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Short Communication

Self-images in the present and future: Role of affect and the bipolar phenotype

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ABSTRACT

Background: Bipolar Spectrum Disorder (BPSD) is associated with changes in self-related processing and affect, yet the relationship between self-image and affect in the BPSD phenotype is unclear.
Methods: 47 young adults were assessed for hypomanic experiences (BPSD phenotype) using the Mood Disorders Questionnaire. Current and future self-images (e.g. I am… I will be…) were generated and rated for emotional valence, stability, and (for future self-images only) certainty. The relationship between self-image ratings and measures of affect (depression, anxiety and mania) were analysed in relation to the BPSD phenotype.
Results: The presence of the BPSD phenotype significantly moderated the relationship between (1) affect and stability ratings for negative self-images, and (2) affect and certainty ratings for positive future self-images. Higher positivity ratings for current self-images were associated with lower depression and anxiety scores.
Limitations: This was a non-clinical group of young adults sampled for hypomanic experiences, which limits the extension of the work to clinical levels of psychopathology. This study cannot address the causal relationships between affect, self-images, and BPSD. Future work should use clinical samples and experimental mood manipulation designs.
Conclusions: BPSD phenotype can shape the relationship between affect and current and future self-images. This finding will guide future clinical research to elucidate BPSD vulnerability mechanisms and, consequently, the development of early interventions.

1. Introduction

It is increasingly recognised that the way we view ourselves (self-image) is related to our mood (Rathbone et al., 2015). Bipolar spectrum disorders (BPSD) are characterized by mood disturbances which warrant further examination at a psychological level. Very little work has directly addressed the relationship between self and affect in BPSD, or young adults in particular. Cognitive-behavioural therapy for BPSD has shown mixed outcomes so far (Thase et al., 2014), with some evidence that assumptions and beliefs about the self may moderate response to treatment (Lam et al., 2005). Onset of BPSD is typically in early adulthood (Merikangas et al., 2011), which represents an important period for development of the self (Fitzgerald, 1988; Rathbone et al., 2008, Burnett Heyes et al., 2013). Psychopathology research can contribute to treatment innovation by focusing on aspects of psychopathology that remain insufficiently explored yet (Di Simplicio et al., 2012). Therefore, investigating the relationship between self and affect in young adults with hypomanic experiences (BPSD phenotype) may help elucidate mechanisms underpinning psychopathology prior to its full development and in the absence of active illness confounders. This can aid development of early psychological interventions much needed for this younger age group.

A healthy self-identity is flexible and adaptable to environmental changes, including variations in affect (e.g. Bonanno et al., 2004; Kashdan and Rottenberg, 2010). Whilst perceptions of the self vary and are influenced by present contingencies, an adaptive characteristic of human nature is the ability to project oneself into the future with an optimistic self-bias (Weinstein, 1980). The self is not a unitary structure; it comprises various self-related processes and conceptions (Markus and Kunda, 1986), including self-images relating to the present (e.g. I am hard-working) and future (e.g. I will be rich). Furthermore, whilst some self-conceptions are malleable and context-dependent, others are more stable and

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consistently accessible (Markus and Kunda, 1986). Stable and persistent negative self-images (e.g. I am a failure) are thought to play a role in the maintenance and relapse of depressive states (e.g. Beck, 1967), both in terms of the presence of negative current self-images, which stay rigid regardless of current affect, and fewer positive future self-images.

BPSD is characterised by negative self-related processing (Mansell and Scott, 2006; Whitney et al., 2012) including in vulnerable samples (Lardi Robyn et al., 2012), as well as by self-descriptors linked to high goal-attainment and hypomania (Lee et al., 2010). This hyper-positive sense of self has also been associated with greater relapse after CBT (Lam et al., 2005). Previous work has demonstrated the relevance of examining self-images in psychopathology (e.g. Bennouna-Greene et al., 2012; Jobson and O'Kearney, 2008) and the strong relationship between emotional valence of self-images and well-being in non-clinical samples (Rathbone et al., 2015). Furthermore, it has been argued that BPSD is characterised by an excess of mental imagery (Holmes et al., 2008, 2011) suggesting that investigating self-images may hold particular relevance for this group. However, we know little about the relationship between self-image and affect in BPSD. It is not clear whether, given the mood instability associated with BPSD, the emotional valence (i.e. positive versus negative) of self-images is particularly dependent on mood, or whether other variables play a role (for example, how stable one's self-images are, or the degree of certainty attributed to future self-images).

The aim of the present study was to examine current and future self-image valence, stability over time, and certainty ratings for future self-images and explore how affect and self-image valence, stability and certainty are associated in relation to the bipolar phenotype.

2. Method

2.1. Participants and procedures

Participants were recruited via advertisements in local newspapers and student groups in the Oxford area based on age (18–50) and scores on the Mood Disorders Questionnaire (MDQ, Hirschfeld et al., 2000) completed online. The MDQ was used to select groups with high versus low hypomanic experience (high = MDQ ≥ 7 versus low = ≤ 3) (Rock et al., 2010), who were then were invited for further assessment at the University Department of Psychiatry, Warneford Hospital, Oxford, UK (study approved by the Research Ethics Committee South Central Oxford B:12/SC/0326). All participants underwent a Structured Clinical Interview for DSM IV-TR (SCID) (First et al., 2002). Exclusion criteria were current or past psychiatric history based on the SCID, any major neurological disorder, and any psychotropic medication. Participants excluded after SCID screening were: 14 participants with high MDQ due to BPSD or past/present depressive episode diagnosis and 4 participants with low MDQ due to past/present depressive episode or eating disorder diagnosis. Eligible participants completed a testing battery (including the measures reported below) immediately after the screening assessment and received reimbursement for their time. One participant failed to complete the full session, resulting in a total sample of 47 participants (66% female, mean age: 23.35, SD = 6.07).

2.2. Measures

The Mood Disorders Questionnaire (MDQ, Hirschfeld et al., 2000) was used to assess BPSD vulnerability, with cut offs for high and low groups as outlined above. Affect was assessed in terms of depression (QIDS, Rush et al., 2003), anxiety (STAI-S, Spielberger et al., 1983) and mania (ASRM; Altman et al., 1997). Current and future self-images were examined using two open-ended measures of the self (e.g. Rathbone et al., 2008; 2011). Participants completed 10 statements beginning 'I am…' and 10 beginning 'I will be…'. All self-images were rated from 0 to 100 for emotional valence (100 = very positive) and temporal stability (e.g. 'How much of the time does this statement describe you?' or 'How much of the time in the future might this statement describe you?' (100 = all of the time). I will be statements were also rated for certainty (100 = very certain).

2.3. Statistical analyses

To test the hypothesis that MDQ group (high versus low) would moderate the relationship between affect (as measured by the QIDS, STAI-state, and ASRM) and self-images, hierarchical multiple regression analyses were performed. Scores on the QIDS, STAI-state and ARSM were entered in the first block, followed by three separate analyses in which the second block examined the interaction between MDQ group and a) QIDS, b) STAI-state, and c) ASRM, respectively. This approach was taken for all regression analyses reported below (only significant results are discussed).

3. Results

Mean affect scores and self-image ratings are shown in Table 1. As expected, the high MDQ group reported significantly higher depression (QIDS) and mania (ASRM) scores than the low MDQ group.

All participants reported at least one positive current and future self-image. However, and in line with predictions, 75% of the participants in the high MDQ group generated at least one negative current self-image, compared to 48% of participants in the low MDQ group ($\chi^2[1, N=47]=3.67$, $p=.055$). There was no significant difference ($p=.48$) between groups in the proportion of

Table 1
Participant demographics and mean self-image valence, stability and certainty subscale scores.

Scale	Low MDQ ($N=23$) Mean (SD)	High MDQ ($N=24$)	t	Cohen's d
Age	23.43 (4.62)	22.46 (5.30)	0.67*	/
Female: Male	15: 8	16: 8	/	/
Years of education	16.22 (2.34)	16.08 (2.70)	0.18	/
QIDS	2.26 (2.05)	6.83 (5.26)	3.96**	−1.03
STAI-S	30.00 (9.53)	35.08 (11.99)	1.61	−0.46
ASRM	1.00 (1.31)	4.17 (2.57)	5.36**	−1.55
Current self-image valence	73.79 (12.68)	66.70 (11.89)	1.98	0.57
Future self-image valence	84.24 (11.30)	82.98 (11.14)	0.39	0.11
Current positive self-image stability	82.55(7.24)	79.03 (10.17)	1.36	0.39
Current negative self-image stability	65.61 (20.63)	67.81 (13.58)	−0.35	−0.12
Future positive self-image stability	78.79 (10.78)	78.04 (10.52)	0.24	0.07
Future negative self-image stability	64.44 (15.03)	58.89 (19.17)	0.42	0.32
Future positive self-image certainty	74.84 (10.76)	72.37 (12.10)	0.74	0.21
Future negative self-image certainty	73.33 (15.28)	62.50 (14.67)	1.03	0.72

Note. Degrees of freedom were 45 for all scores apart from QIDS (30.1) and ASRM (34.6) following correction for equality of variances (Levene's test)

* $p < .05$.
** $p < .001$.