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Elevated expectancies among persons diagnosed with bipolar disorder

Sheri L. Johnson^{1,2,*}, Lori R. Eisner², and Charles S. Carver²

¹Department of Psychology, University of California Berkeley, California, USA

²University of Miami, Coral Gables, Florida, USA

Abstract

Objective—Students at risk for bipolar disorder endorse highly ambitious goals. This study examined expectations for the future among people with actual bipolar disorder, versus people with no history of mood disorder and persons with history of unipolar depression.

Methods—One hundred and three students were assessed for Axis I disorders and completed a measure of expected life outcomes.

Results—History of mania, but not history of depression, related to higher expectations of achieving popular fame and wealth.

Conclusions—People with history of mania anticipate great success in domains involving public recognition.

Evidence links bipolar disorder to enhanced reward sensitivity (Meyer, Johnson, & Winters, 2001) and a belief in the importance of achievement (Lam, Wright, & Smith, 2004). More specific to goal-setting, students at high risk for mania endorse higher expectations for occupational and academic success than students at low risk (Meyer & Krumm-Merabet, 2003). To examine this issue further, Johnson and Carver (2006) developed a measure of extremely ambitious life goals. In two studies, students at risk of mania endorsed higher aspirations on subscales for fame, wealth, and political influence, independent of current symptoms of mania.

The study reported here considers life expectancies among people with diagnoses of bipolar disorder. We predicted that people who meet lifetime diagnostic criteria for bipolar disorders would endorse elevated expectations for fame, wealth, and political influence, compared with those who did not meet criteria. Given evidence that mania and depression have different cognitive correlates within bipolar disorder (Alloy, Reilly-Harrington, Fresco, Whitehouse, & Zechmeister, 1999), we predicted that history of depression would not relate to elevated expectations. Thus, we examined lifetime history of mania and major depressive episodes (MDE) separately.

This study examined undergraduates. This minimizes a problem likely to emerge in more severely ill populations, where high ambitions might stem from a desire to make up for losses associated with the disorder.

Method

Participants and recruitment

Participants were 103 undergraduates who received credit towards a course requirement. Screening measures for lifetime mania and depression were administered to more than 2,300 students in classes. Students with high scores on either were emailed an invitation to participate; others signed up without invitation. All signed up via a departmental website. In individual sessions, participants completed written consent, a diagnostic interview, questionnaires, then some tasks not relevant to this report.

Bipolar diagnoses included bipolar I disorder ($N = 15$), bipolar II disorder ($N = 5$), and bipolar disorder not otherwise specified (either cyclothymia or hypomanic episodes without a history of depression, $N = 7$). Within the bipolar sample, 16 people reported lifetime MDE, and 11 did not. Thirty-five participants had a history of unipolar MDE and no history of mania; 41 had no history of mood disorders. Only one participant had been diagnosed previously with bipolar disorder. Across groups, four participants were taking medications for mood, and two were undergoing psychotherapy.

Measures

Hypomanic Personality Scale—The Hypomanic Personality Scale (HPS; Eckblad & Chapman, 1986) is a highly reliable 48-item scale designed to identify people at risk for mania. The true-false items capture episodic shifts in emotions, behaviour, and energy. High scorers are at greatly elevated risk of bipolar spectrum disorders (Kwapil *et al.*, 2000). In this study, $\alpha = .87$, $N = 2,365$. Respondents with scores of 35 or higher (2 *SDs* above the mean) were invited to participate.

Inventory to diagnose depression, lifetime version (IDD-L)—This 45 item self-report scale (Zimmerman & Coryell, 1987) assesses symptoms of a lifetime diagnosis of MDE as defined by the Diagnostic and Statistical Manual, 4th Edition, Text Revision (DSM-IV-TR). Scores correspond well with diagnoses from structured research interviews (Zimmerman & Coryell, 1987). In this study, $\alpha = .93$. Consistent with DSM-IV-TR criteria, students who endorsed five or more depressive symptoms for at least 2 weeks were invited to participate.

Structured Clinical Interview for DSM-IV (SCID)—SCID modules (First, Spitzer, Gibbon, & Williams, 1997) were used to assess lifetime MDE, bipolar spectrum disorders, and substance use disorders. Three people who met diagnostic criteria for alcohol or substance abuse disorders were excluded. Inter-rater reliability, as assessed within 12 randomly selected audiotaped interviews, was high for diagnoses of mania, intra-class $r_1 = 1.00$ and MDE, $r_1 = .87$.

Current symptoms—Current symptoms were assessed by two well-validated self-reports: the 20-item Center for Epidemiological Studies-Depression Scale (CESD; Radloff, 1977), and the five-item Self-Rating Mania Inventory (SRMI; Altman, Hedeker, Peterson, & Davis, 2001). Alpha for CESD was .75 and for SRMI was .70. Symptoms were relatively low (SRMI: $M = 5.05$, $SD = 3.20$, possible range 0-15; CESD: $M = 19.82$, $SD = 6.54$, possible range 0-60).

Willingly approached set of statistically unrealistic pursuits (WASSUP)—The WASSUP (Johnson & Carver, 2006) is a self-report measure designed to assess expectations regarding highly ambitious life goals. Some items reflect intrinsically valuable goals, others fame, material success, and political influence, etc. Respondents in this study rated how likely each outcome was to occur. Response options were 'no chance of occurring' (1) to 'definitely WILL occur' (5). There are seven factor-analytically derived subscales: popular fame (e.g.

'you will appear regularly on TV'), idealized friendships (e.g. 'everyone you know will love you'), having a positive impact on world well-being (e.g. 'you will create world peace'), political influence (e.g. 'you will be important in political circles'), idealized relations with family (e.g. 'your relationship will be more romantic than Romeo and Juliet'), financial success (e.g. 'you will have 20 million dollars or more'), and a subscale with items reflecting creativity and self-actualization. Alphas for subscales ranged from .68 to .89, with the exception of Creativity, $\alpha = .58$. Correlations among subscales ranged from .04 to .58.

Results

To assess potential confounds, preliminary ANOVAs were conducted with mania history, depression history, and their interaction as independent variables predicting current symptoms and demographics. Depression and mania diagnoses both predicted higher CESD, $F(1, 99) = 18.03, p < .01, F(1,99) = 4.76, p < .05$, respectively. Mania history related to older age, $F(1,99) = 4.27, p < .05$, and higher SRMI scores, $F(1, 99) = 14.03, p < .01$. Depression history related to greater likelihood of being female among persons with no mania history, $\chi^2(1) = 11.94, p = .001$, but not among persons with a mania history, $\chi^2(1) = 0.16, ns$.

Regarding links of WASSUP subscales with potential confounds, only World Well-being related to current symptoms of mania, $r = .21, p < .05$, and only it and Creativity related to current depression symptoms, $r = .40, p < .01, r = .25, p < .05$, respectively. Men expected more financial success ($M = 2.37, SD = 0.78$) than women ($M = 2.00, SD = 0.69$), $p < .05$. No subscale related to number of previous manias, number of MDEs, age of manic onset, or age of depression onset. WASSUP scores did not differ by type of bipolar diagnosis, so subtypes were grouped together.

SCID diagnoses of lifetime mania and depression (and their interaction) were then tested as predictors of WASSUP subscales in two-way ANOVAs (see Table 1). Gender was included as a covariate for financial success. Two main effects for mania history emerged, predicting higher expectations of popular fame ($M_{mania} = 2.25, SD = 1.00$ vs. $M_{nomania} = 1.82, SD = 0.69$, partial $\eta^2 = .05$) and financial success ($M_{mania} = 2.38, SD = 0.78$ vs. $M_{nomania} = 2.06, SD = 0.73$, partial $\eta^2 = .08$). No effect for depression history was significant, nor was any interaction of depression history with mania history. For all interaction terms, effect sizes were quite small, partial $\eta^2 < .01$, with the exception of creativity, partial $\eta^2 = .018$.

Discussion

Lifetime history of bipolar disorder related to two kinds of elevated expectations for the future: money and popular fame. These elevations were not confounded with current symptoms, depression history, or gender. These findings extend previous results from analogue studies.

It is important to acknowledge limitations. First, the effects of mania were small, and people with a history of mania endorsed only moderately elevated expectations. Second, future studies should examine a broader range of goals. Third, null results could reflect limited power for detecting small main effects or even moderate interactions. Effect sizes for the interactions were small. Fourth, the sample was students, most of whom had not previously been diagnosed - a highly functional subset of people with bipolar disorder. Fifth, the relatively low symptoms reported preclude fully examining how expectations shift with symptom levels. Sixth, the elevated ambitions observed among the mania group could reflect a scar of previous episodes.

Nonetheless, the findings here and in previous research do suggest that people with bipolar tendencies manifest a focus on success, albeit not in all domains. Rather, the focus relates specifically to public recognition: money and popular fame. This pattern suggests that these people are oriented towards certain kinds of social dominance (Gilbert, McEwan, Hay, Irons,

& Cheung, 2005). On the other hand, some goals fitting a social dominance interpretation failed to show the effect (e.g. political influence). Notably, this elevation in aspiration is one of the few cognitive style characteristics of remitted bipolar disorder not explained by depressive history (Cuellar, Johnson, & Winters, 2005).

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Table 1

Means, standard deviations, and *F* tests for WASSUP subscales by history of mania and history of depression

	No-mania history			Mania history			Interaction effect, <i>F</i> (1, 99)
	No-depression history (<i>N</i> = 41)	Depression history (<i>N</i> = 35)	No-depression history (<i>N</i> = 11)	Depression history (<i>N</i> = 16)	Mania main effect, <i>F</i> (1, 99)	Depression main effect, <i>F</i> (1, 99)	
Popular fame	1.77 (0.54)	1.88 (0.84)	2.26 (0.71)	2.24 (1.18)	5.70*	0.07	0.13
Friends	3.01 (0.74)	2.74 (0.71)	3.02 (0.81)	2.85 (0.73)	0.12	1.77	0.11
World	1.24 (0.42)	1.39 (0.61)	1.45 (0.52)	1.56 (0.75)	2.34	0.97	0.02
Politics	1.30 (0.52)	1.54 (0.88)	1.41 (0.49)	1.47 (0.56)	0.01	0.96	0.34
Family	3.30 (0.84)	2.89 (0.81)	3.44 (0.90)	3.38 (0.80)	2.73	1.54	0.84
Money ^a	1.91 (0.71)	2.14 (0.75)	2.52 (0.69)	2.47 (0.85)	8.02**	0.31	0.76
Create	2.37 (0.56)	2.45 (0.69)	2.40 (0.64)	2.90 (0.95)	2.40	3.54	1.77

* $p < .05$ ** $p < .01$.^a Adjusted for gender.