Short report

Self-affirmation and nonclinical paranoia

Jessica Kingston, Lyn Ellett[*]

Department of Psychology, Royal Holloway, University of London, Egham, Surrey TW200EX, UK

ABSTRACT

Background and Objectives: This experiment examined whether reflecting on a core value—value-affirmation—was effective in attenuating state paranoia in students.
Methods: University students ($N = 55$) were randomised to either a value-affirmation or non-affirmation control condition before exposure to a paranoia-induction manipulation (high self-awareness plus failure feedback). Paranoid cognitions were measured before (T1) and after (T2) the value-affirmation task and after the paranoia-induction task (T3). Depressive cognitions were also measured at T3.
Results: Affirming a valued domain had a direct and significant effect on reducing state paranoia prior to the paranoia-induction task (T2), such that the overall impact of the paranoia-induction on state paranoia was not significantly different from baseline. This effect was not attributable to differential changes in depression across groups.
Limitations: Use of a nonclinical sample limits generalisation to clinical groups. Repeat testing of key variables is a limitation, although this was necessary to assess change over time, and use of randomisation increased the internal validity of the study.
Conclusions: These findings suggest that self-affirmation is effective in reducing state paranoia in a nonclinical sample.

Paranoid thinking is characterised by the belief that another person is, or is planning, to cause one harm—be that physical, social or psychological (Freeman & Garety, 2000). Whilst paranoia can be a central feature of severe mental ill-health, substantial evidence suggests that paranoid thinking commonly occurs, in an attenuated form, in the general population (e.g., Ellett, Lopes, & Chadwick, 2003; Freeman, 2007); a view that is consistent with modern dimensional models of mental ill-health (Caspi et al., 2013). It is estimated that at least 10—15% of the general public experience suspiciousness, assumptions of another's hostile intentions, and even notions of conspirational intent (Freeman, 2007).

The experimental investigation of paranoid thinking is beginning to validate key theoretical assumptions about phenomenology and underlying mechanisms of paranoia (e.g., Bodner & Mikulincer, 1998; Ellett, Allen-Crooks, Stevens, Wildschut, & Chadwick, 2013; Ellett & Chadwick, 2007; Freeman et al., 2008). For example, several studies have now shown that state paranoia can be triggered in virtual environments even though the avatars are programmed to behave in neutral ways (e.g., Freeman et al., 2008). This demonstrates that paranoid perception goes beyond the environmental stimuli, and involves top—down alongside bottom—up processing. Likewise, recent research using the Prisoner's Dilemma Game (Ellett et al., 2013) has suggested that paranoia is indeed necessarily interpersonal (i.e., one is always paranoid about someone) and associated with fear-based, rather than greed-based, processes.

A third experimental paradigm has identified a key role for self-awareness and task failure in the emergence of paranoid thinking in students. Fenigstein and Vanable (1992) found that increasing self-awareness (e.g., through a mirror) had the effect of increasing paranoid cognitions, perhaps by increasing the self-as-target bias—a tendency to see the self as the target of others' thoughts and actions. Based on these findings, Bodner and Mikulincer (1998) developed a unique paradigm that brought level of self-awareness under experimental control. In this design, participants completed an impossible computer task (failure feedback) under conditions of high or low self-awareness, determined by the presence (high self-awareness) or absence (low self-awareness) of a video camera plus monitor. Research has demonstrated that these environmental conditions reliably trigger state paranoia in students (Bodner & Mikulincer, 1998; Ellett & Chadwick, 2007), perhaps by setting up an actual-ideal self discrepancy (i.e., heightened awareness of not living up to one's ideal standards), which the paranoid attribution functions to resolve (see Bentall, Corcoran, Howard, Blackwood, & Kinderman, 2001 on actual-

ideal self-discrepancy and paranoia). This account is consistent with the defensive effects of self-evaluation (Sedikides & Strube, 1997) and research that documents increased self-enhancement bias under conditions of high self-awareness (Campbell & Sedikides, 1999; Cohen, Dowling, Bishop, & Maney, 1985).

Steele's (1988) well-validated theory of self-affirmation posits that affirming the self in a domain unrelated to the source of self-threat, attenuates the need for defensive processing, by boosting psychological resources. Consistent with this, a plethora of research has reliably demonstrated that affirming a highly valued domain, unrelated to the source of threat, significantly attenuates defensive processing, as measured by a host of dependent variables (e.g., attitude change, biased information processing, self-serving causal attributions: see McQueen & Klein, 2006; Sherman & Cohen, 2006). In their study, Ellett and Chadwick (2007, study 3) found that boosting psychological resources by priming participants with positive self-cognitions before exposure to failure plus camera conditions resulted in significantly lower state paranoia than those primed with negative self-cognitions. However, the absence of baseline measures and of a control group limits the conclusions that can be drawn.

This study was designed to test the effect of self-affirmation on state paranoia. Participants were randomised to either a self-affirmation or a control task prior to exposure to the paranoia induction (failure plus camera). Participants reported on state paranoia at baseline (T1), post affirmation task (T2), and following the paranoia induction (T3). Based on the theory of self-affirmation (Steele, 1988), and consistent with the findings of Ellett and Chadwick (2007, study 3), we predicted that state paranoia would be significantly lower in affirmed participants relative to non-affirmed controls at T3. Given that depressed mood co-occurs with paranoia, and may legitimately be induced by high self-awareness and failure feedback, this was controlled for in the analyses.

1. Method

1.1. Design

A repeated measures experimental design was employed. The independent variable was affirmation condition (self-affirmation versus control) and the dependent variable was state paranoia following the failure plus camera condition. Covariates included baseline state paranoia and a state measure of depressed mood (measured at T3 only). A trait measure of depression was also taken at baseline to ensure group equivalence.

1.2. Participants

An opportunity sample of students ($N = 55$) from a British university (74% female, 66% White British, mean age 21.36 years) took part. The sample size was determined by a priori power calculations: estimating an effect size of .7 (McQueen & Klein, 2006), with alpha at .05 and power at .80.

1.3. Measures

Paranoia and Depression Scale (**PDS**; Bodner & Mikulincer, 1998) is a 17-item state measure of depressive (10-items) and paranoid (7-items) thoughts and feelings. Items are rated on a 6-point scale (1 – *not at all* to 6 – *very often*) and were derived from measures of depressive and paranoid psychopathology. Only the paranoia items (e.g., "I feel that people are hostile to me", "I feel that others are picking on me") were measured at baseline (most depression items relate directly to task performance). Both depression (e.g., "I feel ashamed of my task performance", "I don't have the appropriate abilities to perform the task") and paranoia items were administered following the task. These items have shown good discriminant and convergent validity and internal consistency (Bodner & Mikulincer, 1998). For example, Bodner and Mikulincer (1998) report that paranoia items were significantly related to the paranoia subscale of the SCL-90 ($r = .67, p < .001$) and depression items were significantly related to the BDI ($r = .68, p < .001$). In the current sample, the internal consistency was $\alpha = .83$ for depression and $\alpha = .78$ for paranoia. In support of the convergent and discriminant validity of the PDS, in the current study, the paranoia items correlated significantly with a well-validated measure of trait paranoia (Paranoia Scale, Fenigstein & Vanable, 1992; $r = .53, p < .001$) and did not significantly correlate with a measure of social anxiety (Self-Consciousness Scale – Social Anxiety subscale; Fenigstein, Scheier, & Buss, 1975; $r = .06, p = .68$). The PDS depression items correlated significantly with a well-validated measure of depression (Depression Anxiety and Stress Scale – Depression items, Lovibond & Lovibond, 1995; $r = .44, p < .001$) and were not significantly correlated to anxiety (Depression Anxiety and Stress Scale – Anxiety items, Lovibond & Lovibond, 1995; $r = .08, p = .53$).

Depression, Anxiety and Stress Scale (Lovibond & Lovibond, 1995) is a 42-item measure designed to assess the core symptoms of depression, anxiety and stress over the last week. Depression items were used in this study to assess group equivalence at baseline. Items are rated using a 4-point Likert scale of frequency or severity. Good discriminant and concurrent validity (Antony, Bieling, Cox, Enns, Swinson, 1998) and internal consistency values have been reported in normative samples (e.g., Depression $\alpha = .91$, Anxiety $\alpha = .84$ and Stress $\alpha = .90$, Lovibond & Lovibond, 1995). In the current sample, the internal consistency of the depression subscale was good ($\alpha = .91$).

1.4. Procedure

Ethical approval was gained prior to the commencement of the study, and all participants gave written informed consent. Participants were randomised to condition by a third party independent of the study, using an online randomisation tool (www.randomisation.org). Participants first completed baseline demographic questionnaires, paranoia items of the PDS, and the DASS. Participants were then blindly randomised to the self-affirmation or affirmation control. In both conditions, participants rank ordered the importance of 11 valued domains (see Sherman, Nelson, & Steele, 2000): Artistic skills/Aesthetic appreciation; Sense of Humour; Relations with friends/family; Spontaneity/Living life in the moment; Social Skills; Athletics, Musical ability/appreciation; Physical Attractiveness; Creativity; Business/Money and Romantic values. Self-affirmation participants then wrote, for 10 min, about their top value (i.e., why it was meaningful to them and describing a time that it made them feel good about themselves). Conversely, control participants wrote about their least valued domain from the perspective of an average university student. As a post-task manipulation check, participants rated four statements ('This value or personal characteristic has influenced my life'; 'In general, I try to live up to this value'; 'This value is an important part of who I am'; 'I care about this value') using the scale 1 '*strongly disagree*'–6 '*strongly agree*' (see Sherman et al., 2000).

Participants then re-completed paranoia items of the PDS, after which they moved to a separate section of the experimental room to complete the paranoia induction task, which involved completing an unsolvable task under conditions of high self-awareness, manipulated using a video camera and linked monitor (see Ellett and Chadwick (2007), for further details). Following