

Resolving the puzzle of conspiracy worldview and political activism:

Belief in secret plots decreases normative but increases non-normative political engagement.

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Abstract

It is a hitherto open and debated question whether the belief in conspiracies increases or attenuates the willingness to engage in political action. In the present paper, we tested the notion, whether a) the relation between belief in conspiracies and general political engagement is curvilinear (inverted U-shaped) and b) there may be opposing relations to normative vs. non-normative forms of political engagement. Two pre-registered experiments ($N = 194$; $N = 402$) support both propositions and show that the hypothetical adoption of a worldview that sees the world as governed by secret plots attenuates reported intentions to participate in normative, legal forms of political participation but increases reported intentions to employ non-normative, illegal means of political articulation. These results provide first evidence for the notion that political extremism and violence might seem an almost logical conclusion when seeing the world as governed by conspiracies.

Keywords: conspiracy mentality; non-normative protest; political action; political engagement;

Conspiracy theories play a prominent role in various political campaigns or movements, particularly those of political extremists. The conspiracy theory of the *Elders of Zion* has long been a central reference for antisemitic demagogues, culminating in National Socialist propaganda but continuing until today. In its founding charter of 1988, the Hamas (1988) did not only blame the Jews for such prominent events like the French or the Communist revolution (Article 22), but cited the Protocols of the Elders of Zion as evidence for this (Article 32). Such anecdotal associations of radicalized political ideas and conspiracy belief notwithstanding, psychological research on conspiracy belief has not yet established consensus regarding the role of conspiracy beliefs in political extremism. Quite on the contrary, there seems to be an open debate whether and what kind of association exists between conspiracy beliefs and any kind of political engagement. Whereas some point to motivating aspect of conspiracy narratives to change the status quo and become politically active, others emphasize the effect these narratives have in the form of political disengagement and lethargy (see Imhoff & Lamberty, 2020). Aiming to resolve this puzzle, the present paper reports two preregistered experiments in support of the notion that adopting the worldview of a conspiracy believer makes people more prone to engage in non-normative, but less prone to engage in normative political engagement.

Over the past decade, there has been an increasing scholarly interest in the psychology behind conspiracy theories and several propositions have achieved considerable consensus among scholars. One of the most replicated finding seems to be that endorsement of specific conspiracy theories is largely determined by people's general readiness to accept or reject the very notion of conspiracies at play, of their general *conspiracy mentality*. The relatively high intercorrelations among the agreement with conspiracy theories that are largely independent in content (e.g., Bruder et al., 2013; Goertzel, 1994), even if they entail logically contradictory propositions (Wood et al., 2012) has led several authors to postulate a more general worldview as the general factor behind specific conspiracy belief, a *conspiracy mentality*

(Imhoff & Bruder, 2014). Such a mentality can be best understood as a mindset of suspecting conspiracies behind virtually any event, which will then translate into endorsement of specific conspiracy theories. Scholars have gathered converging evidence for some associations with such a tendency to see secret plots behind the scenes (Douglas et al., 2017). As likely the most prominent example, different manipulations of feelings of control (Sullivan et al., 2010; Van Prooijen & Acker, 2015; Whitson & Galinsky, 2008) as well as correlational findings (Imhoff & Bruder, 2014; Imhoff & Lamberty, 2018; van Prooijen, 2016; Van Prooijen & Acker, 2015) point to an association of lack of control with increased beliefs in conspiracy theories. As another example, scholars from France (Lantian et al., 2017) and Germany (Imhoff & Lamberty, 2017) have independently gathered support for the notion that conspiracy theories are particularly appealing to those who have a high need to see themselves as particularly unique. Despite these emerging agreements, one aspect of the consequences of conspiracy beliefs has enjoyed less consensus: the question of whether adopting a conspiracy worldview leads to political disengagement or – on the contrary – to political activism. Both sides have arguments and empirical support on their side.

Conspiracy beliefs as engines of political disengagement or fuel for political engagement

Conspiracy theories confront people with the “fact” that high power agents (e.g., intelligence agencies, the government, corporations) do not comply with the rules and laws, but behave lawlessly to promote their own interest. If that is true and governments are either actively involved or complicit by omission (from preventing such going-ons), the very core of legitimacy of a ruling body is obsolete. In this light, it makes sense to assume that conspiracy believers remove themselves from political engagement because supposedly “political participation is a waste of time if the world is run by conspiracies and democracy is an illusion” (Wood, 2016). Accordingly, people with a stronger conspiracy mindset are more likely to endorse feelings of political alienation and cynicism (e.g., Swami et al., 2011; Swami, 2012; Vitriol & Marsh, 2018) and anomia (e.g., Abalakina-Paap et al., 1999; Goertzel, 1994),

and feel less satisfied with democracy in general (e.g., Swami & Furnham, 2012). Exposure to information supporting conspiracy theories decrease intentions to engage in politics and civic behaviors (Jolley & Douglas, 2014a, 2014b), but increase intentions to engage in everyday crime (Jolley et al., 2019), a finding interpretable as a quid-pro-quo reaction to the perceived legal non-compliance on the side of the powerful.

Somewhat at odds with this view is the observation that conspiracy rhetoric seems to be part and parcel of virtually any radical political organization – from Al Qaeda to Aum Shinrikyo or anti-abortion groups like “Lambs of Christ” (Bartlett & Miller, 2010).

Convincing their followers and sympathizers of such conspiracies would seem ill advised if that led to political lethargy, passivism and a retreat into privacy. Instead, it seems to follow the assumption that pointing to conspiracies increases outrage and political engagement, thereby increasing followers’ engagement. This is in line with the portrayal of conspiracy mindsets as an inherently political attitude, intrinsically tied to distrust in political institutions (but not common people), a lack of political (but not personal) control, and a motivation to become politically active (Imhoff & Lamberty, 2018). In line with this, conspiracy mentality has been shown to be positive predictor of people’s intentions to engage in protesting behavior after a nuclear disaster (Imhoff & Bruder, 2014).

Resolving the Puzzle

Although there may be many ways to reconcile these views by pointing, for instance, to contextual factors or specifics of the respective samples, we want to put forward two theoretical propositions that might help attenuate the apparent paradox. First, the connection between conspiracy beliefs and the degree of political engagement per se may not be linear. Even though psychological research typically assumes and only tests for linear relationships, most actual associations are not (e.g., Imhoff & Koch, 2017). For people who do not see any conspiracies at play, who accept the official versions of how things are, who trust the democratic process, there is little reason to protest or alter the status quo to begin with. That is

not to say that this needs to go along with political passivity, but merely that there might be less of a pressing need (Cichocka et al., 2018). This is drastically different if one fears that plots hatched in secret threaten our society and aims at undermining democratic principles. Accepting the scandalous possibility that some elected politicians do not represent their voters but follow the interest of a secret agenda should increase the willingness to get this person fired, to protect democratic principles. Going extreme on this continuum of conspiracy mentality, however, one might end up in a position where virtually everything is controlled by conspiracies and there is little reason to trust anyone. In such a situation, so we argue, one would not lack the pressing motivation to change the status quo but lack trust in the perceived system responsiveness, and thereby one central ingredient of collective action motivation: collective efficacy (e.g., van Zomeren et al., 2008). How can one even change a situation that is under almost total control of secret societies?

We thus closely align our reasoning with recent research that showed that political engagement follows a curvi-linear relation of confidence in the social system as engagement follows a multiplicative function of system responsiveness and need for change (Cichocka et al., 2018). Extremely low levels of system confidence (i.e., high levels of conspiracy mentality) have zero trust in the fact that political engagement is effective and extremely high levels of system confidence (i.e., low levels of conspiracy mentality) perceive zero need for change, effectively predicting an inverted *U-shaped* relation between conspiracy mentality and general political engagement¹.

Thus, looking at the overall motivation and readiness to become active to change the status quo should be maximal at intermediate levels of conspiracy beliefs (as low levels see

¹ This reasoning points to a negative relation between conspiracy mentality and system confidence, a proposition which is supported by our vignette validation study (see supplement), but which may be seen at odds with the notion of conspiracies as tools for system justification (Jolley et al., 2018). Although there are several ways to resolve this contradiction, the easiest one might be that we are discussing conspiracy mentality as an overarching worldview, whereas Jolley et al. (2018) base their reasoning on specific conspiracy theories that blame identifiable small groups as exceptions from an overall just system.

less need for change, high levels perceive less opportunities to change a corrupt system). Additionally, however, these different worldviews hold different implications regarding the choice of means to become politically active. Political opinions and interest can be expressed by means that are in accordance with social and legal norms, often referred to as normative political action (Wright et al., 1990). If, however, there is a skepticism regarding the effectiveness of such legal means and people have only low hopes that they can change the status quo, they might resort to extreme, illegal, non-normative means (Tausch et al., 2011). This differentiation may also allow a more fine-grained look at the proposed curvilinear relation between conspiracy beliefs and political action, as exemplified below.

Being low in conspiracy mentality translates into not at all being suspicious about the governing system being corrupt and those in power just serving their own goals. Quite on the contrary, such perspectives reflect a deep trust in the legitimacy and orderly functioning of this system (potentially to the point of naivety when approving statements like “There is no good reason to distrust governments, intelligence agencies, or the media”, Imhoff & Bruder, 2014). If the political system is functioning as it should, it makes a lot of sense to express any motivation to improve society through officially endorsed, legal means. This may take many forms from rallying in a legal way, participating in elections or expressing one’s opinion. Trusting the democratic process of an open competition between ideas of how to solve social problems mandates these normative forms of participation in precisely this process.

Such normative political engagement within the confines of a democratic system should seem futile from the perspective of a conspiracy theorist. If institutions who betray the allegedly official rules govern the world, playing by the rules seems unlikely to change anything about that. If elections or legal demonstrations had the power to change anything, those in power would have declared them illegal. This is again different for non-normative engagement outside of the democratic process and outside of legal norms. Such actions may not only seem more likely to be effective but also seem more legitimate. If the secret elite

does not play by the rules that are allegedly binding, there is no strong mandate to confine oneself to these limitations (for a similar prediction regarding a negative linear effect of system confidence on non-normative action see Cichocka et al., 2018; Study 3). We sought to test the plausibility of these two propositions.

The Present Research

We conducted two pre-registered experiments to test the notion that adopting a conspiracy worldview will increase one's (hypothetical) readiness to become politically active, but only up to a certain extent, an extreme conspiracy mentality should reduce political readiness again (inverted U). More specifically, conspiracy worldview should be associated with an increase in non-normative, illegal political engagement, but not with normative, legal. As legal, ethical, and practical aspects make it impossible to manipulate participants' worldviews directly, we opted for a scenario-based approach. Specifically, participants imagined perceiving a society they lived in in a way that reflected either a low, intermediate, or high conspiracy mentality. As a validation study (see supplement) showed, the vignette indeed had the intended effects on system confidence, perceived system responsiveness and the identified need for change (but also affected other variables; Dafoe et al., 2018). Our studies thus do not provide a direct test of whether holding a conspiracy mentality of a certain degree has an effect on political engagement. Instead, they test how unselected participants would decide under the condition that they shared certain central premises with conspiracy (dis-)believers. For both studies, we added an actual measure of conspiracy mentality to be able to test differential effects of our manipulation contingent on conspiracy mentality. All materials, raw data and analysis scripts available at https://osf.io/czupe/?view_only=37a6e37718ba49a29aa6171e151ca3b4.

Study 1

We tested the hypotheses in the German context. We conducted a scenario experiment with three conditions (low, intermediate and high conspiracy mentality; pre-registered at

<http://aspredicted.org/blind.php?x=vm9zr4>)². We expected an invertedly U-shaped effect of the assigned perspective on the overall tendency to become politically active (independent of the normativity) with intentions for political engagement peaking at intermediate levels of conspiracy mentality. We pre-registered a planned contrast (-1 2 -1) with a one-way ANOVA to test this. Despite an overall greater endorsement of normative (vs. non-normative) political intentions, we expected this effect to attenuate or even reverse for participants in the high conspiracy mentality condition, implying an interaction of normativity and assigned perspective.

Method

Sample and Design. A total of 194 participants recruited via social networking sites completed an online study with a chance to win one of two available online vouchers worth 20 Euros (for power considerations see pre-registration). Of these, 59 participants were excluded from data analyses based on pre-registered criteria: self-reporting not having responded seriously ($n=1$), not having completed the questionnaires from the experimentally assigned perspective ($n=24$), failing the attention check ($n=11$), taking more than double the median time to complete the study ($n=20$), or extreme values ($> 3SD$) on one or several scales ($n=1$). The remaining sample consisted of $N=138$ participants (94 women, 39 men, 5 other or missing) with an average age of 27.2 years, $SD=7.1$, who were randomly allocated to the three experimental cells of low ($n = 46$), intermediate ($n = 47$) and high conspiracy mentality ($n = 44$).

² We also predicted statistical mediation via perceived powerlessness. For the effect of low vs. intermediate/high conspiracy mentality there was an indirect effect on non-normative political engagement via perceptions of powerlessness, $B=0.61$, $SE=0.18$, 95%CI [0.23, 0.95] (Hayes, 2017; Model 4, 5000 bootstrap samples), leaving no direct effect, $B=0.36$, $SE=0.20$, 95%CI [-0.04, 0.75]. The same was true for Study 2 with an indirect effect of $B=0.29$, $SE=0.11$, 95%CI [0.08, 0.50]. As we had not clearly pre-registered whether we were interested in this contrast or the alternative low vs. high, and as the latter provided inconsistent results across both studies, and as we are convinced that measured mediations have too many limitations to base strong inference on it, we do not report these results for reasons of brevity.

Independent variable. Participants were randomly assigned to imagine living in a society that they perceive as either low, intermediate or high in the extent of conspiracies. Specifically, they were instructed to read a brief scenario and imagine this as vividly as possible. For the *High Conspiracy Mentality* condition, we rephrased items from the conspiracy mentality scale (Imhoff & Bruder, 2014) and told participants that they felt confident that a few powerful groups decided about the fate of millions of people and that politicians were nothing more than marionettes controlled by disguised powers (full text on OSF). In the *Intermediate Conspiracy Mentality* condition, they were asked to imagine that they sometimes wondered whether politicians and the media were trustworthy and could not exclude that secret organizations and certain political circles might have a manipulative influence on the population. In the *Low Conspiracy Mentality* condition, it was stressed that governments, media, and secret services were trustworthy overall, and decision-making was democratic and transparent. After reading and imaging these perspectives, participants were asked to respond to scales of powerlessness and political engagement from the assigned perspective.

Measures. After the manipulation of the independent variable, participants completed measures of powerlessness and political engagement from their assigned perspective, some items on manipulation check and data quality before completing demographic information (age, gender, education, religiosity, political orientation) and a measure of conspiracy mentality (Imhoff & Bruder, 2014; e.g., “There are secret organizations that have great influence on political decisions”) for exploratory purposes. We only describe central measures below, full information is available at OSF.

Political engagement. A list of 20 statements regarding the readiness to become politically engaged were generated to reflect a spectrum of conventional and unconventional, non-violent and violent, passive and active as well as legal and illegal options (Pickel, 2012). Some of these were inspired by existing propositions in the literature (Marsh, 1974;

Table 1

Items tapping into two forms of Political Engagement (full scale reliability in Study 1: $\alpha=.70$;

Study 2: $\alpha=.89$)

Normative Political Engagement (Study 1: $\alpha=.77$; Study 2: $\alpha=.89$)

- I would participate in an election by voting.
- I would join and support a political party to represent my interests.
- I would reach out to politicians or people from the administration.
- I would sign an online petition that supports an issue that is important to me.
- I would participate in a legal demonstration to express my opinion publicly.
- I would join meetings of political stakeholders.
- I would contact newspapers or journalists to call attention to political problems.
- I would exchange my opinions with like-minded people in social networks.
- I would organize and coordinate a rally against political deficiencies.
- I would post my political opinion in a social media blog.

Non-normative political engagement (Study 1: $\alpha=.91$; Study 2: $\alpha=.94$)

- I would commit a violent attack on a person in power.
 - I would refuse to pay taxes, fees or rents to weaken the system.
 - I would destroy objects or properties of persons or institutions of the public service to sabotage them (e.g. smashing a window).
 - I would physically attack police officers, because they represent the state.
 - I would participate in an illegal demonstration against political deficiencies.
 - I would participate in illegally blocking public buildings or entryways.
 - I would spray graffiti or hang up posters in the public sphere (e.g. on streetlamps or in the subway).
 - I would verbally intimidate and harass persons with a different opinion in internet forums.
 - I would intentionally spread wrong information to change the political situation.
 - I would try to influence election outcomes by hacking.
-

Note. An exploratory principal component analysis with varimax rotation on Study 1 did not yield a clear two-factorial structure. Instead, of the three components with Eigenvalues > 1 , the first received positive loadings $> .30$ from all non-normative options and negative loadings $< -.30$ from six normative options. The second factor combined normative and non-normative public options (vandalism, graffiti, demonstration, blocking), while the third tapped into online activism (blog, social networks). For the (better-powered) Study 2, the pattern was markedly clearer: Extracting two components (as the third had an Eigenvalue of only 1.09) resulted in a pattern whereby all but one normative option loaded on one component $> .62$, but not on the second $< .27$. The opposite was true for non-normative options that loaded on the second component $> .75$, but not on the first $< .21$. Organizing a rally loaded on both, but still stronger on the normative (.55) than the non-normative facet (.47). For theoretical reasons we continued to base our analyses on the a priori determined scales as pre-registered.

Moskalenko & McCauley, 2009; Pattie et al., 2003; Pickel, 2012; Tausch et al., 2011), others were purpose-created. To have a maximally objective criterion of what constituted normative vs. non-normative options we relied on legal actions as normative and clearly illegal actions as non-normative. All items were formulated in future unreal conditional and participants indicated the likelihood of using these means (given they had the necessary resources and

abilities) on a scale from 1 (*under no circumstances*) to 5 (*certainly*). Table 1 lists all items as well as the internal consistencies of the scales.

Manipulation check and data quality. A number of precautionary steps aimed at securing high data quality and participants who failed these quality checks were excluded as pre-registered. First, mixed in the questions on political engagement was an attention check requiring a specific response (“For this investigation, it is important that you read the statements carefully. Please select rather yes next to this statement”). Second, after the dependent measures, participants were asked to indicate whether they completed these from the assigned perspective, their own or neither with only the first being an appropriate response. At the very end of the study, participants indicated whether they had completed the study in a serious manner and read all questions and response options.

Results and Discussion

We first tested the invertedly u-shaped relation between assigned conspiracy perspective and overall political engagement (independent of normativity). To this end, we conducted a one-way ANOVA with a planned quadratic contrast (-1, 2, -1). As predicted, the quadratic contrast was significant, $F(1,134)=6.09, p=.015$, whereas the orthogonal linear one (-1, 0, 1) was not, $F(1,134)=2.54, p=.114$. Specifically, participants who adopted a worldview of intermediate conspiracy mentality indicated overall higher (hypothetical) political engagement than those with low conspiracy mentality, $t(91)=2.99, p=.004, d=0.62$, 95%CI[0.20; 1.03], but had only descriptively higher scores than the high conspiracy mentality condition, $t(89)=1.31, p=.192, d=0.27$, 95%CI[-0.14; 0.69], (Figure 1; left half). This speaks to the motivating power of conspiracy thinking, but does not fully support the demotivating aspect of overly strong conspiracies.

As we had distinct predictions regarding normative and non-normative engagement, however, we dissected these and conducted a 3 (between: low vs. intermediate vs. high conspiracy mentality) by 2 (within: normative vs. non-normative political engagement)

mixed-model ANOVA. As predicted, there was an overall main effect of more support for normative over non-normative forms of behavior, $F(1,134)=207.10, p < .001, \eta_p^2=.61$, but importantly, this was qualified by an interaction, $F(2,133)=36.05, p < .001, \eta_p^2=.35$. To dissect this interaction, we will first analyze the intentions to engage in normative action before turning to the non-normative aspect.

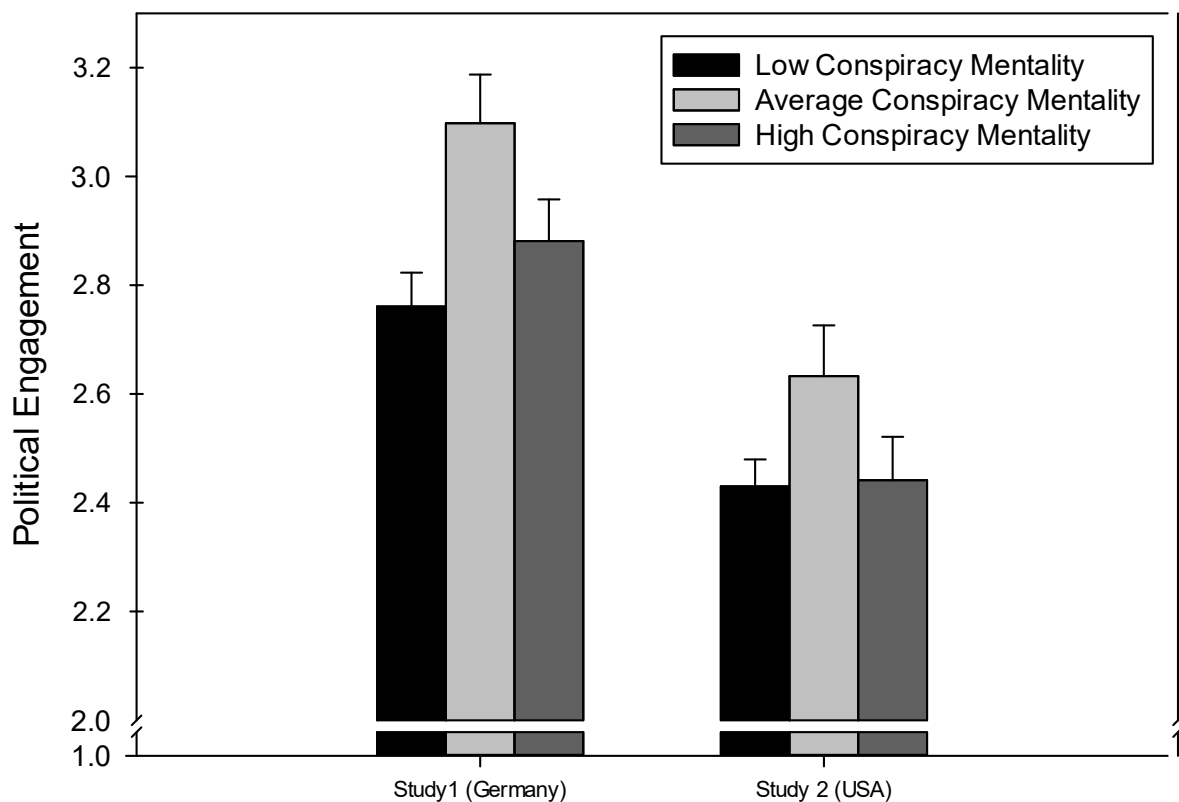


Figure 1. Overall intentions for political engagement (+ SE) as a function of experimental condition in Study 1 and 2.

Participants in both the intermediate, $t(91)=-4.44, p < .001, d=-0.92, 95\%CI[-1.35; -0.49]$, and high conspiracy mentality conditions, $t(88)=-4.83, p < .001, d=-1.00, 95\%CI[-1.44; -0.57]$, exhibited a decreased interest in normative action compared to the low conspiracy condition (with the former two not differing significantly, $t(89)=0.53, p=.602, d=0.08, d=0.11, 95\%CI[-0.30; 0.52]$, Figure 2). The presence of conspiracies had the inverse effect on non-

normative political engagement. Participants in both the intermediate, $t(88.11)=7.07, p < .001, d=1.46$ 95%CI[1.00; 1.92], and high conspiracy mentality conditions, $t(88)=4.83, p < .001, d=1.01$, 95%CI[0.57; 1.44], endorsed such action to a greater extent than in the low conspiracy condition (with again no significant difference between the former two, $t(89)=1.07, p=.288, d=0.22$, 95%CI[-0.19; 0.64],).

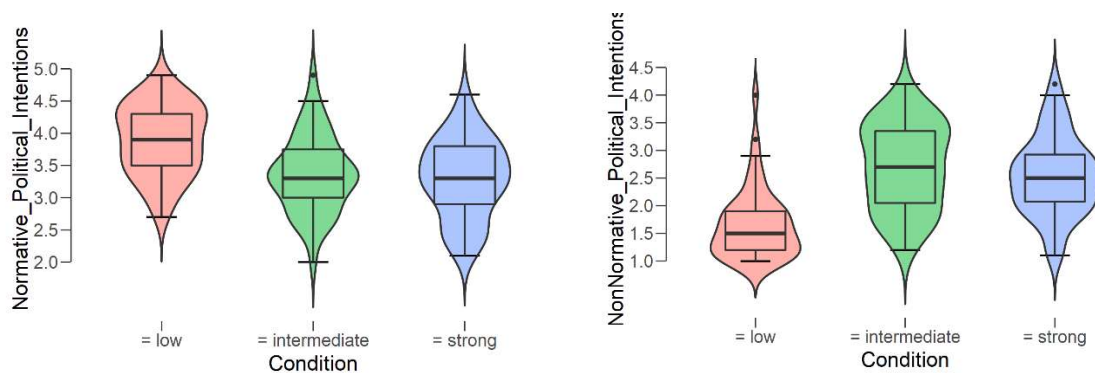


Figure 2. Violin plots of intentions to engage in normative vs. non-normative political engagement as a function of experimental condition in Study 1. Boxplots depict median and quartile range, outline the density distribution.

On an exploratory note, we had also inquired participants' individual conspiracy worldview with the conspiracy mentality scale ($\alpha=.89$). The three conditions did not significantly differ in conspiracy mentality, $F(2,134)=1.28, p=.298$, and including the standardized scale and the interaction between the (dummy-coded) experimental conditions in regressions predicting the two forms of political engagement did not increase the explained variance, thus not providing any evidence for a moderating influence.

Discussion

Study 1 corroborated our general reasoning and supported two propositions. First, hypothetical political action in general followed the predicted inverted U-shaped relation with political action peaking at intermediate levels of conspiracy mentality. Although this is

exactly as predicted, it is important to stress that this quadratic effect was not reflected in significant decreases to both sides of the continuum. Participants in the low conspiracy mentality condition showed less intentions (speaking to a reduced desire to change the status quo), but participants very high in conspiracy mentality did not have significantly (albeit descriptively) lower scores on intention (which could have been indicative of a reduced perceived efficacy).

More relevant, however, the data also exemplified the importance of differentiating between normative, legal forms of political engagement and non-normative, illegal forms. Bifurcating political engagement along those lines showed a clear dissociation. Whereas the self-reported likelihood of engaging in normative actions decreased with a conspiracy-prone worldview, the engaging in non-normative actions increased. Before further discussing the nuances of our findings, we sought to replicate these and bolster their generalizability by moving to a different national context (USA).

Study 2

We replicated the Study 1 in a different language and a sample from a different cultural context (US American *MTurk* workers) to bolster its generalizability. We had no expectations that these two different cultural and political contexts would produce different results but wanted to put our reasoning to a critical test by exposing it to a context that arguably has a radically different history in terms on both political protests in general (Rucht, 1996), and violent extremism in particular (Parkin, Gruenewald, & Jandro, 2017). Except for the changed national context, Study 2 was a direct replication of Study 1. Preregistration is available at <https://aspredicted.org/t6u5q.pdf>.

Method

Sample and Design. Due to the high exclusion rate in Study 1, we selected to recruit 400 US-based participants (in order to have a final cell n of 100) from Amazon MTurk for a small monetary compensation. As typical for this recruitment strategy, we received a few

more responses ($N=402$). We applied the pre-registered criteria and excluded all participants who indicated their data should not be used ($n=35$), who admitted to have answered the questions not from the assigned but their own perspective ($n=70$), who wrongfully remembered what the scenario stated ($n=20$) and who failed an attention check ($n=18$). This left a final sample of $N=255$ (110 women, 144 men, 1 missing) between 19 and 75 years of age, $M=37.48$, $SD=10.96$, that were randomly allocated to the three experimental cells of low ($n = 83$), intermediate ($n = 79$) and high conspiracy mentality ($n = 93$).

Procedure and Materials. The procedure was identical to Study 1. We translated the vignette scenarios, instructions and all measures from Study 1 in a dual-forwards method and resolved inconsistencies by discussion and consultation of a native speaker.

Results and Discussion

The predicted quadratic contrast $(-1, 2, -1)$ of condition on overall political engagement was just significant, $F(1,252)=4.27$, $p=.040$, whereas the orthogonal linear one $(-1, 0, 1)$ was not, $F(1,252)=0.01$, $p=.917$. Unlike Study 1, none of the simple comparisons were significant, $ps > .053$, even though the overall pattern showed remarkable resemblance to the one in Study 1 (Figure 1; right half).

Dissecting political engagement in normative and non-normative forms and subjecting these to the same a 3 (between: low vs. intermediate vs. high conspiracy mentality) by 2 (within: normative vs. non-normative political engagement) mixed-model ANOVA again yielded more support for normative over non-normative forms of behavior, $F(1,252)=563.48$, $p < .001$, $\eta_p^2=.69$, but this was again qualified by an interaction with conspiracy mentality condition, $F(2,252)=49.91$, $p < .001$, $\eta_p^2=.28$. As we had pre-registered the critical comparison to be between high and low conspiracy mentality we re-ran the analysis without the intermediate condition, which also yielded the predicted interaction, $F(1,174)=93.57$, $p < .001$, $\eta_p^2=.35$. As in Study 1, participants in the low conspiracy mentality condition showed a substantial preference for normative actions, $t(82)=25.16$, $p < .001$, $d_z=2.76$, that was

markedly attenuated for the intermediate, $t(78)=9.75, p < .001, d_z=1.10$, and high conspiracy mentality condition, $t(92)=8.55, p < .001, d_z=0.89$ (Figure 3).

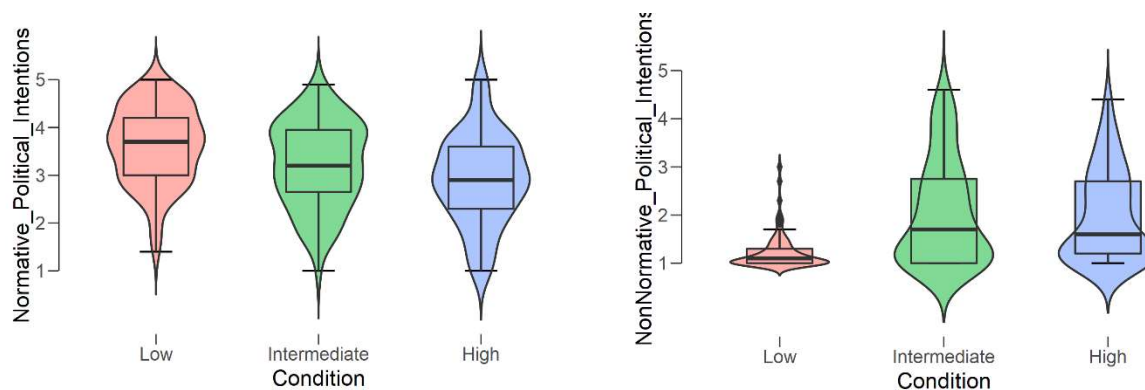


Figure 3. Violin plots of intentions to engage in normative vs. non-normative political engagement as a function of experimental condition in Study 2. Boxplots depict median and quartile range, outline the density distribution.

There was a steady decrease in normative political engagement from low to intermediate, $t(160)=-3.05, p=.003, d=-0.48, 95\%CI[-0.79; -0.16]$, and from intermediate to high conspiracy mentality, $t(170)=-2.15, p=.033, d=-0.33, 95\%CI[-0.63; -0.03]$, (low to high: $t(174)=-5.32, p < .001, d=-0.81, 95\%CI[-1.12; -0.50]$). Non-normative action in contrast increased for intermediate, $t(95.42)=6.34, p < .001, d=1.01, 95\%CI[0.66; 1.33]$, and high conspiracy mentality, $t(122.80)=6.92, p < .001, d=1.02, 95\%CI[0.73; 1.38]$, compared to low conspiracy mentality with the latter two not differing significantly, $t(160)=0.53, p=.595, d=0.08, 95\%CI[-0.22; 0.38]$.

As in Study 1, there was no indication of a moderating effect of personal responses on the conspiracy mentality scale ($\alpha=.92$), but the three conditions differed slightly in the mean score of conspiracy mentality, $F(2,252)=3.21, p=.042$. Controlling for conspiracy mentality as a covariate in the critical mixed-model ANOVA reported above yielded neither a main effect nor an interaction with the other factors, $ps > .523$, whereas the critical interaction remained

intact, $F(2,251)=49.96$, $p < .001$, $\eta_p^2=.29$, providing thus no evidence for a threat to internal validity.

Discussion

Study 2 largely replicated Study 1 in the overall pattern, but provided somewhat weaker evidence for the overall curvilinear relation (as the simple effects were not significant). More importantly, as predicted there was a clear dissociation of the effect on conspiracy mentality condition on normative vs. non-normative political actions. As the results were impressively consistent, we will not discuss Study 2 separately, but move to the combined discussion of the results.

General Discussion

Two pre-registered studies in two different national contexts (Germany, USA) converge in showing a curvilinear relation between experimentally assigned (hypothetical) conspiracy worldview and the general tendency to become politically active (independent of the means). Further, a more fine-grained differentiation into normative and non-normative means resolved this by showing that with an increase in conspiracy worldview, intentions to engage in normative, legal means decreased, whereas the willingness to commit illegal, non-normative political acts was higher for any condition that involved any conspiracy worldview.

Both findings may provide a solution for an apparent lack of consensus in the literature as to whether conspiracy beliefs decrease or increase political intentions. Our findings suggest that they initially do (conceivably, as they increase perceptions of injustice and a perceived need to change the status quo), but only up to a certain point of conspiracy beliefs after which intention to engage politically decrease (particularly for normative forms) or stagnate (for non-normative forms). The latter stagnation is not fully in line with a nothing-to-lose phenomenon by which non-normative actions become more attractive, the more desperate one is and the lower one's perceived efficacy is (Saab et al., 2016), a finding that deserves further scrutiny in future research.

Overall, our findings point to a real danger of conspiracy worldviews. Once people are convinced of them, there is no need to pay allegiance to any form of social contract, as codified in laws and regulations or implicitly agreed on in forms of trust in epistemic authorities like quality media or university scientists (Imhoff, Lamberty, & Klein, 2018).

The current studies have clear limitations, the most obvious one being that participants gave hypothetical responses to a hypothetical scenario. Although experimental control enables causal interpretations, the causal link we provide only speaks to the fact that taking the perspective of a conspiracy worldview makes people see violent extremism as a plausible option. At the same time, even if the effect is currently restricted to hypothetical worldview, it points to an interesting insight. Once people accept a basic belief of conspiracy believers, adopting non-normative violent means to pursue one's political goals becomes - if not inevitable - certainly a seemingly logical decision to ordinary people.

This important lesson notwithstanding, future studies should provide additional evidence for the effect of conspiracy worldviews in the real world and actual radicalization processes. Ideally, scholars could follow individuals from populations with pronounced vulnerability to radicalization longitudinally and thereby trace trajectories of conspiracy worldview and political radicalization. We know from historical and current political movements that conspiracy rhetoric plays a pivotal role in prominent terrorist organization and other political movements who endorsed the use of violence (Bartlett & Miller, 2010). Our study is the first to establish experimentally: Under the impression that the world is governed by conspiracies virtually anyone would see it as more likely to engage in non-normative political acts.

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Online Supplement

Vignette validation study

One threat to the internal validity of experimental research using text vignettes is the violation of informational equivalence. This can happen if different versions of a text either explicitly include other variations than the intended ones or when readers infer additional differences to the intended ones even without explicit mention. An example of the latter is that participants' lower willingness to support a war against a democratic country might not be a function of democracy per se, but confounded inferences whether the respective country was an ally, an important trading partner or any other association (Tomz & Weeks, 2013). To estimate the informational equivalence (Dafoe, Zhang, & Caughey, 2018) of the three versions of the vignette we conducted a brief study. In this study, we gave participants one of the vignettes (slightly altered to a third person perspective) with the task to describe how the person whose perspective the text described sees the world. Our intended target variables were system confidence, need to change the system and perceived responsiveness of the system to normative protest. As additional variables we saw as potentially affected by our manipulation we asked participants whether they had any concrete country in mind, what they thought was the dominant language in the described scenario, how traditional and religious they perceived the society to be and how effective they thought the police would work in the described society. Our prediction was that system confidence should peak at low levels of conspiracy mentality, whereas the perceived need for the system to change should be highest at high levels. Regarding the perceived responsiveness of the system to protests, we also expected

Method

Sample. We set up a study for 300 participants with the requirement of English being their native language. A total of $N = 300$ complete responses (199 women, 99 men) were recorded with an age range from 18 to 76 ($M = 35.8$, $SD = 12.9$). The majority of participants

identified as White ($n = 258$) and held at least a bachelor degree ($n = 169$). On an item tapping into self-estimated data quality 11 participants recommend definitely no or maybe not using their data. As standard procedure, all data of these participants were deleted, leaving a final $N = 290$.

Procedure. These participants were randomly allocated to one of three conditions. Informal testing had revealed that participants were confused whether they should respond to the information equivalence items from their original own or the perspective of the vignette. We adapted all vignettes by equivalent one in which the views were no longer ascribed to the reader but to a third person (Peter). In each condition, they received one of three vignettes under the headline “Please learn about Peter and his view of the world”. Participants had to read this text for at least 60 seconds before the next button appeared. They then completed the following question under the heading “In light of what you have just read about Peter and the way he sees the world, please indicate your agreement with the following statements.” We included three items to tap into the presumed confidence in the system with items closely following the ones used by Cichocka et al., (2018) (“Peter thinks that the system operates as it should”; “In Peter’s view, the system, in general, is fair”; “Peter is convinced that in this system, everybody has a fair shot at wealth and happiness”; *system confidence* $\alpha = .955$), three items to measure to estimated responsiveness of the system to normative protest (“Peter is optimistic that if people protested peacefully, it would lead to positive change.”; “Peter is confident that political pressure from various social groups can change government policies” ; “Peter is confident that the government would consider people’s protests”; *system responsiveness*, $\alpha = .757$), as well as three items measuring the general need for the system to change (“In Peter's view, the situation in this system has to change”; “Peter thinks that this system should be changed”; “Peter would prefer it the system was different”; *need for change*, $\alpha = .963$). These nine items were all completed on the same 7-point scale (ranging from “do not agree” to “fully agree”) and presented in a random mixed order. On the next page,

participants indicated how similar they felt the system was to their society (“How similar is Peter’s society to the one you live in?”), and how traditional and religious they perceived the described society to be (“How traditional vs. modern do you think Peter’s society is?”, “How religious do you think Peter’s society is?”). As different willingness to engage in (particularly non-normative, illegal) protests might also vary as a function of the likelihood to get caught, we also asked two questions about the presumed effectiveness of the police (“How efficient would you imagine the police would be where Peter lives?”; “If you committed a crime in Peter’s society, how would you estimate the likelihood of getting caught by the police?”). Finally, we asked whether participants had any specific country in mind and, if yes, which and what language people in peter’s society spoke in an open-ended fashion.

Results

As expected, there was a linear increase in the perceived need for change from the low conspiracy mentality to the high conspiracy mentality condition, $F(1, 286) = 630.24, p < .001$, and an antagonistic decrease in system confidence, $F(1, 286) = 992.47, p < .001$, and expected system responsiveness, $F(1, 286) = 122.12, p < .001$ (Table S1). For each of these dependent variables, significant quadratic effects (all $ps < .001$) indicated that the difference between the low and intermediate conspiracy mentality condition was always markedly stronger than the one between intermediate and high conspiracy mentality. Following the reasoning of Cichocka et al. (2018), we conducted exploratory analyses on the product of normative protest efficacy and need for change. Willingness to engage in normative protest should be zero when either of the two is zero, thus allowing the prediction of a curvi-linear effect. To test this notion, we zero-aligned all scales by subtracting a value of one from each score (thus recoding 1-7 scales into 0-6 scales) and computed the cross-product of protest efficacy and need for change. A oneway ANOVA with polynomial contrasts across all three conditions yielded indeed a quadratic effect, $F(1, 286) = 26.77, p < .001$, in addition to a linear effect, $F(1, 286) = 22.97, p < .001$. Specifically, the condition implying an intermediate level of

conspiracy mentality received the highest scores on this product term, $M = 8.07$, $SD = 6.76$, with the comparison to the low condition being large, $M = 2.33$, $SD = 3.60$, $t(143.13) = 7.39$, $p < .001$, Hedge's $g = 1.07$, whereas the difference to the high condition was only descriptive and small, $M = 6.32$, $SD = 6.59$, $t(186) = 1.79$, $p = .075$, Hedge's $g = 0.26$. These results in combination with the reasoning that protest is a multiplicative function of the perceived need for change and the perceived efficacy of such protest (here system responsiveness as a proxy) allow the prediction that protest intention should peak at intermediate levels of conspiracy mentality with a stark contrast to low levels and only a small drop at high levels.

Part of the motivation of the vignette validation study, however, was to test whether the vignettes affected other, unintended variables. We asked participants in an open-ended way whether they had any specific country in mind when reading the vignette. About half of participants denied this question ($n = 157$, 54.1%), but the other half affirmed ($n = 131$, 45.2%). We recoded the open-ended responses to a common label (United Kingdom, Great Britain, and England became UK; US, America, North America became USA). By a large distance, the majority of open-ended responses named either the UK ($n = 53$), the USA ($n = 46$) or both ($n = 4$). The only other options that received more than two nominations were Russia ($n = 10$), North Korea ($n = 4$) and Australia ($n = 4$). Although these numbers are too small to base meaningful inferences on them, it seems noteworthy that there was no deterministic relation between nomination of a “rogue” state (here: North Korea, Russia) and condition (with 4, 5, and 5 nomination in the low, intermediate and high conspiracy mentality condition, respectively). The only countries that allowed a meaningful comparison, the UK and the USA, showed indeed a systematic pattern. Whereas in the low conspiracy mentality condition participants were thrice as likely to nominate the UK ($n = 25$) compared to the USA ($n = 8$), this pattern flipped for the high conspiracy mentality condition (UK: 8; USA: 16), $\chi^2(2) = 11.08$, $p = .004$. Given our recruitment via UK-based Prolific, it is conceivable that this is more of an outgroup phenomenon than an actual statement about the respective

Table S1.

Means, standard deviations and simple effects on all continuous measures.

	1. Low CM		2. Intermediate CM		3. High CM		Contrasts (Cohen's d)		
	(N= 101)		(N = 96)		(N = 92)				
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	1. vs. 2.	2. vs. 3.	1. vs. 3.
System confidence	6.00	1.19	1.95	0.92	1.54	0.76	3.81***	0.49**	4.47***
System responsiveness	4.43	1.47	2.74	1.34	2.27	1.23	1.20***	0.37*	1.59***
Need for change	1.78	1.23	5.61	1.03	5.94	1.18	-3.38***	-0.30*	-3.45***
Similarity	3.44	1.72	4.93	1.30	3.93	1.52	-0.98***	0.71***	-0.3*
Religiousness	4.11	1.69	3.42	1.48	3.37	1.68	0.43**	0.03	0.44**
Modernness	2.99	1.82	4.49	1.67	4.25	1.52	-0.86***	0.15	-0.75***
Police effectiveness	5.39	1.16	4.52	1.11	4.51	1.20	0.77***	0.01	0.75***

societies. More or less redundant to the question about country, the vast majority of participants ($n = 240$; 82.7%) suspected English to be language spoken in the described society. Based on these findings we have no strong reasons that our vignettes prompted association of drastically different societies (accepting UK and USA a sufficiently similar democratic Western countries).

We had also asked closed questions on the impressions people have. These have the disadvantage of potentially pushing participants in a certain direction or way of thinking they had not thought about spontaneously, but they have the advantage of allowing more fine-grained comparisons with more adequate statistical power. The two items tapping into the efficacy of the police correlated sufficiently high, $r = .44$, $p < .001$, to justify aggregating them, whereas the same was not true to any other combination of two variables. Although not intended, there were indeed differences on virtually any continuously measured variable (Table 1). Specifically, participants who read the low conspiracy scenario judged the police to be more efficient, the society to be more traditional and more religious. Curiously, similarity to rater's own society was highest in the intermediate condition. These results warrant some caution when interpreting the main study findings. Particularly the differential effectiveness of the police might constitute an alternative explanation as to why participants would engage in more illegal political action in the two conditions with a conspiracy mentality implied. At the same time, the effects on these variables were markedly smaller than the ones on our focal variables. Although this does not rule out the possibility of a different process than the one assumed by us, it might be taken as an indication that our manipulation primarily worked as intended.

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