

Stanovich, K. E., & Toplak, M. E. (in press). Reconceptualizing the rationality of conspiratorial thinking. In J. Forgas (Ed.), *The Psychology of False Belief*. New York: Routledge.

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RECONCEPTUALIZING THE RATIONALITY OF CONSPIRATORIAL THINKING

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Abstract

In our ongoing research, we have combined the perspectives of psychology and political science to study partisan conspiracy beliefs and to examine the predictors of belief in both true and false nonpartisan conspiracies. From political science we explored the recently investigated variable of anti-establishment attitudes as well as two political attitudes unexplored in research on conspiratorial thinking: utopianism and government credulity. From psychology, we examined variables that have been consistent predictors in previous research on conspiracy belief: actively open-minded thinking, paranormal beliefs, and the Dark Triad. We also included a new scale, drawn from previous work on conspiratorial mentality, that was designed to measure the broad-based conspiratorial thinking trait that we posit underlies most specific conspiracy beliefs: the Hidden Causal Forces Scale. We find that the resulting path model that best explains the observed correlations depends on whether the conspiracy is partisan or nonpartisan and, in the case of nonpartisan conspiracies, whether the model seeks to explain false conspiracy beliefs, true conspiracy beliefs, or the ability to discriminate between true and false conspiracies. We argue that psychological research has been too focused on experimenter-selected obviously false conspiracies. Instead, the discipline should focus more attention on the thinking disposition common to many different types of conspiracy beliefs, including true conspiracy beliefs: the suspicion that there are hidden causal forces behind events. Finally, we argue that definitions of conspiracy beliefs should be broad enough to encompass the fact that in some cases such suspicions are warranted.

Interest in the psychological characteristics of people who engage in conspiratorial thinking is often fueled by the perception that belief in conspiracies is highly irrational and that it is a prime example of “false beliefs”. Indeed, the earliest scales measuring individual differences in conspiracy belief were constructed under the assumption that it was clearly and obviously irrational. That was certainly true from 2008 to 2014, when we constructed the conspiracy belief subtest of our Comprehensive Assessment of Rational Thinking (CART; Stanovich, West, & Toplak, 2016).

Important work was accomplished using this “conspiracy belief as mental contamination” framework (in our own lab, we found that actively open-minded thinking [AOT] was an important negative predictor of belief in obviously false conspiracies). Nevertheless, since publishing the CART, we have come to think that the framework we used was not the best approach for studying conspiratorial thinking. Conspiratorial thinking *in general* is not obviously irrational, and minimizing it should not be the operational definition of higher rationality, as was the case in our early work. In the years since publishing the CART, we have come to realize how we had misconceptualized the nature of conspiracy belief. Describing how our thinking on this matter evolved may well be of use to other investigators.

The “I-Know-It-When-I-See-It” Approach to Studying Conspiracy Belief

Two main methods have been used to measure conspiracy beliefs (Imhoff, Bertlich, & Frenken, 2022; Swami et al., 2017; see also Wood, 2017, Douglas et al. and van Prooijen, this volume). One is to measure conspiracy belief in generic terms without mentioning a specific conspiracy, as is done in the much-used Conspiracy Mentality Questionnaire (CMQ; Bruder et al., 2013); American Conspiracy Thinking Scale (ACTS; Uscinski and Parent, 2014; Uscinski et al., 2022); and Generic Conspiracist Beliefs scale (GCB; Brotherton et al., 2013). The other method is to measure belief in a sample of conspiracies known to be false and aggregate the responses across numerous such conspiracies (Swami et al., 2017). The CART employs the latter method.

These two different methods (generic conspiracy beliefs versus specific false conspiracy beliefs) operationalize conspiratorial thinking differently. **The first defines a general** thinking disposition as one that is not necessarily tied to false beliefs and one that is not necessarily irrational. The second operationalizes a concept that is tied to false beliefs that are likely to be irrational. The two different concepts that are operationalized by these different methods seem to follow from two different ways that conspiracy belief has been defined in the literature. The first type of definition—more consistent with generic measures of conspiracy belief—is more neutral (e.g., “a set of beliefs that are used to explain how a group of individuals is covertly seeking

AU: Please clarify whether the edited sentence “The first defines a general...” the intended meaning or amend it if necessary.

to influence or cause certain events,” p. 168, Leman & Cinnirella 2013) in that it does not load the definition of conspiracy belief with extraneous components that tie the concept to irrational thinking. It allows that some conspiracy beliefs may be justified and that some nonzero degree of conspiratorial thinking may well be adaptive.

In contrast, the second type of operationalization (aggregating several specific beliefs in dubious conspiracies known to be false) leads inevitably to definitions of conspiracy belief that are narrow because they are designed to specifically pick out the features of conspiracy beliefs that are unjustified. These are the definitions that append many additional features to the basic notion of undetected actors: that the actors be powerful; that the belief be epistemically risky; that the conspiracy belief contradicts received views of events; that the concealment be conscious, etc.

We stumbled upon this second approach when introducing ourselves to the conspiracy literature during the period (2008–2014) when we were constructing our CART subtest. This was the period in which the field was dominated by what some have pointed out was an “I-know-it-when-I-see-it” attitude when it came to defining the phenomenon of interest (Bost, 2019; Dentith, 2024; Hagen, 2018; Uscinski & Enders, 2023). During this period, researchers tended to assemble their scales by presenting subjects with examples of some of the most outlandish conspiracy beliefs they could think of (e.g., “the Apollo moon landings were faked”) because it was just assumed from the outset that conspiratorial thinking necessarily reflected irrational thinking.

We also did not realize, during the period of constructing our scale and immediately afterward, that there was a parallel literature on conspiracies in philosophy and that we were inadvertently taking a stance on controversies in that literature. For example, there is a large literature in philosophy on the particularist versus generalist stance toward posited conspiracies (Bost, 2019; Buenting & Taylor, 2010; Dentith, 2018, 2019, 2023)—the particularists asserting that conspiracy explanations must each be evaluated on their own merits and the generalists asserting that conspiracy explanations can be evaluated as a *class*. In assuming that the theories and findings that were derived from the study of specific *false* conspiracy beliefs generalized to *all* conspiracy beliefs, psychologists were implicitly siding with a kind of *psychological* generalism.¹ This psychological generalism has many negative consequences, such as fostering the tendency to wrongly apply psychological models of old, long-standing conspiracy beliefs that have been proven false, to discussions of new, *currently* contentious conspiratorial beliefs.

Getting Past the “I-Know-It-When-I-See-It” Approach

We have now moved past most of these assumptions that were implicit in our earlier work. For example, in the CART, the Conspiracy Beliefs subtest

was actually part of the test and scored as such, but we now believe it would have been better treated as a cognitive style measure (like the AOT). Also, sampling of types of conspiracies is not a large issue if generalism holds, but it is an essential factor to differentiate and report if particularism holds, as we now believe. We will report evidence on the importance of differentiating types of conspiracy beliefs. We also have abandoned the feature-laden definitions of conspiracies (that the actors be powerful; that the belief be epistemically risky; etc.) for a broad, inclusive, minimalist definition: A belief that at least two agents have coordinated or colluded, undetected by the public, toward a goal of significant public interest. Conspiratorial thinking becomes most disposition-like when derived from minimalist definitions of what a conspiracy belief is. Using such definitions prevents researchers from pre-determining the important correlates in advance and it does not suggest the default assumption that avoiding conspiracy belief entirely is the maximally rational response. Previous definitions were too content-laden and thus burdened the concept with too many prejudged assumptions. Similar concerns may also be raised about paranormal beliefs (see French, this volume).

We have come to eschew the term “conspiracy theory” in our work because it has become irredeemably contaminated by trends in popular usage—which now point to the term as meaning a conspiracy belief that is both false and irrational. Psychological researchers are increasingly recognizing that: “in recent years, the term ‘conspiracy theory’ has taken on the negative connotation of a false narrative that makes unnecessary assumptions” (p. 18. Bensley et al., 2020; see Duetz, 2022; Keeley, 2023). The term “conspiracy theory” has become a popular epithet in political debates, where it is used as a rhetorical weapon to discredit ideas without having to make actual arguments against them (Bratich, 2008; Coady, 2023; Dentith, 2019; Husting, 2018; Husting & Orr, 2007; Räikkä & Basham, 2019). For these reasons, we will adopt the more neutral term conspiracy belief, which is more likely to signal a particularist approach rather than a generalist one.

Although seemingly following the field in its “I-know-it-when-I-see-it” attitude, the construction of the Conspiracy Beliefs subtest of the CART *did* signal *some* awareness of generic dispositional views of conspiracy belief because our subtest did contain filler items (i.e., cases of conspiracies that actually occurred). This aspect of the subtest reflects some awareness of particularist approaches and minimalist definitions of conspiracy belief, but in the construction of our subtest, we did not follow through on the insight because we did not actually *score* the filler items in the original CART. Scoring and forming a model of responses to true conspiracies—as well as forming a model of the ability to discriminate between true and false conspiracy beliefs—is precisely what reveals the flaws of the generalist approach.

There is not one model of “conspiracy believers” but instead, many different models depending upon the criterion belief that is the focus of the

modeling effort. We have mentioned the different focuses entailed by studying false beliefs, studying true beliefs, and studying discrimination between true and false beliefs. But there are other distinctions as well, such as that between ideological/partisan conspiracy beliefs and non-ideological conspiracy beliefs (see also Jussim et al., Forgas, Dunning, this volume). Work in political science has suggested that partisan conspiracy beliefs are qualitatively different from more conventional conspiracy beliefs (e.g., Enders & Uscinski, 2021; Smallpage et al., 2017) and thus it would not be surprising if the psychological models of each contrasted greatly. In the following section, we will illustrate how the psychological model of conspiracy belief shifts based on what conspiratorial endpoint the investigator wishes to model.

Different Models for Different Beliefs

We illustrate this using new data from a recent study (Stanovich & Toplak, 2025b) in which we attempted to amalgamate the insights of work on conspiracy belief in both psychology and political science and to reground work in the former discipline in a broader framework than that typical of early instruments such as our CART subtest. First, we examine, as in the older work, belief in specific conspiracies that are false. However, we also examine the predictors of belief in conspiracies that actually happened (see Bensley et al., 2020). Including such theories creates a more balanced approach that does not preclude views of conspiratorial thinking that emphasize its functionality (Coady, 2007; Shermer, 2022; Stojanov & Halberstadt, 2019). The inclusion of actual conspiracies in our measure allows us not only to study the predictors of conspiracies that actually do occur, but it also allows us to conduct a signal detection analysis of discrimination skill—the ability to tell true conspiracies from false ones, an ability rarely examined in the conspiracy belief literature.

In this study, we also examine several partisan/ideological conspiracy beliefs. Political scientists (e.g., Enders & Smallpage, 2019; Smallpage et al., 2017) often question the “psychologization” of conspiracy belief and instead suggest that ideological conspiracy theories are “partisan messages or communication strategies rather than markers of psychopathology or a predisposition to view the world in conspiratorial terms (p. 306)...[they are] not indicative of unique innate psychological processes, but rather familiar political gamesmanship” (p. 301, Enders & Smallpage, 2019; see also, Crano and Cooper & Packman, this volume). We examine whether, in terms of the attitudes and psychological traits that predict ideological conspiracy beliefs, these types of conspiracies are indeed qualitatively different from more conventional conspiracy beliefs.

In this study, we also examine what is sometimes called conspiratorial ideation (Bost, 2015) or conspiracy mentality (Imhoff & Bruder, 2014), but

sought to improve on the generic mentality scales previously employed in the literature (see Stanovich & Toplak, 2025b, for the full critique). Theoretical discussion about what these generic conspiracy mentality scales are actually measuring remains unsettled (Imhoff, Bertlich, & Frenken, 2022; Nera, 2024; Sutton & Douglas, 2020; Sutton et al., 2024; see also, Sutton et al.; Douglas et al.; and van Prooijen, this volume). Theoretical positions vary, from viewing these scales as largely descriptive (“the disposition to believe in conspiracies”) to viewing them as measures of explanatory constructs. When these measures are viewed as tapping explanatory constructs, there is still much variation, ranging from viewing the construct as a political attitude (as in Imhoff & Bruder, 2014) to alternatively viewing it as a general susceptibility to endorsing implausible explanations (Sutton & Douglas, 2020).

We view the generic scales as explanatory, and we opt for conceiving them as tapping a socio-political attitude, in the manner of Imhoff and Bruder’s (2014) speculations (we separate this construct from the susceptibility to implausible beliefs, which we measure with a paranormal thinking scale). Our measure, which we call the Hidden Causal Forces Scale (HCFS), builds on the fact that almost all definitions of conspiracy draw on the ideas of hidden—undetected, unseen, opaque, or unrecognized—causal forces acting to bring about a goal that is, for whatever reason, empirically opaque to most of the public. This is the theme present in many discussions of the conspiratorial mentality in both psychology and political science. For example, Oliver and Wood (2014) repeatedly refer to “unseen forces” as an underlying aspect of most conspiracy beliefs. Bensley et al. (2020) discuss nonreflective thinking being “fueled by a distrust of hidden powers” (p. 26).

In naming the scale, we intend the term “hidden forces” to be interpreted in the most ecumenical sense, with “hidden,” for our purposes, considered to be synonymous with undetected and opaque causes—all taken in the most unrestrictive sense. For example, by hidden from the public we do not necessarily mean deliberately concealed. We intend the HCFS to be consistent with the broadest definitions of what a conspiracy is, like the one above (“at least two agents coordinating or colluding, undetected by the public, toward a goal of significant public interest”). Conspiracies, in this sense, are not limited to the explicit and intentional planning of a tiny group. They can also arise because of the tacit collusion among large numbers of individuals. Conspiracies positing outgroup minorities as coordinating against the majority have this structure, as do those positing the presence of systemic societal mechanisms that disadvantage outgroups (see also Ritov & Bruck; Sutton et al.; Forgas; Jussim et al., this volume). Our broad definition of hidden forces is consistent with treatments in political science that view the conspiratorial mentality as a political attitude, independent of ideology, that reflects the degree of political suspicion (Enders & Smallpage, 2019).

Political scientists have studied several attitudes that may well be “upstream” from conspiracy beliefs. We believe these “upstream attitudes”

will also be moderate predictors of belief in hidden causal forces as well. Prominent among these upstream attitudes in political science has been the study of populism and populist beliefs. Populism has expanded as a research topic recently because many see an unprecedented disconnect between the values of political elites and average voters, and a concomitant decrease in social trust. Previous studies have shown populism to be a complex and multidimensional attitude (Butter, 2020; Castanho Silva et al., 2017; Forgas, Crano, & Fiedler, 2021; Oliver & Rahn, 2016; Stavrakakis et al., 2017; Uscinski et al., 2021). Among its dimensions, however, is one with particular relevance to the study of conspiratorial thinking, and that is the dimension of anti-establishment attitudes (sometimes called anti-elitism). Using an amalgam of items from the literature, we examine this dimension of populist thinking as a precursor of the belief in hidden causal forces that, we posit, drives belief in both true and false conspiracies.

While anti-establishment attitudes may act, by priming beliefs in hidden causal forces, to foster beliefs in both true and false conspiracies, there may be political attitudes that serve to *suppress* belief in both kinds of conspiracies. In this study, we examined two such attitudes—utopianism and credulity about government—using two new scales. The latter scale in particular is designed to operationalize a conjecture from an important theoretical paper by Hagen (2018) who argued that

rather than focusing on conspiracy theorists, many of these lines of investigation could be turned on people who believe official stories. It would be interesting, and arguably at least as important, and would go some way toward bringing balance to this area of research, if some effort was made to explore why it is that so many people believe false or dubious *official* stories.

(p. 21, *italics added*)

Although we included the design features just discussed to reflect contributions from the perspective of research in political science, we did not ignore variables from the psychological literature that have been shown to be consistent predictors in the conspiracy literature. For example, the components of the Dark Triad of personality characteristics (narcissism, Machiavellianism, and psychopathy) have been studied in a considerable number of studies of conspiracy belief and seem to be mild/moderate predictors (Bowes et al., 2023; Stasielowicz, 2022), so they were included in the present investigation. Likewise, belief in paranormal phenomena (or superstitious thinking; see French, this volume) has also been a consistent predictor in the literature (Bowes et al., 2023; Ståhl & van Prooijen, 2018; Swami et al., 2011; see also van Prooijen, this volume) and was an extremely strong predictor of individual false conspiracy beliefs in our previous work (Stanovich & Toplak, 2025a), so it was examined in this investigation as well. In the same

previous study, we found that paranormal belief and actively open-minded thinking (AOT) could predict aggregate measures of false belief as well as any two predictors in the literature when examined together. We examined these predictors in a study with a sample size of 572 conducted on Prolific and employing English speaking US citizens as subjects.

Predictors of Belief in Specific False Conspiracies

Following a stepwise regression to identify key independent predictors, we arrived at a path model that predicted belief in specific false conspiracy theories (SFCB) and fit the data reasonably well.

Figure 15.1 presents a path model in which AOT, the Paranormal Belief scale, and the Hidden Causal Forces Scale (HCFS) are direct contributors to belief in false conspiracies. Based on the research cited above concerning the political beliefs that are connected with belief in hidden causal forces, the Anti-Establishment Attitude (AEA) scale is included as a predictor of the HCFS, which in turn is a predictor of paranormal thinking. Additionally, the model posits that AOT, as a measure of modernist thinking styles that has been a potent predictor in other studies (Newton et al., 2023; Stanovich & Toplak, 2023, 2025a), will be an exogenous predictor of all the other modes of thinking that are endogenous in the model (HCFS, Paranormal Beliefs, SFCB). The model showed acceptable fit, $\chi^2(2) = 9.98$, $p < .01$; CFI = .992, RMSEA = .083, SRMR = .020. All of the standardized coefficients in Figure 15.1 are significant at the .001 level. Belief in hidden causal forces is strongly driven by anti-establishment political attitudes, and it is also moderately negatively related to AOT. High paranormal belief is determined by

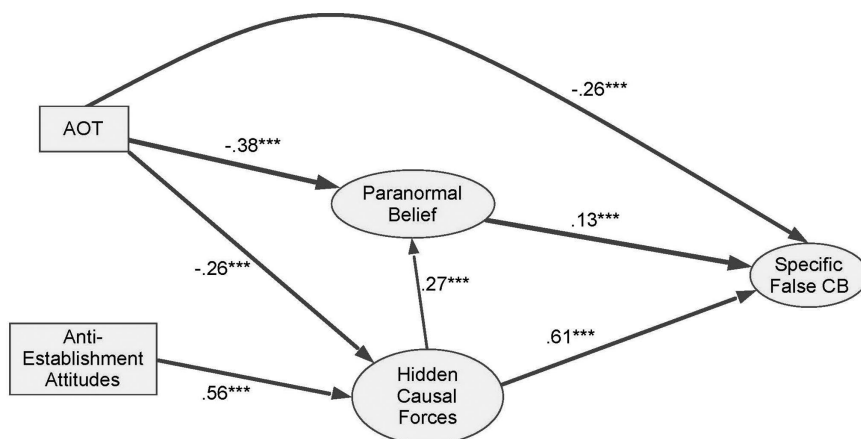


FIGURE 15.1 Path model predicting the score on the specific false conspiracy belief scale.

both low levels of AOT and high levels of belief in hidden causal forces. High scores on the HCFS, in conjunction with high levels of paranormal belief and low levels of AOT are associated with stronger tendencies to believe in specific false conspiracies.

Predictors of Belief in True Conspiracies and True/False Discrimination

The dominant predictors of true conspiracy belief (TCB) are the HCFS and the AEA ($r = .52$ and $.53$, respectively). It is posited, consistent with the model displayed in Figure 15.1, that the correlation with the AEA is primarily mediated through HCFS. The third most potent predictor of TCB were scores on the Government Credulity scale, and here the correlation was negative ($-.37$), as expected. The more credulity one has toward government actions, the less likely one is to detect true conspiracies when they happen.

Two variables that were predictors of false conspiracy beliefs, the Paranormal Belief scale and the AOT, were largely uncorrelated with belief in true conspiracies. We believe, however, that the latter is still implicated in true conspiracy belief, through its effect on both HCFS and credulity about government motives. Therefore, we tested a path model to predict TCB that was structurally similar to the model portrayed in Figure 15.1 except that performance on the Government Credulity scale was substituted for paranormal belief and the direct path from AOT to TCB was removed. This model did not fit well. Modification indices indicated that the reason for the poor fit was that there were direct paths from AEA to both government credulity and TCB. Thus, the

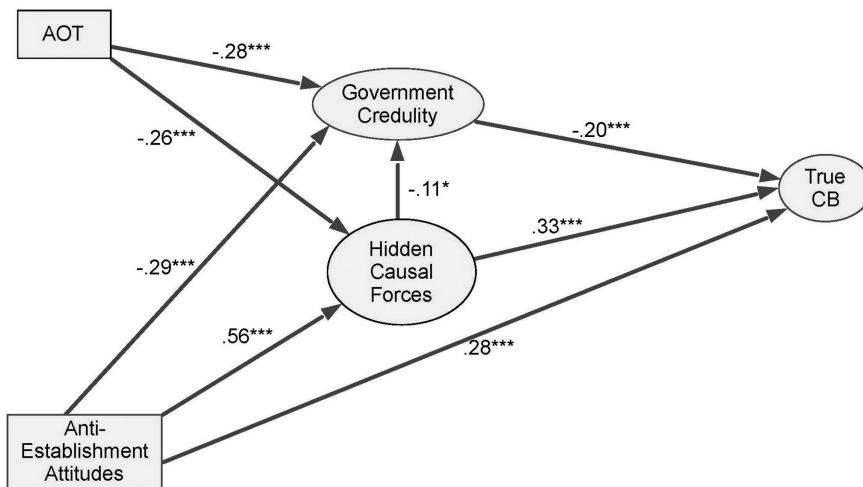


FIGURE 15.2 Path model predicting the score on the true conspiracy belief scale.

model with those modifications (see Figure 15.2) was run and displayed an acceptable fit, $\chi^2(1) = 5.62$, $p < .01$; CFI = .993, RMSEA = .090, SRMR = .018.

All of the standardized coefficients in Figure 15.2 are significant at the .001 level except the negative standardized coefficient from HCFS to Government Credulity. As in Figure 15.1, belief in hidden causal forces is strongly driven by anti-establishment political attitudes and it is also moderately negatively related to AOT. High government credulity is determined by low levels of AOT and AEA and, to a lesser extent, low levels of belief in hidden causal forces. Belief in true conspiracy theories has moderate positive independent relationships with AEA and HCFS and a moderate/low negative relationship with the Government Credulity scale.

As a third index of belief in these specific conspiracies, we also conducted a signal detection analysis of the ability to discriminate between true and false conspiracy beliefs. After converting the item responses on the false conspiracy and true conspiracy scales from our six-point scale into a 1/0 (believe/not believe) scoring scheme, our analysis followed the steps described by Batailler et al. (2022) in order to calculate a d' discrimination index for each subject. Of course, the d' index was negatively correlated with the score on the false conspiracy beliefs scale ($-.51$) and positively correlated with the score on the true conspiracy beliefs scale ($.35$). But beyond the correlations with its components, the d' index measure showed the largest correlation with AOT ($.44$) and paranormal beliefs, the latter a negative correlation of $-.39$. Negative correlations of lesser magnitude were obtained with religiosity ($-.32$), HCFS ($-.27$), Government Credulity ($-.24$), Narcissism ($-.23$), and a positive correlation with ideology ($.23$), with liberals scoring higher on the d' discrimination index.

We took the following steps in developing our path model of the discrimination index. Several of the variables with the highest correlations mentioned above were involved in the previous models of the true and false conspiracy belief scales and were retained. Narcissism and ideology were not in previous models and neither variable explained unique variance in d' index after the variance explained by AOT and paranormal belief was accounted for in stepwise regression analyses. Thus, these two variables were removed in order to simplify the model. Religiosity did account for unique variance after the variance explained by AOT and paranormal belief was partialled, and thus was retained. However, the paranormal beliefs measure and the religiosity measure tended to steal variance from each other in various regression and path models. We thus developed separate models involving each (the model involving paranormal beliefs is presented in Figure 15.3, and that involving religiosity is presented in Figure 15.4). Finally, in developing a path model for understanding the relationships predictive of the discrimination index, we added to the model the AEA variable. Although it did not have a significant zero-order correlation with the d' index measure, we added the AEA variable as an exogenous measure because of the role that it played in predicting the belief in hidden forces variable in Figures 15.1 and 15.2.

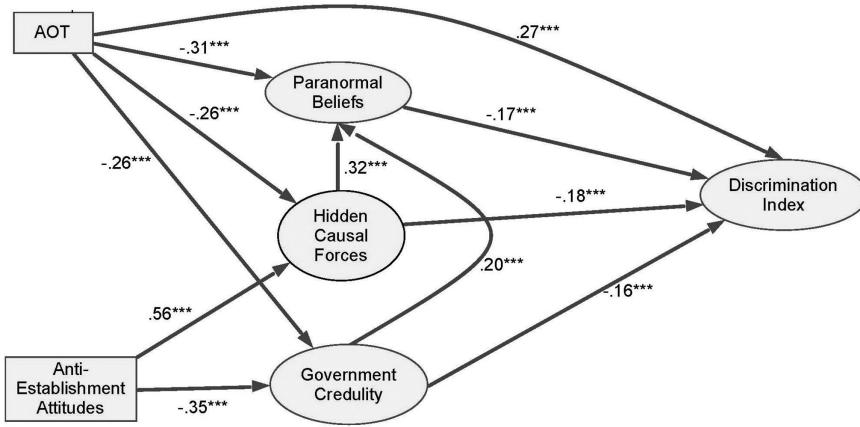


FIGURE 15.3 Path model predicting the ability to discriminate true from false conspiracy beliefs.

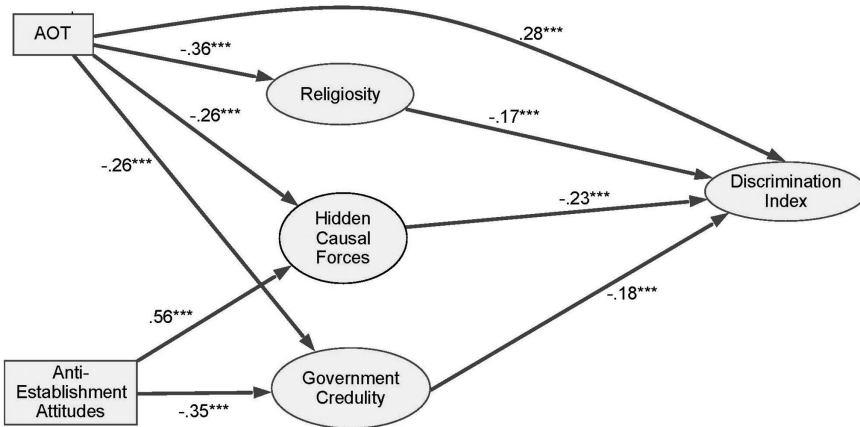


FIGURE 15.4 Path model predicting the ability to discriminate true from false conspiracy beliefs.

The path model predicting the d' index in Figure 15.3 is an amalgamation of Figures 15.1 and 15.2. Output from modification indices resulted in one addition, the path from the Government Credulity variable to Paranormal Beliefs. The resulting path model displayed an acceptable fit, $\chi^2(3) = 13.32$, $p < .01$; CFI = .987, RMSEA = .078, SRMR = .025. All of the standardized coefficients in Figure 15.3 are significant at the .001 level. As in Figure 15.1, belief in hidden causal forces is strongly driven by anti-establishment attitudes and it is also moderately negatively related to AOT. High government credulity is determined by both low levels of AOT and low levels of AEA. The

ability to discriminate true from false conspiracies has a positive independent relationship with AOT and negative independent relationships with HCFS, Paranormal Beliefs, and the Government Credulity scale.

The parallel model, substituting our Religiosity measure for Paranormal Beliefs, is presented in Figure 15.4. Modification indices suggested that the model fit somewhat better with the hidden forces and government credulity paths to Religiosity removed. The resulting path model displayed an adequate fit, $\chi^2(3) = 22.45$, $p < .01$; CFI = .971, RMSEA = .106, SRMR = .033. All of the standardized coefficients in Figure 15.4 are significant at the .001 level. Belief in hidden causal forces is strongly driven by anti-establishment attitudes and it is also moderately negatively related to AOT. High government credulity is determined by both low levels of AOT and low levels of AEA. The ability to discriminate true from false conspiracies has a positive independent relationship with AOT, and negative independent relationships with HCFS, Religiosity, and the Government Credulity scale that were all very similar to the coefficients observed in Figure 15.3.

Predictors of Belief in Partisan/Ideological Conspiracies

Table 15.1 presents the correlations of the predictor variables with the six variables measuring partisan/ideological conspiracy belief. The three liberal/

TABLE 15.1 Correlations Between the Six Variables Measuring Partisan/Ideological Conspiracy Beliefs and the Predictor Variables

	<i>Systemic Conspiracy Racism</i>	<i>Systemic Conspiracy Sexism</i>	<i>2016 Election</i>	<i>2020 Election</i>	<i>Vaccine</i>	<i>QAnon</i>
Ideology	.54	.44	.27	-.59	-.54	-.37
Religiosity	-.16	-.13	-.14	.35	.34	.34
HCFS	.10	.06	.12	.36	.48	.43
AOT	-.03	-.08	-.10	-.42	-.48	-.47
Paranormal beliefs	.22	.27	.22	.24	.33	.40
AEA	.25	.19	.11	.11	.12	.14
Government credulity	.22	.21	.19	-.08	-.05	.11
Utopianism	.68	.64	.37	-.21	-.18	.07
Narcissism	.14	.12	.11	.19	.20	.26
Machiavellianism	.14	.08	.07	.07	.11	.11
Psychopathy	.07	.09	.09	.09	.10	.11

Note: all correlations larger than .082 in absolute value are significant at the .05 level.

HCFS, *Hidden Causal Forces scale*; AOT, *Actively Open-Minded Thinking scale*; AEA, *Anti-Establishment Attitudes scale*.

TABLE 15.2 Standardized Beta-Weights in the Final Regression Equation for Each of the Six Variables Measuring Partisan/Ideological Conspiracy Beliefs

	<i>Systemic Conspiracy Racism</i>	<i>Systemic Conspiracy Sexism</i>	<i>2016 Election</i>	<i>2020 Election</i>	<i>Vaccine</i>	<i>QAnon</i>
Ideology	.304	.218	.159	-.469	-.372	-.289
Religiosity	-	-	-	-	-	-
HCFS	-	-	-	.216	.340	.254
AOT	-	-	-	-.199	-.269	-.233
Paranormal Beliefs		.168	.178	-	-	.155
AEA	.112	-	-	-	-	-
Government Credulity	-	-	-	-	-	-
Utopianism	.500	.498	.254	-	-	.135
Narcissism	.139	-	-	-	-	-
Machiavellianism	-	-	-	-	-	-
Psychopathy	-	-	-	-	-	-
R-squared	.553	.455	.176	.435	.491	.400

Note: all standardized beta-weights in the table are significant at the .001 level.

HCFS, *Hidden Causal Forces scale*; AOT, *Actively Open-Minded Thinking scale*; AEA, *Anti-Establishment Attitudes scale*.

left-wing conspiracy variables are represented in the left three columns. They represent variables coding belief in systemic conspiracies surrounding racism, belief in systemic conspiracies surrounding sexism, and belief in a conspiracy affecting the 2016 election result in the United States. The three conservative/right-wing conspiracy variables are represented in the right three columns. They represent variables coding belief in conspiracies regarding the 2020 election result in the US, hiding evidence that the COVID-19 vaccines are dangerous, and belief in QAnon.

As is apparent, the ideology variable, because it is coded in the liberal-higher direction, has substantial positive correlations with the three left-wing conspiracy variables and substantial negative correlations with the three right-wing variables. The other relationships displayed in Table 15.1 are quite varied. Some variables, such the Paranormal Belief scale, have fairly uniform positive relationships with conspiracy beliefs across the ideological spectrum. In contrast, the Utopianism scale has strong positive correlations with left-wing conspiracy beliefs but either negative correlations or small correlations with the right-wing conspiracy beliefs.

To bring some coherence to the plethora of relationships, we present the results of a series of multiple regressions in Table 15.2. What is presented there is the standardized beta-weights in the final stepwise regression equation for

each of the six partisan/ideological conspiracy variables. Ideology remained a strong predictor of all six variables even after other predictors had been allowed to enter. Responses on the HCFS and AOT scales were moderate independent predictors (positive sign in the first case and negative in the second) of the right-wing conspiracy variables but not the left-wing ones. The Utopianism scale, on the other hand was a substantial independent predictor of the three left-wing conspiracy variables and one of the right-wing variables as well (the QAnon item). Consistent with its rather uniform correlations across the partisan conspiracies, the Paranormal Beliefs scale was an independent predictor of two of the left-wing variables and one right-wing variable (the QAnon item). Two predictors (AEA and Narcissism) were independent predictors of one of the six variables (Systemic Conspiracy: Racism).

Conclusions

In our earlier work oriented toward constructing the Conspiracy Beliefs subtest for the CART, we conceptualized conspiracy belief within a contaminated mindware framework (Stanovich et al., 2016). That is, we viewed the conspiracy beliefs that a person held as a subset of the defective declarative knowledge that the individual had stored, and we assumed, for scoring purposes, that the optimal amount of contaminated mindware should be zero. We now think that this approach has numerous defects. It ignores discrimination ability for one thing. Secondly, the focus on *particular* conspiracy beliefs, even sets of them, can be misleading. The problem is that there is little generality in using this approach to examine conspiracy belief.

In our results, we can see the pitfalls of focusing on specific conspiracy beliefs, or even small sets of particular beliefs, and extrapolating findings to conspiracy belief in general, or implying that there is a stable group of “conspiracy theorists.” Conspiracies do occur in the world. Failing to believe in the false ones may come at the cost of missing those that are true. When we take false conspiracy belief as our target, the psychological model we get is one dominated by belief in hidden causal forces and, as a concomitant, anti-establishment attitudes look like a negative trait because they drive the primary variable leading to false beliefs (Figure 15.1). In contrast, if we model belief in true conspiracies, anti-establishment attitudes seem very functional (see Figure 15.2). They are an independent predictor of true conspiracy belief, they facilitate a variable (HCFS) that is positively related to true belief, and they inhibit a variable (government credulity) that suppresses true belief. If we were to model discrimination accuracy (Figure 15.3), anti-establishment attitudes have a mixed effect. They *enhance* one variable that inhibits discrimination accuracy (HCFS), but they *depress* a different variable that also inhibits discrimination accuracy (government credulity). And the situation changes again when we move to the partisan/ideological conspiracy beliefs.

In short, when we adopt the research strategy of sampling only a small part of the conspiracy belief space, we effectively dictate the sociopsychological causal model that will apply (see also, Fiedler, this volume). If an investigator selects a nonpartisan false conspiracy belief about a secret international society, they will get one sociopsychological model of “believers.” If the investigator chooses a highly partisan right-wing conspiracy belief that is also false, they will get a different sociopsychological model of “believers.” If the investigator chooses a true conspiracy, such as the CIA testing mind-control techniques on citizens without their consent, they will get yet another sociopsychological model of “believers,” and the list goes on.

The combinatorial possibilities here are fairly large. We have not explored all of these possibilities in this study, but consider what the actual space must look like when we take into account that: we can choose to focus on a specific conspiracy or a collection of them; we can choose to focus on false conspiracy beliefs or on true conspiracy beliefs; we can choose to examine the ability to discriminate between false and true conspiracies; we can examine partisan conspiracy beliefs or nonpartisan conspiracy beliefs; and if we focus on partisan beliefs, we can examine largely left-wing conspiracies or largely right-wing conspiracies. Then, there is the possibility of studying tribal conspiracies or proxy conspiracies (Shermer, 2022). Even these categories do not exhaust the space because, even within false conspiracies, there is a continuum of plausibility (Hattersley et al., 2022). And, finally, there is the recently discussed issue of whether those endorsing conspiracy explanations are endorsing just their gist or their verbatim accuracy (Langdon et al., 2024). Each of these myriad choices will lead to a different psychosocial model of conspiracy belief. These model differences reinforce the importance of differentiating mature conspiracy theories that have repeatedly been debunked (e.g., faked moon landing) from *newly* posited conspiracies. We should not let the literature on the deficiencies of those who believe the former be a weapon to attack the believers of the latter.

Investigators studying conspiracy beliefs might well achieve more stability and cumulative progress if they would shift their focus to examining belief in hidden forces and its precursor political value, anti-establishment attitudes. The field should also look for other precursor political attitudes to supplement those we have studied here: credulity toward government and utopianism. A focus on belief in forces hidden from the public as an attitude/disposition rather than specific and highly selected false beliefs, would also move the field from the automatic assumption that any sort of conspiratorial thinking is *prima facie* irrational.

This will be a hard assumption for psychologists to give up, however, because the inherent interest in the field for some investigators is fueled by the perception that belief in conspiracies is highly irrational. That was certainly true during 2012–2015, when we constructed the Conspiracy Belief

subtest of our Comprehensive Assessment of Rational Thinking (CART). After picking the stimuli to fit our own biases (see Jussim et al.; Dunning; Fiedler, this volume) about what we should be studying and sharing the field’s “I-know-it-when-I-see-it” mentality, we accepted the field’s tendency to form definitions of conspiratorial thinking that fit our stimuli (that were all chosen with obvious selection bias). Because our stimuli were all examples of obviously false conspiracy beliefs, we accepted all the characteristics that made these dubious conspiracies. This is how all of the “extra” features of conspiracy definitions (conscious attempts at secrecy; malicious intent; etc.) crept into our own view.

Important work was accomplished using the “conspiracy belief as mental contamination” framework that our lab used at the time, but since publishing the CART, we have come to think that the framework we used was not the best approach for studying conspiratorial thinking. Conspiratorial thinking—conceived of broadly as a psychological/political attitude of concern about as yet unidentified causes in the world—is not obviously irrational (Shermer, 2022; van Prooijen & van Vugt, 2018), and minimizing it should not be the operational definition of higher rationality, as was the case in our early work.

Conspiratorial thinking becomes most disposition-like when derived from minimalist definitions of what a conspiracy belief is—for example, at least two agents coordinating or colluding, undetected by the public, toward a goal of significant public interest. Using such definitions prevents researchers from pre-determining the important correlates in advance and it does not suggest the default assumption that avoiding conspiracy belief entirely is the maximally rational response. Our findings on the importance of our Hidden Causal Forces scale as a predictor and its strong connection to anti-establishment attitudes suggest that the psychological study of conspiracy should move in the direction suggested by Enders and Smallpage (2019):

In light of the new ambiguity between traditional ideology and conspiracy theorizing, the recent focus on conspiracy thinking by social scientists provides us with an opportunity to explore a phenomenon that many have long ignored: political suspicion or skepticism, which drives conspiracy thinking and other non-ideological disruptive political attitudes. In this way, conspiracy thinking is more than merely believing in conspiracy theories—it is a common, significant feature of American public opinion that reaches far beyond any one conspiracy.

(*p.* 298)

Our world is full of large and complex institutions (governments, corporations, internet platforms, universities, international organizations, mass media, the military, foundations, etc.). These organizations are filled with many people having many different goals—sometimes goals that conflict

with the organization's publicly professed mission. It is commonplace for these large organizations to fall short of their missions because groups of individuals within them pursue outcomes not exactly aligned with the professed organizational mission.

Even when large institutions actually do honestly and efficiently pursue their stated mission, it is often the case that they believe that public knowledge of intermediate goal states will impede their objectives. When they think this, there will be pressure to make actions opaque to the public. As Rääkkä (2009) notes,

Even modern democracies are full of 'openly secretive' governmental and corporate institutions and committees, and many decision-procedures are secret, even if the decisions and their grounds may be public (though often they are not). These institutions are able to control and hide disturbing information without too much effort.

(p. 199)

In a world of increasing complexity and global interaction—and increasing potential conflicts among fractious and polarized interest groups—why wouldn't you think that some of the groups were colluding and coordinating to advance a goal that remains empirically opaque to the public? In light of these facts about the structure and complexity of the modern world, it is absolutely adaptive, indeed rational, for the average citizen to have some degree of suspicion that there are hidden or undetected forces determining the changes they see in their lives. Of course, this cautionary mental attitude (see Shermer, 2022) will sometimes be overdone and will lead to epistemically unwarranted beliefs of various kinds (Bensley et al., 2020, 2022; Lobato et al., 2014; Ståhl & van Prooijen, 2018).

But, a priori, it is hard to know when one has crossed this very ambiguous line. Government officials do indeed often work for ends that serve themselves rather than their governmental function, and this is not rare. Of course, businesses act, sometimes, to subvert the interests of their workers and the consumers of their products. Even non-profit institutions tacitly act, at times, to perpetuate the social problem that is their rationale for existence. Many individuals in institutions engage in tacit collusion to benefit their own ends rather than publicly stated institutional goals—which is why it is hard to say what level of response on our HCFS is the optimal one and, likewise, how many false alarms in the operation of this cautionary mental style is an indication that its parameter is non-optimally set.

Note

- 1 Particularism versus generalism, in the philosophical literature, concerns the epistemic truth and falsity across different posited conspiracies. In psychology, it is a parallel distinction concerning whether the psychological model that applies to a particular class of theory should apply to another class.

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