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Belief in conspiracy theories: Looking beyond gullibility

Karen M. Douglas, Robbie M. Sutton & Aleksandra Cichocka

University of Kent

Corresponding Author:

Karen M. Douglas

School of Psychology, University of Kent

Canterbury, CT2 7NP

United Kingdom

E-mail: k.douglas@kent.ac.uk

Conspiracy theories attribute significant social and political events to the actions of controlling and malevolent groups (e.g., Goertzel, 1994; Uscinski & Parent, 2014). For example, well known conspiracy theories suggest that the 9/11 attacks on the Twin Towers were an ‘inside job’ orchestrated by the Bush administration to justify the war on terror, and that Diana, Princess of Wales was assassinated by the British Secret Service because she was a nuisance to the British establishment. Belief in conspiracy theories is more common than you might think. For example, over half of Americans believe that Lee Harvey Oswald did not act alone in the assassination of President John F. Kennedy (Jensen, 2013). Furthermore, recent polls suggest that nearly half of British people believe that the government is hiding information about the number of immigrants in the UK (Moore, 2016). There is therefore no doubt that conspiracy theories are popular. But are conspiracy believers gullible? In this chapter, we argue that the research evidence to date does not support this conclusion. Instead, conspiracy theories seem to appeal to people when they need to satisfy important psychological motives.

Specifically, Douglas, Sutton and Cichocka (2017) argued that people are drawn to conspiracy theories when—compared with nonconspiracy explanations—they seem to satisfy important social psychological motives that can be characterised as epistemic (e.g., the desire for understanding, accuracy, and subjective certainty), existential (e.g., the desire for control and security), and social (e.g., the desire to maintain a positive image of the self or group). We outline each of these motives in turn, highlighting evidence that people are drawn to conspiracy theories for these reasons in particular, and not because they will simply believe anything they hear. We also consider whether such psychological motives are met by believing in conspiracy theories. Finally, we take a broader perspective on how future research might expand this

taxonomy, and directions that research on the psychology of conspiracy theories might take in future to further test the purposes of believing in conspiracy theories.

Epistemic motives

Heider (1958) argued that finding causal explanations for events is an important part of creating a consistent and accurate understanding of the world. People want to know the truth and be certain of that truth. They are also curious and want to find out new information.

Furthermore, people are generally intolerant of uncertainty and want to find meaning even when events may seem random or very unlikely (Dugas, Gosselin & Ladouceur, 2001). As causal explanations for events, conspiracy theories might appear to satisfy these motives. Specifically, they seem to provide broad, internally consistent explanations that allow people to maintain beliefs in situations of uncertainty and contradiction. They are often resistant to falsification by proposing that multiple actors coordinate and cover up their actions, and by implication that people who try to debunk them are part of the conspiracy (Lewandowsky, Cook, Oberauer, Brophy, Lloyd & Marriott, 2015). Conspiracy theories can also allow people to maintain consistency in their own beliefs (e.g., that climate change is not a serious issue) by characterising evidence (e.g., scientific findings) as conspiracies themselves (Grimes, 2016; Lewandowsky, Oberauer, & Gignac, 2013).

Research supports this view that people turn to conspiracy theories for epistemic reasons. Firstly, research consistently links conspiracy belief with uncertainty. Van Prooijen and Jostmann (2013) hypothesised that uncertainty should increase the extent to which people would interpret signs suggesting that authorities are moral (or immoral) as evidence of conspiracy. In one of their experiments, the researchers manipulated uncertainty salience by asking people to think about the emotions they experience during times of uncertainty, or when they are watching

television (control). Following the manipulation, they were presented with information about the morality or immorality of oil companies, before completing conspiracy-related questions about oil companies' involvement in the Iraq war. Van Prooijen and Jostmann found that people were only influenced by the morality information (i.e., conspiracy belief was heightened) when they were uncertain. Uncertainty seemed to be a pre-requisite for judging the plausibility of conspiracy theories even when information about morality was also prominent.

Research also links conspiracy belief with a search for patterns and meaning. For example, a study by Whitson and Galinsky (2008) found that the extent to which people saw patterns in noise was associated with belief in conspiracy theories. This suggests that belief in conspiracy theories is stronger amongst people are looking for patterns. A recent set of studies by van Prooijen, Douglas and de Inocencio (in press) also showed that conspiracy belief is associated with pattern perception, but specifically, when patterns are illusory—that is there are no patterns and stimuli are completely random. In one of their studies, van Prooijen et al. asked participants to view sequences of random coin tosses (generated from a website called “random.org”), and to rate the extent to which the sequences were completely random, or completely determined. Participants were also asked to rate the extent to which they believed in well-known and fictitious conspiracy theories, as well as supernatural phenomena. Results revealed robust relationships between all variables, but most important for the current discussion that belief in both well-known and fictitious conspiracy theories were associated with illusory pattern perception.

Belief in conspiracy theories therefore appears to be a very basic cognitive response to the search for patterns where they do not, or are unlikely to, exist (but see Dieguez, Wagner-Egger, & Gauvrit, 2015 for evidence that this might not always occur). Other research shows

that conspiracy beliefs are stronger among people who seek other types of patterns in the environment, such as religious believers and believers in paranormal and supernatural phenomena (e.g., Bruder, Haffke, Neave, Nouripanah, & Imhoff, 2013; Darwin, Neave & Holmes, 2011; Drinkwater, Dagnall & Parker, 2012; Leiser, Duani & Wagner-Egger, 2017; Oliver & Wood, 2014). Research also suggests that people are more likely to adopt conspiracy theories for events that are especially important or large-scale. It is argued that the proportionality bias—that causes must be proportional to effects—means that small, mundane explanations for important events (e.g., that Princess Diana died because the driver of the car was drunk) are not as satisfying as larger and more elaborate explanations (e.g., that she was murdered by the British government; Leman & Cinnirella, 2007).

Beliefs in conspiracy theories have also been linked to the need for cognitive closure, which is the tendency to form quick judgements on any given topic (Kruglanski, 1990). Marchlewska, Cichočka and Kossowska (in press) asked participants to complete a scale measuring the need for cognitive closure, and then some text relating the European Union's plans to finance refugees' stay in Poland. For some participants, this text introduced idea of conspiracy by mentioning an alleged Internet conversation stating that the European Union's support for refugees in Poland was an attempt to gain control over Poland (vs. a control condition with irrelevant information). Participants were then asked to indicate their support for the conspiracy theory. Results revealed that need for cognitive closure was associated with belief in the conspiracy theory, but that it was stronger when the conspiracy explanation was made salient. That is, people high in need for cognitive closure were more likely to believe the straightforward conspiracy explanation when it was available to them. Another experiment showed that this effect was especially important when events lacked a clear, official explanation

(see also Leman and Cinnieralla, 2013 for evidence of the link between need for cognitive closure and belief in conspiracy theories.

Evidence suggests that people might also turn to conspiracy theories as a result of cognitive errors or biases. For example, conspiracy belief has been linked to the conjunction fallacy (Brotherton & French, 2015; Dagnall, Denovon, Drinkwater, Parker & Clough, 2017), which is an error of probabilistic reasoning in which people overestimate the likelihood of co-occurring events (Tversky & Kahneman, 1983). In two studies, Brotherton and French (2014) first examined people's tendency to commit conjunction errors. For example, in one scenario, participants were told that a group of students were visiting a beer garden after university and were asked to estimate the probability that (1) it is a warm summer's day, (2) that there are people sitting in the beer garden, and that (3) it is a warm summer's day and there are people sitting in the beer garden. A conjunction error occurs when participants rate the probability of (3) as being higher than one or both of (1) and (2). Brotherton and French found that the tendency to commit conjunction errors was significantly related to conspiracy belief. This occurred when the conjunctions were neutral, or had a conspiratorial flavor.

Other researchers have shown that projection of one's own personal beliefs onto others is associated with conspiracy belief. Douglas and Sutton (2011) found that people's tendency to believe in conspiracy theories is associated with the tendency to believe that—in the same situation—they would participate in the conspiracy themselves. That is, the belief that “they conspire” is in part the result of the belief that “I would conspire”. Further, Douglas, Sutton, Callan, Dawtry and Harvey (2016) found that hypersensitive agency detection—the tendency to attribute agency and intentionality where it does not (or is unlikely to) exist—was associated with conspiracy beliefs (see also Brotherton & French, 2015; van der Tempel & Alcock, 2015).

Finally, McHoskey (1995) found that conspiracy beliefs may be in part a product of *biased assimilation*—carefully and critically analysing information that disconfirms one’s views but uncritically accepting information that confirms them (see also Thorson, 2015).

Various cognitive limitations have also been associated with conspiracy belief. For example, Swami, Voracek, Stieger, Tran and Furnham (2014; see also Ståhl, & van Prooijen, 2018) found that lower levels of analytic thinking predicted conspiracy beliefs. In a further series of experiments, Swami et al. asked participants to complete a range of tasks designed to elicit analytic thinking (e.g., verbal fluency, cognitive disfluency) and found that engaging in these tasks reduced belief in conspiracy theories. Conspiracy believers also tend to score lower in rational thinking style (Mikušková, in press) and higher in intuitive thinking (Swami et al., 2014). Furthermore, people appear to look to conspiracy theories when they are bored (Brotheton & Eser, 2015), and when they have lower levels of intelligence (Stieger, Gumhalter, Tran, Voracek & Swami, 2013). Perhaps conspiracy theories are adopted when knowledge—but also the ability to acquire accurate knowledge—is lacking.

Other cognitive processes associated with belief in conspiracy theories involve a tendency to accept epistemically unjustified beliefs (Lobato, Mendoza, Sims & Chin, 2014), and a general tendency toward religious or quasi-religious thinking (Franks, Bangerter and Bauer 2013). Finally, conspiracy beliefs tend to be positively correlated with factors such as non- or sub-clinical delusional thinking (Dagnall et al., 2015) and schizotypy, which describes a range of personality characteristics and experiences from normal to psychotic (Barron, Morgan, Towell, Altemeyer & Swami, 2014; Darwin et al., 2011, Bruder et al., 2013; van der Tempel & Alcock, 2015; Swami, Pietschnig, Tran, Nader, Stiener & Voracek, 2013).

Overall, therefore, there is evidence that conspiracy theories appeal to individuals who seek accuracy and meaning (or both) but perhaps lack the cognitive tools or experience difficulties that prevent them from finding these via other means. Conspiracy theories therefore appeal to people who are looking for the truth but seem to lack the skills to look in the right places. At this point, many readers would quite naturally draw the conclusion that conspiracy believers must therefore be gullible. They are cognitively limited, uneducated, prone to cognitive errors and biases, and they do not think analytically. They make irrational choices when evaluating different pieces of information. They must therefore believe anything they hear without critical evaluation. However, this conclusion based solely on cognitive factors would be premature and too simplistic. There are other important factors that need to be considered as we explain in the remainder of this chapter.

Existential motives

In addition to their epistemic purposes, causal explanations for events help people to feel safe and secure and also to be able to control things that happen to them and to their social groups (Tetlock, 2002). Early perspectives on conspiracy belief suggested that people turn to conspiracy theories for compensatory satisfaction when they do not feel safe and do not feel that they have control. For example, conspiracy theories may promise to make people feel safer because dangerous and deceitful individuals are identified and the threat they pose is countered (Bost & Prunier, 2013). Also, people who feel that they lack control may feel better when they adopt conspiracy theories because such theories allow them to feel that they possess an alternative, and non-official account (Goertzel, 1994).

Research supports the idea that people turn to conspiracy theories in a bid to fulfill existential motives. For example, studies have shown that people are likely to turn to conspiracy

theories when they are anxious. Grzesiak-Feldman (2013) asked university students to complete a state-trait anxiety measure and found that both were associated with belief in conspiracy theories about Jewish people, Germans, and Arabs. In two further studies, Grzesiak-Feldman also showed that anxiety-inducing situations (i.e., waiting for exams) were associated with increased belief in conspiracy theories. People who feel powerless are also more likely to believe conspiracy theories (Abalakina-Paap, Stephan, Craig, & Gregory, 1999). People who have an insecure attachment style are also more likely to believe in conspiracy theories (Green & Douglas, 2018). Conspiracy belief is also strongly related to lack of sociopolitical control or lack of psychological empowerment (Bruder et al., 2013; see also Uscinski & Parent, 2014; van Prooijen and Acker 2015; Nyhan, 2017). Also, experiments have shown that conspiracy belief is greater when people feel unable to control outcomes, but that it is reduced when their sense of control is affirmed (van Prooijen & Acker, 2015).

Belief in conspiracy theories is also correlated with existential anxiety (Newheiser, Farias, & Tausch, 2011), and anomie—a feeling of personal unrest and lack of understanding of the social world (e.g., Abalakina-Paap et al., 1999; Bruder et al., 2013; Goertzel, 1994). Belief in conspiracy theories is also associated with a belief that the economy is getting worse (Parsons, Simmons, Shinhoster & Kilburn, 1999). People may therefore feel that conspiracy theories will help them come to terms with their particular problems, enabling them to regain some of the psychological goods that they have lost (Franks, Bangerter, Bauer, Hall, & Noort, 2017). Specifically, Franks et al. argue that conspiracy theories help people make sense of unsettling events and provide optimism that things will change. In a similar vein, other researchers have demonstrated that conspiracy theories might buffer people from threats to the social system in

which they live, such as a suffering economy, or negative social and political events (Jolley, Douglas & Sutton, 2018).

There is therefore a convincing amount of evidence that people turn to conspiracy theories in an attempt to satisfy existential motives. This, however, does not mean that they are gullible. Believing in conspiracy theories to fulfill existential motives does not mean that people will believe simply anything they hear. Instead, the conspiracy beliefs are determined by the nature of the existential needs. For example, if people are feeling unsettled about a particular issue, they might gravitate toward conspiracy theories to resolve the issue but they would not feel compelled to adopt conspiracy theories if they were feeling settled, or believe in conspiracy theories that are unrelated to that need. Using conspiracy theories to rationalize feelings of powerlessness is also motivated. People will not simply believe anything—they will believe what helps them come to terms with the psychological goods that they are missing.

Social motives

Causal explanations are also informed by a variety of social motivations, including the need to belong and to maintain a positive image of the self and the social groups that we belong to. Conspiracy theories may also be adopted in an effort to fulfill such social motives. For example, scholars have suggested that conspiracy theories may boost people's image of the self and the ingroup by allowing blame for negative outcomes to be attributed to others. Thus, conspiracy theories may help to uphold people's image of the self and their in-group as capable and honest but as harmed or impaired by powerful and immoral others.

Research to date supports this argument. For example, Cichocka, Marchlewska and Golec de Zavala (2016) found that conspiracy theories were particularly appealing to narcissists, who have an inflated yet insecure feeling of self worth. Other studies have shown links between

conspiracy beliefs and the social psychological need to feel unique to others (Imhoff & Lamberty, 2017; Lantian, Muller, Nurra & Douglas, 2017). For example, in one experiment, Lantian et al. manipulated the need for uniqueness by asking participants to complete a task in which they were asked to think and write about the importance of individuality (vs. conformity), which is designed to increase (vs. decrease) the need to feel unique. Results revealed that participants in the individuality condition were more likely to believe conspiracy theories about a fictitious event than those in the conformity condition. It is argued that conspiracy theories allow people to feel that they are in possession of rare, important information that other people do not have, making them feel special and thus boosting their self-esteem.

Conspiracy theories are also important to the need to feel good about our social groups. Researchers have further found that conspiracy theories—in addition to appealing to individual narcissists—are also particularly appealing to *collective narcissists* who believe in the in-group's greatness paired with a belief that other people do not appreciate it enough. That is, the more narcissistic people are about their groups, the more they are likely to believe that other groups are conspiring against them. Specifically, Golec de Zavala and Cichocka (2012) found that national collective narcissism in Poland predicted endorsement of conspiracy stereotypes of Jews. Also, Cichocka, Marchlewska, Golec de Zavala and Olechowski (2016) demonstrated that national collective narcissism in Poland was associated with the endorsement of conspiracy theories about Russian involvement in the Smolensk crash of 2010 in which the Polish president and several officials died. However, ordinary identification with the national group without narcissism predicted *lower* likelihood of endorsing these conspiracy theories. This suggests that conspiracy explanations of intergroup events derive from a need to validate the group image by disparaging outgroups.

Other social motives appear relevant to conspiracy theories, including the need to belong. Graeupner and Coman (2017) considered the relationship between social exclusion and belief in conspiracy theories. Participants in one study were asked to think about a social interaction and rate how socially excluded they felt after the event. They were then asked to rate their agreement with a set of well-known conspiracy theories. Results revealed a relationship between social exclusion and belief in conspiracy theories, and a second (experimental) study showed that social exclusion also influenced superstitious beliefs. Graeupner and Coman argued that people turn to these beliefs to try to make sense of their negative social experiences. Furthermore, members of groups who have objectively low (vs. high) status because of their ethnicity (Crocker, Luhtanen, Broadnax, & Blaine, 1999) or income (Uscinski & Parent, 2014) appear more likely to believe in conspiracy theories. For example, Crocker et al. (1999) demonstrated that Black Americans (compared to White Americans) were more likely to believe in conspiracy theories about the American government conspiring against Blacks. Feeling socially disadvantaged and disenfranchised therefore appears to be a significant determinant of whether or not conspiracy theories appeal to people.

Related to this point, research from political science suggests that people on the losing (vs. winning) side of political processes are also more likely to believe conspiracy theories. Specifically, Uscinski and Parent (2014) argue—based on analyses of archival data from over 100 years of newspaper letters and also representative surveys—that people use conspiracy theories when they are powerless to defend themselves against the powerful. In other words, conspiracy theories are for “losers”. Along this vein, conspiracy belief has also been linked to prejudice against powerful groups (Imhoff & Bruder, 2014) and groups that are viewed as enemies (Kofta & Sedek, 2005). Groups who feel that they have been victimised are also more

likely to endorse conspiracy theories about other more powerful groups (Bilewicz, Winiewski, Kofta, & Wójcik, 2013; Mashuri & Zaduqisti, 2014).

Given such experiences, it is not gullible for people to believe that dominant groups have been (and probably still are) conspiring against them. When people believe in conspiracy theories, they are often responding to real threats, inequalities and historical instances of threat and victimization. People therefore adopt beliefs that protect their own groups. To give another example, when left-wingers believe conspiracy theories that demonize right-wingers (and vice versa), they are endorsing beliefs that cohere with their political views, and indeed there is evidence that people do so at both ends of the political spectrum (Uscinski & Parent, 2014). If people were simply being gullible, they would believe in all conspiracy theories, but it is clear that they do not. Belief in conspiracy theories is motivated by people's group memberships and the beliefs that are associated with those group memberships.

In further support of this point, studies have shown that people are more likely to believe in conspiracies directed at their own group if they have personally experienced discrimination, such as being the victim of police harassment (Parsons et al., 1999), or race discrimination (Simmons & Parsons, 2005). Situational threats and crisis situations can also increase the likelihood of conspiracy beliefs (Kofta, Sędek, & Sławuta, 2011; Mashuri & Zaduqisti, 2014; van Prooijen & Douglas, 2017). It is therefore important to consider the political, social, and historical contexts that make conspiracy theories seem more believable to people than conventional explanations (see also Nattrass, 2013). People do not simply believe anything—they believe what they want to believe.

How well do conspiracy theories satisfy psychological motives?

Relatively little research has addressed this question to date. However, the existing research suggests that conspiracy theories may be more appealing to people than actually satisfying their psychological motives. Taking existential motives first, some research suggests that rather than reducing uncertainty, conspiracy theories might even increase it. Specifically, Jolley and Douglas (2014a) asked people to read conspiracy theories about governments in one study, and about climate change in another. In each case, participants were asked how uncertain they felt and their responses were compared with participants who had either been in a control condition with no information, or an anti-conspiracy condition with material refuting the conspiracy theories. In each case, conspiracy theories—rather than making people feel more certain—made people feel even more uncertain.

There also seems to be little evidence that conspiracy theories satisfy existential motives. On the contrary, experimental exposure to conspiracy theories appears to immediately suppress people's sense of autonomy and control (Jolley & Douglas, 2014a, 2014b). For example, in the study mentioned in the previous paragraph, the researchers also measured feelings of powerlessness. These feelings increased—rather than decreased—as a result of being exposed to conspiracy theories. These same studies have also shown that conspiracy theories make people less inclined to take actions that, in the long term, might boost their autonomy and control. Specifically, after exposure to conspiracy theories, people are less inclined to commit to their workplaces (Douglas & Leite, 2017) and to engage in mainstream political processes such as voting and party politics (Jolley & Douglas, 2014a). Exposure to conspiracy theories may undermine people's control and power in another, more subtle way. Douglas and Sutton (2008) showed that people were effectively persuaded by conspiracy theories about the death of

Princess Diana but were not aware that they had been persuaded. Instead, they falsely recalled that their previous beliefs were identical to their new beliefs. Being influenced without awareness is arguably not an empowering position.

Furthermore, although people are clearly drawn toward conspiracy theories in an attempt to satisfy their social motivations, it is not clear that this is a strategy that works. A typical feature of conspiracy theories is their negative, distrustful representation of others and outgroups. Thus, it is reasonable to suggest that they are not only an indication but also a cause of the feelings of alienation, disenfranchisement and anomie with which they are associated (e.g., Abalakina-Paap et al., 1999). Experiments have also shown that exposure to conspiracy theories decreases trust in governmental institutions, even if the conspiracy theories are completely unrelated to those institutions (Einstein & Glick, 2015). It also causes people to trust politicians and scientists less, and to disengage with politics and scientific findings (Jolley & Douglas, 2014a). So far, research therefore suggests that conspiracy theories may further frustrate rather than satisfy people's social motives.

Summary and future directions

This does not mean that conspiracy believers are gullible, however. It does mean that the psychological crutch that people are using may not support them in the way they might hope. Beliefs in conspiracy theories may be ultimately self-defeating, but not straightforwardly a reflection of gullibility. We expect that further research will be undertaken to test the framework of Douglas et al. (2017) and to examine when conspiracy theories might satisfy people's psychological motives and when they might not.

Indeed, there are grounds to expect future research to show that conspiracy theories fulfill the motives of some people but not others. The experimental research conducted thus far has

only sampled from populations such as undergraduate students and survey panelists that are not greatly disadvantaged or threatened. Furthermore, these populations tend to show quite low levels of conspiracy belief. Typically, on a seven-point scale, conspiracy belief is just above or below the midpoint of the scale (e.g., see Douglas & Sutton, 2011). These are people who therefore generally do not endorse conspiracy theories. For these people, conspiracy theories are likely to be experienced as bothersome or worrying, but not daily concerns that determine other activities in their lives.

These are not the people whom scholars have had in mind when they have argued that conspiracy theories may sometimes help people satisfy their needs and motives. Instead, they are typically referring to groups and individuals who are already estranged from society and for whom conspiracy theories may offer some compensation for lost psychological goods. These include disempowered groups who may use conspiracy theories to destabilise powerful groups and systems by formulating their own understanding of realities (Sapountzis & Condor, 2013) and by group cohesion and collective action (Adams, O'Brien, & Nelson, 2006). In these communities—and indeed in prominent online conspiracy communities such as the 9/11 Truth movement—conspiracy belief may offer an important source of belonging and shared reality.

Furthermore, it is clear that elites do conspire against public interests—that is, real conspiracies do happen. Conspiracy theories play an important role in making people aware of what has happened, and opening important information for discussion and debate. To be sure that conspiracy theories are harmful rather than helpful, further research needs to be conducted on people who have greater psychological motives to fulfill. That is, more detailed and longitudinal studies of disadvantaged populations are necessary.

Finally, some conspiracy theories may indeed reflect believers' gullibility. Specifically, one cannot equate conspiracy theories about the 9/11 attacks or the assassination of President John F. Kennedy with conspiracy theories about lizard aliens ruling the world, or those proposing that the earth is flat. There are clearly distinctions between conspiracy theories and the people who believe them might therefore also differ on important dimensions. Although there is evidence that people who believe in one conspiracy theory also tend to believe in others (e.g., Goertzel, 1994), studies have tested belief in well-known conspiracy theories rather than those that could be considered as more far-fetched. People who believe in the more far-fetched conspiracy theories may indeed show characteristics of gullibility. To date, there is no reliable typology of conspiracy theories but it clear that not all conspiracy theories are equal.

Closing remarks

We have overviewed the recent taxonomy of conspiracy belief proposed by Douglas et al. (2017) in which it is argued that people are attracted to conspiracy theories for epistemic, existential, and social reasons. Specifically, people believe conspiracy theories in an attempt to fulfill epistemic, existential, and social motives. In reviewing the evidence for this argument, we also argue that conspiracy theories cannot simply be viewed as something that only the most gullible people will believe. Instead, we argue that conspiracy theories may be better viewed as a psychological prop that people lean on to alleviate specific psychological frustrations. More research is needed to determine when this strategy that works and when it does not.

References

- Abalakina-Paap, M., Stephan, W. G., Craig, T., & Gregory, L. (1999). Beliefs in conspiracies. *Political Psychology, 20*, 637–647.
- Adams, G., O'Brien, L. T., & Nelson, J. C. (2006). Perceptions of racism in Hurricane Katrina: A liberation psychology analysis. *Analyses of Social Issues and Public Policy, 6*, 215–235.
- Barron, D., Morgan, K., Towell, T., Altemeyer, B., & Swami, V. (2014). Associations between schizotypy and belief in conspiracist ideation. *Personality and Individual Differences, 70*, 156-159.
- Bilewicz, M., Winiewski, M., Kofta, M., & Wójcik, A. (2013). Harmful ideas: The structure and consequences of anti-Semitic beliefs in Poland. *Political Psychology, 34*, 821–839.
- Bost, P. R., & Prunier, S. G. (2013). Rationality in conspiracy beliefs: The role of perceived motive. *Psychological Reports, 113*, 118–128.
- Brotherton, R., & Eser, S. (2015). Bored to fears: Boredom proneness, paranoia, and conspiracy theories. *Personality and Individual Differences, 80*, 1-5.
- Brotherton, R., & French, C. C. (2014). Belief in conspiracy theories and susceptibility to the conjunction fallacy. *Applied Cognitive Psychology, 28*, 238–248.
- Bruder, M., Haffke, P., Neave, N., Nouripanah, N., & Imhoff, R. (2013). Measuring individual differences in generic beliefs in conspiracy theories across cultures: Conspiracy Mentality Questionnaire. *Frontiers in Psychology, 4*, Article 225. doi:10.3389/fpsyg.2013.00225
- Cichocka, A., Marchlewska, M., & Golec de Zavala, A. (2016). Does self-love or self-hate predict conspiracy beliefs? Narcissism, self-esteem, and the endorsement of conspiracy theories. *Social Psychological & Personality Science, 7*, 157–166.

- Cichocka, A., Marchlewska, M., Golec de Zavala, A., & Olechowski, M. (2016). "They will not control us": In-group positivity and belief in intergroup conspiracies. *British Journal of Psychology*, *107*, 556–576.
- Crocker, J., Luhtanen, R., Broadnax, S., & Blaine, B. E. (1999). Belief in U.S. government conspiracies against Blacks among Black and White college students: Powerlessness or system blame? *Personality and Social Psychology Bulletin*, *25*, 941–953.
- Dagnall, N., Denovan, A., Drinkwater, K., Parker, A., & Clough, P. J. (2017). Urban legends and paranormal beliefs: The role of reality testing and Schizotypy. *Frontiers in Psychology*, *8*(942).
- Darwin, H., Neave, N., & Holmes, J. (2011). Belief in conspiracy theories. The role of paranormal belief, paranoid ideation and schizotypy. *Personality and Individual Differences*, *50*, 1289-1293.
- Dieguez, S., Wagner-Egger, P., & Gauvrit, N. (2015). Nothing happens by accident, or does it? A low prior for randomness does not explain belief in conspiracy theories. *Psychological Science*, *26*, 1762–1770.
- Douglas, K. M., & Sutton, R. M. (2008). The hidden impact of conspiracy theories: Perceived and actual impact of theories surrounding the death of Princess Diana. *Journal of Social Psychology*, *148*, 210–221.
- Douglas, K.M., & Sutton, R.M. (2011). Does it take one to know one? Belief in conspiracy theories is influenced by personal willingness to conspire. *British Journal of Social Psychology*, *50*, 544-552.

- Douglas, K. M., Sutton, R. M., Callan, M. J., Dawtry, R. J., & Harvey, A. J. (2016). Someone is pulling the strings: Hypersensitive agency detection and belief in conspiracy theories. *Thinking & Reasoning, 22*, 57–77.
- Douglas, K. M., Sutton, R. M., & Cichocka, A. (2017). The psychology of conspiracy theories. *Current Directions in Psychological Science, 26*, 538-542.
- Douglas, K. M., & Leite, A. C. (2017). Suspicion in the workplace: Organizational conspiracy theories and work-related outcomes. *British Journal of Psychology, 108*, 486–506.
- Drinkwater, K., Dagnall, N., & Parker, A. (2012). Reality testing, conspiracy theories, and paranormal beliefs. *The Journal of Parapsychology, 76*, 57-77.
- Dugas, M. J., Gosselin, P., & Ladouceur, R. (2001). Intolerance of uncertainty and worry: Investigating narrow specificity in a non-clinical sample. *Cognitive Therapy and Research, 25*, 551-558.
- Einstein, K. L., & Glick, D. M. (2015). Do I think BLS data are BS? The consequences of conspiracy theories. *Political Behavior, 37*, 679–701.
- Franks, B., Bangerter, A., Bauer, M. W., Hall, M., & Noort, M. C. (2017). *Beyond “monologicality”? Exploring conspiracist worldviews*. *Frontiers in Psychology, 8* (861).
- Goertzel, T. (1994). Belief in conspiracy theories. *Political Psychology, 15*, 731–742.
- Golec de Zavala, A., & Cichocka, A. (2012). Collective narcissism and anti-Semitism in Poland. *Group Processes and Intergroup Relations, 15*, 213-229.
- Graeupner, D., & Coman, A. (2017). The dark side of meaning-making: How social exclusion leads to superstitious thinking. *Journal of Experimental Social Psychology, 69*, 218–222.
- Green, R., & Douglas, K. M. (2018). Anxious attachment and belief in conspiracy theories. *Personality and Individual Differences, 125*, 30-37.

- Grimes, D. R. (2016). On the viability of conspiratorial beliefs. *PLOS ONE*, *11*(3), Article e0151003. doi:10.1371/journal.pone.0147905
- Grzesiak-Feldman, M. (2013). The effect of high-anxiety situations on conspiracy thinking. *Current Psychology*, *32*, 100–118.
- Heider, F. (1958). *The psychology of interpersonal relations*. New York, NY: John Wiley.
- Imhoff, R., & Bruder, M. (2014). Speaking (un-)truth to power: Conspiracy mentality as a generalised political attitude. *European Journal of Personality*, *28*, 25–43.
- Imhoff, R., & Lamberty, P. K., (2017). Too special to be duped: Need for uniqueness motivates conspiracy beliefs. *European Journal of Social Psychology*, *47*, 724-734.
- Jensen, T. (2013). *Democrats and Republicans differ on conspiracy theory beliefs*. Retrieved from <http://www.publicpolicypolling.com/polls/democrats-and-republicans-differ-on-conspiracy-theory-beliefs/>
- Jolley, D., & Douglas, K. M. (2014a). The effects of anti-vaccine conspiracy theories on vaccination intentions. *PLOS ONE*, *9*(2), Article e89177. doi:10.1371/journal.pone.0089177
- Jolley, D., & Douglas, K. M. (2014b). The social consequences of conspiracism: Exposure to conspiracy theories decreases the intention to engage in politics and to reduce one's carbon footprint. *British Journal of Psychology*, *105*, 35–56.
- Jolley, D., Douglas, K. M., & Sutton, R. M. (2017). Blaming a few bad apples to save a threatened barrel: The system-justifying function of conspiracy theories. *Political Psychology*, *39*. 465-478.
- Kofta, M., & Sedek, G. (2005). Conspiracy stereotypes of Jews during systemic transformation in Poland. *International Journal of Sociology*, *35*, 40–64.

- Kofta, M., Sedek, G., & Slawuta, P. N. (2011, July). *Beliefs in Jewish conspiracy: The role of situation threats to ingroup' power and positive image*. Paper presented at the 34th International Society of Political Psychology (ISSP) conference, Istanbul, Turkey.
- Kruglanski, A. W. (1990). Motivations for judging and knowing: Implications for causal attribution. In E. T. Higgins, & R. M. Sorrentino (Eds.), *The handbook of motivation and cognition: Foundation of social behavior* Vol. 2 (pp. 333–368). New York: Guilford.
- Lantian, A., Muller, D., Nurra, C., & Douglas, K. M. (2017). “I know things they don’t know!” The role of need for uniqueness in belief in conspiracy theories. *Social Psychology, 48*, 160-173.
- Leiser, D., Duani, N., & Wagner-Egger, P. (2017). The conspiratorial style in lay economic thinking. *PLOS ONE, 12*(3), e0171238. doi: 10.1371/journal.pone.0171238
- Leman, P. J., & Cinnirella, M. (2007). A major event has a major cause: Evidence for the role of heuristics in reasoning about conspiracy theories. *Social Psychological Review, 9*, 18-28.
- Leman, P. J., & Cinnirella, M. (2013). Beliefs in conspiracy theories and the need for cognitive closure. *Frontiers in Psychology, 4*, Article 378. doi:10.3389/fpsyg.2013.00378
- Lewandowsky, S., Cook, J., Oberauer, K., Brophy, S., Lloyd, E. A., & Marriott, M. (2015). Recurrent fury: Conspiratorial discourse in the blogosphere triggered by research on the role of conspiracist ideation in climate denial. *Journal of Social and Political Psychology, 3*, 142–178.
- Lewandowsky, S., Oberauer, K., & Gignac, G. E. (2013). NASA faked the moon landing—Therefore, (climate) science is a hoax: An anatomy of the motivated rejection of science. *Psychological Science, 24*, 622–633.

- Lobato, E., Mendoza, J., Sims, V., & Chin, M. (2014). Examining the relationship between conspiracy theories, paranormal beliefs, and pseudoscience acceptance among a university population. *Applied Cognitive Psychology, 28*, 617-625.
- Marchlewska, M., Cichocka, A., & Kossowska, M. (2017). Addicted to answers: Need for cognitive closure and the endorsement of conspiracy beliefs. *European Journal of Social Psychology*. Advance online publication. doi:10.1002/ejsp.2308
- Mashuri, A., & Zaduqisti, E. (2014). We believe in your conspiracy if we distrust you: The role of intergroup distrust in structuring the effect of Islamic identification, competitive victimhood, and group incompatibility on belief in a conspiracy theory. *Journal of Tropical Psychology, 4*, 1-14.
- McHoskey, J. W. (1995). Case closed? On the John F. Kennedy assassination: Biased assimilation of evidence and attitude polarization. *Basic and Applied Social Psychology, 17*, 395-409
- Moore, P. (2016). *Little British believe in outlandish conspiracy theories*. Retrieved from <https://yougov.co.uk/news/2016/05/27/conspiracies/>
- Nattrass, N. (2013). *The AIDS conspiracy: Science fights back*. New York, NY: Columbia University Press.
- Newheiser, A., Farias, M. & Tausch, N. (2011). The functional nature of conspiracy beliefs: Examining the underpinnings of belief in the Da Vinci Code conspiracy. *Personality and Individual Differences, 51*, 1007-1011.
- Nyhan, B. (2017). Why more Democrats are now embracing conspiracy theories. Retrieved from: <https://www.nytimes.com/2017/02/15/upshot/why-more-democrats-are-now-embracing-conspiracy-theories.html>

- Oliver, J. E. & Wood, T. J. (2014a). Conspiracy theories and the paranoid style(s) of mass opinion. *American Journal of Political Science*, 58,952-966. doi: 10.1111/ajps.12084
- Parsons, S., Simmons, W., Shinhoster, F. & Kilburn, J. (1999). A test of the grapevine: An empirical examination of the conspiracy theories among African Americans. *Sociological Spectrum*, 19, 201-222.
- Sapountzis, A., & Condor, S. (2013). Conspiracy accounts as intergroup theories: Challenging dominant understandings of social power and political legitimacy. *Political Psychology*, 43, 731–752.
- Simmons, W. P. & Parsons, S. (2005). Beliefs in conspiracy theories among African Americans: A comparison of elites and masses. *Social Science Quarterly*, 86, 582-598.
- Ståhl, T. & Van Prooijen, J.-W. (2018). Epistemic rationality: Skepticism toward unfounded beliefs requires sufficient cognitive ability and motivation to be rational. *Personality and Individual Differences*, 122, 155-163.
- Stieger, S., Gumhalter, N., Tran, U. S., Voracek, M & Swami, V. (2013). Girl in the cellar: A repeated cross-sectional investigation of belief in conspiracy theories about the kidnapping of Natascha Kampusch. *Frontiers in Psychology*, 4(297).
- Swami, V., Pietschnig, J., Tran, U. S., Nader, I. W., Stieger, S. & Voracek, M. (2013). Lunar lies: The impact of informational framing and individual differences in shaping conspiracist beliefs about the moon landings. *Applied Cognitive Psychology*, 27, 71-80.
- Swami, V., Voracek, M., Stieger, S., Tran, U. S., & Furnham, A. (2014). Analytic thinking reduces belief in conspiracy theories. *Cognition*, 133, 572–585.
- Swift, A. (2013). *Majority in U.S. still believe JFK killed in a conspiracy*. Retrieved from <http://www.gallup.com/poll/165893/majority-believe-jfk-killed-conspiracy.aspx>

- Tetlock, P. E. (2002). Social-functionalist frameworks for judgment and choice: The intuitive politician, theologian, and prosecutor. *Psychological Review*, *109*, 451–472.
- Thorson, E. (2015). Belief echoes: The Persistent effects of misinformation and corrections. *Political Communication*, *33*, 1-21.
- Tversky, A., & Kahneman, D. (1983). Extensional vs. intuitive reasoning: The conjunction fallacy in probability judgment. *Psychological Review*, *90*, 293–315.
- Uscinski, J. E., & Parent, J. M. (2014). *American conspiracy theories*. New York, NY: Oxford University Press.
- van der Tempel, J., & Alcock, J. E. (2015). Relationships between conspiracy mentality, hyperactive agency detection, and Schizotypy: Supernatural forces at work? *Personality and Individual Differences*, *82*, 136-141.
- van Prooijen, J.-W., & Acker, M. (2015). The influence of control on belief in conspiracy theories: Conceptual and applied extensions. *Applied Cognitive Psychology*, *29*, 753–761.
- van Prooijen, J.-W., & Douglas, K. M. (2017). Conspiracy theories as part of history: The role of societal crisis situations. *Memory Studies*, *10*, 323-333.
- van Prooijen, J.-W., Douglas, K., & De Inocencio, C. (in press). Connecting the dots: Illusory pattern perception predicts belief in conspiracies and the supernatural. *European Journal of Social Psychology*.
- van Prooijen, J.-W., & Jostmann, N. B. (2013). Belief in conspiracy theories: The influence of uncertainty and perceived morality. *European Journal of Social Psychology*, *43*, 109–115.
- Whitson, J. A., & Galinsky, A. D. (2008). Lacking control increases illusory pattern perception. *Science*, *322*, 115–117.