Do Conspiracy Theory Beliefs Form a Monological Belief System? Revisiting Goertzel 25 Years Later

Abstract: The study of conspiracy theories has recently experienced a renaissance, with hundreds of papers addressing the causes and consequences of conspiracy theories being published. When social scientists began investigating conspiracy theories en masse circa 2010, they turned to the scattering of previous empirical studies—most notably Goertzel's 1994 survey-based investigation into conspiracy theory beliefs—for guidance. This highly influential study, published in *Political Psychology*, has now been cited more than 800 times according to Google Scholar; the vast majority of those citations occurred more than 15 years after the article's publication. In the present manuscript, we revisit Goertzel's study—using new data designed to replicate Goertzel's original measurements of beliefs in several conspiracy theories, anomie, and trust—in an attempt to reassess his now ubiquitous claims about conspiracy theories forming a "monological belief system." After carefully exploring and operationalizing monological and non-monological belief systems, we argue that more traditional conceptualizations of belief systems characterize conspiracism better than the monological structure hypothesized by Goertzel, though the remainder of Goertzel's many findings withstand the test of time.

Word Count: 9,084

Since 2010, conspiracy theories have become the subject of a sustained research program (Butter and Knight 2018). Events in the latter half of the ensuing decade, such as the "Brexit" referendum, the presidency of Donald Trump, and the COVID-19 pandemic, propelled the study of conspiracy theories from an eclectic academic inquiry to a highly consequential and relevant pursuit. In the last decade, several hundred studies from across disciplines addressing the nature, causes, and consequences of conspiracy theories have been published (Douglas et al. 2019), and governments have followed suit, funding numerous projects on the topic.

When social scientists began investigating conspiracy theories en masse circa 2010, they found that most of the extant research was concentrated in philosophy (e.g., Keeley 1999), history (e.g., Davis 1972), and cultural studies (e.g., Knight 2000). There existed only a scattering of empirical works in the prior decades (e.g., Goertzel 1994, McHoskey 1995, Butler, Koopman, and Zimbardo 1995, Abalakina-Paap et al. 1999), and of these, sociologist Ted Goertzel's (1994) investigation, "Belief in Conspiracy Theories," published in *Political Psychology,* was the only one attempting to generate representative survey data. This highly influential study has been cited more than 800 times according to *Google Scholar*, but its citation history highlights the upward trend in scholarly interest in conspiracy theories over time. This 1994 study was cited only 48 times prior to 2010. The vast majority—around 750—of its citations occurred 15 years after its publication, with more than 140 citations in both 2020 and 2021. Given the continuing influence of this study's methods, findings, and conclusions on the burgeoning conspiracy theory literature, it is now appropriate to revisit it to better understand the theoretical and empirical foundations upon which this literature has been built.

Using a telephone poll to ask New Jersey residents about their belief in 10 conspiracy theories, Goertzel was perhaps the first to examine multiple conspiracy theories in one survey-

based study. He found that beliefs in conspiracy theories were widespread, correlated with each other, and correlated with anomie, trust, and socioeconomic status. From these empirical findings, Goertzel (p. 740) concluded that conspiracy theories formed a "monological belief system" in which each belief "serves as evidence for each of the other beliefs;" this implied that "the more [conspiracy theories] a monological thinker believes in, the more likely he or she is to believe in any new conspiracy theory which may be proposed." This conclusion has been used to contextualize the findings of numerous high-profile studies (e.g., Wood, Douglas, and Sutton 2012, Oliver and Wood 2014, Brotherton, French, and Pickering 2013, Lewandowsky, Gignac, and Oberauer 2013), and is the subject of ongoing debate (e.g., Miller 2020, Sutton and Douglas 2014, Enders et al. 2021b). It is also the way many journalists view conspiracy theory beliefs, with reports claiming, for example, that people dive "down conspiracy-fueled rabbit holes," finding themselves "believing in elaborate conspiracy theories about Bill Gates, 5G wireless technology, vaccines and masks," and within days, they "believe that President Donald Trump is waging a secret war to save trafficked children from a cabal of Satan-worshipping baby eaters" (Collins 2020).

In the present manuscript, we revisit Goertzel's study to reassess whether his empirical findings hold and to further interrogate ubiquitous theoretical claims about conspiracy theories forming a "monological belief system." Using contemporary data designed to mimic and extend Goertzel's original measurements, we first set out to retrace Goertzel's footsteps. Along the way, we discuss how the conceptualization and empirical study of conspiracy theories has evolved since 1994. Then, we carefully explore and operationalize monological and non-monological belief systems, concluding that more traditional conceptualizations of belief systems better characterize beliefs in conspiracy theories than the monological structure theorized by Goertzel.

Replicating Goertzel (1994)

Goertzel (1994) employed a telephone survey of 348 randomly selected residents from three counties in Southwestern, New Jersey fielded in 1992. By today's standards for polling (typically 1,000-2,000 respondents), this is a small sample size, but it is on par with many more recent papers, particularly those in psychology that employ similarly-sized convenience samples. Unlike many contemporary (e.g., McHoskey 1995) and newer (e.g., Romer and Jamieson 2020) studies that focus on one or a few conspiracy theories, Goertzel asked about multiple conspiracy theories, 10 in all. This use of multiple conspiracy theories as dependent variables has set something of a trend, with numerous studies having followed suit (Miller, Saunders, and Farhart 2016, Oliver and Wood 2014, Enders et al. 2021b). An important finding from this expanding body of research is that different conspiracy theories appeal to different people. In other words, the factors associated with belief in one conspiracy theory, might not be associated with belief in another. This is an important point at least implied by Geortzel's findings, though it seems to have been overlooked in his conclusions; we return to this point below.

The conspiracy theories studied by Goertzel (1994, p. 733) include those addressing the assassination of President Kennedy, a government cover-up of flying saucers, the assassination of Martin Luther King Jr., the 1981 release of the Iranian hostages, a Japanese attempt to destroy the U.S. economy, the U.S. government distributing drugs into inner cities, and three versions of conspiracy theory belief questions about the origin of AIDS. Goertzel provides little reason for choosing these items; this can largely be forgiven since scholars have still yet to decide on the "right" (i.e., a representative set of) conspiracy theory questions to ask (Sutton and Douglas 2014), if such a set could even exist. Goertzel presents respondents with a four-choice response set, ranging from "definitely true" to "definitely false;" "don't know" responses were recorded

when respondents offered them. This is similar, though not exactly like, most response sets offered in recent years. While scholars have yet to decide on best practices for polling conspiracy theory beliefs (Clifford, Kim, and Sullivan 2020, Wood 2016a), there seems to be some consensus that providing respondents with equal numbers of options for agreeing and disagreeing is important (Sutton and Douglas 2020).

Given that many of the conspiracy theories in Goertzel's study have lost salience over time (e.g., Anita Hill, the Iranian hostage crisis, and the AIDS epidemic attract far less public attention than they did in 1992), we have chosen to replicate his study with 10 different conspiracy theories (Table 1). We fielded our survey of 2,015 adult Americans from October 8–21, 2020 using Qualtrics. Respondents are broadly representative of the population based on age, gender, race and ethnicity, and education; a comparison of the sample's sociodemographic characteristics with U.S. census estimates appears in the appendix.

The conspiracy theories we included range from non-partisan to explicitly partisan, and address topics involving elites, politicians, science, technology, medicine, and the government. The conspiracy theories in Table 4 represent four of the five "categories" of conspiracy theories outlined by Brotherton, French, and Pickering (2013): government malfeasance (e.g., deep state), malevolent global conspiracies (e.g., climate change hoax), personal wellbeing (e.g., 5G dangers covered-up), and control of information (e.g., Jeffrey Epstein killed).[1]

In Table 1, we code those registering a response of "agree" or "strongly agree" on the five-point response options we provide as agreement. Support ranges from 12-52% of Americans across the 10 conspiracy theories; the theory about Jeffrey Epstein being murdered garners the

[1] We leave out theories regarding extraterrestrial cover-ups because they have been found to emanate from a different set of motivations than more 'worldly' conspiracy theories (Frenken and Imhoff 2021, Nera, Leveaux, and Klein 2020, Castanho Silva, Vegetti, and Littvay 2017). This allows us, in the second half of our analysis, to provide a more generous test of Goertzel's conclusions.

highest level of support while the theory about school shootings being "false flag" attacks garners the least. These statistics showcase, as does Goertzel's data, that conspiracy theories are differentially popular.

Table 1: Percentage of respondents who "agree" or "strongly agree" with each conspiracy theory.

Label	Conspiracy Theory Belief Question	% Agree
Epstein	Jeffrey Epstein, the billionaire accused of running an elite sex trafficking ring, was murdered to cover-up the activities of his criminal network.	52
Deep State	There is a "deep state" embedded in the government that operates in secret and without oversight.	41
Trafficking	Elites, from government and Hollywood, are engaged in a massive child sex trafficking racket.	35
Anti-vaxx	The dangers of vaccines are being hidden by the medical establishment.	28
Trump Faking	President Trump is faking COVID-19 in order to help his chances at reelection.	26
5G	The dangers of 5G cellphone technology are being covered up.	23
Rep. Fraud	Republicans won the presidential elections in 2016, 2004, and 2000 by stealing them.	20
Climate Hoax	Climate change is a hoax perpetrated by corrupt scientists and politicians.	18
Infected Trump	Groups wanting to hurt president Trump intentionally infected him with COVID-19.	14
False Flag	School shootings, like those at Sandy Hook, CT and Parkland, FL are false flag attacks perpetrated by the government.	12

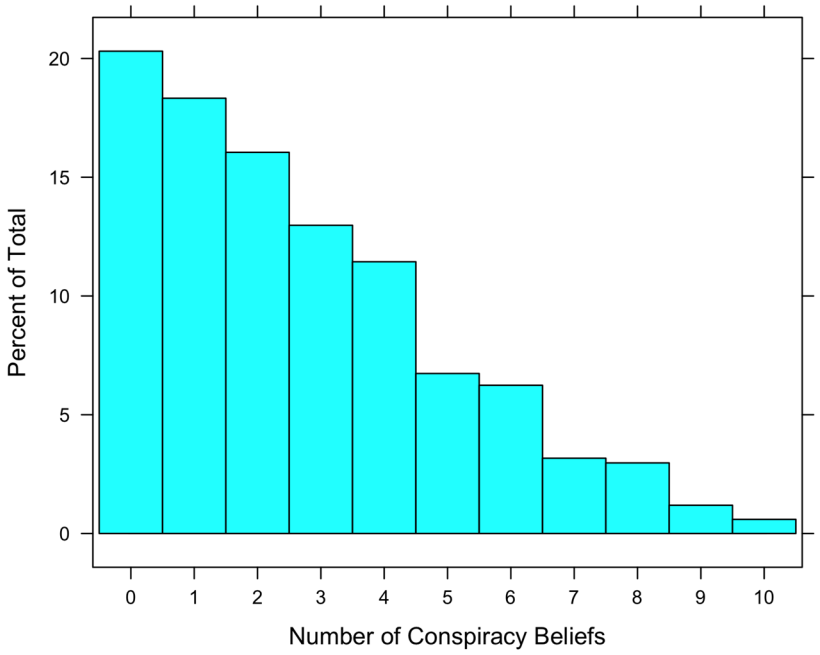
Figure 1, which replicates Figure 1 in Goertzel's paper, shows the proportion of respondents endorsing different numbers of conspiracy theories. Despite several of our conspiracy theories receiving high levels of endorsement, the modal category is zero beliefs; for Goertzel, the model category was two beliefs. One reason for discrepancy might involve

Goertzel's inclusion of a question about the Kennedy assassination, which has always garnered very high levels of support, including by 69% of his own respondents. Thus, our findings suggest that the shape of any distribution of this type is heavily dependent on the popularity of the conspiracy theories researchers query (Enders and Uscinski 2021). Therefore, we should not, for example, claim that 80% of Americans believe a conspiracy theory and 20% do not; instead, we can claim only that 80% of Americans believe at least of one of the 10 conspiracy theories *in our survey* and that 20% do not. This is an important point about conspiracy theories that has been lost in many of the journalistic interpretations of subsequent studies with similar data. For example, the much publicized Oliver & Wood (2014) study, which found that half of "the American public consistently endorses at least one conspiracy theory" is often taken by media outlets to mean that half of the American public believes one conspiracy theory (or more) and *that half doesn't*. But, since Oliver & Wood surveyed beliefs in only seven conspiracy theories, such an interpretation is likely a vast overestimation of the proportion of people who don't believe in conspiracy theories. Surveys that include 20 conspiracy theories or more, for example, find that fewer than 10% of respondents register no conspiracy theory beliefs (Uscinski and Enders 2020).

The distribution of conspiracy theory beliefs in Goertzel's data partially gave rise to the idea that belief in one conspiracy theory is associated with beliefs in others, a claim which has become ubiquitous in both scholarly and journalistic writing on the topic. This idea was more carefully evidenced by Goertzel's examination of correlations between conspiracy theory beliefs. Table 2, which replicates Table 2 of Goertzel's paper, provides the correlations between pairs of the 10 conspiracy theories we polled on. Goertzel found that beliefs in his 10 conspiracy theories were all positively correlated, although 8 of the 45 correlations were statistically non-significant.

That most of the beliefs he studied were correlated suggested to Goertzel and to the other researchers that followed him that these beliefs are *somehow* connected. With our 10 conspiracy theories, we find that all but one of the 45 correlations are statistically significant; however, we also find that three of the coefficients are negative.

Figure 1: Number of conspiracy theories that respondents believe.



This discrepancy, while representing only a small number of correlation coefficients, is likely due to our choice of conspiracy theories: group-based conspiracy theories—i.e., those that appeal to members of particular groups—will attract (or repel) opposing groups (Enders and Uscinski 2021). The three negative correlations we find here are associated with pairs of conspiracy theories that appeal to or accuse partisan groups. For example, the belief that climate change is a hoax finds more support among Republicans and conservatives than Democrats and liberals because it has been promulgated by Republican elites and think tanks for decades (Uscinski, Douglas, and Lewandowsky 2017); just the same, Democrats and liberals, rather than

Republicans and conservatives, tend to believe that Republicans rig elections. Therefore, these beliefs are negatively correlated. In general, group members, partisan or not, prefer to overlook transgressions by their own side in favor of accusing competing groups of wrongdoing through the process of motivated reasoning (Claassen and Ensley 2016); this results in groups exhibiting a greater likelihood to believe conspiracy theories that accuse outgroups compared to those accusing the ingroup (Smallpage, Enders, and Uscinski 2017, Miller, Saunders, and Farhart 2016, Uscinski and Parent 2014). We further note that examining the correlations between conspiracy theory beliefs may not tell us as much about the relationship between those beliefs as many seem to think, largely because such correlations, as we will discuss later, may overestimate those relationships. Thus, the ubiquitous claim that "if people believe in one conspiracy theory, then they're likely to believe in others" (Douglas 2021), which is often based on observed correlations between conspiracy theory beliefs might be accurate to a point, but it is also dependent on which conspiracy theories are being discussed.

Table 2: Pearson's correlations between conspiracy theory beliefs.

	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Epstein									
2. Deep State	0.42								
3. Trafficking	0.45	0.53							
4. Anti-vaxx	0.27	0.47	0.42						
5. Trump Faking	0.09	0.16	0.15	0.30					
6. 5G	0.28	0.47	0.42	0.58	0.25				
7. Rep. Fraud	0.08	0.08	0.07	0.25	0.54	0.18			
8. Climate Hoax	0.22	0.44	0.38	0.37	-0.05	0.39	-0.13		
9. Infected Trump	0.20	0.32	0.34	0.36	0.08	0.40	-0.01*	0.47	
10. False Flag	0.24	0.41	0.42	0.49	0.23	0.53	0.22	0.47	0.46

All correlations significant at $p<0.05$ unless otherwise noted. *$p>0.05$.

At the same time, we acknowledge that some small proportion of individuals will adopt conspiracy theories that are typically believed by opposing groups, such as the theories that the

Bush administration knew about 9/11 in advance and that Barack Obama hid his true country of origin (Richey 2017).[2] This is likely because for those believers, group allegiances—partisanship in this instance—is less important than some other higher-order concern, such as a general attraction to conspiratorial explanations for salient events (Wood 2016b). Such an explanation also helps account for instances where conspiracy theory beliefs that logically contradict each other are simultaneously adopted by some people (Wood, Douglas, and Sutton 2012).

More than correlations between conspiracy theory beliefs, Goertzel examined other social and psychological correlates of conspiracy theory beliefs. Table 3 roughly replicates Table 3 from Goertzel's study, depicting the correlations between each of our 10 conspiracy theory beliefs (including an additive scale of these beliefs, α=0.81)[3] and educational attainment, age, racial minority status, and gender. Goertzel reports finding a correlation between four of his conspiracy theory beliefs and education; we find that five of our 10 conspiracy theory beliefs are negatively correlated with education, as is the additive scale. Just as Goertzel did, we find that age is negatively correlated with all conspiracy theory beliefs, implying that older respondents are less likely to believe in conspiracy theories. The relationship between age and conspiracy theory beliefs has varies across studies; more work should investigate why conspiracy theory beliefs may decrease with age (or potentially across generational cohorts). We also replicate Goertzel's finding that people of color are significantly more likely to possess conspiracy theory beliefs; eight of our conspiracy theory beliefs and the additive scale are correlated with an indicator of race. Whereas Goertzel fails to find a relationship between gender and conspiracy theory beliefs, six of our conspiracy theory beliefs are significantly correlated with gender, but

[2] That said, we suspect that this proportion of people is smaller than the proportion with consistent group motivations. As long as this is the case, we will observe negative correlations between conspiracy theories maligning opposed groups, rather than positive or near-zero ones.
[3] We note that for Goertzel's conspiracy theories, α=0.78.

inconsistently so directionally. That said, these correlations are small and disappear when conspiracy theory beliefs are aggregated into a scale. Since Goertzel (1994), demographics have largely been treated as "control" variables, rather than as variables of interest. Given our findings here, we encourage a renewed interest in examining not only the relationship between sociodemographic variables and conspiracy theory beliefs, but also the reasons underlying those relationships, some of which are only beginning to attract attention (e.g., Dyer and Hall 2019, van Prooijen 2017).

Table 3: Correlations with sociodemographic characteristics.

	Education	Age	Non-White (vs. White)	Female (vs. Male)
1. Epstein	-0.13***	-0.21***	0.06**	-0.03
2. Deep State	-0.07**	-0.15***	0.10***	-0.05*
3. Trafficking	-0.14***	-0.40***	0.16***	-0.02
4. Anti-vaxx	-0.10***	-0.24***	0.20***	0.03
5. Trump Faking	-0.03	-0.25***	0.30***	0.08***
6. 5G	-0.05*	-0.18***	0.17***	0.04
7. Rep. Fraud	0.04	-0.21***	0.28**	0.06**
8. Climate Hoax	0.02	-0.08***	-0.06*	-0.11***
9. Infected Trump	-0.03	-0.18***	-0.00	-0.05*
10. False Flag	0.02	-0.29***	0.12***	-0.11***
11. Scale of Beliefs	-0.08***	-0.36***	0.22***	-0.02

Note: *p<0.05, **p<0.01, ***p<0.001.

Finally, Table 4 replicates and extends the analysis in Table 4 of Goertzel's paper. Goertzel found that beliefs in the 10 conspiracy theories he investigated were correlated with "anomia," which is operationalized using three items taken from the 1990 General Social Survey that were designed to measure the general view that the situation of the average person is getting worse. Eight of the 10 conspiracy theory beliefs we investigated are positively correlated with anomie, as is our additive scale. Goertzel's three-item trust measure asked whether respondents trusted the police, their neighbors, and their relatives. While Goertzel found that all of his

conspiracy theories were negatively correlated with trust, we find that trust is negatively correlated with eight of ours, not significantly correlated with one (Infected Trump), and positively correlated with one other (Climate Hoax). These findings are in line with more recent work demonstrating that many conspiracy theory beliefs are predictive of (Mari et al. 2021, Einstein and Glick 2015, Berlinski et al. 2021), or ancillary to (mis)trust (Bruder and Kunert 2021). Lastly, we replicated Goertzel's question about unemployment: "Thinking about the next 12 months, how likely do you think it is that you will lose your job or be laid off?" We find, as Goertzel did, that the expectation of losing one's job is consistently positively correlated with every conspiracy theory belief.

Goertzel's (1994) findings carved a path for future scholars who have subsequently focused on investigating the relationship between additional negative psychological traits and conspiracy theory beliefs (for a review, see Douglas et al. 2019). To show the breadth of this approach, Table 4 includes 10 additional attitudes and traits that are often characterized as "dark," anti-social, or otherwise undesirable. We begin with narcissism, Machiavellianism, and psychopathy, which compose the "dark triad" of personality traits (Kay 2021). Each of these traits are positively correlated with each of the conspiracy theory beliefs, as well as the scale of those beliefs. We included a three-item measure of dogmatism (McClosky and Chong 1985), intended to capture to what extent respondents hold on to ideas in the face of countervailing evidence; all conspiracy theories, as well as the scale of conspiracy theory beliefs, are significantly positively correlated. A three-item scale of national narcissism (Sternisko et al. 2021), intended to capture the extent to which respondents view their country as great and deserving of further recognition, is positively correlated with eight of the 10 conspiracy theories

and not correlated with beliefs about Trump faking COVID-19 symptoms or Republicans stealing elections.

Our next set of correlates regard online behavior. We consider the extent to which respondents enjoy arguing online and whether they knowingly share false information online. All 10 conspiracy theory beliefs are positively correlated with both measures. Next, denialism, intended to capture the extent to which respondents resist or reject authoritative information (Uscinski et al. 2020), is strongly related to all 10 conspiracy theory beliefs, as is Manicheanism, the tendency to view politics as a battle between good and evil (Oliver and Wood 2014). Finally, respondents' agreement with the statement, "Violence is sometimes an acceptable way for Americans to express their disagreement with the government," is significantly, positively correlated with all 10 conspiracy theory beliefs.

Altogether, Goertzel's principle empirical findings are largely replicated using 10 different conspiracy theories more than 25 years later—a remarkable feat, especially given that Goertzel had little previous work on which to base his own study. Our extension of his findings show that Goertzel was headed in the right direction: conspiracy theory beliefs tend to be positively correlated with a range of negative psychological traits and behaviors, as well as each other. In the next section, we reconsider one of Goertzel's primary theoretical contributions: that conspiracy theory beliefs are interwoven into monological belief system.

Table 4: Pearson's correlations between conspiracy theory beliefs and other personality traits and individual orientations.

	Anomie	Trust	Job Loss	Narcissism	Machiavellianism	Psychopathy	Dogmatism	National Narcissism
1. Epstein	0.19***	-0.09***	0.13***	0.08***	0.12***	0.14***	0.07***	0.09***
2. Deep State	0.22***	-0.11***	0.14***	0.14***	0.16***	0.22***	0.25***	0.29***
3. Trafficking	0.21***	-0.16***	0.19***	0.16***	0.17***	0.20***	0.20***	0.22***
4. Anti-vaxx	0.23***	-0.22***	0.20***	0.19***	0.17***	0.23***	0.22***	0.27***
5. Trump Faking	0.31***	-0.28***	0.24***	0.17***	0.15***	0.15***	0.13***	0.02
6. 5G	0.19***	-0.15***	0.18***	0.18***	0.15***	0.19***	0.29***	0.32***
7. Rep. Fraud	0.32***	-0.30***	0.25***	0.20***	0.19***	0.21***	0.09***	-0.04
8. Climate Hoax	-0.02	0.07***	0.07**	0.21***	0.20***	0.29***	0.30***	0.42***
9. Infected Trump	0.03	0.01	0.18***	0.25***	0.20***	0.30***	0.25***	0.36***
10. False Flag	0.16***	-0.11***	0.22***	0.32***	0.28***	0.33***	0.29***	0.32***
11. Scale of Beliefs	0.30***	-0.23***	0.30***	0.31***	0.29***	0.37***	0.34***	0.37***

Table 4 cont'd

	Argumentative	Share False Info.	Denialism	Manicheanism	Support Violence
1. Epstein	0.18***	0.09***	0.37***	0.20***	0.14***
2. Deep State	0.21***	0.24***	0.50***	0.35***	0.18***
3. Trafficking	0.24***	0.25***	0.40***	0.27***	0.24***
4. Anti-vaxx	0.17***	0.29***	0.41***	0.32***	0.25***
5. Trump Faking	0.15***	0.26***	0.15***	0.14***	0.27***
6. 5G	0.16***	0.29***	0.37***	0.35***	0.22***
7. Rep. Fraud	0.17***	0.25***	0.07**	0.12***	0.34***
8. Climate Hoax	0.19***	0.31***	0.34***	0.28***	0.15***
9. Infected Trump	0.17***	0.33***	0.24***	0.26***	0.19***
10. False Flag	0.27***	0.44***	0.33***	0.29***	0.34***
11. Scale of Beliefs	0.31***	0.45***	0.52***	0.42***	0.38***

Note: *$p<0.05$, **$p<0.01$, ***$p<0.001$.

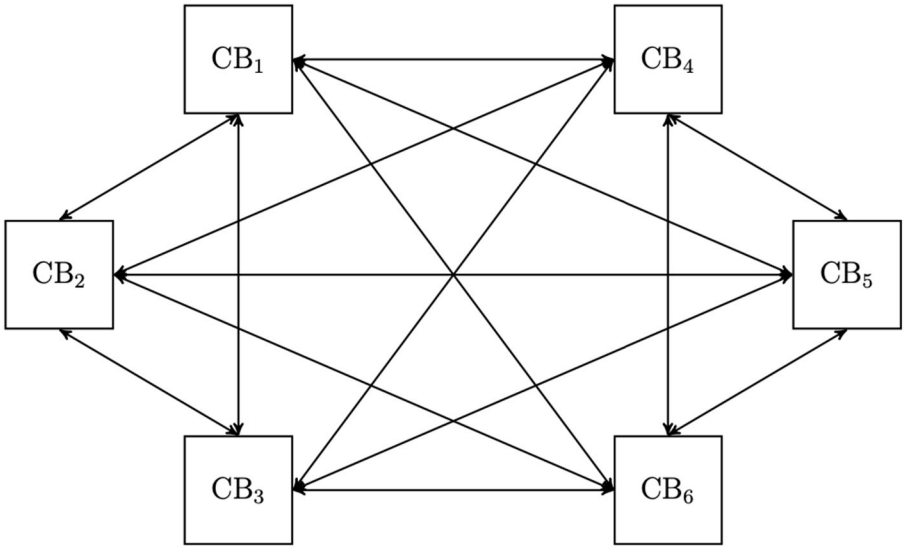
Are Conspiratorial Belief Systems Monological?

Perhaps Goertzel's most enduring contribution is his theory about the monological structure of conspiratorial belief systems. It is instructive to quote Goertzel at length:

> "Dialogical belief systems engage in a dialogue with their context, while monological systems speak only to themselves, ignoring their context in all but the shallowest respects. This mathematical model quantifies the philosophical difference between the 'open' and 'closed' mind. Conspiratorial beliefs are useful in monological belief systems since they provide an easy, automatic explanation for any new phenomenon which might threaten the system. In a monological belief system, each of the beliefs serves as evidence for each of the other beliefs. The more conspiracies a monological thinker believes in, the more likely he or she is to believe in any new conspiracy theory which may be proposed." (pg. 740)

In Goertzel's view, conspiratorial belief systems are self-reinforcing—conspiracy theory beliefs feed each other, breeding new and more conspiracy theory beliefs over time. We graphically depict a hypothetical monological conspiratorial belief system via a path diagram in Figure 2. Each of the six distinct conspiracy theory beliefs, CB, are connected in a mutually reinforcing system—for each conspiracy theory belief there is a causal path both to and from every other conspiracy theory belief.

Figure 2: Path diagram of monological conspiratorial belief system.



Far from a marginal view of conspiratorial belief systems, the monological thesis has received considerable attention from scholars even in the past decade. Some research is supportive of the monological thesis (Miller 2020, Swami et al. 2011, Galliford and Furnham 2017, Drinkwater, Dagnall, and Parker 2012), some is not supportive (Franks et al. 2017, Sutton and Douglas 2014, Enders et al. 2021b, Wood, Douglas, and Sutton 2012, Klein, Clutton, and Polito 2018, Swami 2012), and numerous other studies treat it in a more cursory fashion, citing Goertzel (1994) in an effort to support the broader notion that conspiracy theory beliefs appear to form some form of belief system, or are organized by particular underlying factors (e.g., Lewandowsky, Gignac, and Oberauer 2013). Most work supportive of the monological thesis interprets positive correlations between (un)related conspiracy theory beliefs as confirmatory—or at least supportive—evidence, just as Goertzel did. Critical work, however, challenges this interpretation of inter-correlations. For example, Wood and colleagues (2012) show that contradictory conspiracy theory beliefs about Princess Diana (e.g., that she is both dead and

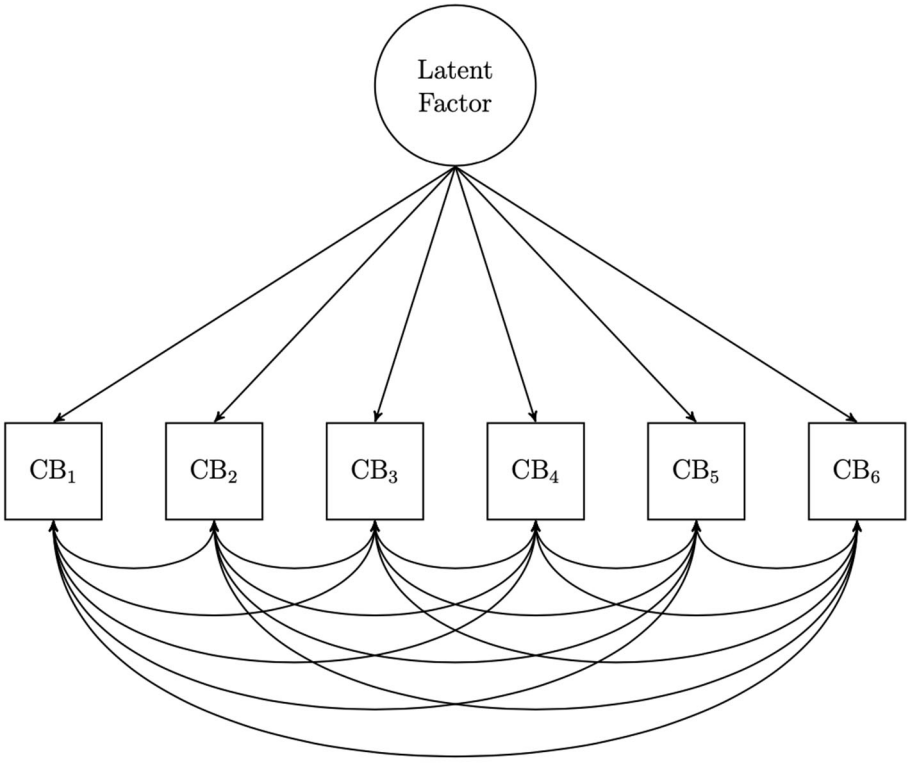
alive) are positively correlated; if conspiracy theory beliefs are conceived of as mutually supportive, such contradictory beliefs should not exist. In this way, correlations between conspiracy theory beliefs constitute a necessary but not sufficient condition for monologicality.

Inter-correlations may also prove to be more indicative of an ideological belief system than a monological one. Indeed, this is one conclusion made by Wood and colleagues (2012), particularly after demonstrating that the positive correlation between contradictory conspiracy theory beliefs was the spurious product of more general beliefs about government cover-ups. Franks et al. (2017) reach a similar conclusion in their interrogation of the monological thesis using semi-structured interviews. They find that there are several broad dimensions of conspiracy theory beliefs—regarding ontology, epistemology, and human agency—that differentiate conspiracy believers. Not only is this finding incongruent with the picture of monological conspiracy believers as paranoid and alienated, but it suggests that higher order worldviews and "styles" of thinking are important for explaining conspiracy theory beliefs. Enders et al. (2021b) demonstrate the latter point empirically, finding that, while conspiracy theory beliefs can be organized by some low-dimensional structure (as positive correlations between beliefs would imply), not all conspiracy theory beliefs are related to each other or to the same personality characteristics and individual orientations. In other words, while conspiracy theory beliefs exhibit all the makings of a belief system, the monological nature of that belief system remains largely unevidenced.

Each of these findings support a view of conspiratorial belief systems that looks more like the hypothetical belief system in Figure 3 than that in Figure 2. Under this conceptualization, observed correlations between beliefs in specific conspiracy theories are the product of one or more shared latent dimensions (whether we think of those dimensions as orientations, traits,

styles of reasoning, or something else). Once the shared dimension(s) are accounted for, there is no reason for the specific beliefs to be correlated (note that Wood et al. (2012) show evidence for this, as described above). This representation should be familiar: it is how most psychological constructs are conceptualized (e.g., Nunnally and Bernstein 1994). This model also possesses a particularly useful property: it can be estimated vis-à-vis well-established factor analytic methods. The model of a monological conspiratorial belief system represented in Figure 2 cannot, however, be estimated—indeed, it is unidentified.[4] This is one empirical manifestation of Sutton and Douglas's (2014) argument that the monological thesis lacks parsimony: "The correlations among various conspiracy theory beliefs can be explained in other, simpler ways, without invoking a closed epistemology or a nomothetic explanatory style" (p. 260).

Figure 3: Path diagram of typical psychological construct.



[4] Unidentified models are those for which unique solutions do not exist (e.g., the number of unknown parameters to be estimated outweigh the number of known ones).

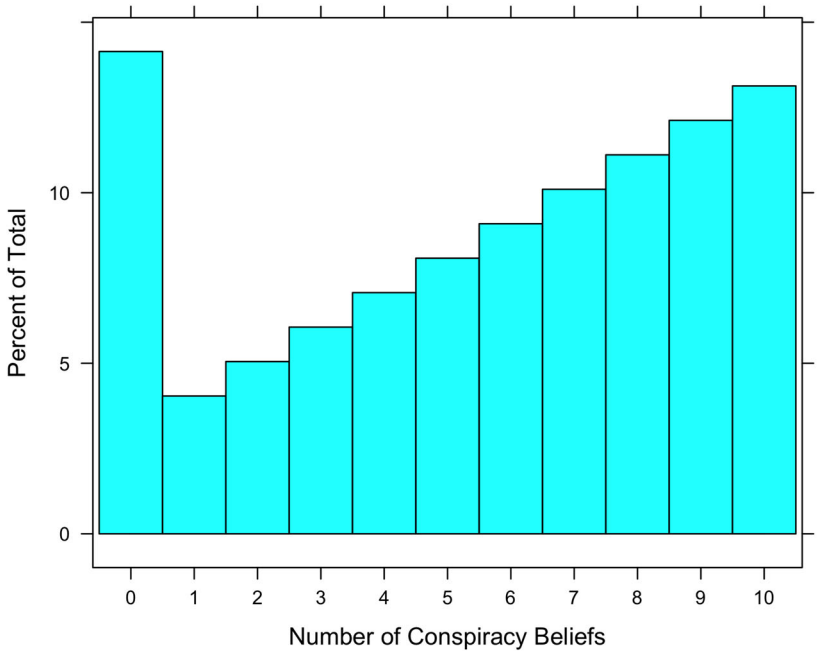
While we believe that previous work that specifically tests the veracity of the monological thesis provides important qualifications and appropriate scrutiny of the theory, we seek to expand this work by examining additional untested implications of monologicality, some of which Goertzel himself hinted at. The first regards the distribution of conspiracy theory beliefs implied by the theory. If monological, conspiratorial belief systems should encourage the adoption of conspiracy theory beliefs—the more conspiracy theory beliefs one possesses, the more opportunities there are for congruent, system-reinforcing conspiracy theory beliefs to be adopted. Figure 4 depicts a hypothetical distribution of people, by the number of conspiracy theory beliefs they hold, under an assumption of monologicality. While some non-trivial proportion of individuals might hold no conspiracy theory beliefs (i.e., they do not possess a monological conspiratorial belief system or have yet to be exposed to or adopt an initial conspiracy theory), we should generally expect to observe more people holding 10 conspiracy theory beliefs, for example, than people holding only 1.[5] If conspiratorial belief systems are inherently monological, we should not observe more individuals possessing one conspiracy theory belief than 2 or more.

Figure 1—which is congruent with Goertzel's own evidence—is clearly at odds with the theoretical prediction depicted in Figure 4. One potential criticism of this test might regard the types of conspiracy theories employed: perhaps we should observe a pattern like that in Figure 4 when restricting our analysis to within-domain, non-contradictory conspiracy theories? We can test this possibility by replicating the count in Figure 1 using only those conspiracy theories in the QAnon universe, for example. The three conspiracy theories about Epstein's death, the "deep

[5] As pointed out in the previous section, this would be partially dependent on the conspiracy theories being queried. If researchers were polling on new and fringe conspiracy theories, this might not hold. But, assuming that researchers were polling conspiracy theories that respondents had previously had the opportunity to be exposed to, then this distribution would be appropriate.

state," and child trafficking fit this criterion. Moreover, there is nothing contradictory about these beliefs; if anything, they are mutually supportive. Yet, even here we observe a pattern that is structurally identical to that in Figure 1: Thirty-two percent of respondents believe in zero, 26 percent believe in one, 24 percent believe in two, and 18 percent believe in all three. This implication of the monological thesis remains unevidenced.

Figure 4: Hypothetical distribution of conspiracy theory beliefs if conspiratorial belief systems were monological.



Another implication of the monological thesis regards the influence of time, as Goertzel himself hints at (p. 741). As monological conspiracy believers age, surely they should adopt more conspiracy theory beliefs along the way, especially in an age of information where conspiracy theories are ubiquitous. How many or at what rate, we cannot know—the monological thesis is simply not precise enough to derive a specific prediction. Still, we should

expect that older people, on average, will exhibit greater numbers of conspiracy theory beliefs than younger people for whom monological conspiratorial belief systems are just forming.

To empirically test this proposition and others discussed below, we utilize a new dataset with a new set of conspiracy theory beliefs. We do this to ensure that our conclusions are not the artifact of a particular sample, or more likely, a particular set of conspiracy theories; indeed, as we have shown above, different conspiracy theories can lead to different inferences. To that end, we also replicate all subsequent analyses with the first dataset from October 2020 in the supplemental appendix. Data was collected on 2,021 U.S. adults between April 30–May 19, 2021. The survey was fielded with Qualtrics and the sample was designed to be broadly representative of the U.S. population based on age, gender, race and ethnicity, and educational attainment; see the appendix for details about demographic composition. The conspiracy theories we asked about, along with the percentage of Americans who believe in each, appear in Table 5.

To examine age effects, we regress a count of the 10 conspiracy theory beliefs listed in Table 5 on respondents' age, controlling for race, ethnicity, education, household income, religiosity, and conspiracy thinking—the general predisposition to interpret salient events and circumstances as the product of real conspiracies, as operationalized by Uscinski and Parent (2014). We use a negative binomial model because of the skewed nature of the count of conspiracy theory beliefs, though the result is substantively identical using OLS. Incongruent with the predictions of the monological thesis, we observe a significant *negative* coefficient for respondent age (-0.009, z=-7.46, p<0.001).[6] The model-predicted effect of age, holding all other variables at their mean values, appears in Figure 5. Respondents around 18–20 years old believe

[6] We also note that the bivariate correlation between age and the number of conspiracy beliefs one holds is negative and significant (r=-0.20, p<0.001).

in three of the 10 conspiracy theories, on average; the oldest respondents believe somewhere between 1–2, on average.

Table 5: Percentage of respondents who "agree" or "strongly" agree with each conspiracy theory.

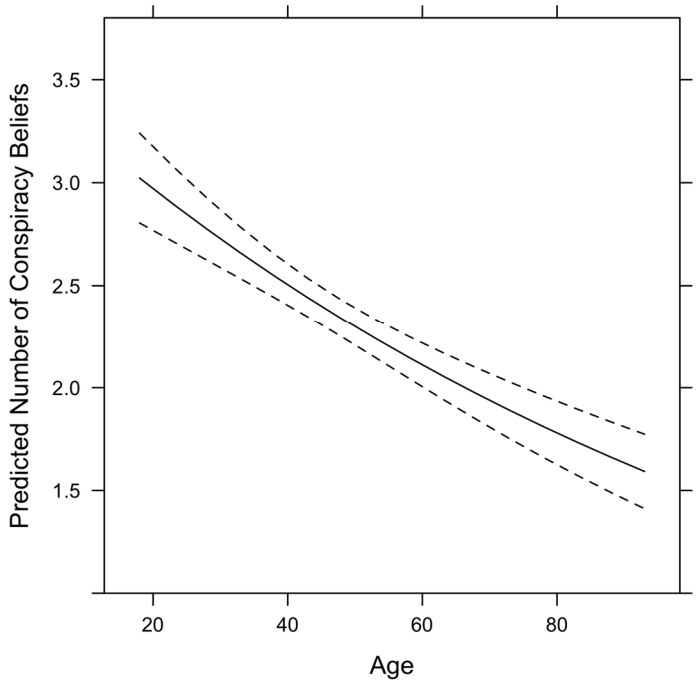
Label	Conspiracy theory belief Question	% Agree
GMOS	The dangers of genetically-modified foods are being hidden from the public.	40
FDA	The Food and Drug Administration is deliberately preventing the public from getting natural cures for cancer and other diseases because of pressure from drug companies.	35
Clinton Nuke	Hillary Clinton conspired to provide Russia with access to nuclear materials.	29
Soros	Billionaire George Soros is behind a hidden plot to destabilize the American government, take control of the media, and put the world under his control.	26
Rothschilds	A powerful family, the Rothschilds, through their wealth, controls governments, wars, and many countries' economies.	26
Cell Cancer	Health officials know that cell phones cause cancer but are doing nothing to stop it because large corporations won't let them.	20
9/11 Truther	Certain U.S. government officials planned the attacks of September 11, 2001, because they wanted the United States to go to war in the Middle East.	19
Rep. Steal	Republicans won the presidential elections in 2016, 2004, and 2000 by stealing them.	15
AIDS	AIDS is a form of systematic destruction of minorities like Blacks and Hispanics.*	15
Tracking	The coronavirus is being used to install tracking devices inside our bodies.	12

*Affirmative response options for the AIDS question are "completely agree" and "mostly agree," all else are "strongly agree" and "agree."

We also considered two additional model specifications. First, we integrated a quadratic age term to allow for a non-linear relationship between age and conspiracy theory beliefs. This was also significant and negative (-.0002, z=-3.16, p=0.002). Under this specification, an 18-year-old (youngest in our data) is predicted to hold 2.67 conspiracy theory beliefs, while

someone 80 years old or older is predicted to hold 1.53 conspiracy theory beliefs or less. In other words, the pattern is very similar to that depicted in Figure 5. Second, we considered an interaction between age and conspiracy thinking—perhaps the relationship between age and the number of conspiracy theory beliefs one holds changes depending on one's predisposition toward conspiracy theorizing? We find no significant interaction effect. Thus, older individuals appear to exhibit fewer conspiracy theory beliefs than younger ones, regardless of one's susceptibility to conspiratorial thinking. This is the second count on which the evidence is unsupportive of the monological thesis.

Figure 5: Model-predicted number of conspiracy theory beliefs (0–10) held by age of respondent, controlling for conspiracy thinking and other sociodemographic factors. See appendix for model.



In our final unique test of the monological thesis, we reconsider the relationship between specific conspiracy theory beliefs. However, we do not rely on correlations, as most others have

in the past. One potential problem with utilizing correlations between "balanced" items—those with equal numbers of both affirmative (e.g., "agree") and negative (e.g., "disagree") response options(Sutton and Douglas 2020)—is that the strength of the correlations may be partially driven by those who consistently fail to exhibit support for various conspiracy theories. However, the monological thesis is about belief, rather than disbelief: to be more "conspiratorial" is to hold many conspiracy theory beliefs. Instead of examining correlations, we operationalize these connections between conspiracy theory beliefs vis-à-vis conditional probabilities: the probability of believing one conspiracy theory, given belief in another. Minimally, monologicality implies that this probability should be greater than 0.50, on average––better odds than a coin flip. If, however, conspiracy thinkers truly hold mutually reinforcing beliefs in a monological, epistemologically closed system of beliefs, we presuppose that this probability should be much greater.

We put this proposition to the test in Table 6, which contains 90 conditional probabilities for all possible pairings of the 10 conspiracy theory beliefs we examine. The lower diagonal of the table contains the probability of a belief in the row conspiracy theory given a belief in the column conspiracy theory. For example, the value 0.62 in the cell (FDA, GMOs) is the probability of believing in the FDA conspiracy theory given that one believes in the GMOs theory. The upper diagonal of the matrix contains the probability of a belief in the column theory given a belief in the row theory. The conditional probabilities vary between 0.17 (Rep. Steal, Clinton Nuke) and 0.80 (GMOs, Cell Cancer). Importantly, the average is 0.47—lower than the minimal threshold of 0.50. In other words, the odds of believing any of the 10 conspiracy theories we examined, given belief in another, are worse than a coin flip, or a 50–50 chance. This

finding is squarely at odds with both the predictions of the monological thesis, as well as the interpretation of positive correlations as supportive evidence for monologicality.

Table 6: Conditional probability of believing one conspiracy theory, given belief in another.

	GMOs	FDA	Clinton Nuke	Soros	Rothschilds	Cell Cancer	9/11 Truther	Rep. Fraud	AIDS	Tracking
GMOs		0.70	0.62	0.64	0.70	0.80	0.77	0.57	0.69	0.76
FDA	0.62		0.59	0.62	0.64	0.74	0.70	0.57	0.59	0.69
Clinton Nuke	0.46	0.50		0.67	0.58	0.50	0.50	0.33	0.43	0.63
Soros	0.42	0.47	0.60		0.55	0.52	0.53	0.38	0.39	0.58
Rothschilds	0.46	0.47	0.51	0.54		0.53	0.64	0.44	0.53	0.65
Cell Cancer	0.41	0.43	0.34	0.40	0.42		0.56	0.43	0.47	0.59
9/11 Truther	0.38	0.39	0.33	0.39	0.48	0.54		0.42	0.51	0.62
Rep. Steal	0.22	0.25	0.17	0.22	0.26	0.32	0.33		0.41	0.40
AIDS	0.26	0.26	0.22	0.22	0.31	0.35	0.40	0.41		0.43
Tracking	0.22	0.23	0.25	0.26	0.29	0.34	0.37	0.31	0.34	

Note: Lower diagonal depicts the probability of a belief in the row theory given a belief in the column theory. Upper diagonal depicts the probability of a belief in the column theory given a belief in the row theory.

Instead of monologicality, the patterns we observe in Table 6 are more indicative of the traditional latent trait formulation depicted in Figure 3. This can be seen in clusters of conspiracy theory beliefs for which we observe either high or low conditional probabilities. For example, we observe high conditional probabilities among the GMOs, FDA, and Cell Cancer theories—all of which involve deception on the part of scientists and the medical establishment. Same goes for Soros and Clinton Nuke, both of which we would assume are believed by Republicans and conservatives. These findings comport nicely with those produced by Enders et al. (2021b), who find that conspiracy theory beliefs are organized by the individual differences that asymmetrically attract individuals to particular conspiracy theories. Moreover, because the conditional probabilities are frequently quite different depending on which conspiracy theory in a pair serves as the conditioning variable, we have additional evidence that not all conspiracy theories created equally.

Conclusion

Goertzel's 1994 paper is not merely an important fixture of the conspiracy theory literature, but a foundational one upon which a productive, durable research program was eventually built. What is more, our re-examination of this work illuminated the timeless quality of its central findings: the positively skewed distribution of conspiracy theory beliefs, positive correlations between many beliefs in specific conspiracy theories, and associations between most conspiracy theories and litany of sociodemographic and psychological factors, including anomie, trust, and fear of job loss. As we show, Goertzel's paper also spurred additional research into the social (e.g., race, socioeconomic status) and psychological (e.g., dark triad, support for violence) correlates of conspiracy theory beliefs (Douglas et al. 2019), as well as the nature of conspiratorial belief systems (Enders et al. 2021b, Frenken and Imhoff 2021). We must also applaud Goertzel's attention to a subject that, at the time, was marginalized and designated unimportant.

The facet of Goertzel's contribution that remains in contention is his theory about the monological nature of conspiratorial belief systems. Whereas positive correlations between even seemingly unrelated conspiracy theory beliefs certainly constitute a plausible empirical manifestation of monologicality, we and others before us have argued that such a finding does not constitute *sufficient* evidence for monologicality. While others have demonstrated that the positive correlations between some conspiracy theory beliefs are the spurious product of broader worldviews (Wood, Douglas, and Sutton 2012), we also showed that the distribution of conspiracy theory beliefs, relationship between age and the number of conspiracy theory beliefs one holds, and patterns in the probability of holding a given conspiracy theory belief conditional on the adoption of another are all at odds with the predictions of the monological thesis.

To be clear, these findings constitute more than academic "inside baseball," extending well beyond even scholarly inquiries into the nature of conspiracy theory beliefs. Consider, for example, the way conspiracy theory beliefs are frequently conceptualized by journalists: conspiracy believers are depicted as rubes who are lured down "conspiracy-fueled rabbit holes," latching onto one conspiracy theory after another (e.g., Collins 2020, Zadrozny 2020). This type of explanation for conspiracy theory beliefs and their supposed proliferation is heavily reliant on the theory of monologicality, even if coverage fails to use such a label—the deeper one goes, the more tightly closed their belief system becomes and the more conspiracy theories they believe.

That this logic has slowly seeped into even the mass consciousness, despite the lack of supportive evidence and rising tally of disconfirmatory evidence, is not without consequence. It distorts social interactions, promoting a misunderstanding of the attributes of conspiracy believers, and fuels polarization between political ingroups and outgroups. It misleads policymakers who assume that the best way to cure society of its conspiratorial ills is to cover the rabbit holes—to censor information, or, as one Congressperson put it, to comprehensively "stifle" these ideas and "reeducate" the conspiratorial (Riggleman 2020). Such actions on the part of the government may even lead to the construction of more or different conspiracy theory beliefs (Nyhan et al. 2016). Finally, the widespread mischaracterization of conspiratorial belief systems also misdirects academic efforts to limit the pernicious effects of conspiracy theories. How can we develop strategies to weaken or prevent the formation of conspiracy theory beliefs if we do not take seriously the psychological, social, and political process(es) by which they are formed, maintained, and expanded?

Despite the disconfirmatory evidence produced here and elsewhere, we offer three important caveats to our findings regarding monologicality. First, even though evidence for the

monologicality of conspiratorial belief systems is, at best, very weak, there exists considerable evidence that conspiracy theory beliefs do form a belief system of some sort. For example, Enders and colleagues (2021b) demonstrate that conspiracy theory beliefs exhibit all the hallmarks of belief systems: interrelationships between beliefs, a low-dimensional structure, and clear groupings of ideas based on their content and potential psychological antecedents. Similarly, Frenken and Imhoff (2021) find evidence of "a general mindset," with properties similar to those discovered by Enders et al. (2021b).

Second, it is plausible, if not likely, that at least some conspiracy believers do possess something akin to a monological belief system. Take, for instance, a QAnon supporter. Time spent on Q-associated message boards may result in the adoption of numerous new conspiracy theory beliefs, each of which are built on and reinforced by each other in a closed belief system. A belief about child sex trafficking could lead to belief in Satanic child abuse rituals by politicians, Clinton body doubles, and the like. However, even in this scenario, we must ask why one was visiting QAnon message boards in the first place. While the person we have described may have beliefs that operate in a monological fashion, they also required some motivation to seek out the information that generated those beliefs in the first place. This presupposition is consistent with the well-evidenced process of selective exposure (Enders et al. 2021a), whereby individuals choose to expose themselves to some information and not other information based on the congeniality of that information with respect to existing beliefs, values, and orientations. In other words, the motivation precedes any (non-)monological structure. Furthermore, the conspiracy theories adopted may have similar content and be underwritten by shared dispositions or group allegiances.

Finally, there is more work to be done. For instance, if the above example of a hypothetical monological thinker holds any merit, perhaps monologicality should be investigated at the individual level, instead of using aggregate quantities like correlations, conditional probabilities, and distributions. Recent work in this vein is quite promising (Frenken and Imhoff 2021). Moreover, Goertzel, himself, provides another suggestion: using time series (or panel/longitudinal) data to examine the impact of temporal change in one conspiracy theory belief on another (p. 741). Even though high-quality panel data is expensive and typically suffers problematic attrition rates, a dynamic investigation of monologicality can shed new, causal light on the veracity of the theory.

Where should the discipline head more than 27 years after Goertzel's paradigmatic work? One recommendation that stems from both Goertzel's original paper and our own replication and expansion regards which conspiracy theory beliefs are polled on. Clearly all conspiracy theories are not created equally—they are differentially attractive to people depending on peoples' motivations and characteristics, be they political, social, psychological, epistemic, etc. Investigations into the causes or consequences of conspiracy theory beliefs should no longer be confined to a small number of conspiracy theories and should, where appropriate, intentionally include conspiracy theories that vary in topical domains, supposed conspirators, salience, and other dimensions of belief (Enders and Uscinski 2021). Moreover, we must be more careful, as a research community, to communicate that people are attracted to ideas, not the other way around. The language of "dangerous ideas" only serves to misdirect academic and scholarly efforts to understand and combat conspiracy theory beliefs. We must make clear that the correlates of conspiracy theory beliefs are the correlates of particular conspiracy believers, not the theories themselves. Finally, we encourage more work into the differences in style and motivation

exhibited by conspiracy believers. Franks et al. (2017) and Frenken and Imhoff (2021) have made great strides in this area, but more remains to be done. Just as political parties have different coalitions based on various ideologies, social groups, and issue positions, so, too, is there important variation in who should be labeled a "conspiracy theorist."

References

Abalakina-Paap, Marina, Walter G. Stephan, Traci Craig, and W. Larry Gregory. 1999. "Beliefs in Conspiracies." *Political Psychology* 20 (3):637-647.

Berlinski, Nicolas, Margaret Doyle, Andrew M. Guess, Gabrielle Levy, Benjamin Lyons, Jacob M. Montgomery, Brendan Nyhan, and Jason Reifler. 2021. "The Effects of Unsubstantiated Claims of Voter Fraud on Confidence in Elections." *Journal of Experimental Political Science*:1-16. doi: 10.1017/XPS.2021.18.

Brotherton, Rob, Christopher C. French, and Alan D. Pickering. 2013. "Measuring Belief in Conspiracy Theories: The Generic Conspiracist Beliefs Scale." *Frontiers in Psychology* 4 (279):1-15. doi: https://doi.org/10.3389/fpsyg.2013.00279.

Bruder, Martin, and Laura Kunert. 2021. "The conspiracy hoax? Testing key hypotheses about the correlates of generic beliefs in conspiracy theories during the COVID-19 pandemic." *International Journal of Psychology* n/a (n/a). doi: https://doi.org/10.1002/ijop.12769.

Butler, Lisa D., Cheryl Koopman, and Philip G. Zimbardo. 1995. "The Psychological Impact of Viewing the Film JFK: Emotions, Beliefs, and Political Behavioral Intentions " *Political Psychology* 16 (2):237-257.

Butter, Michael, and Peter Knight. 2018. "The History of Conspiracy Theory Research: A Review and Commentary." In *Conspiracy Theories and the People Who Believe Them*, edited by Joseph E. Uscinski, 33-46. New York: Oxford University Press.

Castanho Silva, Bruno, Federico Vegetti, and Levente Littvay. 2017. "The Elite Is Up to Something: Exploring the Relation Between Populism and Belief in Conspiracy Theories." *Swiss Political Science Review* 23 (4):423-443. doi: 10.1111/spsr.12270.

Claassen, Ryan L., and Michael J. Ensley. 2016. "Motivated Reasoning and Yard-Sign-Stealing Partisans: Mine is a Likable Rogue, Yours is a Degenerate Criminal." *Political Behavior* 38 (2):317-335. doi: 10.1007/s11109-015-9313-9.

Clifford, Scott, Yongkwang Kim, and Brian W Sullivan. 2020. "An Improved Question Format for Measuring Conspiracy Beliefs." *Public Opinion Quarterly* 83 (4):690-722. doi: 10.1093/poq/nfz049.

Collins, Ben. 2020. How QAnon rode the pandemic to new heights — and fueled the viral anti-mask phenomenon. *NBC News*. Accessed 8/15/2020.

Davis, Brion David, ed. 1972. *Fear of Conspiracy: Images of Un-American Subversion from the Revolution to the Present*. Ithaca: Cornell University Press.

Douglas, Karen. 2021. Speaking of Psychology: Why people believe in conspiracy theories, with Karen Douglas, PhD. In *Speaking of Psychology*, edited by Kim Mills. https://www.apa.org/research/action/speaking-of-psychology/conspiracy-theories: American Pschological Association.

Douglas, Karen, Joseph Uscinski, Robbie Sutton, Aleksandra Cichocka, Turkay Nefes, Chee Siang Ang, and Farzin Deravi. 2019. "Understanding Conspiracy Theories." *Advances in Political Psychology* 40 (1):3-35. doi: https://doi.org/10.1111/pops.12568.

Drinkwater, Ken, Neil Dagnall, and Andrew Parker. 2012. "Reality testing, conspiracy theories, and paranormal beliefs." *The Journal of Parapsychology* 76 (1):57. doi: https://e-space.mmu.ac.uk/619337/.

Dyer, Kathleen D., and Raymond E. Hall. 2019. "Effect of Critical Thinking Education on Epistemically Unwarranted Beliefs in College Students." *Research in Higher Education* 60 (3):293-314. doi: 10.1007/s11162-018-9513-3.

Einstein, Katherine Levine, and David M. Glick. 2015. "Do I Think BLS Data Are BS? The Consequences of Conspiracy Theories." *Political Behavior* 37:679-701.

Enders, Adam M., Joseph E. Uscinski, Michelle I. Seelig, Casey A. Klofstad, Stefan Wuchty, John R. Funchion, Manohar N. Murthi, Kamal Premaratne, and Justin Stoler. 2021a. "The Relationship Between Social Media Use and Beliefs in Conspiracy Theories and Misinformation." *Political Behavior*. doi: 10.1007/s11109-021-09734-6.

Enders, Adam, and Joseph Uscinski. 2021. "Are Misinformation, Anti-scientific Claims, and Conspiracy Theories for Political Extremists?" *Group Processes & Intergroup Relations* 24 (4):583-605 doi: https://doi.org/10.1177/1368430220960805.

Enders, Adam, Joseph Uscinski, Casey Klofstad, Michelle Seelig, Stefan Wuchty, Manohar Murthi, Kamal Premaratne, and John Funchion. 2021b. "Do Conspiracy Beliefs Form a Belief System? Examining the Structure and Organization of Conspiracy Beliefs." *Journal of Social and Political Psychology* 9 (1):255-271. doi: 10.5964/jspp.5649.

Franks, Bradley, Adrian Bangerter, Martin W. Bauer, Matthew Hall, and Mark C. Noort. 2017. "Beyond "Monologicality"? Exploring Conspiracist Worldviews." *Frontiers in Psychology* 8 (861). doi: https://doi.org/10.3389/fpsyg.2017.00861.

Frenken, Marius, and Roland Imhoff. 2021. "A Uniform Conspiracy Mindset or Differentiated Reactions to Specific Conspiracy Beliefs? Evidence From Latent Profile Analyses." *International Review of Social Psychology*.

Galliford, Natasha, and Adrian Furnham. 2017. "Individual difference factors and beliefs in medical and political conspiracy theories." *Scandinavian Journal of Psychology* 58 (5):422-428. doi: 10.1111/sjop.12382.

Goertzel, Ted. 1994. "Belief in Conspiracy Theories." *Political Psychology* 15 (4):733-744. doi: https://doi.org/10.2307/3791630

Kay, Cameron S. 2021. "Actors of the most fiendish character: Explaining the associations between the Dark Tetrad and conspiracist ideation." *Personality and Individual Differences* 171:110543. doi: https://doi.org/10.1016/j.paid.2020.110543.

Keeley, Brian. 1999. "Of Conspiracy Theories." *Journal of Philosophy* 96 (3):109-126.

Klein, Colin, Peter Clutton, and Vince Polito. 2018. "Topic Modeling Reveals Distinct Interests within an Online Conspiracy Forum." *Frontiers in Psychology* 9 (189). doi: 10.3389/fpsyg.2018.00189.

Knight, Peter. 2000. *Conspiracy culture: From the Kennedy assassination to the X-Files*: Psychology Press.

Lewandowsky, Stephan, Gilles E Gignac, and Klaus Oberauer. 2013. "The role of conspiracist ideation and worldviews in predicting rejection of science." *PLoS ONE* 8 (10):e75637.

Mari, Silvia, Homero Gil de Zúñiga, Ahmet Suerdem, Katja Hanke, Gary Brown, Roosevelt Vilar, Diana Boer, and Michal Bilewicz. 2021. "Conspiracy Theories and Institutional Trust: Examining the Role of Uncertainty Avoidance and Active Social Media Use." *Political Psychology* n/a (n/a). doi: https://doi.org/10.1111/pops.12754.

McClosky, Herbert, and Dennis Chong. 1985. "Similarities and Differences between Left-Wing and Right-Wing Radicals." *British Journal of Political Science* 15 (3):329-363. doi: https://doi.org/10.1017/S0007123400004221.

McHoskey, John W. 1995. "Case Closed? On the John F. Kennedy Assassination: Biased Assimilation of Evidence and Attitude Polarization." *Basic and Applied Social Psychology* 17 (3):1995.

Miller, Joanne M. 2020. "Do COVID-19 Conspiracy Theory Beliefs form a Monological Belief System?" *Canadian Journal of Political Science*:1-9. doi: 10.1017/S0008423920000517.

Miller, Joanne M., Kyle L. Saunders, and Christina E. Farhart. 2016. "Conspiracy endorsement as motivated reasoning: The moderating roles of political knowledge and trust." *American Journal of Political Science* 60 (4):824-844. doi: https://doi.org/10.1111/ajps.12234.

Nera, Kenzo, Sarah Leveaux, and Pit PLE Klein. 2020. "A "Conspiracy Theory" Conspiracy? A Mixed Methods Investigation of Laypeople's Rejection (and Acceptance) of a Controversial Label." *International Review of Social Psychology* 33 (1).

Nunnally, Jum C, and Ira H. Bernstein. 1994. *Psychometric Theory, 3rd Edition*. New York: McGraw-Hill.

Nyhan, Brendan, Franklin Dickinson, Sasha Dudding, Enxhi Dylgjeri, Eric Neiley, Christopher Pullerits, Minae Seog, Andy Simpson, Heather Szilagyi, and Colin Walmsley. 2016. "Classified or Coverup? The Effect of Redactions on Belief in Conspiracy Theories." *Journal of Experimental Political Science* (August):1-15.

Oliver, Eric, and Thomas Wood. 2014. "Conspiracy Theories and the Paranoid Style (s) of Mass Opinion." *American Journal of Political Science* 58 (4):952-966. doi: https://doi.org/10.1111/ajps.12084.

Richey, Sean. 2017. "A Birther and a Truther: The Influence of the Authoritarian Personality on Conspiracy Beliefs." *Politics & Policy* 45 (3):465-485. doi: 10.1111/polp.12206.

Riggleman, Denver. 2020. The spread of conspiracy theories like QAnon threatens our politics: GOP congressman. *USA Today*. Accessed 5/24/2021.

Romer, Daniel, and Kathleen Hall Jamieson. 2020. "Conspiracy theories as barriers to controlling the spread of COVID-19 in the US." *Social Science & Medicine* 263 (113356):1-8. doi: https://doi.org/10.1016/j.socscimed.2020.113356.

Smallpage, Steven M., Adam M. Enders, and Joseph Uscinski. 2017. "The partisan contours of conspiracy theory beliefs." *Research & Politics* 4 (4):1-7. doi: https://doi.org/10.1177/2053168017746554.

Sternisko, Anni, Aleksandra Cichocka, Aleksandra Cislak, and Jay J Van Bavel. 2021. "Collective narcissism predicts the belief and dissemination of conspiracy theories during the COVID-19 pandemic." *Personality and Social Psychology Bulletin*.

Sutton, Robbie M, and Karen M Douglas. 2014. "Examining the monological nature of conspiracy theories." In *Power, politics, and paranoia: Why people are suspicious of their leaders*, edited by Jan-Willem van Prooijen and Paul A. M. van Lange, 254-272. New York, NY, USA: Cambridge University Pess.

Sutton, Robbie M., and Karen M. Douglas. 2020. "Agreeing to disagree: reports of the popularity of Covid-19 conspiracy theories are greatly exaggerated." *Psychological Medicine*:1-3. doi: 10.1017/S0033291720002780.

Swami, Viren. 2012. "Social psychological origins of conspiracy theories: The case of the Jewish conspiracy theory in Malaysia." *Frontiers in Psychology* 3. doi: 10.3389/fpsyg.2012.00280.

Swami, Viren, Rebecca Coles, Stefan Stieger, Jakob Pietschnig, Adrian Furnham, Sherry Rehim, and Martin Voracek. 2011. "Conspiracist Ideation in Britain and Austria: Evidence of a Monological Belief System and Associations Between Individual Psychological Differences and Real-World and Fictitious Conspiracy Theories." *British Journal of Psychology* 102 (3):443-463. doi: 10.1111/j.2044-8295.2010.02004.x.

Uscinski, Joseph, Karen Douglas, and Stephan Lewandowsky. 2017. "Climate Change Conspiracy Theories." *Oxford Research Encyclopedia of Climate Science*:1-43. doi: 10.1093/acrefore/9780190228620.013.328.

Uscinski, Joseph E, and Adam M Enders. 2020. The Coronavirus conspiracy boom. *The Atlantic*. Accessed 1/12/2021.

Uscinski, Joseph, Adam M Enders, Wuchty Stefan, Casey Klofstad, Michelle Seelig, John Funchion, Manohar Murthi, Kamal Premaratne, and Caleb Everett. 2020. "Why do people believe COVID-19 conspiracy theories?" *The Harvard Kennedy School (HKS) Misinformation Review* 1:1-12. doi: https://doi.org/10.37016/mr-2020-015

Uscinski, Joseph, and Joseph M. Parent. 2014. *American Conspiracy Theories*. New York, NY, USA: Oxford University Press.

van Prooijen, Jan-Willem. 2017. "Why Education Predicts Decreased Belief in Conspiracy Theories." *Applied Cognitive Psychology* 31 (1):50-58. doi: 10.1002/acp.3301.

Wood, Michael, Karen Douglas, and Robbie Sutton. 2012. "Dead and Alive: Beliefs in Contradictory Conspiracy Theories." *Social Psychological and Personality Science* 3 (6):767-773. doi: 10.1177/1948550611434786.

Wood, Michael J. 2016a. "Conspiracy suspicions as a proxy for beliefs in conspiracy theories: Implications for theory and measurement." *British Journal of Psychology* 108 (3):507-527. doi: 10.1111/bjop.12231.

Wood, Michael J. 2016b. "Some Dare Call It Conspiracy: Labeling Something a Conspiracy Theory Does Not Reduce Belief in It." *Political Psychology* 37 (5):695-705. doi: 10.1111/pops.12285.

Zadrozny, Brandy. 2020. Facebook bans QAnon across its platforms. *NBC News*. Accessed 10/9/2021.