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Review

Misplaced certainty in the context of conspiracy theories

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We examine conspiracy beliefs in the context of misplaced certainty—certainty that is unsubstantiated by one's own or others' skepticism. A conspiracy theory held with misplaced certainty may entail, for instance, "knowing" or feeling certain that secret actors are plotting against society yet acknowledging that this claim lacks evidence or is opposed by most other people. Recent work on misplaced certainty suggests that misplaced certainty predicts and results in antisocial outcomes, including fanatical behavior in terms of aggression, determined ignorance, and adherence to extreme groups. Introducing the concept of misplaced certainty to theory and research on conspiracy theories may help identify when and why conspiracy theories lead to deleterious behavioral outcomes.

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Conspiracy theories

"Trump won, I know it, you know it." (Terry Sylvester/Reuters Picture from a banner in a pro-Trump demonstration).

In a 2021 op-ed, Thomas B. Edsall [1] from the New York Times asked: Who are the millions of Americans who believe that Donald Trump won the 2020 election? Mostly we hear demographic answers: On average they

are white, Republican, and less educated. Beyond demographics, however, people who supported the claim that Trump won the 2020 election also embraced other unsubstantiated claims, such as the mass migration of non-White individuals to the U.S., that COVID-19 vaccines are dangerous, and the existence of QAnon. Such lay theories can be subsumed under the term conspiracy theories, as they unite several features, particularly the existence of a secret powerful group or plot that endangers the well-being of the majority and the foundations of society [2–4]. While most conspiracy theories pertain to specific content (e.g., Trump won the 2020 election), adhering to one such theory is an excellent predictor of adhering to other such theories. Thus, researchers speak of conspiracy mentality as an individual difference variable—a variable that can span across individuals of varying backgrounds and political orientations [3,5].

Past research and a research gap

Research has identified demographic (e.g., education [6]), cognitive (e.g., social cognitive processes [7]), and motivational factors (e.g., existential needs, belonging needs [8–10]) underlying people's adherence to conspiracy beliefs and conspiracy mentalities. The role of epistemic motives has also been discussed [11]. For instance, motives to reduce uncertainty and find meaning in life are associated with greater conspiratorial thinking. These epistemic predictors apply to conspiracy theories that are false (Lady D was murdered by her husband) but also to those that are true (hiding the effects of climate change for corporate profit).

There is less literature, however, on the role of epistemic predictors of the cognitive, motivational, and behavioral *consequences* of holding conspiracy theories and a conspiracy mentality. Under which circumstances does adhering to conspiracy theories promote passivity and normative behavior versus active engagement and non-normative—potentially harmful—behavior [12**]? Why do some individuals keep their conspiracy theories to themselves, while others arm themselves and spring into action? More technically, which variables moderate the link between conspiracy theories and active engagement (vs. staying passive) in the service of these theories?

We argue that an epistemic structure, *misplaced certainty*—a subjective sense of certainty about something that one perceives as doubted or opposed, either by oneself or by others [13–15], might help explain when and why conspiracy theories lead to antisocial or fanatical behavior (Figure 1A). We propose that conspiracy theories held with misplaced certainty (e.g., “I am certain about X, despite that information and others oppose this claim”) are likely to lead to antisocial and fanatical behavior, such as aggression, determined ignorance, and joining extreme groups (Figure 1B). On the contrary, when people hold conspiracy beliefs with some doubt or perceive few challenges against their conspiratorial claims, such antisocial responses should be less likely. In short, misplaced certainty may be a key ingredient in people *acting* on their conspiracy theories.

Misplaced certainty

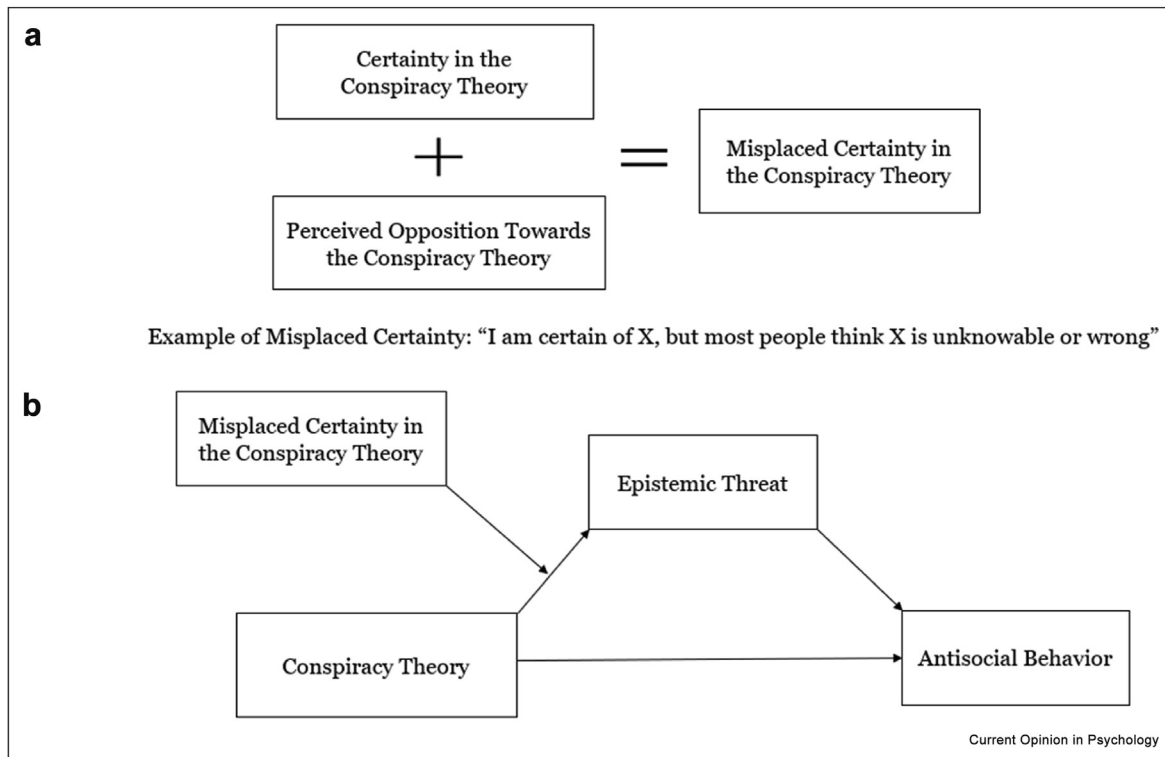
Misplaced certainty in international relations

The term misplaced certainty originates from research in international relations. Mitzen and Schweller [16] argue that, contrary to common assumptions, international conflicts and wars are unlikely to be incited by uncertainty. Instead, they claim that *misplaced certainty*,

unwarranted certainty that persists in the face of disconfirming evidence, is the antecedent of much international conflict. Two potential pathways are proposed. First, nation-states or groups may feel certain or “know” that other powerful states will start a war, leading to unnecessary and provocative defensive measures. Second, states may feel certain or “know” that other powerful states are inherently friendly, preventing them from preparing against a possible offense. Thus, to establish peace, the authors propose to go beyond certainty. States should prudently and continuously attend to changing information when determining appropriate defensive measures.

Applying misplaced certainty to recent conflicts, consider Wilhelmsen’s and Hjermmann’s [17*] discussion of Russian official discourse on the intentions of NATO in Europe, post-Crimea (2014). Wilhelmsen and Hjermmann argue that Russia’s discourse had changed from uncertainty (and prudence) to misplaced certainty about NATO’s hostile intentions. This change in patterns of official speech towards misplaced certainty may have been, in hindsight, a foreshadowing of the Russian war against Ukraine.

Figure 1



Conceptual diagrams of the proposed construct and model. **a**) Conspiracy theories in the framework of misplaced certainty. Holding a conspiracy theory with misplaced certainty entails certainty in the conspiracy theory while also perceiving opposition against the conspiracy theory (either due to opposing evidence or others’ skepticism). **b**) The outlined moderation-process model. Conspiracy theories held with misplaced certainty should be more likely to induce epistemic threat (e.g., “people are threatening my held ‘knowledge’”), in turn activating threat-based antisocial behaviors (e.g., aggression).

Misplaced certainty in psychology

Misplaced certainty has only recently been discussed in psychology, though related topics have been examined, such as overclaiming [18], outcome certainty [19], identity certainty [20,21], and attitude certainty [22,23]. Work on misplaced certainty—as defined here—has predominantly focused on the concepts of paradoxical knowing, discordant knowing, and future certainty [13–15]. This work reveals that people at times take an epistemic shortcut towards certainty—they feel certain about something even though they acknowledge that what they are certain about is inherently uncertain, unknowable, or opposed by most others. For example, certainty about the future of uncertain societal events (e.g., “I am certain COVID-19 will disappear soon [15]) falls under misplaced certainty. Other examples include certainty about personal futures, “I know my romantic interest will eventually fall in love with me,” and certainty about the intentions or thoughts of others, “I know that my boss is out to get me even though everyone else says she’s treating me fairly.”

Misplaced certainty differs from well-founded epistemic structures, for instance, *well-placed certainty* or “concordant knowing”—certainty about something that can be known (e.g., “I know that my clock shows 3 pm”). And it differs from *well-placed uncertainty* or doubtful beliefs—being rightfully uncertain about something that cannot be known (e.g., “I do not know who the next president of the U.S. will be”). Both well-placed certainty and well-placed uncertainty are concordant in their epistemic structure—they align with relevant information or majority beliefs. Theoretically and empirically, then, these constructs differ from misplaced certainty, which has a discordant epistemic structure.

Finally, consider the misplaced aspect of misplaced certainty. Certainty can be misplaced in terms of what oneself perceives as uncertain or unknowable or in terms of what others perceive as uncertain or unknowable [13,14**]. In the first case, one holds a paradoxical type of certainty (e.g., “I am certain that the war in Ukraine will stop soon, though I realize I cannot technically know this”). In the second case, one holds a discordant type of certainty (e.g., “I am certain that the war in Ukraine will stop soon, though most people claim that this is unknowable or inaccurate”). Misplaced certainty in psychology, then, is a subjective sense of certainty about something that one understands as being doubted or opposed, either by oneself (paradoxical knowing) or by others (discordant knowing) [15**].

Misplaced certainty appears to be surprisingly prevalent [13]. Close to 100% of participants in studies conducted by Gollwitzer and Oettingen (2019), when prompted, came up with a personal experience of misplaced certainty of either negative, neutral, or positive valence, and pertaining to widely different life domains (e.g., “I

know there is nothing wrong with the health of my daughter and I am prolonging the tests” or “I know we are not alone in the Universe”). Given its prevalence and breadth, misplaced certainty may play a significant role in people’s cognition and behavior.

Misplaced certainty: functionality and costs

But why do people hold misplaced certainty? Misplaced certainty may qualify as a tempting shortcut to obtain certainty in an uncertain world [24,25]. Indeed, research indicates that misplaced certainty originates from participants’ strong wants and desires, for example, wanting to attain specific life goals. In several studies, the more people wanted to attain specific life goals (e.g., a promotion, winning a competition), the more certain they were that they would achieve these goals in the future despite opposing evidence [13]. This finding suggests that misplaced certainty provides people with immediate gratification [26]. It delivers artificial security and reward in the present.

Taking shortcuts in life, however, often comes at a price. Indeed, holding misplaced certainty has been linked to harmful behaviors in the form of aggression (fight), determined ignorance (flight), and a willingness to join like-minded extreme groups (befriend) [13]. These three features have been argued to constitute fanaticism as defined by “a willingness to destroy those who threaten the fanatically held beliefs” [27, p. 37], by the experience of “true believers” [28], and by taking part in extreme mass movements [29]. Recent experimental research backs up these correlational findings. Having participants adopt misplaced certainty in the form of discordant knowing about a specific claim (e.g., “I am certain about X, but most other people think X is unknown or wrong”), causally promoted fanaticism in terms of the noted antisocial behaviors (e.g., aggression [14**]). And these effects extended to real-world contexts, such as endorsing violence in support of pro- or anti-abortion beliefs. Moreover, misplaced certainty was more readily observed in anti-vaccine fanatics (vs. non-fanatics) and in active members of a fanatical religious group (Jehovah’s Witnesses).

But what explains these links between misplaced certainty and antisocial, fanatical behaviors? Certainty in the face of opposition may lead people to experience epistemic threat, in turn heightening threat-responses aligning with fanaticism (e.g., fight, flight). Indeed, past research has found that inducing misplaced certainty leads people to feel epistemically threatened by the outside world (e.g., “I feel like people are out to get me”), which in turn activated fanatical behaviors (e.g., aggression, determined ignorance) [14]. Moreover, directly intervening on such epistemic threat responses reduced the effects of misplaced certainty on people’s fanaticism, indicating that intervening on epistemic threat may be one way to prevent fanaticism.

Aside from fanaticism, misplaced certainty has also been linked to poor information search [15]. For example, misplaced certainty about positive as well as negative COVID-related futures (e.g., the pandemic will end soon; the pandemic will never end) predicted poor information search in terms of ignorance of medical experts, lower objective knowledgeability about COVID-19, and greater antisocial health behaviors (e.g., failing to keep social distance). Similarly, misplaced certainty that one's preferred candidate would win the 2020 US presidential election predicted poor information search and antisocial behaviors in terms of claiming that the election was rigged, endorsing violence if one's candidate lost, and, among Trump supporters, identifying with Capitol insurrectionists. In sum, misplaced certainty not only promotes fanatical behaviors, but also intellectual blindness and antisocial behaviors more generally.

Conspiracy theories and misplaced certainty

As noted earlier, conspiracy theories may be held with (or without) misplaced certainty. For instance, the conspiracy theories that COVID-19 was purposely spread or that vaccines cause autism can be held with certainty (vs. with doubts) and can be perceived as opposed (vs. supported). Considering the degree of certainty and the degree of perceived opposition in individuals' conspiracy theories should shed light on when and why conspiracy theories lead to deleterious outcomes (see also [30]). For example, consider the outcomes of misplaced certainty—fanaticism, intellectual blindness, and antisocial behaviors. Based on these outcomes, conspiracy theories held with misplaced certainty should lead individuals to act in an intellectually blind and fanatical manner, such as engaging in violence, determined ignorance, and joining extreme groups in the service of these conspiracy theories. On the other hand, conspiracy theories held with some doubt or perceived by the individual as “well-placed certainty” (e.g., affirmed by most others) should result in fewer antisocial behaviors.

But why would conspiracy theories held with misplaced certainty translate into antisocial, non-normative behavior? Past work on misplaced certainty and fanaticism may provide some insights. As noted earlier, misplaced certainty, as it entails a conflict between one's certainty and information-based or social opposition, heightens fanaticism by inducing epistemic threat (“I feel like my ‘knowledge’ is being threatened”) [14]. Therefore, conspiracy theories held with misplaced certainty should induce epistemic threat in terms of the conspiracy theory (e.g., “I feel like people are threatening my held conspiracy theory”), in turn activating threat-based fanatical responding (e.g., fight) [14] (Figure 1B). Importantly, intervening on said feelings of

threat (and other potential mechanisms, such as frustration, isolation, and loss aversion), while not necessarily changing individuals' conspiracy theories or degree of misplaced certainty, should attenuate potential anti-social responding in the service of these conspiracy theories.

Many questions remain. Would the proposed effects of misplaced certainty remain if certainty is not acquired by taking a short-cut to “knowledge” but instead through extensive and effortful research? Does holding a conspiracy theory with misplaced certainty, depending on the individual (e.g., a sworn pacifist), the content of the conspiracy theory (e.g., political or not), or the context one is in (e.g., a cooperative versus competitive environment) activate some types of antisocial responding (e.g., joining extremists) but not others (e.g., aggression)? Finally, how do different forms of opposition influence the proposed effects? Does opposition against one's conspiracy theory from a single information source, a close other, or a high-status person lead to varying levels of antisocial responding? What if opposition comes from a fairly passive majority versus a few highly skeptical individuals? Future work should differentiate these potential caveats and nuances of the proposed model.

Going back to our initial quote, “Trump won, I know it, you know it.” This quote exemplifies a conspiracy theory held with full certainty (I know it). Assuming that the individual professing this quote also perceives opposition against their claim (i.e., their certainty is misplaced), our model would predict that this person is more likely to engage in antisocial behavior in the service of the conspiracy theory. Indeed, the speaker appears to exhibit fanatical responding in terms of persuading others into like-mindedness (you know it).

Future research should investigate whether conspiracy theories held with misplaced certainty result in more antisocial responding than those held with some doubt or those perceived as unchallenged. In doing so, such research would integrate the literature on conspiracy theories and misplaced certainty, and uncover new ways to protect people from the potentially harmful outcomes of holding conspiracy theories.

Conflict of interest

Nothing declared.

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