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Bored to fears: Boredom proneness, paranoia, and conspiracy theories

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ABSTRACT

The present study examines the relationships between paranoia, conspiracist ideation, and boredom proneness. A sample of the general public ($N = 150$) completed the Paranoia scale, the Boredom Proneness scale, and the Generic Conspiracist Beliefs scale. Bivariate correlations revealed significant interrelationships between the three traits. Further analysis revealed that the relationship between boredom proneness and conspiracist ideation was fully mediated by paranoia. That is, proneness to experiencing boredom is associated with stronger endorsement of conspiracy theories only in as much as boredom proneness is associated with increased paranoia.

1. Introduction

1.1. Conspiracist ideation and its personality correlates

While there is no universally agreed upon definition of the label 'conspiracy theory', it typically refers to claims of conspiracy which are less plausible than alternative explanations, contradict the general consensus among epistemic authorities, are predicated on weak evidence, postulate unusually sinister and competent conspirators, and are ultimately unfalsifiable (Brotherton, 2013). Given these characteristics, it is of interest to explore the psychological factors contributing to the widespread acceptance of such theories (e.g. Gardiner & Thompson, 2012; Williams, 2013). Additionally, the potential behavioural consequences of conspiracism, both for believers and for the wider community, make understanding conspiracism an important task; conspiracist beliefs can contribute to reduced civic engagement (Butler, Koopman, & Zimbardo, 1995; Jolley & Douglas, 2014b), as well as negative attitudes towards environmentalism (Jolley & Douglas, 2014b), HIV/AIDS treatment and prevention (e.g. Bogart, Galvan, Wagner, & Klein, 2011; Bogart, Kalichman, & Simbayi, 2008; Bogart, Wagner, Galvan, & Banks, 2010), and vaccination (e.g. Eicher et al., 2013; Jolley & Douglas, 2014a).

Fortunately, conspiracy theories have recently become the focus of increasing attention from psychologists. A primary finding is that individuals who believe one conspiracy theory tend to believe others – even theories that are logically unrelated, mutually contradictory, or entirely fabricated by researchers (e.g. Abalakina-Paap, Stephan, Craig, & Gregory, 1999; Darwin, Neave, & Holmes, 2011; Goertzel, 1994; Jolley & Douglas, 2014b; Swami, Chamorro-Premuzic, & Furnham, 2010; Swami et al., 2011, 2013; Wood, Douglas, & Sutton, 2012). This has led to the conceptualisation of generalised belief in conspiracy theories as a stable individual difference variable. This trait has been labelled *conspiracist ideation* (e.g. Swami et al., 2011).

The growing body of research has begun to reveal personality factors associated with conspiracist ideation, suggesting there may be a 'conspiracy-prone' personality type (or types). Conspiracism appears to be associated with other anomalous beliefs and experiences, including belief in the paranormal, superstitions, and New Age beliefs (Bruder, Haffke, Neave, Nouripanah, & Imhoff, 2013; Darwin et al., 2011; Drinkwater, Dagnall, & Parker, 2012; Newheiser, Farias, & Tausch, 2011; Stieger, Gumhalter, Tran, Voracek, & Swami, 2013; Swami et al., 2011, 2013). This suggests that conspiracism is associated with openness to certain types of unusual claims. In addition, conspiracist ideation is associated with low self-efficacy, lack of self-esteem, dissatisfaction with life, and anxiety, both as a temporary state, or a stable individual difference (Abalakina-Paap et al., 1999; Grzesiak-Feldman, 2013; Newheiser et al., 2011; Parsons, Simmons, Shinhoster, & Kilburn, 1999; Simmons & Parsons, 2005; Sullivan, Landau, & Rothschild, 2010; Swami et al., 2011; van Prooijen & Jostmann, 2013; Whitson & Galinsky, 2008). This suggests that believers may be drawn to conspiracy theories as a satisfying justification for their perceived lack of power over their own circumstances. Of particular interest to the current research, however, a number of prior

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studies suggest that conspiracist ideation is associated with paranoia.

1.2. Paranoia and conspiracism

Paranoid cognition is characterised by suspicion of others' motives and self-referent interpretation of other people's intentions and behaviour (e.g. Freeman, 2007). Paranoid ideation can be so severe that it presents a clinically diagnosable syndrome; however, it is now widely recognised as being present in milder forms as a personality trait distributed among the nonclinical population (Fenigstein & Vanable, 1992; Freeman et al., 2005). Examples of this kind of mild paranoid cognition might be the assumption that an acquaintance who walked by without saying hello was deliberately ignoring you, or that a stranger who laughed when you passed them was mocking you (Fenigstein & Vanable, 1992; Freeman et al., 2008).

Darwin et al. (2011) provide evidence that endorsement of conspiracy theories is associated with increased susceptibility to this kind of subclinical paranoid ideation, finding that higher scores on a measure of paranoid ideation were associated with stronger conspiracist ideation within a university undergraduate sample. A number of other studies demonstrate associations between conspiracism and traits related to paranoia, including mistrust, pessimism, hostility, cynicism, defiance of authority, impulsive nonconformity, and low agreeableness (Abalakina-Paap et al., 1999; Goertzel, 1994; Imhoff & Bruder, 2013; Parsons et al., 1999; Swami et al., 2011, 2013, 2010). A handful of studies report mixed findings – relationships with the Big-5 trait agreeableness are not entirely consistent (e.g. Imhoff & Bruder, 2013; Swami et al., 2010, 2013), and Wood and Douglas (2013) found that conspiracist comments posted online exhibited less hostility than anti-conspiracist comments. Yet, on the whole, the general pattern of results suggests that conspiracy theories may be a byproduct of mild paranoid ideation which entails some degree of distrust, hostility, and pessimism.

It is perhaps not surprising that belief in conspiracy theories is related to paranoia. People high in paranoid ideation are typically hypervigilant towards signs of hostility directed towards themselves, and are inclined towards misinterpreting innocuous social interactions as aggressive. This maladaptive self-consciousness can lead the individual to erroneously believe that they are the object of others' attention (Fenigstein, 1984; Fenigstein & Vanable, 1992; Kramer, 1994; Smari & Sigurjon, 1994; Von Gemmingen, Sullivan, & Pomerantz, 2003). The tendency towards making sinister attribution errors could lead an individual to perceive the existence of a hidden conspiracy with hostile motives towards the individual personally, or towards the individual's ingroup more generally. In addition, people high in paranoia are likely to reject 'official' explanations which appear to be handed down by authorities whom the individual distrusts. Further, as conspiracy theories are predicated on the sinister intentions of hidden conspirators they may seem especially attractive and plausible due to congruence with the individual's existing paranoid worldview.

1.3. Boredom proneness

Boredom proneness – the proclivity to become bored easily – is a stable personality trait which has been reported to be associated with various negative personality traits and aversive feelings, including depression, hopelessness, anxiety, narcissism, emotional distance from others, heightened self-consciousness, hostility, mistrust, and aggression (Ahmed, 1990; Farmer & Sundberg, 1986; LePera, 2011; MacDonald & Holland, 2002; Rupp & Vodanovich, 1997; Seib & Vodanovich, 1998; Sommers & Vodanovich, 2000; Tolor, 1989; von Gemmingen et al., 2003; Wink & Donahue, 1997). Of particular interest, people prone to boredom generally appear to be higher in paranoid ideation (von Gemmingen et al., 2003). von Gemmingen et al. (2003) argue that the relationship may be a result of boredom proneness causing an individual to fixate on their aversive internal feelings, which may lead them to project their own hostility on to others, misidentify neutral events as negative, and believe that imagined problems genuinely exist in reality.

Research has yet to examine whether boredom proneness is associated with belief in conspiracy theories. Given the observed association between proneness to boredom and paranoia, it seems reasonable to speculate that boredom proneness may also be linked to conspiracism, possibly mediated by paranoia. There are various plausible ways in which proneness to boredom could lead to stronger endorsement of conspiracy theories via paranoia. The alienation from society felt by boredom prone individuals may arise from incongruence between their own personal values and present societal conditions (von Gemmingen et al., 2003). These feelings may produce the tendency to invent or endorse a conspiracy as a potential explanation and justification for their dissatisfaction with society. Further, the habitual mistrust and hostility towards other people, or the projection of one's own hostile feelings on to others (*cf.* Douglas & Sutton, 2011), may lead to a tendency to misplace blame for events or situations onto other people or groups. The self-importance associated with boredom proneness (von Gemmingen et al., 2003) may make the idea that the individual has come into possession of privileged knowledge which is being kept from the general public appear subjectively plausible. In addition, conspiracy theories may offer a source of excitement to alleviate the lack of stimulation inherent in the experience of boredom. In contrast to the typically relatively mundane 'official explanations' of events, conspiracy theories represent Manichean narratives about the perpetual struggle between good and evil. One recent study (Oliver & Wood, 2014) found a correlation between belief in conspiracy theories and a Manichean worldview, however the personality correlates and motivations (such as proneness to boredom) underlying such an outlook have not yet been examined.

1.4. Overview of the current study

It was expected, as per previous research (e.g. Darwin et al., 2011; von Gemmingen et al., 2003) that paranoia would predict conspiracist ideation, and that boredom proneness would predict paranoia. Additionally, it was expected that boredom proneness would predict conspiracism. The study further aimed to examine whether boredom proneness is associated with conspiracism directly, or whether the relationship (if any) is mediated by paranoia.

2. Method

2.1. Participants

A self-selected sample of 150 adults (86 females; 64 males) was recruited online. A brief advertisement was posted on Twitter and Facebook, asking readers to complete a study in which they would "answer some question about yourself and world events". Respondents were directed to the online interface of the survey. Age ranged from 18 to 70 (median = 24; $SD = 14.12$). The majority of participants were located in the United Kingdom (67.3%). A substantial minority were from Turkey (13.3%); other nationalities accounted for the remaining 19.3%. Participation was voluntary and no reward was offered.

2.2. Design

A correlational design was employed. The variables of interest were conspiracist ideation, paranoia, and boredom proneness.

2.3. Measures

Conspiracist ideation was measured using the 15-item Generic Conspiracist Beliefs scale (GCB: Brotherton, French, & Pickering, 2013). The GCB is a psychometrically validated measure of generic conspiracist ideation – that is, endorsement of conspiracist statements which do not specify any particular real-world event (example item: "The government is involved in the murder of innocent citizens and/or well-known public figures, and keeps this a secret"). Each item is rated on a 5-point scale (1: definitely not true, 2: probably not true, 3: not sure/cannot decide, 4: probably true, 5: definitely true). A mean score was calculated for each participant, with greater scores reflecting stronger conspiracist ideation. Cronbach's coefficient alpha in the current study was .97.

Paranoia was measured using the 20-item Paranoia scale (PS: Fenigstein & Vanable, 1992). The PS is a psychometrically validated measure of mild paranoid ideation in the general population – that is, not limited to psychopathological paranoia (example item: "Someone has it in for me").[1] Each item is rated on 5-point scale (ranging from 1: not at all applicable to me, to 5: extremely applicable to me). A mean PS score was calculated for each participant, with higher scores reflecting greater paranoid ideation. Cronbach's alpha in the current study was .92.

Boredom proneness was measured using the 28-item Boredom Proneness scale (BP: Farmer & Sundberg, 1986). The BP is a validated measure of proneness to boredom in the general population (example item (reverse scored): "It is easy for me to concentrate on my activities"). As in previous studies, a 7-point response scale was used (ranging from 1: highly disagree, to 7: highly agree). A mean score was calculated for each participant, with greater scores reflecting higher boredom proneness. Cronbach's alpha in the current study was .84.

2.4. Procedure

Ethical approval was obtained for the study from the Goldsmiths, University of London, Department of Psychology Ethics Committee. The online survey was constructed using Qualtrics. An initial instructions page informed participants that the study was interested in people's opinions about themselves and their attitudes towards world events. The term 'conspiracy theory' was not used. Once participants indicated their informed consent, the three scales were presented to participants on separate web pages. On completion of all measures, participants were debriefed.

3. Results

3.1. Descriptives

On the whole, participants demonstrated modest conspiracist ideation, with a sample mean ($M = 2.64$; $SD = 1.17$) slightly below the mid-point of the scale; the sample neither strongly denied nor affirmed the existence of conspiracies, but leaned slightly towards doubt. Likewise, the sample was somewhat paranoid on the whole, with a sample mean ($M = 2.30$; $SD = 0.73$) somewhat below the mid-point of the scale. Finally, the sample suffered from modest boredom proneness; again the sample average was slightly below the mid-point of the scale ($M = 3.71$; $SD = 0.70$).

3.2. Associations between boredom proneness, paranoia, and conspiracist ideation

Significant positive bivariate correlations were found between all three variables. Stronger conspiracist ideation was associated with greater boredom proneness ($r = .27$, $p < .001$) and higher paranoia ($r = .52$, $p < .001$). In addition, greater boredom proneness was associated with higher paranoia ($r = .53$, $p < .001$).

To test the predicted pattern of mediation, the regression procedures recommended by Baron and Kenny (1986) were used. First, boredom proneness (predictor) predicted conspiracist ideation (criterion); $\beta = .27$, $t = 3.46$, $p < .001$, Adj-$R^2 = .07$. Boredom proneness also predicted paranoia (mediator); $\beta = .53$, $t = 7.68$, $p < .001$, Adj-$R^2 = .28$. Additionally, paranoia predicted conspiracist ideation; $\beta = .52$, $t = 7.38$, $p < .001$, Adj-$R^2 = .26$. Finally, when boredom proneness was entered into the regression model with paranoia, the relationship between boredom proneness and conspiracist ideation was reduced to non-significance ($\beta = .01$, $t = 0.06$, $p = .96$), while paranoia remained a significant predictor ($\beta = .52$, $t = 6.25$, $p < .001$). Overall, the model was significant and explained a modest amount of variance; $F(2, 147) = 27.05$, $p < .001$, Adj-$R^2 = .26$. Complete mediation was confirmed by a Sobel test ($z = 5.31$; $p = <.001$). The mediation is illustrated in Fig. 1.

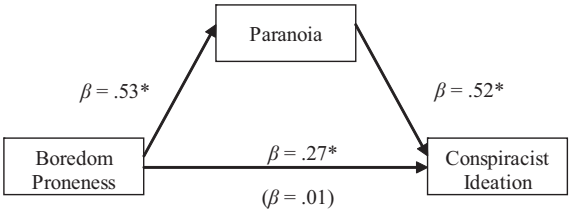
4. Discussion

The findings of the current study suggest that boredom proneness is related to belief in conspiracy theories; however, the relationship is mediated by paranoia. These findings add to the growing literature on conspiracist ideation, as well as our understanding of boredom proneness and paranoia.

First, the current findings build on previous research linking trait paranoia and endorsement of conspiracy theories (Abalakina-Paap et al., 1999; Darwin et al., 2011; Goertzel, 1994; Imhoff & Bruder, 2013; Parsons et al., 1999; Swami et al., 2011, 2013, 2010). In the current study, people relatively high in paranoia were more likely to endorse conspiracist statements. Individuals high in trait paranoia may be drawn to conspiracy theories as a satisfying explanatory tool for several reasons. The distrust and hostility characteristic of paranoia may drive paranoid individuals to misplace blame on to other people or organisations. Additionally, conspiracy theories may appear plausible due to congruence between the individual's paranoia worldview and the similarly paranoid worldview espoused by conspiracy theories which posit that world events are secretly manipulated by hidden conspirators with nefarious motives. However, these postulated causal relationships between paranoia and conspiracism remain speculative. The current findings, like those of previous studies, do not establish causality. A potential alternative explanation for the relationship is that prior acceptance of conspiracy theories increases feelings of distrust, hostility and alienation. A likely possibility is that the relationship is reciprocal, such that an existing paranoid disposition drives the acquisition of conspiracist beliefs, creating a worldview which validates and strengthens the prior disposition, which in turn reinforces the conspiracist beliefs, and so on.

Second, the current study provides additional evidence supporting the relationship between boredom proneness and paranoia. In the current study, people more prone to boredom tended to indicate stronger paranoia. Previous research has demonstrated links between proneness to boredom and negative traits including

[1] Some studies, including the original authors of the scale, have used 20 additional unscored items to in an effort to conceal the purpose of the scale. However, the presence of these items has not been observed to affect the psychometric properties of the 20 scored item. Accordingly, in the interests of time, the 20 distractor items were omitted in the current study.



Note. * = $p < .001$.

Fig. 1. The relationship between boredom proneness and conspiracist ideation is fully mediated by paranoia.

hostility, mistrust, and narcissism (Ahmed, 1990; Farmer & Sundberg, 1986; LePera, 2011; MacDonald & Holland, 2002; Rupp & Vodanovich, 1997; Seib & Vodanovich, 1998; Sommers & Vodanovich, 2000; Tolor, 1989; von Gemmingen et al., 2003; Wink & Donahue, 1997). One previous study provided evidence that these relationships may be a result of boredom proneness leading to paranoid ideation (von Gemmingen et al., 2003). The current study bolsters these findings by replicating the relationship, as well as finding a correlation between boredom proneness and conspiracist ideation, another trait related to paranoia.

Third, the current findings show that, although boredom proneness predicts conspiracist ideation, the relationship is mediated by paranoia. That is, individuals who are prone to boredom are relatively more likely to endorse conspiracy theories, but only to the extent that their boredom proneness is associated with paranoid ideation. This suggests that conspiracy theorising is not an inevitable consequence of a 'bored mind'; boredom may only produce conspiracism in as much as individuals prone to boredom tend to present characteristics of paranoid cognition, including mistrust, hostility, anxiety, self-fixation, and a tendency to create stimulating information (von Gemmingen et al., 2003). Endorsement of conspiracy theories appears to be a byproduct of these paranoid cognitions, rather than of boredom directly. Bored individuals may engage with conspiracy theories as an activity which serves to justify and rationalise these aversive feelings. Additionally, the results suggest that conspiracy theories, in providing a compelling, Manichean narrative, may satisfy the need for stimulation associated with boredom proneness in a way which is congruent with a paranoid outlook (*cf.* Oliver & Wood, 2014). Overall, the mediation model accounted for just over one-quarter of the variance in conspiracist ideation; boredom proneness and paranoia make a reasonable contribution to predicting generic conspiracist ideation, however other factors must be taken into account to provide a more complete account of individual differences in conspiracy-thinking (e.g. Swami et al., 2011, 2010).

The current study is not without limitations. In particular, the sample was self-selected, and so may not be representative of the general population. The recruitment methods employed in the current study may have resulted in a sample biased towards people with a prior interest in conspiracy theories, and who are therefore more willing to take part in research on the topic. As with previous research, we attempted to minimise this problem by not mentioning the term conspiracy theory in recruitment messages or in the brief study description. However, as the nature of the questions became clear, it is possible that people with an interest in the topic would be more likely to complete the survey. This is a problem common to many prior studies of conspiracism. However, the consistency of the current findings with the results of previous studies, including those which did not use self-selected samples, suggests that the effects are robust. It is also possible that recruiting participants through social media resulted in an unrepresentative sample in terms of boredom proneness. There is some evidence that boredom proneness is associated with internet addiction; however, there is no evidence that internet addiction is widespread (e.g. Nichols & Nicki, 2004). Moreover, studies have found that data collected online do not differ substantially from those obtained using more traditional methods (e.g. Buhrmester, Kwang, & Gosling, 2011).

It is worth noting that the mild paranoia under discussion should not be equated with a clinically diagnosable syndrome. As Darwin et al. (2011) note, extreme paranoia can lead to maladaptive experiences and behaviours, such as serious persecutory delusions, which can have a detrimental effect on the individual's mental health and social relationships. Milder versions of the same traits, however, may actually prove adaptive; being mildly suspicious of the intentions of others could lead to the avoidance of personal harm if the suspicions turned out to be correct. Thus, conspiracist beliefs are not intrinsically maladaptive, and may be a byproduct of evolved cognitive strategies for avoiding harm. However, the consequences of belief in some conspiracy theories, such as rejection of vaccinations or non-adherence to AIDs treatment programmes, are unquestionably maladaptive. Future research is needed to investigate effective interventions to curtail widespread belief in such theories.

In sum, the results of the current study suggest that conspiracist ideation is related to boredom proneness via paranoia. As such, it appears that the propensity to experience boredom may produce paranoid cognitions such as generalised mistrust, which can in turn manifest as conspiracist suspicions about the government and other organisations. Further studies replicating the current results using non-self-selecting samples are needed. If the relationships are replicable, future research may seek to experimentally manipulate the experience of boredom and examine its behavioural consequences – particularly, whether an individual is more likely to endorse a conspiracy theory – in order to establish the causal mechanisms underlying the observed relationships.

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at http://dx.doi.org/10.1016/j.paid.2015.02.011.

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