self and the groups that one belongs to (i.e., social needs and motives). For example, people with low levels of self-esteem but high levels of insecure self-esteem (i.e., narcissism; Cichocka, Marchlewska & Golec de Zavala, 2016) tend to display higher belief in conspiracy theories. In a similar vein, collective narcissists (i.e., people who have

strong feelings about the superiority of their group but feel that it is underappreciated by others; Golec de Zavala et al., 2009) are also more likely to believe in conspiracy theories (Cichocka, Marchlewska, Golec de Zavala & Olechowski, 2016; see also Biddlestone et al., 2021; Cichocka et al., 2022).

There are several reasons why narcissists and collective narcissists might have a greater tendency to find conspiracy theories appealing. For example, narcissists display heightened paranoia—often expressed through the belief that others are constantly attempting to undermine oneself—which is a consistent correlate of conspiracy beliefs (Cichocka et al., 2022). They also tend to be overconfident in their abilities and judgements (Zajenkowski & Dufner, 2020), and more gullible (Ahadzadeh et al., 2021). They may be attempting to protect the self or the group by explicitly blaming others and claiming the moral high ground (Biddlestone et al., 2021). There is also evidence that conspiracy belief is linked to traits associated with mistrust of others such as Machiavellianism (Douglas & Sutton, 2011), the need for dominance and control (Suessenbach & Moore, 2020), and the tendency to perceive oneself as victim of injustice (Toribio-Flórez et al., under review). Furthermore, conspiracy belief is associated with social exclusion, suggesting that the threat to the self posed by isolation and rejection might attract people to conspiracy narratives (Poon et al., 2020).

2.1.3.1. Need for uniqueness

Investigating one specific social factor, we (Lantian et al., 2017) examined the extent to which the need to satisfy the need for uniqueness is associated with belief in conspiracy theories. Need for uniqueness is defined as the need to feel different or special compared to other people (Lynn & Snyder, 2002). Although it is an individual differences variable, it is responsive to feedback that the self is in fact not unique compared to others (Snyder & Fromkin, 1980). People higher in need for uniqueness tend to value the possession of scarce resources that make them special compared to other people (e.g., Brock & Brannon, 1992;

Lynn & Harris, 1997). They also value more idiosyncratic beliefs (Snyder & Fromkin, 1980). We therefore hypothesised that conspiracy theories would appeal more to people higher in need for uniqueness, because such beliefs may represent valuable, unique, and scarce information (Lantian et al., 2017). Having access to this information could make a person stand out from the crowd.

Specifically, we examined the relationship between dispositional need for uniqueness and conspiracy beliefs. We measured French participants' need for uniqueness with questions such as "I prefer being different from other people" (Lynn & Harris, 1997), and their belief in conspiracy theories using the Generic Conspiracist Belief scale (Brotherton et al., 2013). As predicted, need for uniqueness was positively correlated with belief in conspiracy theories. In two further experimental studies with French participants, we hypothesised and found that experimental manipulations designed to activate the need for uniqueness (e.g., thinking and writing about the importance of individuality vs. conformity) would increase their belief in conspiracy theories. Whether believing in conspiracy theories really makes people feel more unique is yet to be determined empirically. However, the hypothesis that believing in conspiracy theories may satisfy the need for uniqueness seems plausible and could be an exception to the rule that conspiracy theories do not appear to satisfy the needs motives that attract people to them in the first place (Douglas et al., 2017; Liekefett et al., 2021).

2.2. Summary

The research literature on the psychological predictors of conspiracy beliefs supports the argument that conspiracy beliefs are shaped by epistemic, existential, and social motives. Conspiracy theories appear to be more appealing when these psychological motives are unmet. We recently conducted a meta-analysis that also supports this framework (Biddlestone et al., under review). We analysed 971 effect sizes from 279 independent studies, and results showed that conspiracy beliefs were significantly related to all three

motive types. Relationships were weaker but still significant when experimental (vs. correlational) designs were used. This analysis gives us further confidence that epistemic, existential, and social factors are associated with conspiracy beliefs.

Before we move on, it is important to note that unmet psychological motives are likely to affect one another. For example, an unmet epistemic motive for knowledge might be associated with lower feelings of power (triggering an existential motive). A feeling of threat to one's group (social motive) might influence the need for knowledge to make sense of that threat (epistemic motive). Different combinations of motives are therefore likely to be associated with belief in conspiracy theories. Also, it is possible that conspiracy beliefs satisfy some motives but threaten others. For example, people might gain a special sense of unique knowledge from conspiracy theories (e.g., Lantian et al., 2017) but lose friends because of their controversial beliefs (Toribio-Florez et al., in press) and therefore threaten an important social motive. These possibilities highlight that satisfying one motive may come at the expense of frustrating another, depending on *how* that motive is satisfied, and which fact of each motive is salient.

Similarly, we are a long way from knowing whether conspiracy belief might be motivated by the frustration of just one or two motives when the others are satisfied—that is, whether and how motives interact with each other in combination to make people more attracted to conspiracy theories. Once again, the answer to this question may depend on exactly which motives, within each class, are satisfied and frustrated. One possibility, not yet examined empirically, is that extreme adherence to conspiracy theories may reflect imbalanced needs (Kruglanski et al., 2021)—the suboptimal pursuit of some needs (e.g., the social need for significance: Kruglanski et al., 2022) relative to others (e.g., the epistemic need for accuracy, or the social need for friendship). Further research is needed to examine

the interplay between different psychological motives and their association with conspiracy beliefs, and the extent to which conspiracy beliefs satisfy psychological motives.

2.3. Intergroup and country-level factors

Up to this point, we have focused on factors at the level of the individual that are associated with conspiracy belief. However, a range of intergroup and broader societal factors also predict belief in conspiracy theories (Hornsey et al., 2023). First of all, conspiracy theories by definition involve beliefs about the motives and actions of specific groups and they often relate to historical conflicts between groups. Group loyalties seem to impact which conspiracy theories people are willing to entertain. For example, in one study, 32.9% of Republicans in the USA believed in the “birther” conspiracy theory that Barack Obama was born outside the USA, whereas only 11.1% of Democrats believed this theory (Pasek et al., 2015). Evidence suggests that many conspiracy theories are associated with victimhood-based social identities (Bilewicz et al., 2013; Pantazi et al., 2022), rumination about historical traumas (Skrodzka et al., 2022) and collective angst (Mashuri & Zaduqisti, 2015). Research continues to grow in this lesser-understood aspect of conspiracy belief.

Evidence is also growing with respect to the country-level factors associated with belief in conspiracy theories. Factors such as a country’s economic circumstances, political differences, and cultural practices all appear to influence conspiracy belief (Hornsey et al., 2022). Some of this research suggests, for example, that different levels of political extremism across countries are associated with different levels of conspiracy belief (Imhoff et al., 2022). Collectivist (vs. individualist) nations tend to display higher levels of conspiracy belief (Hornsey & Pearson, 2022). Other studies have linked conspiracy beliefs with country-level differences in corruption (Hornsey & Pearson, 2022, Alper & Imhoff, 2022), economic performance (Hornsey et al., 2022), and lower scores on the Democracy Index (Hornsey & Pearson, 2022). However, much of this research is difficult to interpret because country-level

factors are often strongly correlated with one another (e.g., GDP and Corruption Perceptions Index are strongly correlated; Christos et al., 2018). It is therefore difficult to know whether one of these factors (or both) predict conspiracy beliefs. Also, research examining country-level predictors studies tend to use different methods to measure conspiracy beliefs and typically only include a small number of predictor variables at a time. They rarely also examine country-level predictors alongside individual-level predictors to examine the relative importance of both in predicting conspiracy belief.

To overcome some of these limitations, we conducted a machine-learning analysis of a large survey dataset collected during the COVID-19 pandemic (Douglas et al, 2022). The data were collected as part of the PsyCorona consortium which was launched in 114 countries with over 60,000 participants in the weeks immediately after the onset of the COVID-19 pandemic. It included individual-level factors such as paranoia, feelings of struggle, and outgroup threat, many of which are known correlates of conspiracy belief (e.g., Douglas et al., 2017) but many of which had not before been examined in the context of conspiracy theories. The data were enriched with country-level factors such as political stability and the effectiveness of government. In total, there were 80 individual-level factors and 35 country-level factors. The dependent variable was the extent to which the participants endorsed general conspiracy theories (e.g., “Government agencies closely monitor all citizens”; Bruder et al., 2013). The large international dataset therefore included more variables to explore as predictors of conspiracy beliefs than any other investigation so far.

The data were analysed using the Random Forests algorithm (Breiman, 2001; see also Brandenstein, 2022 for another investigation using this method) which can accommodate a large number of predictors (both individual- and country-level) and take into account non-linear relationships and interactions between them as it estimates which variables are the most important predictors. The results revealed that the model accounted for 26% of the

variance in conspiracy belief in the test sample. In ranking the variables in terms of their importance in predicting conspiracy beliefs, among the top 30, 15 were individual-level factors and 14 were country-level factors (Figure 2). Amongst the individual-level variables were common predictors of conspiracy beliefs from the existing literature such as discontent with society, paranoia, and outgroup threat, but several factors emerged that had not been examined before, such as future, present, and past focus (Schipf et al., 2009). Amongst the country-level factors, we found that the most important predictors included—not as one might expect—objective indices of good life conditions. For example, conspiracy beliefs were positively associated with political stability, government effectiveness, control of corruption, and low numbers of deaths from COVID-19. Apart from the most effectively governed countries such as Australia, The Netherlands and the UK, conspiracy beliefs therefore appeared to be stronger in countries where collective legal, social, and health conditions are favourable.

These findings seem counter-intuitive, and at odds with other findings that conspiracy belief may be stronger among citizens living under the rule of more corrupt or dysfunctional regimes (Cordonier & Cafiero, 2024; Hornsey & Pearson, 2022). Our findings, however, do not contradict the hypothesis that conspiracy beliefs are animated by adverse political and social circumstances, since at the individual level of analysis, adverse life circumstances and political discontent and distrust were positively correlated with conspiracy belief. Indeed, no other cross-national study has included quite so many indicators of adversity and discontent at the individual level. This might explain the discrepancy between our findings and other investigations, since the felt effects of country-level dysfunctionality and corruption in people's lives are so thoroughly adjusted for in our study. What remains at the collective level of analysis might have been a signal of the corrective role that social critique, including conspiracy theories, may play in the functioning of democratic societies (Briggs, 2004;

Huntington, 1983; Sobo, 2021). They are also consistent with the perspective that conspiracy theorising is a luxury in societies where it is possible to express concerns about societal decline without fear of punishment (Douglas et al., 2019).

It is also important to note, however, that the dependent measure in this study was conspiracy mentality rather than belief in conspiracy theories. A general measure like the conspiracy mentality scale reflects a sceptical and questioning attitude towards authorities who may be more benign—or least accountable—in some societies compared to others, where corruption and real conspiracies are more likely. Although the accuracy of conspiracy theories is not for social psychologists to judge (Douglas & Sutton, 2023), items such as those in the conspiracy mentality scale might reflect justifiable concerns about societies. Our results indicate that the pathways connecting conspiracy mentality in the population with higher and lower levels of corruption and governmental (dys)function are not straightforward and require more unpacking with theory and research. Further research again is needed to understand how belief in specific conspiracy theories may be related to these country-level variables.

3. Why do conspiracy beliefs matter?

3.1. Consequences of believing conspiracy theories

Underlying all the research on the psychological predictors of conspiracy theories is the assumption that they must matter—that they must have important psychological, intergroup, and societal consequences—and this is a view that we have endorsed in much of our research (see reviews by Douglas, 2021a, b; Douglas & Sutton, 2018, 2023; Douglas et al., 2019). That is, we start from the position that conspiracy theories have an important role in shaping the thoughts, feelings, behaviours, and experiences of people, and that they also have consequences for broader communities. Research supports this perspective, and in our research, we have studied several of these consequences. We outline this research in the

following sections which largely takes an experimental perspective, allowing us to infer cause and effect.

3.1.1 Influence without awareness

In the very first studies we conducted on the psychology of conspiracy theories, we were interested in the extent to which conspiracy theories affect what people think about important events (Douglas & Sutton, 2008). That is, do they change people's attitudes about what might have happened? We also wanted to know if people were aware that their attitudes had changed. In previous research, we had shown that people were not always aware when they had been persuaded by material on important societal issues (e.g., global warming; Douglas & Sutton, 2004). Other research in social psychology suggests that people are surprisingly inaccurate when it comes to their own mental processes (Nisbett & Wilson, 1977; Ross, 1977), and especially when they report them retrospectively (Bem & McConnell, 1970; Ericsson & Simon, 1993; Markus, 1986; Wixon & Laird, 1976).

A sample of British undergraduate participants were randomly assigned to either an experimental condition or control group. The control group were asked to rate their agreement with a list of conspiracy theories surrounding the death of Princess Diana (e.g., "One or more rogue "cells" in the British secret service constructed and carried out a plot to kill Diana"). We asked them to rate their own attitudes and to rate how they thought other undergraduate students would agree with the statements. These responses provided baseline measures of participants' own and others' conspiracy beliefs. We then asked an experimental group to read some material about the death of Princess Diana, which contained material consistent with conspiracy theories about the event (e.g., "Immediately after the crash news was broadcast, witnesses appeared on US TV saying that they heard an explosion or bang before they heard the car crash. Was this a gunshot, or a bomb?"). After reading the material, they were asked to rate their agreement with the conspiracy theories about Princess Diana's

death, in the same way as the control group. However, they were also asked to indicate what they thought their attitudes were before they read the material. They were further asked to rate what they thought others' attitudes were currently, and what they were before reading the material. Therefore, we had six measures: baseline (self/other), current (self/other) and retrospective (self/other). Since the control and experimental groups were from the same student population, comparisons between the groups were proxies for actual attitude change.

We hypothesised and found that participants in the experimental group (compared to the control) agreed with the conspiracy theories to a greater extent. This indicates that the conspiracy theories were persuasive. Further, compared to this actual measure of attitude change, participants' ratings of their own attitude change (current self – retrospective self) were inaccurate. Participants significantly underestimated the extent of attitude change. However, their ratings of others' attitude change (current other – retrospective other) were accurate (Table 1). Participants were therefore influenced by the conspiracy theories. They accurately assumed that others were influenced too, but inaccurately assumed that they personally were not influenced. This echoes research on the bias blind spot, which refers to the finding that people believe they are less susceptible to biases than others (for a review, see Pronin & Hazel, 2023).

We therefore established early on in our research programme that exposure to conspiracy theories has the power to change people's attitudes. The next logical step was to examine what some of the consequences of this attitude change might be. Specifically, we wanted to investigate the extent to which conspiracy theories influence people's attitudes and intentions in specific domains. We started with the domain of politics.

3.1.2. Political consequences

Many conspiracy theories are about politics. They accuse politicians and government officials of sinister wrongdoings and hiding crucial information from the public. In one of the

earliest studies of the impact of political conspiracy theories, Butler et al. (1995) found that after watching the conspiracy film *JFK*, participants were less likely to want to engage in politics compared to those who had not seen the film. In our research, we have studied the consequences of conspiracy theories more broadly, focusing on engagement with mainstream politics and justification of the social status quo.

3.1.2.1. Voting behaviour

We theorised that political conspiracy theories would influence the extent to which people participate in mainstream political processes. In an experiment with a sample of British undergraduate and postgraduate students (Jolley & Douglas, 2014a, Study 1), participants were asked to read an excerpt, supposedly from an Internet news article, which supported conspiracy theories about governments. A sample text from the conspiracy condition reads as follows:

“...it is no secret that the British government were discontented with Princess Diana’s involvement with Dodi Fayed and also with her increasing involvement in politics... one must therefore question the claim that her death was simply a tragic accident.”

and a sample from the anti-conspiracy condition was:

“ ...it is no secret that Princess Diana’s popularity made some members of the government uneasy. However, there is no evidence at all to suggest that the British government were involved in her death... her death was simply a tragic accident ... ”

The dependent measure was the extent to which participants intended to vote in an upcoming election, and we predicted lower commitment in the conspiracy condition. We further tested the extent to which powerlessness (Abalakina-Paap et al., 1999), uncertainty (Kofta et al., 2020) interpersonal trust (Goertzel, 1994) and disillusionment mediate this relationship.

As we predicted, participants in the conspiracy condition expressed lower intentions to vote. Although the conspiracy text increased feelings of powerlessness and uncertainty, the

effect was only mediated by feelings of powerlessness. Similar findings corroborate these results. For example, Einstein and Glick (2015) demonstrated that people who read about conspiracy allegations reported lower trust in politics compared to a control condition. Uscinski and Parent (2014) found that conspiracy theorising was associated with lower motivation to engage in political action. Political participation in general is lower amongst chronic conspiracy believers (Ardèvol-Abreu et al., 2020). In a further investigation with a large dataset from the New Zealand Attitudes and values survey (Sibley, 2021; $N = 41,487$), we found that higher belief in conspiracy theories as measured by the single-item conspiracy belief scale (Lantian et al., 2016) was associated with lower intention to vote, decreased satisfaction with the government, and decreased political efficacy (Marques et al., 2022). However, it is important to note that this effect may apply only to mainstream political intentions, and that whilst conspiracy beliefs are associated with increased apathy toward mainstream politics, they are associated with increased intentions to engage in radical and often illegal political actions (Pummerer, 2022).

To further examine the role of conspiracy theories in politics, we conducted a two-wave study examining conspiracy beliefs and both voting intentions and behaviours in the politically polarised UK ‘Brexit’ referendum (Jolley et al., 2022). Wave 1 was conducted the week before the referendum. A sample of UK participants were asked to indicate their agreement with five conspiracy theories that were circulating around the time of the referendum (e.g., “The voter registration website crashed in the final hours before the deadline. The government deliberately crashed the system in order to extend the deadline and register as many likely Remain votes as possible”). They were also asked to indicate on a scale whether they intended to vote to leave or remain in the European Union (leave and remain were at either end of the question). Wave 2 was conducted immediately after the referendum and participants were again asked to indicate their agreement with the conspiracy

theories and were asked this time to indicate how they voted. We found that participants with higher belief in the Brexit conspiracy theories measured in Wave 1 were more likely to have supported leaving the European Union, and to have voted leave at Wave 2. Even after controlling for political orientation, the Brexit conspiracy theories strongly predicted supporting leaving the European Union and having voted to leave. Crucially, this study allowed us to test reverse causal paths and therefore allow us to conclude that conspiracy beliefs precede political behaviours in a temporal sequence (Figure 3).

3.1.2.2. Justifying the social system

As we have discussed already, there is mixed evidence about whether conspiracy theories lead to political disengagement (e.g., Jolley & Douglas, 2014a), deterring people from engaging in politics and scapegoating real or imagined enemies (Uscinski & Parent, 2014), or whether in some circumstances they are politically empowering (e.g., Pummerer, 2022), providing alternative narratives to help people reject the status quo (Sapountzis & Condor, 2013). Both perspectives are acknowledged by Fenster (1999):

“Articulating a necessary distance between “the people” and “power”, conspiracy theory draws on the most simplistic, disabling, and dangerous interpretations of political order, including fascism, totalitarianism, and anti-Semitism – yet it also represents a populist possibility, a resistance to power that implicitly imagines a better, collective future.” (p. viii).

In our research, we sought to investigate whether conspiracy beliefs are associated with support for—or resistance to—the social system.

According to system justification theory (e.g., Jost & Banaji, 1994), people are generally motivated to justify the social system by holding positive views about existing political, economic, and social arrangements. Threats to social systems compromise fundamental psychological needs and in the face of those threats, people look for ways

to justify, defend, or even bolster the status quo, even when it is against their interests (Jost et al., 2004). We proposed that conspiracy theories may paradoxically increase support for the status quo when its legitimacy is under threat. Conspiracy theories provide someone to blame instead of blaming “impersonal or abstract social forces” (Goertzel, 1994, p. 494). That is, conspiracy theories might allow people to blame a ‘few bad apples’ for the problems in society rather than blaming societal systems overall. By blaming these few bad apples, people can therefore hold onto their overall positive views of society and that the system has their best interests in mind. Similar to the way in which people ‘sub-type’ group members to maintain their perceptions of groups overall (Kunda & Oleson, 1995), or derogate deviant group members or ‘imposters’ (Hornsey & Jetten, 2003; Marques & Paez, 1994), people can blame a small group of conspiracists and maintain their positive opinion of the social system. In three experiments, we tested this broad hypothesis (Jolley et al., 2018).

In the first study with a sample of UK participants, participants read either a system threatening piece of text adapted from Jost et al. (2005), or a system affirming text. In the threat condition, participants read that people in UK society “do not feel as safe and secure as they used to” and that they are uncertain about the country’s future. In the system affirming text, participants read that UK citizens “feel safer and securer than they used to” and that they feel optimistic about the country’s future. We measured participants’ belief in specific (e.g., “The British government was involved in the death of Princess Diana”) and general (e.g., “The government is involved in the murder of innocent citizens and/or well-known public figures, and keeps this a secret”; Brotherton et al., 2013) conspiracy theories. We found that both types of conspiracy beliefs were higher in the system threat condition compared to the system affirming condition,

suggesting that conspiracy beliefs may bolster (rather than undermine) support for the status quo.

In the second experiment, we tested this hypothesis more directly by exposing participants (UK undergraduates) to both a system threat manipulation as in the first study, and then either a pro-conspiracy theory text about the death of Princess Diana, or a control (no material) condition. We found that for participants in the system threat condition, exposure to conspiracy theories (vs. control) increased satisfaction with the social status quo. In the system affirmation condition, there was no effect of the conspiracy manipulation. In the third experiment, we hypothesised that the bolstering effect of conspiracy theories would be explained by the idea that ‘a few bad apples’ spoil society for everyone. The experimental design was the same as in the second experiment, but participants (again from the UK) were asked to rate the extent to which various problems in society (e.g., inequality, pollution) are caused by individuals and small groups, or by problems with the social system, with the two options at opposite poles on a single question. We found that participants’ satisfaction with the status quo was again higher in the conspiracy condition compared to the control. We also observed an indirect causal path in which participants in the conspiracy condition (vs. control) were more satisfied with the status quo due to their perception that a small number of individuals or groups are responsible for flaws in society. By blaming the ills of society on a few ‘bad apples’ people can therefore maintain positive feelings about the overall system. Other research has further clarified the nature of this relationship by demonstrating how system justification is positively related to outgroup conspiracy beliefs and negatively related to ingroup conspiracy beliefs (Mao et al., 2021).

3.1.3. Environmental consequences

In addition to their political consequences, our research programme has demonstrated that conspiracy theories have consequences when it comes to environmental behavioural intentions. Specifically, conspiracy theories have important consequences for people's responses to the climate crisis. In this research, we used a simple experimental design (Jolley & Douglas 2014a, Study 2) in which a sample of UK undergraduate participants was assigned to one of three conditions. In two conditions, participants read either a narrative supporting climate change conspiracy theories (e.g., that climate change is a hoax; Douglas & Sutton, 2015; Uscinski et al., 2017), or information that refuted the conspiracy theories. In the control condition, participants did not read any information regarding conspiracy theories. As the dependent variable, participants were asked to indicate the likelihood that they would engage in a list of climate-friendly behaviours (e.g., using energy-efficient lightbulbs, using public transport instead of driving). We found that intentions to engage in climate-friendly behaviours were lower in the conspiracy condition compared to the anti-conspiracy and control conditions (there was no difference between the anti-conspiracy condition and control). This effect was mediated by feelings of powerlessness, uncertainty, and disillusionment.

These findings correspond with others that link climate change conspiracy beliefs to climate skepticism and lower commitment to everyday pro-environmental behaviours. For example, Chan et al. (2023) showed that belief in climate change conspiracy theories was related to lower engagement in pro-environmental behaviours concurrently and longitudinally, both in China and the USA. Other research suggests that the link between climate change conspiracy beliefs and rejection of climate science seems to be more prominent in the USA than in other nations (see also Biddlestone et al., 2022, and Tam & Chan, 2023 for reviews).

3.1.4. Anti-vaccine conspiracy theories

We have conducted research on the link between anti-vaccine conspiracy theories and vaccination intentions (Jolley & Douglas, 2014b). After demonstrating a correlation between anti-vaccine conspiracy belief in a sample of UK parents (e.g., “Vaccines are harmful, and this fact is covered up”) and (lower) willingness to have a fictitious child vaccinated, we ran an experiment with a similar design to Jolley and Douglas (2014a). A sample of US participants were exposed to material supporting anti-vaccine conspiracy theories (vs. anti-conspiracy information or control). An example of the text from the conspiracy condition was as follows:

“... further, there is a significant amount of evidence that vaccines can hurt more than they help. For example, by the year 2000, tens of thousands of reactions to vaccines, including deaths, were reported. One must magnify these figures tenfold, because it is estimated that 90% of doctors do not report incidents ...”.

An example of the text from the anti-conspiracy article is as follows:

“... further, there is little evidence to suggest that vaccines are harmful. The side effects are minimal and whilst millions of people have been immunised over the years, less than .005% have ever had an adverse reaction to a vaccine ...”

We found that participants who were exposed to the anti-vaccine conspiracy theories showed lower intentions to have a fictitious child vaccinated against a fictitious disease compared to participants in the anti-vaccine and control conditions. This effect was mediated by the extent to which participants perceived the vaccines to be dangerous, and their feelings of powerlessness, disillusionment, and mistrust of authorities.

Since the COVID-19 pandemic, a large body of research has examined the relationship between COVID-19 conspiracy theories, anti-vaccine conspiracy beliefs and vaccination intentions (e.g., Pertwee et al., 2022; Romer & Jamieson, 2020). In general, this

research has shown that endorsement of conspiracy theories about COVID-19 (e.g., that it was a hoax, or specific conspiracy theories about the safety and efficacy of the COVID-19 vaccines) was associated with lower vaccination intentions. In some research, we demonstrated that this relationship also extends to belief in more general conspiracy theories that are not about vaccines or COVID-19. Specifically, Enea et al. (2022) analysed data from the PsyCorona collaboration ($N = 6697$ across 20 countries) and found that belief in conspiracy theories was a negative predictor of vaccination intentions.

In terms of broader health-related consequences during the pandemic, we have further shown in a sample across several countries (although predominantly UK and US), that participants who more strongly endorsed COVID-19 conspiracy theories (e.g., “Coronavirus was purposefully created in, and released from, a biochemistry lab in Wuhan, China”), showed lower intentions to physically distance themselves from others (Biddlestone et al., 2020). Further, in a sample of UK participants, self-reported compliant behaviour was again associated with conspiracy beliefs. However, this was further affected by people’s emotional states. People who experienced anger following their belief in COVID-19 conspiracy theories perceived that government restrictions were of lower importance and subsequently reported lower levels of compliant behaviour. However, those experiencing anxiety as a consequence of conspiracy beliefs perceived higher importance of government restrictions and higher levels of self-reported compliant behaviour (Peitz et al., 2021). Together, these findings suggest that conspiracy beliefs play an important role in determining the extent to which people are likely to engage in behaviours to keep themselves and others safe.

3.1.5. Consequences for organisations

We have also examined the extent to which conspiracy theories have consequences for everyday work, focusing on engagement in the workplace and intentions to remain in the job (Douglas & Leite, 2017). In the first correlational study,

US participants were asked to rate their agreement with a set of conspiracy theories about their own workplace (e.g., “A small group of people makes all of the decisions to suit their own interests”). As potential mediators, we measured participants’ commitment to the workplace (e.g., “I would be happy to spend the rest of my working life in my workplace”), identification (e.g., “What my workplace stands for is important to me”) and their overall job satisfaction. The dependent variable was turnover intentions (e.g., “Do you intend to leave your job in the next 12 months”). We found a positive relationship between organisational conspiracy beliefs and turnover intentions, mediated by commitment, identification, and satisfaction.

In two experimental studies with UK and then US participants, we manipulated the presence of organisational conspiracy theories (e.g., by asking participants to imagine working for a large firm in which the management were secretly planning to pay the profits to themselves). Compared to controls, participants exposed to the conspiracy theories indicated higher turnover intentions, an effect mediated by organisational commitment and job satisfaction.

3.1.6. Antisocial behaviour and prejudice

Much of the literature on the consequences of conspiracy theories concerns the responses people have to perceived injustices such as government corruption and hidden information. However, less is known about how people’s belief in conspiracy theories is associated with people’s own unethical behaviours. We have investigated this issue with respect to antisocial behaviours and prejudice. We were specifically informed by literature suggesting that conspiracy beliefs are linked to anomie—a general feeling of detachment from social norms and bonds (Abalakina-Paap et al., 2019). Perceptions about the particular ways in which social systems operate—and specifically if others are perceived to be conspiring—are likely to affect attitudes about the permissibility of deviant behaviours.

In the first investigation (Jolley et al., 2019), we examined the link between conspiracy belief and everyday criminal behaviour. In the first of two studies, we asked a sample of UK participants to indicate their belief in conspiracy theories (both general, Brotherton et al., 2013, and specific, Douglas et al., 2016), as well as their past engagement and willingness to engage in everyday crimes. Intentions were measured using an adapted version of the Everyday Crime Scale (Karstedt & Farrall, 2006), in which participants signalled their intention to engage in a range of behaviours (e.g., “Try to claim for replacement items, refunds or compensation from a shop, small business or travel agent’s which you were not entitled to”). To measure past behaviour, we used the same scale but with the wording in past tense. Findings revealed that belief in both general and specific conspiracy theories were associated with everyday criminal intentions and behaviours whilst controlling for a range of other variables such as personality traits and demographics. The second study experimentally manipulated exposure to conspiracy theories. UK participants were presented either with a governmental conspiracy about the death of Princess Diana (as in Jolley & Douglas, 2014a) or a control with no information. They were asked to indicate their intentions to engage in everyday crime in the future. Results revealed that participants in the experimental condition reported significantly higher criminal intentions compared to the control condition. Further, this effect was mediated by participants’ levels of anomie. People subscribing to the view that others have conspired therefore seemed more inclined toward unethical actions themselves.

We next explored how conspiracy theories can contribute to prejudice and discrimination against groups (Jolley et al., 2020). Many conspiracy theories involve stereotypes of groups. For example, some research has shown that antisemitic conspiracy theories about Jewish domination of the world are associated with antisemitic attitudes more generally (e.g., Golec de Zavala & Cichocka, 2012; Kofta & Sędek, 2005). Further,

conspiracy stereotypes of Jewish people, which typically refer to the group's evil intentions, are a strong predictor of discrimination toward Jewish people, such as favouring policies that prevent Jewish people from buying Polish land (e.g., Bilewicz et al., 2013; Bilewicz & Krzeminski, 2010).

Since correlational research cannot rule out the possibility that these correlations emerge because more prejudiced people are more likely to any negative statements about particular groups (including conspiracy theories), we sought to examine the causal impact of conspiracy theories on intergroup prejudice. We also sought to examine whether the effects of conspiracy theories on intergroup attitudes extend beyond the group of alleged conspirators to increase prejudice toward other groups who are not involved in the alleged conspiracy, in the way that attitudes toward particular groups can transfer to other, secondary groups (Pettigrew, 2009; Tausch et al., 2010).

In the first study of three (Jolley et al., 2020), UK participants were asked to read one of two narratives either containing anti-immigrant conspiracy theories or refuting the conspiracy theories. We also included a control condition. An extract from the conspiracy condition was as follows:

“... Many argue that immigrants are actively working, in secret, with terrorist organisations to spark a cyber-attack on British society. There is ample evidence supporting this view...”

The article continued to give specific examples. The anti-conspiracy article argued against the conspiracy theories:

“... Despite detailed investigations in other countries, immigrants have never been discovered within secret terrorist organisations... Why would this be any different here in the UK?...”

The control condition contained no text. Following a manipulation check, participants were asked to indicate their feelings about immigrants by indicating where they would place them on five semantic differential word pairings (e.g., “beautiful-ugly”, “nice-awful”). Results revealed that prejudice against immigrants was significantly higher in the anti-immigrant conspiracy condition compared to both the anti-conspiracy and control conditions. We replicated this finding in a second study, again with UK participants, in the context of antisemitic conspiracy theories. In addition to measuring prejudice against Jewish people, we measured the extent to which participants would vote for a political candidate of Jewish origin. We found that participants who had read the antisemitic conspiracy theories displayed more prejudice against Jewish people and were less likely to want to vote for a Jewish political candidate. Further, the effect of exposure to the antisemitic conspiracy theory on discrimination was mediated by the participants’ level of prejudice. In the final study with a UK sample, we found that exposure to antisemitic conspiracy theories not only increased prejudice toward Jewish people, but also toward completely unrelated groups such as Irish, Australians, housewives, disabled people, and feminists. These effects of increased prejudice toward unrelated groups were mediated by increased prejudice toward Jewish people. These results suggest that the consequences of exposure to conspiracy theories for intergroup relations may be broader than originally conceived, and capable of increasing intolerance in a range of intergroup contexts.

It is worth noting that when we look at conspiracy theories as a whole, the alleged conspirators and the content of conspiracy theories is incredibly diverse. Conspiracy theories blame a variety of groups from governments (Uscinski & Parent, 2014) to scientific communities (Hornsey & Fielding, 2018) to ideological groups such as gender activists (Marchlewska et al., 2019). In four studies, we have examined how different types of conspiracy theories—specifically focused on upward and downward comparisons with

conspiracist groups—can be differentiated in terms of their psychological predictors (Nera et al., 2021). Specifically, whilst perhaps the majority of conspiracy theories implicate powerful groups such as governments and scientists, many implicate relatively powerless groups such as immigrants and LGBTQ+ people. Conspiracy theories can therefore be conceptualised as a way to challenge powerful groups and power structures (Popper, 2002), or instead can represent the expression of conservative concerns about the preservation of one’s ingroup and protection from outgroups (Moscovici, 1987).

In the first of four studies, we measured political conservatism in a sample of Belgian participants and also measured their agreement with a series of upward (e.g., “Some pharmaceutical groups encourage the spreading of diseases because they have the monopoly on the treatments”) and downward (e.g., “The LGBT lobby pretends to be promoting equality, but its actual goal is to destroy traditional family norms”). As predicted, belief in upward and downward conspiracy theories were related differently to political conservatism. Specifically, belief in downward conspiracy theories was more strongly associated with conservatism than belief in upward conspiracy theories. Belief in upward conspiracy theories showed a U-shaped function with political orientation, instead suggesting a relationship with political extremism. Three further studies corroborated these results with different measures of conservatism, different conceptualisations of upward and downward conspiracy theories, and also demonstrating that upward conspiracy theories are associated with power-challenging variables such as perceptions of leadership breakdown. These results suggest that “downward” conspiracy theories—which are the ones most likely to result in prejudice and discrimination—may be further fuelled by differences in political orientation.

3.1.7. Summary

Research therefore suggests that belief in—and exposure to—conspiracy theories can have significant consequences for individuals, groups, and societies (Douglas, 2021a). Later

in the chapter, we discuss the challenge of addressing these consequences. It is also worth noting at this point that using the label “conspiracy theory” itself can be a consequence of a person’s disbelief in a statement. In much of the research we have discussed in this section, scholars have avoided using the term “conspiracy theory” in their studies under the assumption that the label itself is powerful and stigmatising, causing people to disbelieve the information associated with it. However, we (Douglas et al., 2021) did not observe this effect (see also Wood, 2016). Instead, we found across four studies with US and UK participants that people were more likely to endorse the idea that a statement was a conspiracy theory if they personally did not believe it. That is, the less people believed in conspiracist statements, the more they favoured labelling those statements as “conspiracy theories”. Furthermore, participants preferred the label “conspiracy theory” for relatively less believable versus more believable statements. This research therefore suggests that belief in conspiracy theories depends on their content, and not how they are labelled; it also suggests that how they are labelled is an outcome, rather than a cause, of whether they are believed.

3.2. Consequences of sharing conspiracy theories

Thus far, we have reviewed the consequences of belief in, and exposure to, conspiracy theories. When people encounter conspiracy theories, their attitudes appear to change in favour of the conspiracy narratives and the conspiracy theories also influence people’s behavioural intentions in important ways. We next examined the consequences of sharing these beliefs with others. Specifically, we wanted to know if sharing conspiracy theories with other people has (a) reputational consequences for the people who share them, and (b) consequences for people’s interpersonal relationships.

3.2.1 Consequences for politicians and professionals

Conspiracy theories are widely regarded as stigmatised beliefs and it is often assumed that sharing them will have negative reputational consequences for individuals, making the

sharers appear gullible and lacking in credibility (Cassam, 2016; Klein et al., 2015). In six experiments with participants from the UK and USA, we examined people's perceptions of conspiracy theories and the people who share them (Green, Toribio-Flórez, Douglas, Brunkow & Sutton, 2023). In three studies with US participants, we demonstrated that people are aware that sharing conspiracy theories has consequences. However, these need not necessarily be negative consequences. In the first experiment, we asked participants to rate the extent to which they think others would share conspiracy theories when motivated to create a favourable versus unfavourable impression of themselves. Participants answered the single-item conspiracy belief scale (Lantian et al., 2016) which presents participants with a brief preamble and the statement "I think that the official version of the events given by authorities very often hides the truth". They were asked how they think a person would answer if that person wanted to appear stable or unstable. We found that people perceived that others would share conspiracy theories to create negative impressions of themselves, and they would avoid sharing them to create positive impressions of themselves.

In Experiments 2 and 3 we asked people about their own sharing behaviour. In Experiment 2, participants were asked to read one conspiracy theory out of a group of six from Douglas et al. (2016), which included well-known conspiracy theories about MI6's involvement in the death of Diana, Princess of Wales, and that the Apollo moon landings were faked. Participants rated their own agreement with the statement and were asked how they would respond if they wanted to portray themselves positively vs. negatively, as a person with radical vs. mainstream political views, stable vs. unstable, and unique vs. average. In general, participants expressed higher conspiracy beliefs when they aimed to be perceived negatively vs. positively, as a person with radical vs. mainstream views, as unstable vs. stable, and as unique vs. average.

We further found that people's motives for sharing conspiracy theories depended on their own conspiracy beliefs. Participants with weaker conspiracy beliefs reported that they would share conspiracy theories to present themselves as unstable and radical. However, those with stronger conspiracy beliefs perceived that they would share conspiracy theories to appear in a more positive light (Figure 4). Therefore, people with stronger conspiracy beliefs felt that they would share conspiracy theories to create a positive impression of themselves. We largely replicated these effects in Experiment 4, in which participants placed themselves in the position of a politician. Expressing conspiracy theories to meet specific impression management goals therefore appears to be dependent on how much people believe conspiracy theories in the first place. What might be perceived as a negative thing for one person, might be a positive thing for someone else.

In three additional experiments (Green, Toribio-Flórez, Douglas, Brunkow & Sutton, 2023, Experiments 4a, 4b, and 5), we focused on impression formation. In each of these experiments, participants were asked to evaluate fictitious politicians who shared (vs. refuted) conspiracy theories. We chose the domain of politics due to growing concern that populist leaders' use of conspiracy theories might have political consequences (Bergmann, 2018; Castanho Silva et al., 2017). Experiments 4a and 5 sampled US participants and Experiment 4b sampled from the UK. The politicians were rated on a number of dimensions, and we found in Experiments 4a and 5 that participants rated the conspiracy-sharing politicians more negatively on most dimensions (e.g., as less competent, trustworthy), but also rated them as more of a "rogue" or "maverick" politician who can force changes in the system. Furthermore, moderation analyses indicated that these differences were weaker amongst participants with stronger right-wing attitudes (Experiments 4a and 5), and also those with stronger conspiracy beliefs (Experiment 5). Again therefore, impressions of conspiracy beliefs differ depending on pre-existing beliefs. Interestingly, several of the effects that were

significant in Experiments 4a and 5 were not significant in Experiment 4b with UK participants. We can speculate that the findings might differ due to the different political contexts and visibility of conspiracy theories (Walter & Drochon, 2022).

There are three take-home messages from these studies. First, it appears that not all reasons for sharing conspiracy theories are perceived to be negative. Second, not all impression formation consequences of sharing conspiracy theories in a political context are negative. Furthermore, people's beliefs about the consequences of sharing conspiracy theories depends on whether they personally endorse those theories. In two additional studies we found further evidence that sharing conspiracy theories has consequences, this time for medical and science professionals (Green, Toribio-Flórez & Douglas, 2023). It appears that in healthcare setting (e.g., a medical professional who shares anti-vaccine conspiracy theories), and a scientific setting (e.g., a scientist who shares climate change conspiracy theories), the reputational consequences are largely negative, and people show less willingness to follow the advice of a professional who shares conspiracy theories (Figure 5). However, as in Green, Toribio-Flórez, Douglas, Brunkow and Sutton (2023), effects were moderated by participants' own conspiracy beliefs, and one exception to the largely negative impressions of conspiracy-sharing professionals, we found that higher conspiracy believers perceived the conspiracy-sharing professionals as braver.

3.2.2 Consequences for relationships

The effects of sharing conspiracy theories on people's social impressions are also likely to influence their interpersonal relationships. Over the years, we have gathered anecdotal examples of how the endorsement of conspiracy theories can drastically erode people's relationships with their friends, relatives and acquaintances, either from people who directly shared their testimonies with us after reading about, or participating in, our research, or from cases reported in online media or forums (e.g., Chapple, 2020; Desmond-Harris,

2022; Dulaney & Lollback, 2020), like the subreddit r/QAnonCasualties. We conducted a series of studies to examine more systematically whether conspiracy beliefs might indeed influence interpersonal relationships, and specifically, the satisfaction that people experience in their relationships (Toribio-Flórez et al., in press).

In three cross-sectional studies, we asked samples of UK participants to identify people from their social network. Then, participants reported both their relationship satisfaction with each person, and the extent to which they perceived each person to believe in conspiracy theories (in the first two studies, a generic conspiracy theory, i.e., “The official version of the events given by authorities very often hides the truth”; Lantian et al., 2016; in the third study, a list of specific conspiracy beliefs, e.g., “The attack on the Twin Towers was not a terrorist action but a governmental conspiracy”; Douglas & Sutton, 2011). We observed that perceived conspiracy beliefs were negatively associated with relationship satisfaction, especially among those participants who did not believe in conspiracy theories. Further, this relationship was mediated by perceived attitudinal and relational closeness.

We conducted three additional experiments, in which we asked UK participants to imagine a person from their social network in one of two hypothetical scenarios. In one scenario, this person acknowledged that they endorsed a generic conspiracy theory, whereas in the other scenario, this person rejected the same conspiracy theory. Then, we asked participants to report how satisfied they thought they would be in their relationship, considering the scenario they were assigned to. In one of these experiments, before presenting the hypothetical scenario, we asked participants to report their current relationship satisfaction with that person, which we used as a baseline to analyse the expected change in relationship satisfaction. In line with our previous results, we found that those participants who did not believe in conspiracy beliefs expected their relationship satisfaction to be lower (or deteriorate) if the other person endorsed the conspiracy theory, relative to when the

person rejected it. In contrast, participants who believed in conspiracy theories more strongly did not foresee this negative effect of the other person endorsing a conspiracy theory and, if anything, they expected this event to improve their relationship satisfaction.

Taken together, these findings indicate that conspiracy theories have the potential to erode people's interpersonal relationships, especially in those cases where people perceive a strong dissimilarity in attitudes and/or beliefs. The distancing of conspiracy believers from common frameworks of understanding and evaluating social reality can negatively influence their relationships with others (Higgins et al., 2021) by means of reducing interpersonal trust (Singh et al., 2017) and triggering interpersonal conflict (Gordon & Chen, 2016). This is, however, not the only plausible explanation. It remains unexplored whether processes of stigma-by-association, or the misrepresentation of (and consequential deviation from) social norms can lead conspiracy believers to be socially excluded, and therefore, to experience the erosion of their interpersonal relationships, as we have previously theorised (Toribio-Flórez et al., 2023).

In a related line of research, we examined the effect of sharing conspiracy theories on people's *relationship prospects* in the context of online dating (Green et al., in preparation). In two experiments, we examined people's dating and befriending intentions and impressions of a fictitious online dating profile (modelled on the popular dating application 'Tinder') that either had a pro-conspiracy or anti-conspiracy statement or no mention of conspiracy (control) in the profile text (Figure 6). Apart from these differences, the profiles were all the same with the profile pictures blurred out. In the first experiment, the pro-conspiracy dating profile included a statement saying: "Covid-19 is a hoax, people. Don't trust the 'experts'!"; whereas the anti-conspiracy profile included a statement saying: "Covid-19 is real, people. Trust the experts!". In the second experiment, the pro-conspiracy dating profile included a statement saying: "The 2020 election was rigged, people. The facts speak for themselves!";

whereas the anti-conspiracy profile included a statement saying: “The 2020 election was not rigged, people. The facts speak for themselves!”. Across both experiments, compared to the anti-conspiracy and control dating profiles, people perceived the person behind the pro-conspiracy dating profile as less honest, trustworthy, sociable, intelligent, kind, friendly, and respectable, but more unique; importantly, they also reported lower dating and befriending intentions. Across both studies, participant’s own conspiracy beliefs moderated these effects, with stronger negative impressions found among participants with lower levels of general conspiracy belief.

A factor that could condition the effects of sharing conspiracy beliefs could be the plausibility of the respective conspiracy theory. A more plausible conspiracy narrative is arguably less likely to deviate from common and shared frameworks of understanding a specific social event or reality, and therefore, it might not negatively influence social impression and relationship prospects. Thus, in a third experiment, we manipulated the plausibility (high vs. low) of the conspiracy theory being shared in online dating profiles. Relatively plausible and implausible statements were taken from Douglas et al (2021). The implausible conspiracy dating profile included a statement saying: “Oil companies decide who will be president of the USA, fact!”; whereas the plausible-conspiracy profile included a statement saying: “Oil companies mutually agree to increase fuel prices, fact!”. The same control dating profile used in the previous studies was also included in this experiment. Replicating all the main effects found in the previous experiments, compared to the control condition, people perceived the person behind the implausible conspiracy sharing dating profile as less favourably. Interestingly, however, compared to the control dating profile, people perceived the person behind the plausible conspiracy dating profile as more intelligent, otherwise no other differences were found. Overall, these studies show that sharing conspiracy theories in the world of online dating comes with less favourable

impressions and negative consequences for people's relationship prospects, unless they are sharing plausible conspiracy theories or anti-conspiracy sentiments.

3.2.3 Summary

Growing evidence suggests there are consequences for people who share conspiracy theories. People also perceive that sharing conspiracy theories will have consequences. Whilst many of these consequences are negative, not all of them are negative. In a political situation, it might be advantageous to appear to be a “maverick” who can shake up the system and force political change (Sapountzis and Condor, 2013). There may be other perceived advantages of sharing conspiracy theories. For example, recent research suggests that people deliberately share conspiracy theories to receive “likes” on social media, even when they know those theories to be false (Ren et al., 2023). When they expect that conspiracy theories will receive social engagement from others, presumably because they are interesting and entertaining (Brotherton & Eser, 2015), people seem likely to share the more. As more research emerges on sharing behaviour, the conditions under which people choose to share versus not share conspiracy theories, and the impressions that people form of individuals who do share conspiracy theories, will become clearer.

4.0 Limitations of the current state-of-the-art and future directions

The literature on the psychology of conspiracy theories has grown rapidly in the past 20 years, uncovering many valuable insights. However, perhaps because the field has developed so rapidly, some issues have come to light. Whilst we do not want to dwell too much on these limitations—all research areas have their limitations of course—we feel that it is worth mentioning some key issues which need to be considered to help this research area move forward. We focus on measurement, theoretical focus, sampling, and interventions, and we outline some of the ways we have attempted to address these issues. We also outline some potential future directions to help further address these limitations.

4.1 Measurement

Researchers use several scales to measure conspiracy beliefs. As a rule, correlations between different measures tend to be rather strong (Swami et al., 2017), and for some research purposes they may be more or less interchangeable. However, researchers' choice of scale can sometimes affect research findings. For example, by far the majority of conspiracy belief measures use Likert-type scales with an equal opportunity for participants to agree and disagree (e.g., "strongly disagree" to "strongly agree" on 7-point scale). However, at least one scale in a highly cited paper published during the COVID-19 pandemic was skewed in one direction (Freeman et al., 2020). Specifically, Freeman et al. measured conspiracy beliefs on a 5-point scale gave participants four options to agree with an item (i.e., "agree a little", "agree moderately", "agree a lot", and "agree completely", but only one option to disagree (i.e., "do not agree"). We (Sutton & Douglas, 2020b; see also Garry et al., 2022) took three items from Freeman et al.'s scale and measured UK participants' agreement with the statements either using this scale, a five-point balanced scale, or a nine-point balanced scale. We found that total agreement with the items using Freeman et al.'s scale significantly inflated agreement compared to the balanced scales (e.g., 31.9% agreement with the statement that "Coronavirus is a bioweapon developed by China to destroy the West" compared to 8.8% and 10.6%). We concluded that Freeman et al.'s research overestimated the popularity of COVID-19 conspiracy theories because of the response scale they used. This is not a trivial methodological point. Exaggerating the popularity of conspiracy theories could normalise conspiracist prejudice toward outgroups (McManus et al., 2020) and misdirect interventions, policies, and research.

Sometimes, researchers' choice of scale reflects differing, and contested, conceptualisations of conspiracy belief. Some scales intend to capture respondents' *belief in conspiracy theories*, conceptualised as the general tendency to endorse conspiracy theories

across multiple topic domains (e.g., Douglas & Sutton, 2011; Hornsey et al., 2018; Swami et al., 2011). This is operationalised as the central tendency (i.e., mean) of a participant's endorsement of diverse conspiracy theories. In contrast, other scales (e.g., Bruder et al., 2013; Imhoff & Bruder, 2014; Stojanov & Halberstadt, 2019) intend to capture the *conspiracy mentality*, conceptualised as a generalised political attitude that views powerful forces as secretly manipulating world events. Instead of conspiracy theories, these scales include broader statements designed to capture this generalised political attitude (e.g., "I think that many very important things happen in the world, which the public is never informed about").

The relationship between these two constructs remains unclear, giving rise to important theoretical ambiguities, and to scholarly discussions about the utility and even the existence of the conspiracy mentality construct (Imhoff, 2024; Nera, 2024; Sutton & Douglas, 2020a; Sutton et al., 2024). The conspiracy mentality is sometimes described as "the general tendency to endorse conspiracy theories" (Imhoff et al., 2022)—that is, the same thing as belief in conspiracy theories. In contrast, belief in conspiracy theories is described elsewhere as being "largely determined by" the conspiracy mentality (Bruder et al., 2013), which implies these two constructs are conceptually distinct but causally related.

One way to read these different framings of the relationship is that they are inconsistent, on the grounds that one variable cannot be both cause and be the same thing as another variable (Sutton et al., 2024). Another reading is that both framings express the idea that the conspiracy mentality is the latent, within-person disposition that produces the observable tendency to endorse conspiracy theories. This reading is yet to be supported by factor analytical work showing that belief in conspiracy theories and conspiracy mentality statements load onto the same factor. On the contrary, a recently published article showed that items from the two scales load onto distinct factors (Strömbäck et al., 2024).

Our own work provides more reason to suspect that the conspiracy mentality and belief in conspiracy theories are distinct constructs. Research thus far suggests they seem to be different constructs. In four studies with UK participants, we (Trella et al., 2024a) examined the semantic and causal relationship between conspiracy mentality and belief in conspiracy theories. In Study 1, participants were presented with statements related to conspiracy mentality (Bruder et al., 2013), and the belief in conspiracy theories inventory (BCTI) which mentions specific conspiracy theories (Swami et al., 2017). Participants rated conspiracy mentality statements as more general, more plausible, less disputable, and less stigmatising than the conspiracy theories taken from the BCTI. These findings suggest that the two constructs are different in kind, and that lay people perceive their endorsement to have different social consequences. The functional difference is confirmed by other findings that in multiple regressions, scales measuring belief in conspiracy theories, but not the conspiracy mentality, positively predict climate change denial (Pan et al., 2023; Trella et al., under review).

In the next three studies, we examined the causal relationship between the two constructs. Though the conspiracy mentality was proposed as either an antecedent of or an alternative conceptualisation of belief in conspiracy theories, Nera (2024) suggested that the causal relationship between them may be bidirectional. In Study 2, participants were asked to read either a pro-conspiracy or anti-conspiracy article adapted from Jolley and Douglas (2014a) which included only specific conspiracy statements, and nothing related to conspiracy mentality (e.g., “Did the United States government orchestrate the 9/11 attacks on the Twin Towers” instead of a more general statement like “Over the years, many governments have been implicated in major social events”). Participants then responded to the conspiracy mentality questionnaire (Imhoff & Bruder, 2014) and the BCTI (Swami et al., 2017). We found that exposure to specific conspiracy theories (vs. an anti-conspiracy

statement) increased conspiracy mentality, suggesting that the conspiracy mentality may follow from—rather than precede—specific conspiracy beliefs. We found further support for this hypothesis in two additional experiments and also that in some cases that the relationship may be bi-directional (i.e., affirmations of the conspiracy mentality can increase specific conspiracy beliefs). Further evidence that the causal relationship is bidirectional has been obtained by recent longitudinal studies (Granados Samayoa et al., 2022; Strömbäck et al., 2024).

Of course, future research may produce different findings, which turn out to favour the interpretation that the same construct underlies conspiracy mentality and belief in conspiracy theory items. Even if it does not, the scales are strongly related and may often produce the same results. Each has advantages and drawbacks as an approach to measuring individual differences in conspiracism. Scales of belief in conspiracy theories may be contaminated by the specific content of the theories that are selected for inclusion in the scales (e.g., they may be politically skewed or unfamiliar to some populations: Imhoff et al., 2022), whereas scales of conspiracy mentality may be contaminated by factors such as the sensitivities and even the real and perceived danger (in authoritarian regimes) of endorsing abstract statements that are explicitly critical of political and economic elites in their society (Sutton et al., 2024).

Nonetheless, pending further research we can best characterise the underlying ideas behind the scales as follows: the conspiracy mentality tries in some way to explain the general tendency to believe in conspiracy theories with reference to an underlying *latent* construct, whereas scales of belief in conspiracy theories treat their subject matter as an *observable* tendency without any attempt at explanation (rather, explanation is sought by building and testing theories about its relationships with other variables). Positing a latent construct without carefully describing what it is and how it works risks mystifying rather than

clarifying belief in conspiracy theories. Of course, if we run factor analyses on scales like the BCTI we also observe a latent factor, but we conceive of this as simply the tendency to endorse conspiracy theories stripped of measurement error, rather than an inferred personality variable. At present, the conspiracy mentality construct is not sufficiently specified for the research community to be confident about its explanatory contribution to the literature (Nera, 2024; Sutton et al., 2024). In general, until the evidence is in, we are wary of recourse to latent dispositions that seem to be open to interpretation, and which have even been characterized as “fictions” (Imhoff, 2024), when it is possible in principle, through instruments such as the BCTI, to observe people displaying a generalized tendency to endorse conspiracy theories.

This is not to say that we see no merit or potential in the conspiracy mentality construct. To this end, we (Sutton et al., 2024; Trella et al., 2024, Trella et al., under review) have proposed that the conspiracy mentality might capture, much as proposed theoretically by Imhoff and Bruder (2014), the heuristic distrust of authority and received wisdom that has been claimed by many scholars to be essential, to some degree, to the healthy functioning of democracy (e.g., Huntington, 1983; Sobo, 2021). Unless this distrust becomes extreme, it should not, in itself, pose significant problems for individuals or society. However, it may cause problems insofar as it leads people to endorse the moderately implausible, divisive, or incendiary conspiracy statements that feature in scales like the BCTI, or still more, to the more extreme conspiracy theories that do not feature in these scales, such as QAnon (Green et al., 2024), Islamophobic conspiracy theories (Obaidi et al., 2022), and antisemitic conspiracy theories (Kofta et al., 2020).

In summary, we recommend that in future, researchers pay close attention to the response options they provide to participants and remain mindful of how responses can differ in meaningful ways when response options are skewed. We also recommend combining a

conspiracy mentality measure with a measure of specific conspiracy beliefs in future research (Sutton et al., 2024). Doing so would allow researchers to understand exactly what is measured by conspiracy mentality scales, and to examine the potentially important differences between abstract and specific representations of conspiracy theories. We encourage researchers generally to consider measurement issues as this research area develops.

4.2 Theoretical focus

As a rapidly developing area of research, the psychology of conspiracy theories has lacked theoretical focus, leading at times—and research on COVID-19 conspiracy theories is a good example—to rather piecemeal and disconnected investigations with low-level theoretical focus. We have therefore argued that taking a step back to re-examine closely what conspiracy theories are (i.e., their core features and what makes them different from other types of belief), will be crucial for this research area to make theoretical progress in future (Douglas & Sutton, 2023). At the beginning of this chapter, we provided a definition of conspiracy theories which articulated their unique features—their publicness, oppositionality, malevolence, epistemic risk, and status as social constructs. We argue that more closely considering these features can guide future research on the causes, consequences and communication of conspiracy theories.

Studies of conspiracy beliefs have not differentiated between conspiracy theories and other beliefs in a controlled way. Manipulating the presence versus absence of the key features of conspiracy theories is crucial in helping us identify the unique psychological functions of conspiracy theories. For example, it is likely that the malevolence attributed to conspiracy theories explains their unique effects on prejudice and intergroup hostility (Douglas & Sutton, 2023). Also, paying further attention to the defining features of conspiracy theories will allow researchers to differentiate between conspiracy theories and

better understand the psychological features that are likely to be relevant to specific types of conspiracy theories (e.g., those ascribe greater malevolence might appeal to some people whereas those that are more epistemically risky might not).

Recent studies indicate the promise of systematically manipulating some of the characteristic features of conspiracy theories, as we recommended (Douglas & Sutton 2023), though we stress that these studies do not appear to have been motivated by our paper. Harmon-Jones et al. (2024) constructed fictional conspiracy theories in which the malevolence of the plotters' motivations was manipulated (e.g., ranging from designing torture techniques to encouraging people to install security features on their phones). They found that participants' trait anger significantly predicted belief in 'high-evil' conspiracy theories adjusting for belief in 'low-evil' conspiracy theories beliefs, but not vice-versa. Frenken and Imhoff (2024) manipulated the plausibility of conspiracy theories and found that scores on the conspiracy mentality questionnaire were more strongly associated with belief in implausible than plausible conspiracy theories. Further, low scores on cognitive variables assessing analytic thinking styles were negatively related only to belief in implausible conspiracy theories. This latter finding confirms predictions that we derived from our causal properties approach (Douglas & Sutton, 2023), namely that cognitive variables would be more strongly associated with endorsement of more implausible conspiracy theories (implausibility being a proxy for epistemic risk).

Another important theoretical issue is that there is, to date, no theoretical account of the role emotions play in conspiracy belief and the emotional consequences of conspiracy theories. Research has examined the role of emotion dysregulation (Molenda et al., 2023) and emotional granularity—that is the ability to differentiate between nuanced emotional states—in predicting conspiracy beliefs (Wabnegger et al., 2024). Other research has uncovered unique emotional responses related to conspiracy theories during the COVID-19 pandemic

(e.g., Abadi et al., 2021; Peitz et al., 2021). As of yet however, there is no overarching perspective on the emotional antecedents and consequences of conspiracy theories.

4.3 Sampling

Like a lot of social psychological research, studies on the psychology of conspiracy theories have largely relied on samples from Western, educated, industrialised, rich and democratic (WEIRD) countries (Douglas et al., 2019). Although more cross-national investigations are emerging (e.g., Adam-Troian et al., 2021; Douglas et al., 2022; Imhoff et al., 2022; Stojanov & Douglas, 2022), conclusions about the antecedents, consequences and communication of conspiracy theories are largely based on samples from a small subset of the world's population. Furthermore, studies have typically not used representative samples. Again however, this is not a problem that is unique to research on the psychology of conspiracy theories.

Also, there is very limited research on how conspiracy beliefs vary across the lifespan. Most of the research has been conducted on adult samples and until recently there were no available measures to capture conspiracy belief in younger populations. We recently developed one for this purpose (Jolley et al., 2021). We then administered this nine-item scale (e.g., "Some political groups have secret plans which are not good for society") on a UK adolescent sample and found that conspiracy beliefs seemed to peak around age 14 and then decrease again up to the age of 18. This research therefore suggests that there might be important times in a person's life when they are more susceptible to conspiracy theories and further highlights the importance of examining conspiracy beliefs in populations other than adults from WEIRD countries.

A related sampling problem is that participants who are strong believers in conspiracy theories are rarely recruited for psychological studies on conspiracy theories. This is largely due to the fact that these people are difficult to recruit. However, this is unfortunate because

when members of the public think about research on the psychology of conspiracy theories, they may naturally assume that researchers recruit strong believers (Goertzel, 1994; Sunstein & Vermeule, 2009). However, these individuals are difficult to recruit, in part because they can be distrustful of conspiracy theory research and therefore reluctant to take part. This presents a significant limitation of the current literature. Researchers want to be able to explain the consequences of deeply entrenched and extreme beliefs, but their samples consist of weak or moderate believers at best (Franks et al., 2017; Sutton & Douglas, 2014). Some studies have recruited stronger believers (e.g., Franks et al., 2017; Harambam & Aupers, 2017), and studies have been successful in observing the online behaviour of stronger conspiracy believers (e.g., Del Vicario et al., 2016). However, we cannot assume that the psychological antecedents and consequences of conspiracy beliefs are the same for stronger and weaker believers and attempting to recruit stronger believers should be a goal in future research.

The final limitation that we would like to briefly discuss is the over-reliance on correlational research designs in conspiracy theory research. The causes and consequences of conspiracy theories are often inferred, and reverse causal directions cannot necessarily be dismissed (e.g., if conspiracy theories about vaccinations reduce vaccination intentions, or if people's vaccination intentions inform their conspiracy beliefs; Douglas & Sutton, 2023). We have described our own and others' experimental research in this chapter, but such efforts are still rare in comparison to correlational research, and reverse causal directions are typically not tested. Furthermore, although there are increasing numbers of longitudinal studies in this area (e.g., Bierwiazzonek et al., 2022; Liekefett et al., 2021), these are also scarce.

In summary, although research on the psychology of conspiracy theories has made great strides in recent years, it is not without limitations. We argue that future research should pay closer attention to issues associated with sampling and measurement, but also consider

the unique definitional features of conspiracy theories to develop a stronger theoretical focus for research.

4.4. Interventions

We would like to say a final few words about interventions. Given the (mostly) negative consequences of conspiracy theories, and the apparent difficulty of escaping the “rabbit hole” (Sutton & Douglas, 2022), it is important to know how and when to intervene in cases where people are relying on conspiracy theories to guide their behaviours. Whilst our research has largely focused on the antecedents and consequences of conspiracy beliefs, we have made some contributions in the domain of interventions.

At an interpersonal level, attempting to restore feelings of personal control (e.g., by acknowledging a person’s anxiety) and affirming critical thinking (e.g., agree that asking questions is important) are likely to help people in conversations with conspiracy believers (Marques et al., 2022). Listening and trying to build rapport with a person is likely to make them feel less alienated and therefore more receptive to other opinions. On a larger scale, research demonstrates that counterarguments are often effective against the impact of conspiracy theories (e.g., Banas & Miller, 2013; Orosz et al., 2016). Our work described earlier (Jolley & Douglas, 2014b, Study 2) also demonstrates that fact-based arguments can make a difference. Specifically, we found that exposing people to anti-conspiracy arguments about vaccines reduced belief in conspiracy theories compared to a control condition. However, the anti-conspiracy arguments did not improve vaccination intentions relative to controls. Therefore, while anti-conspiracy arguments can reduce conspiracy beliefs, this might not translate to behaviours. Once the idea of a conspiracy theory has taken root, even strong arguments against the conspiracy theories might not improve behavioural action. This reasoning is consistent with research on the continued influence effect (Johnson & Siefert, 1994) which demonstrates that misinformation interventions containing only counter-

information might not significantly affect attitudes and behaviours. Changing established attitudes and beliefs might require different methods to ultimately change behaviour.

We therefore reasoned that presenting anti-conspiracy arguments *before* the conspiracy theories could strengthen their persuasiveness. Similar to the process of psychological inoculation (e.g., McGuire & Papageorgis, 1961; Pfau & van Bockern, 1994), presenting factual information prior to conspiracy theories might protect people from the potentially harmful consequences of conspiracy theories. We tested this proposal in two studies (Jolley & Douglas, 2017). In both studies, US participants read anti-conspiracy arguments about vaccination either before or after reading conspiracy theories about vaccination (from Jolley & Douglas, 2014b), or just one set of arguments (anti-conspiracy or conspiracy theories). We used a fifth condition as a control, in which participants did not read any information. The dependent measure, as in Jolley and Douglas (2014b) was the participants' willingness to have a fictitious child vaccinated against a fictitious disease. We also asked participants to rate their agreement with anti-vaccine conspiracy theories and the extent to which they perceived vaccines to be dangerous, as potential mediators.

Similar to Jolley and Douglas (2014b), vaccination intentions were lower in the conspiracy condition compared to the anti-conspiracy and control conditions. Further, vaccination intentions were improved when participants read the anti-conspiracy arguments before the conspiracy arguments, but not when they were presented with the conspiracy arguments first. Conspiracy theories therefore appear to be “sticky” (Lewandowsky et al., 2012), but being able to prepare a defence in advance might reduce their effects. This effect was observed in both studies and was mediated by anti-vaccine conspiracy beliefs and the perception that vaccines are dangerous.

Although out of the scope of the current chapter, it is worth noting that inoculation has been used successfully in the domain of misinformation more broadly (see van der

Linden, 2024 for an overview). Misinformation is defined as “any information that is demonstrably false or misleading, regardless of its intention” (van der Linden et al., 2023). To address misinformation, some researchers have, for example, designed realistic games and videos that expose participants to weakened “doses” of the techniques that are used in the production of misinformation, which sometimes includes the use of conspiracy theories (e.g., Roozenbeek et al., 2022; Roozenbeek & van der Linden, 2018, 2019). These interventions have been found to improve participants’ ability to identify both fake and real news. However, more work needs to be done to understand when and how these techniques can be applied specifically to conspiracy theories. As we have noted elsewhere, conspiracy theories are not necessarily false (Douglas & Sutton, 2023), whereas falsity is part of the definition of misinformation. Also, some of the unique features of conspiracy theories might make them more resistant to interventions such as inoculation. For example, the belief in the malevolence of authorities that is characteristic of conspiracy theories means that refutations of a conspiracy theory are often viewed as part of the cover-up (Lewandowsky et al., 2015). The effort to reduce belief in the conspiracy theory might therefore fail because the information itself becomes part of the conspiracy theory. However, a recent intervention did show some success in changing conspiracy beliefs. In this study, engaging people who believe in at least one conspiracy theory in a critical dialogue with AI chatbots appeared to bring about marked and enduring reductions in belief, not only in the focal conspiracy theory but other, unrelated conspiracy theories (Costello et al., 2024).

Finally, more work also needs to be done to understand when it is appropriate to intervene on people’s beliefs. For example, one could question the necessity and appropriateness of intervening on conspiracy beliefs that are relatively harmless. On the other hand, one might support interventions for conspiracy beliefs that could lead to potentially dangerous outcomes such as vaccine refusal (e.g., Douglas et al., 2024; Marques, Douglas et

al., 2022; Marques, Sibley et al., 2022). Also, researchers need to consider the applicability of interventions to different circumstances and cultural settings, how long inoculation effects last, and the extent to which the interventions are scalable in the real world.

5.0. Conclusions

In this chapter, we have provided an overview of research on the psychology of conspiracy theories, using examples from our own research programme. Over the past 20 years, social psychologists in particular have contributed many insights into what drives belief in conspiracy theories and why we should be worried about them. These contributions have been useful to policymakers in their efforts to deal with conspiracy theories that affect their work. As knowledge advances, we expect social psychology to contribute further to understanding the consequences of conspiracy theories and both how and when to address them.

As a relatively new research area in social psychology, the study of conspiracy theories is not without its limitations, however. In this chapter, we have also discussed how measurement and sampling issues still hinder progress and how the field would benefit from a theoretical approach that focuses on the essential features of conspiracy theories. Conspiracy theories seem to have always been with us and they do not appear to be going away anytime soon. An even deeper understanding of their properties, appeal, and consequences is therefore still needed.

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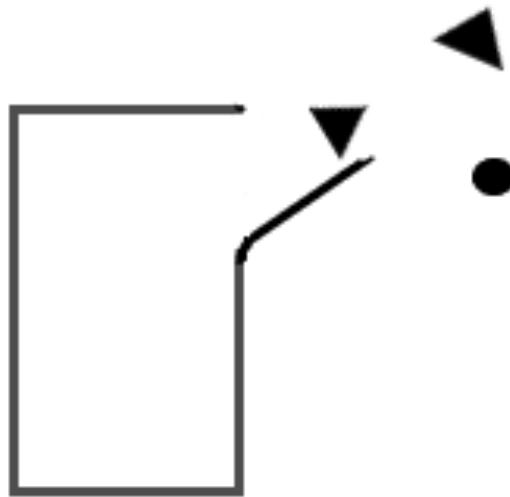
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Figures and Tables**Figure 1**

Still Image of Heider and Simmel's (1944) Animation.

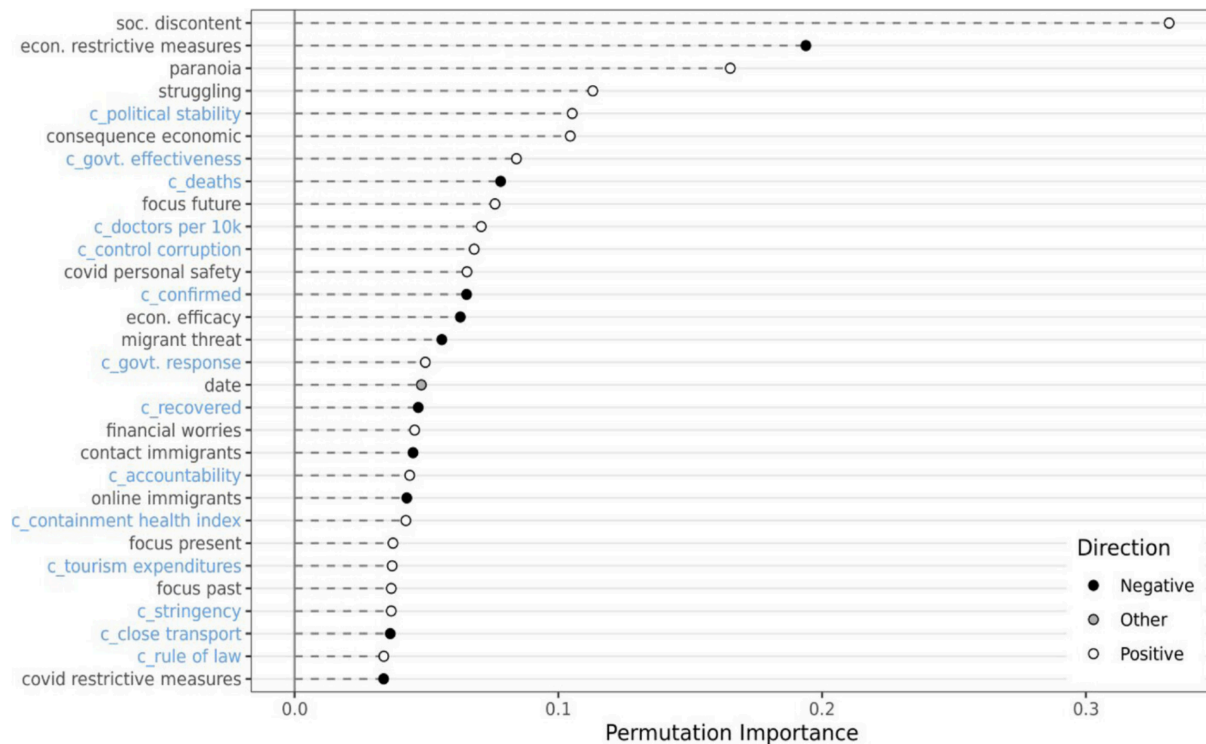


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Figure 2

Rank Ordered Variable Importance in Predicting Conspiracy Belief During the COVID-19 Pandemic.



Note: Permutation importance gives an indication of the relative importance of each predictor, based on the idea that if a predictor variable is important, it should influence the model's predictive accuracy. Blue font indicates country-level predictors and black font indicates individual-level predictors. Whether the relationship is linearly positive or negative is indicated by the dots. "Other" indicates that the variable has a non-linear relationship with conspiracy belief. Figure is from Douglas et al., (2023) and is used under the Creative Commons Attribution License: <https://creativecommons.org/licenses/by/4.0/>.

Table 1

Means and Standard Deviations for the Extent to which Participants Perceived that They and Others Endorsed Conspiracy Theories.

Target being rated	Attitude ratings									
	Control group		Experimental group				Attitude change			
			Retrospective		Current		Perceived		Actual	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Self	1.75	0.62	2.53 _b	1.05	2.68	1.06	0.15	0.40	0.93 _c	1.21
Others	2.15 _a	0.75	2.42 _{a,b}	0.84	3.13	1.01	0.71 _c	0.98	—	—

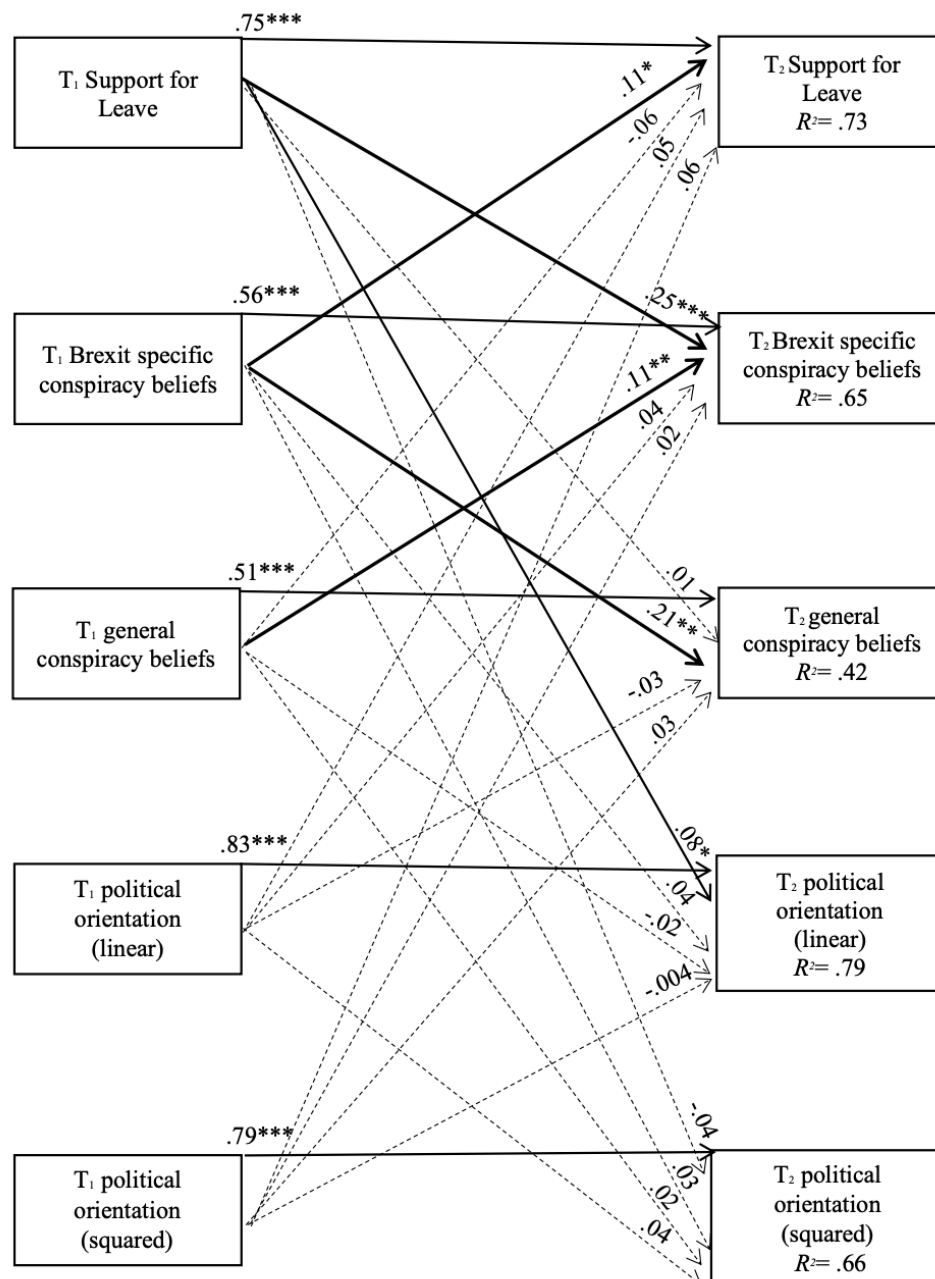
Note: Perceived attitude change is the difference between current and retrospective ratings of self and others. Actual attitude change for self is the difference between current attitude rating for self and baseline rating for self (control group). Higher values mean more endorsement (or perceived endorsement) of the conspiracy theory. Means that share a subscript do not differ significantly from $p < .05$. Data from Douglas and Sutton (2008).

Figure 3

Cross-Lagged Relationships between Conspiracy Beliefs and Support for Leaving the EU.

Entries are Standardised Coefficients and Variables are Manifest Factors. Non-significant

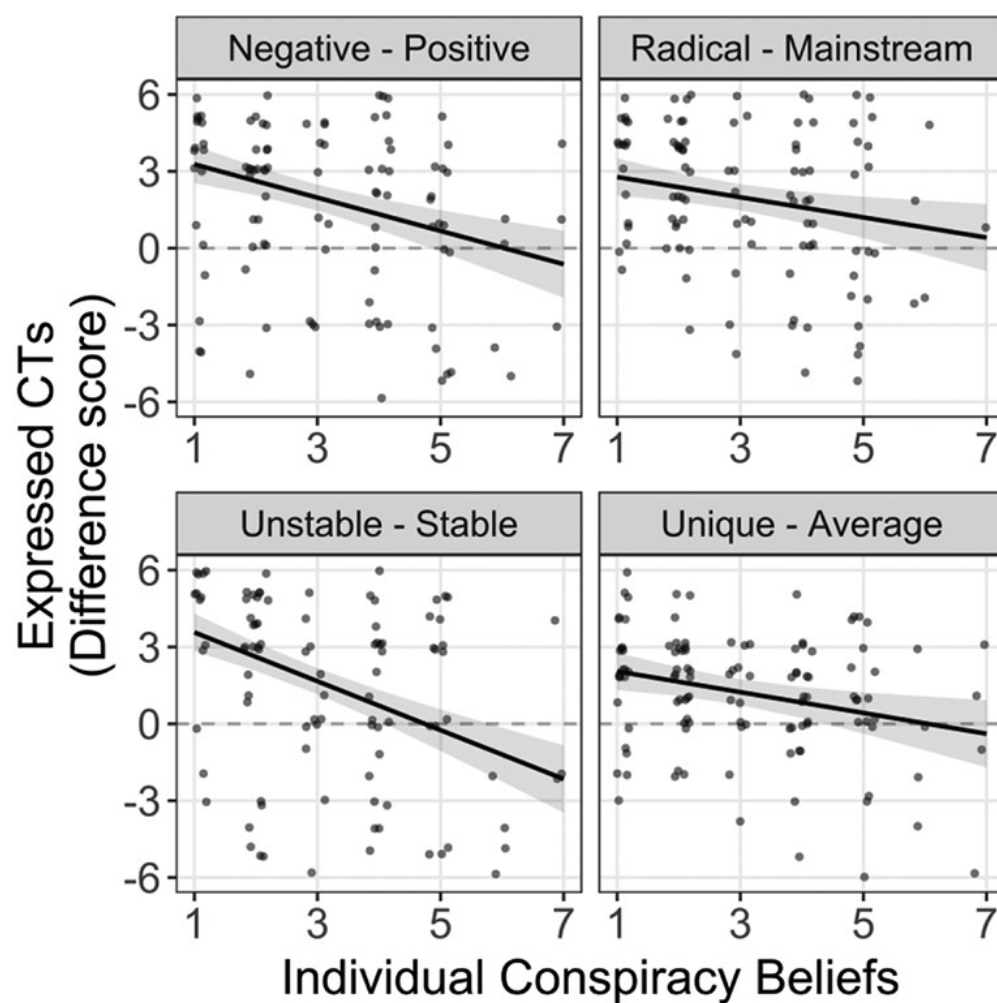
Paths are Indicated by a Dashed Lines.



Note: Data from Jolley et al. (2021).

Figure 4

Moderating Effect of Individual Conspiracy Beliefs on the Expression of Conspiracy Theories to Achieve Specific Impression Formation Goals. Scores Above Zero Show That Conspiracy Theories Were Endorsed More Regarding the First Impression Goal (e.g., Negative) Whereas Scores Below Zero Show That They Were Endorsed More Regarding the Second Impression Goal (e.g., Positive).

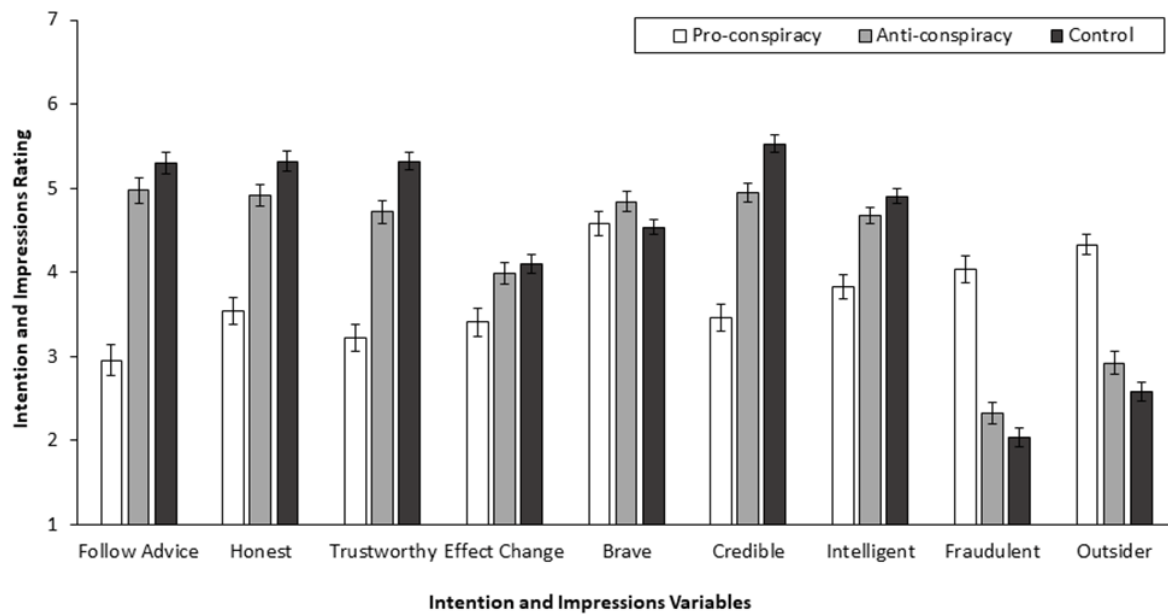


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Figure 5

Impressions of a Medical Professional who Shared versus Refutes a Vaccine Conspiracy Theory (versus Neutral Information).



Note: Figure is from Green, Toribio-Flórez and Douglas (2023) Experiment 2 and is used under the Creative Commons Attribution License:

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Figure 6

Sample “Tinder” Stimulus Material for Research on the Effects of Conspiracy Theories on Future Dating Prospects

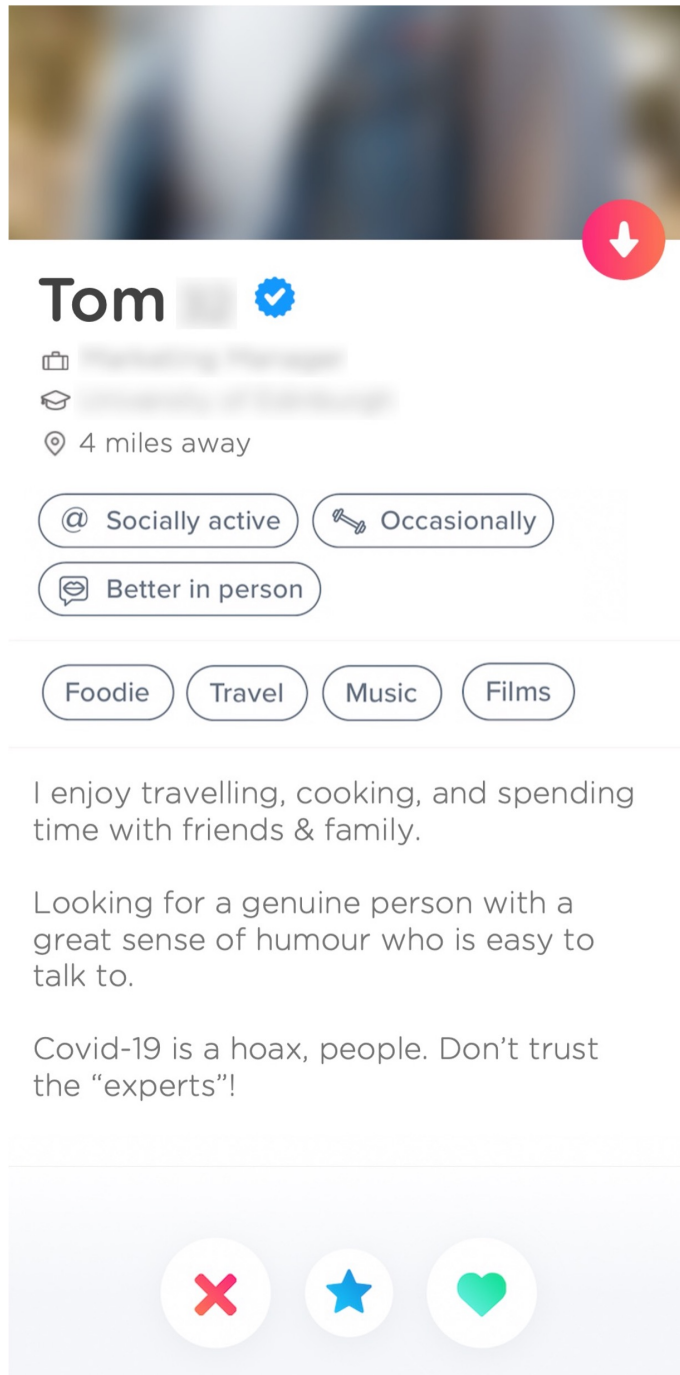


Table 2

Proportion of Respondents Selecting Each Response to Three Different Conspiracy Theories using Different Response Options.

	Freeman et al. (2020a) response scale (N = 251)					
	Do not agree	Agree a little	Agree moderately	Agree a lot	Agree completely	Sum agreement
Jews have created the virus to collapse the economy for financial gain	98.0%	1.2%	0.8%	0.0%	0%	2.0%
Muslims are spreading the virus as an attack on Western values	97.2%	1.6%	0.4%	0.8%	0%	2.8%
Coronavirus is a bioweapon developed by China to destroy the West	68.1%	21.1%	8.8%	1.6%	0.4%	31.9%
	Five-point balanced response scale (N = 251)					
	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Sum agreement
Jews have created the virus to collapse the economy for financial gain	90.8%	6.8%	2.0%	0%	0.4%	0.4%
Muslims are spreading the virus as an attack on Western values	86.9%	10.4%	1.2%	0.4%	1.2%	1.6%
Coronavirus is a bioweapon developed by China to destroy the West	55.8%	22.7%	12.7%	8.0%	0.8%	8.8%
	Nine-point balanced response scale (N = 246)					
	No agreement	Agree a little	Agree moderately	Agree a lot	Agree completely	Sum agreement
Jews have created the virus to collapse the economy for financial gain	99.2%	0%	0.4%	0%	0.4%	0.8%
Muslims are spreading the virus as an attack on Western values	99.2%	0.4%	0%	0%	0.4%	0.8%
Coronavirus is a bioweapon developed by China to destroy the West	89.4%	6.5%	2.8%	0.4%	0.8%	10.6%

Note: Figure is from Douglas and Sutton (2020) and is used under the Creative Commons

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