



Contents lists available at ScienceDirect

# Journal of Behavior Therapy and Experimental Psychiatry

journal homepage: [www.elsevier.com/locate/jbtep](http://www.elsevier.com/locate/jbtep)



## An experimental investigation into the role of ruminative and mindful self-focus in non-clinical paranoia



Ashley McKie<sup>a, b</sup>, Kristina Askew<sup>b</sup>, Robert Dudley<sup>a, c, \*</sup>

<sup>a</sup> School of Psychology, Newcastle University, Newcastle Upon Tyne, UK

<sup>b</sup> The Newcastle Upon Tyne Hospitals NHS Foundation Trust, Newcastle Upon Tyne, UK

<sup>c</sup> Early Intervention in Psychosis Service, Northumberland, Tyne and Wear NHS Foundation Trust, UK

### ARTICLE INFO

#### Article history:

Received 17 August 2015

Received in revised form

18 May 2016

Accepted 28 July 2016

Available online 30 July 2016

#### Keywords:

Rumination

Mindfulness

Paranoia

Persecutory delusions

### ABSTRACT

**Background & objectives:** Ruminative self-focus is a maladaptive form of emotional processing and is linked to distress, whereas mindful self-focus is adaptive and linked to low distress. However, the effects of these different modes of self-focus have not yet been examined in symptoms associated with psychotic disorders, such as paranoid ideation. This study aimed to explore whether inducing ruminative self-focus maintains paranoid ideation whilst inducing mindful self-focus reduces paranoid ideation.

**Method:** Thirty-two non-clinical participants engaged in a paranoia induction prime and then took part in an eight-minute ruminative self-focus induction and an eight-minute mindful self-focus induction.

**Results:** Following an induction of paranoia, mindful self-focus significantly decreased levels of paranoia, whereas ruminative self-focus had no significant impact on levels of paranoia, and therefore was interpreted as having maintained paranoia.

**Limitations:** The study used non clinical participants and the level of paranoid ideation experienced was fairly mild, which limits generalisation to clinical levels of distress. Additionally, the mechanism by which rumination and mindful self-focus have their effects was not examined.

**Conclusions:** The results add to the growing body of evidence that there are two distinct modes of self-focus that have differential effects on emotional processing. These findings also demonstrate the potential benefit of interventions targeting rumination in paranoid ideation with mindful self-focus.

Crown Copyright © 2016 Published by Elsevier Ltd. All rights reserved.

## 1. Introduction

Paranoia involves a mistrust and suspicion of others. It can become elevated, to the point of becoming persecutory, when a person believes that others intend to cause him/her harm (Freeman & Garety, 2000). Paranoia is common. It is reported by people with bipolar disorder, schizophrenia and borderline personality disorder, as well as by people in the non-clinical population (Combs, Michael, & Penn, 2006). This has led to a dimensional understanding of paranoia, spanning from mild social evaluative concerns and ideas of reference through to persecutory delusions (Freeman et al., 2005).

An empirically supported cognitive model by Freeman, Garety, Kuipers, Fowler, and Bebbington (2002) proposed that persecutory delusions are threat beliefs that are developed as a way of

making sense of an anomalous experience, and are maintained by similar processes to those involved in the maintenance of anxiety disorders (Freeman et al., 2002).

Self-focus is described as attending to internally generated information linked to the self, such as bodily sensations, cognitions, and emotional states (Ingram, 1990). Individuals suffering from emotional or psychotic disorders engage in higher levels of self-focus (Ingram, 1990; Spurr & Stopa, 2002; Woodruff-Borden, Brothers, & Lister, 2001). Self-focus can have either adaptive or maladaptive effects, depending on the style of processing adopted (Stober, 1998; Watkins, 2008). Teasdale (1999) distinguishes two modes of self-focus: (a) an “evaluative” mode that involves evaluating thoughts, sensations, and feelings in relation to the self, and (b) a “mindful” mode that involves self-awareness focused on the moment-to-moment experience of thoughts and feelings in a non-evaluative manner. Teasdale (1999) argued that the “mindful” mode is adaptive and leads to helpful emotional processing, that reduces and alleviates distress, whereas the “evaluative” mode leads to maladaptive emotional processing and maintains or exacerbates distress.

\* Corresponding author. Newcastle University, Ridley Building 1, Newcastle upon Tyne, NE1 7RU, UK.

E-mail address: [rob.dudley@ncl.ac.uk](mailto:rob.dudley@ncl.ac.uk) (R. Dudley).

Extant research has examined the thinking styles of rumination and mindfulness as they relate to Teasdale's theory. Rumination involves "self-focused and negative appraisals of the self, emotions, behaviours, situations, life stressors and coping" (Papageorgiou & Wells, 2004, p. 6). Nolen-Hoeksema, Wisco, and Lyubomirsky (2008) suggest that what makes rumination maladaptive is in part its evaluative component. Therefore, in terms of Teasdale's (1999) mode of mind theory, rumination is recognised as an evaluative form of self-focus. In comparison, mindfulness is described as "paying attention, on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment to moment" (Kabat-Zinn, 2003, p.145), consistent with a mindful mode of self-focus.

Research with non-clinical participants has shown that higher levels of trait mindfulness are associated with lower levels of depression and anxiety (Brown & Ryan, 2003; Coffey & Hartman, 2008). Using validated mindfulness measures, it has been demonstrated that individuals who report lower levels of trait mindfulness report higher levels of psychological symptoms (Baer, Smith, & Allen, 2004), and individuals who report higher levels of trait mindfulness report lower levels of distress and greater wellbeing (Feldman, Hayes, Kumar, Greeson, & Laurenceau, 2006). Therefore, mindfulness seems to be a process that is associated not only with reduced distress, but enhanced wellbeing.

Experimental research has investigated the effects of inducing short periods of evaluative self-focus in comparison to mindful self-focus on the course of negative states in clinical (e.g., Broderick, 2005; Huffziger & Kuehner, 2009) and non-clinical (e.g., Kuehner, Huffziger, & Liebsch, 2009; Rood, Roelofs, Bogels, & Arntz, 2012) populations. The majority of such studies have demonstrated that evaluative forms of self-focus maintain or exacerbate negative emotional states, and that mindful forms of self-focus significantly reduce negative emotional states (e.g., Huffziger & Kuehner, 2009; Singer & Dobson, 2007). Despite the trans-diagnostic nature of these processes (Ehring & Watkins, 2008), research comparing the effect of ruminative and mindful modes of self-focus on psychotic symptoms is limited.

In relation to paranoid ideation, the Freeman et al. (2002) model proposed that appraisal of the threat belief is involved in the maintenance of persecutory delusions and contributes to negative affect (NA) in the form of anxiety and depression. This appraisal process can be considered an example of self-focussed attention and most likely an evaluative or ruminative form of self-focus as it involves appraisal of the self, the delusional belief, and the experiences that contributed to the delusional belief (Freeman et al., 2002).

There is indirect and direct evidence of the role of ruminative self-focus in paranoia. Indirectly, persecutory delusions are associated with high levels of worry (Startup, Freeman, & Garety, 2007). Worry is similar to rumination as it is also a form of repetitive negative thinking (Ehring & Watkins, 2008). Direct evidence indicates that rumination is associated with higher levels of paranoia in clinical (Hartley, Haddock, Vasconcelos, Emsley & Barrowclough, 2014) and non-clinical populations (Simpson, MacGregor, Cavanagh, & Dudley, 2012). Also, experimental research has demonstrated that after a paranoia induction, rumination maintains levels of paranoid ideation in comparison to distraction, which reduces paranoid ideation in a non-clinical sample (Martinelli, Cavanagh, & Dudley, 2013).

Although distraction would seem to be a helpful strategy for individuals with paranoia, there are some limitations to using distraction. Specifically, distraction is only considered helpful in the short term (Teasdale, Segal, & Williams, 1995), and actively shutting out and suppressing thoughts can have a paradoxical effect by increasing the occurrence of intrusive thoughts (Wegner,

Schneider, Carter, & White, 1987). Given the limitations of distraction, mindful self-focus may provide a better alternative to ruminative self-focus in the longer term. Mindfulness interventions for individuals who experience psychosis may be useful (Chadwick, Hughes, Russell, Russell, & Dagnan, 2009; Dannahy et al., 2011). However, there is no research to date that directly considers Teasdale's (1999) model in relation to paranoia and compares the effects of ruminative and mindful modes of self-focus on levels of paranoid ideation.

The aim of the present study was to examine the effects of experimentally induced mindful and ruminative self-focus on levels of paranoid ideation and NA in a non-clinical sample. The main hypothesis was: following induced paranoia, engaging in mindful self-focus would significantly reduce levels of paranoid ideation in comparison to ruminative self-focus, which would maintain levels of paranoid ideation. A secondary hypothesis was: following induced paranoia, engaging in mindful self-focus would significantly reduce levels of NA in comparison to ruminative self-focus, which would maintain levels of NA.

## 2. Method

### 2.1. Participants

Undergraduate students ( $n = 229$ ) completed a measure of paranoid ideation (described below). In order to identify participants with some modest level of paranoid ideation those with scores above the 60th percentile were invited to participate in the experimental study. Participants were excluded from the experimental study if they reported past and/or current mental health problems (including anxiety, stress or depression symptoms) that had led them to seek help from their GP or a mental health service.

Forty five individuals were invited to take part. Thirty three participants agreed, one participant was excluded owing to not completing the tasks. The final sample consisted of 32 individuals (nine male, 23 female), aged between 18 and 23 years ( $M = 19.25$ ,  $SD = 1.22$ ), and all identified themselves as White British or White Other.

### 2.2. Design

A counterbalanced within-subject design was used, in which all participants completed both ruminative and mindful inductions. Prior to both the self-focus inductions a paranoia induction was undertaken.

### 2.3. Sample size considerations

A priori power calculations estimated that a sample of 32 participants was required to detect a medium effect size of 0.6 using a repeated measures interaction design ( $\alpha = 0.05$ ,  $\text{power} = 0.8$ , using GPower version 3.1.3). This was based on the moderate to large effect sizes demonstrated by similar research (Broderick, 2005; Huffziger & Kuehner, 2009; Singer & Dobson, 2007).

### 2.4. Measures

#### 2.4.1. Trait paranoia

The Green et al. (2008) Paranoid Thoughts Scales (GPTS) is a multidimensional scale based on the Freeman and Garety (2000) definition of persecutory ideation, and measures the trait levels of three proposed dimensions of paranoia: conviction, distress, and preoccupation. Scale A includes 16 items measuring suspiciousness, mistrust, and ideas of reference, such as 'I believed that certain

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات