

# Elevated Ambitions for Fame Among Persons Diagnosed With Bipolar I Disorder

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A growing body of evidence suggests that people with bipolar disorder are highly goal-oriented. Compared to other persons, they expend more effort to attain rewards and view goal pursuit as more important to their self-worth. Persons at risk for mania and those diagnosed with bipolar spectrum disorders have been shown to endorse highly ambitious life goals, such as becoming a multimillionaire or achieving fame. This study is the first examination of whether such elevated goals characterize persons diagnosed with bipolar I disorder. We also examined whether elevated ambitions predicted symptom change over time. Ninety-two persons with bipolar I disorder and 81 age- and sex-matched controls completed the Willingly Approached Set of Statistically Unlikely Pursuits, a measure of extremely high life ambitions. A subset of the bipolar participants completed a 3-month follow-up interview. Participants with bipolar disorder endorsed higher ambitions for popular fame than did controls; moreover, heightened ambitions for popular fame and financial success predicted increases in manic symptoms in those with bipolar disorder over the next three months. Discussion focuses on goal regulation in bipolar disorder.

*Keywords:* bipolar disorder, mania, goal regulation, ambition

Over the past decade, a series of findings suggest that people with bipolar disorder have high levels of reward sensitivity (e.g., Meyer, Johnson, & Winters, 2001). These findings have come from studies of bipolar I disorder (Lam, Wright, & Smith, 2004; Salavert et al., 2007; Van der Gucht, Morriss, Lancaster, Kinderman, & Bentall, 2009; but see Jones, Tai, Evershed, Knowles, & Bentall, 2006 for a nonreplication), bipolar spectrum disorders (Alloy & Abramson, 2010; Alloy et al., 2006, 2008, 2009), and samples at risk for disorder by virtue of a history of subsyndromal manic symptoms (Carver & Johnson, 2009; Fulford, Johnson, & Carver, 2008; Gruber & Johnson, 2009; Johnson & Carver, 2006; Meyer, Beevers, Jonson, & Simmons, 2007; Meyer & Hofmann, 2005; Meyer, Johnson, & Carver, 1999). Most of these studies relied on the self-report Behavioral Approach System scales (Carver & White, 1994) to assess reward sensitivity, but elevations

on behavioral and psychophysiological measures of reward sensitivity have also been found among students at risk for mania (Harmon-Jones et al., 2008; Hayden et al., 2008; Sutton & Johnson, 2002). The elevation in reward sensitivity has also been found to be present and constant even as manic symptoms fluctuate (Meyer, Johnson, & Winters, 2001) and therefore does not appear to be due simply to being in a symptomatic state.

The reward sensitivity model has been found to be useful in predicting the course of mania; indeed, increases in mania over time have been predicted by self-reported reward sensitivity (Alloy & Abramson, 2010; Meyer, Johnson, & Winters, 2001), life events involving reward (Johnson et al., 2000, 2008; Nusslock, Abramson, Harmon-Jones, Alloy, & Hogan, 2007), and elevations in behavior focused on attaining reward and goals (Lozano & Johnson, 2001). Elevations of reward sensitivity have also been found to predict the onset of bipolar disorder (Alloy, et al., in press).

Despite this support for the model, it is important to note that reward sensitivity is a broad concept. Increasingly, models of the reward system differentiate among specific processes and mechanisms involved in goal regulation (Johnson, Edge, Holmes, & Carver, in press). Thus, evidence concerning more specific processes has been sought. People with bipolar disorder appear to value goal pursuit more than do other people (Alloy et al., 2009; Fulford, Johnson, & Tuchman, 2009; Scott, Stanton, Garland, & Ferrier, 2000; Spielberg, Parker, & Becker, 1963; Wright, Lam, & Newsom-Davis, 2005). They report both viewing goal attainment as central to their sense of worth (Lam, Wright, & Sham, 2005; Scott, Stanton, Garland, & Ferrier, 2000) and pursuing their

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goals in a more effortful and perfectionistic manner (Morrison, 2003; Spielberger, Parker, & Becker, 1963).

Several laboratory studies suggest that persons with bipolar disorder expend more effort toward reward than do healthy controls. For example, Hayden et al. (2008) found that people with bipolar disorder performed faster than did healthy controls when given an opportunity to earn reward on a card-sorting task; these differences did not emerge in a nonreward condition. Harmon-Jones et al. (2008) suggested that high approach motivation might lead people diagnosed with bipolar disorder to sustain effort and remain engaged as tasks become more difficult, but only for tasks involving reward (as opposed to punishment). Harmon-Jones et al. used left frontal cortical activation (as measured by electroencephalogram) to index task engagement. When presented with anagrams of varying difficulty levels (easy, medium, difficult) and a chance either to win money if solved correctly ("reward" trial) or to lose money if not solved correctly ("punishment" trial), people with bipolar disorder showed greater relative left frontal cortical activation in preparation for the difficult reward trials, but not for the difficult punishment trials. Considered collectively, findings suggest that people diagnosed with bipolar disorder are particularly willing to expend effort to earn reward on difficult tasks.

Willingness to expend effort toward goals also is also manifested on self-report scales. Several studies have found that people with diagnoses of bipolar disorder, as well as those at risk for bipolar disorder, set highly ambitious goals. For example, risk for bipolar disorder, indexed by scores on the Hypomanic Personality Scale (Eckblad & Chapman, 1986), has been found to correlate with perceptions that one was going to make more money and achieve high academic grades (Meyer & Krumm-Merabet, 2003).

To examine this issue further, Johnson and Carver (2006) developed the Willingly Approached Set of Statistically Unlikely Pursuits (WASSUP), a self-report measure of extremely ambitious (difficult to achieve) life goals, such as becoming the focus of books and TV shows, or becoming the best-loved parent of all time. The WASSUP was designed to include goals related to extrinsic recognition, such as achieving fame, wealth, or political influence, as well as goals that are more intrinsically motivated, such as family and friendship goals. In two validation studies, students at risk for mania endorsed higher aspirations on WASSUP subscales related to extrinsic motivation, independent of current levels of manic symptoms (Johnson & Carver, 2006). Several studies have since replicated the profile of risk for mania being strongly correlated with extrinsic WASSUP subscales (Fulford, Johnson, & Carver, 2008; Gruber & Johnson, 2009; Johnson & Jones, 2009). Johnson, Eisner, and Carver (2009) found further that students diagnosed with bipolar spectrum disorders had significantly higher scores on WASSUP subscales assessing extrinsically oriented goals than did healthy controls or persons diagnosed with major depressive disorder, even after controlling for subsyndromal symptoms. Thus, a series of investigations suggests that people at risk for mania and those with bipolar spectrum disorder endorse highly ambitious goals.

To date, however, researchers have not examined ambitious life goals in a sample of persons limited to those diagnosed with bipolar I disorder. The severe symptoms of bipolar I disorder, as well as the repeated experiences of manic episodes, might dampen ambitious goal-setting. Bipolar I disorder is associated with profoundly high rates of unemployment, marital dissolution, legal

difficulties, and even homelessness—levels of stress that might be expected to crush optimism about difficult life goals. Hence, in one aim of this study was to consider the effects of illness history on ambitious goal setting in a sample of bipolar I persons.

A second aim of this study was to consider whether high goal setting might be related to increases in manic symptoms over time. Activation is robustly correlated with mania (Akiskal & Benazzi, 2005; Wehr, Goodwin, Wirz-Justice, Breitmaier, & Craig, 1982); indeed, increased physical activation appears to be a prodromal signal of mania (Lam & Wong, 1997). Signs of heightened goal engagement, such as setting new goals and spending more effort on those goals, predict increases in mania (Lozano & Johnson, 2001). High goal setting may set the stage for periods of overactivity, which would then intensify the risk for mania (Johnson, 2005).

We hypothesized that persons with bipolar I disorder would report highly ambitious life goals, particularly for goals related to extrinsic recognition, compared to those with no mood disorder, and that WASSUP scores related to extrinsic recognition would also predict increases in mania over time. To examine these questions, we recruited community samples of persons diagnosed with bipolar I disorder and of age- and sex-matched control participants with no history of mood disorders. All completed the WASSUP. Participants diagnosed with bipolar disorder completed the WASSUP after being followed until they achieved symptom remission. A subset of 33 persons with bipolar disorder also completed standardized symptom interviews at a 3-month follow-up session.

## Method

### Participants

Participants were recruited from the Miami and Palo Alto areas using advertisements in the newspaper, on the web, and on public transportation sites, as well as flyers placed in local mental health clinics. The participants were 92 persons who met *DSM-IV-TR* criteria for bipolar I disorder (American Psychiatric Association, 2000), as verified by the Structured Clinical Interview for *DSM-IV* (SCID; First, Gibbon, Spitzer, & Williams, 1997) for Axis I disorders, and 81 control participants with no history of mood disorders.

Participants were eligible if they met criteria for bipolar I disorder or, for the control group, if they had no history of major depression or any bipolar spectrum disorder. Participants were required to have spoken English for at least 10 years and to be between 18 and 65 years of age. Exclusion criteria for all participants included meeting diagnostic criteria for substance abuse or dependence in the past year, a primary psychotic disorder during the lifetime, a general medical condition of the central nervous system, such as brain injury, vascular disease, degenerative disorder, a history of serious head injury, or any developmental disability or language problems that could interfere with understanding or completing informed consent or measures. Bipolar I and control participants were matched by age and sex. To maximize our ability to study the important comorbid conditions of anxiety disorders and substance-related disorders, some Internet and community advertisements targeted people with these conditions. About half of the bipolar participants met diagnostic criteria for

lifetime anxiety disorders and about half for lifetime substance-related disorders. About a quarter of the control participants met diagnostic criteria for either anxiety disorders or substance-related disorders.

At the first face-to-face visit, all potential participants completed written informed consent procedures. Participants were paid an hourly rate for completing measures. All measures and procedures were approved by the institutional review boards at the University of Miami and Stanford University.

## Materials

**The SCID.** The SCID is the most commonly used structured interview for assessing lifetime and current *DSM-IV* diagnoses. The interview includes standardized probes for assessing diagnostic criteria, as well as guidelines for evaluating each symptom. Demographic characteristics, such as employment status and history, were gathered during the interview, and interviewers coded whether participants were currently able to work. Course parameters for each condition, such as the number of episodes and hospitalizations, were also assessed as part of the interview. Because some participants reported that they could not reliably estimate the number of episodes or age of onset, course parameters are missing for some participants. Before administering the SCID, research assistants and graduate students in clinical psychology received extensive training from the lead author Johnson. Interrater reliability was assessed by rating 10 randomly selected audio interviews. The ratings were compared to a series of criterion-standard audio interviews. Interrater reliability was  $\kappa = 1.0$  for both the mania and depression modules.

**The Bech-Rafaelson Mania Scale.** The Bech-Rafaelson Mania Scale (BRMS; Bech, Bolwig, Kramp, & Rafaelsen, 1979) was used to assess the severity of manic symptoms. This 11-item interview-based measure assesses the severity of manic symptoms such as elevated mood, decreased need for sleep, increased verbal activity, increased motor activity, flight of thoughts, and increased sexual interest. Each item is scored on a 5-point rating scale, and items are summed to yield a total (higher scores indicate more severe symptoms). The scale has been shown to be sensitive to changes in clinical status and has been widely used to assess treatment outcomes (Bech, 2008). Scores of 16 and above indicate moderate mania and scores of 28 or above indicate severe mania (Bech, 2008). We used a set of standardized probes and obtained high interrater reliability (intraclass correlation coefficient [ICC] = .93 in a sample of 14 randomly selected audiotapes) and internal consistency ( $\alpha = .94$ ). The scale distinguishes between persons with and without current mania, and correlates highly with other measures of current mania (Bech, 2008).

**The Modified Hamilton Rating Scale for Depression.** The Modified Hamilton Rating Scale for Depression (MHRSD; Miller, Bishop, Norman, & Maddever, 1985) was used to assess the severity of depressive symptoms. This semistructured interview was designed to allow paraprofessionals to make valid and reliable ratings of depression severity by providing standardized probes and behavioral anchors to supplement the initial Hamilton Rating Scale for Depression (Hamilton, 1980). Each item covers one symptom of depression, with ratings ranging from 0 to 2 or 4. Items are summed to yield a possible total score of 52. Scores below 7 indicate remission, while scores of 17 and more are

interpreted as indicative of a depressive episode. This scale has excellent interrater reliability (ICC = .93 in published articles and among our research team members for a set of 14 audiotaped interviews) and internal consistency ( $\alpha = .92$ ). The MHRSD is sensitive to changes in clinical status, correlates highly with other measures of current depression, and has been validated in bipolar disorder (Johnson et al., 2000, 2008).

**The WASSUP.** The WASSUP (Johnson & Carver, 2006) is a 30-item self-report measure designed to assess highly ambitious life goals. Respondents in this study rated how likely they were to set each goal for themselves. Response options were rated from 1 (*no chance I will set this goal for myself*) to 5 (*definitely WILL set this goal for myself*). There are seven factor-analytically derived subscales: Popular Fame (e.g., “you will appear regularly on TV”), Friendships (idealized friendships, e.g., “everyone you know will love you”), World Well-Being (e.g., “you will create world peace”), Political Influence (e.g., “you will be important in political circles”), Family (idealized family relationships, e.g., “your relationship will be more romantic than Romeo and Juliet”), Financial Success (e.g., “you will have \$20 million or more”), and a subscale with items reflecting Creativity and self-actualization. In this study, alphas were moderate for the Creativity, Financial Success, and Political Influence subscales ( $\alpha = .66-.69$ ), and were high for the Friends, Family, World Well-Being, and Popular Fame subscales ( $\alpha = > .80$ ). Correlations among subscales ranged from .22 to .59. In previous research, persons at risk for mania and those diagnosed with bipolar spectrum disorder have endorsed high aspirations on the Popular Fame and Financial Success subscales (Carver & Johnson, 2009; Johnson & Carver, 2006; Fulford, Johnson, & Carver, 2008; Gruber & Johnson, 2009; Johnson & Jones, 2009).

## Procedure

Before participation, individuals who contacted the study staff were briefly screened over the phone for potential study eligibility on demographic, medical, and psychiatric criteria. Those who were potentially eligible were invited to the University of Miami or Stanford University for a diagnostic interview. After diagnosis and other inclusion criteria were confirmed, participants completed the measures described above. Participants with bipolar disorder who were experiencing significant symptoms were followed until they achieved remission as assessed with the MHRSD and BRMS. The WASSUP was completed once remission was achieved. They returned to the university for separate sessions to complete other measures not described here.

To examine whether baseline variables predicted change in symptoms, 33 of the participants were contacted by telephone for a 3-month symptom severity interview that included the BRMS and the MHRSD. Telephone interviews have been shown to be a reliable and valid manner of gathering symptom severity data (Potts, Daniels, Burnam, & Wells, 1990; Simon, Revicki, & VonKorff, 1993). (Only a subsample of participants, all drawn from the Miami site, was contacted for follow-up due to limitations in staff availability.)

## Results

Analyses were conducted using Statistical Package for the Social Sciences, Version 19. Items were missing for 24 participants

for WASSUP scales due to an error in copying one side of the form. These data were considered to be missing at random, and so were imputed using PSAS, Version 19, multiple regression imputation procedures, restricting the imputed variables to the original range of the WASSUP subscales. Before conducting primary analyses, univariate distributions of key variables were examined (see Table 1). All variables demonstrated normality, with the exception of the WASSUP Political Influence and World Well-being subscales—very few people endorsed high scores on these scales. Square root transformations were computed for these two variables; however, these transformations had no effects on the primary analyses, so analyses of raw scores are reported here.

### Comparisons Between the Bipolar and Control Groups

As shown in Table 1, the bipolar and control groups did not differ on age, sex, ethnicity, or education levels. Participants in the bipolar group were more likely to be unemployed or unable to work than were participants in the control group. Although the bipolar group reported a severe history of recurrent mood episodes and many hospitalizations, all participants reported extremely low levels of current manic and depressive symptoms. Nonetheless, as noted in Table 1, the bipolar group had significantly higher mania scores (BRMS) scores at baseline and greater likelihood of substance-related and anxiety diagnoses than did the control participants.

Table 1  
Sample Characteristics by Diagnostic Group

Characteristics	Bipolar I Group ( <i>n</i> = 92)	Control Group ( <i>n</i> = 81)
	<i>M</i> ( <i>SD</i> ) or %	<i>M</i> ( <i>SD</i> ) or %
Age (y)	37.8 (11.61)	35.0 (12.1)
Sex (% male)	40.2	48.0
Years of education	14.8 (2.0)	14.5 (2.1)
Employment status**		
Employed or homemaker (%)	61.1	86.4
Unable to work	20.0	2.5
Unemployed	18.9	11.1
Ethnic minority status	20.9	17.3
Lifetime diagnosis of alcohol or substance abuse/dependence**	53.3	26.6
Lifetime diagnosis of anxiety disorder**	52.2	25.9
BRMS <sup>†</sup>	2.5 (2.7)	1.0 (1.4)
MHRSD	3.3 (4.3)	2.0 (3.2)
Previous MDEs	10.8 (11.5)	
Previous hospitalizations for MDE	1.2 (2.3)	
Age of MDE onset	18.3 (8.7)	
Previous manic episodes	9.4 (10.2)	
Previous hospitalizations for mania	1.6 (3.0)	
Age of mania onset	22.0 (9.0)	

Note. BRMS = Bech Rafaelsen Mania Scale; MHRSD = Modified Hamilton Rating Scale for Depression; MDE = major depressive episode per SCID interview. Group differences on categorical variables such as sex, ethnicity, employment, and comorbid diagnostic status were examined using chi-square tests; all other group differences were assessed using a *t*-test.

\*  $p < .05$ . \*\*  $p < .01$ .

Table 2  
Group Differences on Elevated Ambitions (WASSUP)

WASSUP subscale	Bipolar ( <i>n</i> = 92)	Control ( <i>n</i> = 81)	<i>t</i>
	<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )	
Popular Fame	1.77 (.82)	1.50 (.57)	-2.54*
Friends	2.25 (.89)	2.57 (1.06)	2.18*
World Well-Being	1.54 (.81)	1.62 (.97)	.59
Political Influence	1.34 (.52)	1.42 (.79)	.81
Family	2.87 (1.11)	3.24 (1.14)	2.17*
Financial Success	2.05 (1.02)	2.24 (.91)	1.29
Create	2.79 (.92)	2.68 (.94)	-.79

Note. *df* = 171 except Popular Fame, *df* = 162.80. \* $p < .05$ .

As shown in Table 2, the bipolar group had significantly higher scores on the WASSUP Popular Fame subscale and lower scores on the Friends and Family subscales than did the control group. The two groups did not differ on other WASSUP subscale scores. To ensure that these differences did not result from the slightly higher mania scores in the bipolar group, analyses of covariance were conducted controlling for BRMS scores. In these analyses, group differences remained significant for each of these three scales, Popular Fame subscale,  $F(1, 128) = 2.34, p < .05$ , Family subscale,  $F(1, 128) = 5.08, p < .05$ , and the Friends subscale,  $F(1, 128) = 4.38, p < .05$ .

### Predictors of the WASSUP Subscales Within the Bipolar Sample

As discussed in the introduction, we also considered whether a more severe illness course might relate to lower WASSUP scores in the bipolar sample. As shown in Table 3, there was no evidence that a more severe course of disorder correlated with lower aspirations within the bipolar group. We also examined whether a history of a substance-related diagnosis or of anxiety disorders correlated with diminished WASSUP scores. These variables, too, did not correlate with WASSUP scores.

We were also interested in how one other illness-related consequence—inability to work—related to the WASSUP subscales. Because only 2.5% of the control group reported inability to work, we examined this within the bipolar group. That is, a series of one-way analyses of variance were used to examine the effect of employment status (employed, unemployed, or unable to work) on WASSUP subscales within the bipolar group. Employment status correlated significantly with the Wealth subscale. Persons who were unable to work reported lower ambitions for Financial Success,  $M = 1.51, SD = .47, n = 18$ , than did persons who were employed,  $M = 2.20, SD = .97, n = 55$ , and those who were currently unemployed,  $M = 2.25, SD = 1.31, n = 17$ . (Note that the mean score even among those with bipolar disorder who were able to work was lower than the mean score of healthy controls.) There was a nonsignificant tendency for employment status to be related to World Well-Being,  $F(2, 87) = 3.17, p = .05$ . Employment status did not correlate significantly with other WASSUP subscales,  $F_s < 1.1$ .

Table 3

*Correlations of WASSUP Subscales With Illness History Parameters (as Assessed by SCID) Within the Bipolar Group (n = 92)*

WASSUP subscale	Number of depressed episodes	Number of hospitalizations for depression	Number of manic episodes	Number of hospitalizations for mania	History of alcohol or substance abuse/dependence	History of anxiety disorder
Popular Fame	-.049	.005	.109	-.041	.098	-.130
Friends	-.013	.112	-.013	.107	-.023	.047
World Well-Being	.066	.103	-.170	-.041	.148	.088
Political Influence	-.185	-.037	-.075	.077	.014	-.157
Family	-.018	.080	.008	.027	-.034	.088
Financial Success	-.043	-.028	.028	.016	.098	-.137
Create	.009	.039	.038	-.026	.107	.055

*Note.* None of the correlations attained significance.

### Prospective Prediction of Mania Symptoms

Our final goal was to examine whether elevated aspirations might predict increases in manic symptoms at the 3-month follow-up assessment among those with bipolar disorder. As shown in Table 4, the Popular Fame and Financial Success subscales were significant predictors of follow-up BRMS scores among bipolar I participants, after controlling for baseline symptom ratings. No WASSUP subscale significantly predicted depression scores (MHRSD).

We also conducted analyses to examine whether those who completed the follow-up assessment differed from those who did not complete the follow-up assessment. Among the bipolar I participants, *t* tests suggested that those who did ( $n = 33$ ) and did not complete ( $n = 27$ ) follow-up assessments did not differ on the number of episodes of mania and depression, the number of hospitalizations for mania and depression, the severity of manic or depressive symptoms at study entry, age, or years of education. Chi-square analyses indicated that those who did and did not complete follow-up assessments did not differ on gender, substance use history, or anxiety disorders. Those who completed follow-up assessments reported a later age of onset of mania,  $t = -2.24$ ,  $df = 57$ ,  $p < .05$ .

Table 4

*Correlations of WASSUP Subscales With Mania and Depression at 3-Month Follow-Up Within the Bipolar Sample, After Controlling for Baseline Symptoms (df = 21)*

WASSUP subscale	Follow-up mania (BRMS) controlling for baseline BRMS	Follow-up depression (MHRSD) controlling for baseline MHRSD
Popular Fame	.483*	-.067
Friends	.006	-.272
World Well-Being	-.048	.123
Political Influence	-.050	-.049
Family	-.188	-.156
Financial Success	.488*	-.195
Create	.115	-.009

*Note.* BRMS = Bech Rafaelsen Mania Scale; MHRSD = Modified Hamilton Rating Scale for Depression.

\*  $p < .05$ .

To consider whether age of mania onset operated as a potential confound, we examined the partial correlations of Popular Fame and Financial Success subscales with follow-up BRMS scores after controlling for both baseline symptom ratings and age of mania onset. Both correlations remained substantial and significant when controlling for age of mania onset along with baseline mania ratings (both partial  $r_s > .50$ ).

### Discussion

This study provides the first examination of whether persons diagnosed with bipolar I disorder are characterized by highly ambitious life goals, and whether such elevated aspirations predict increases in mania over time. Although ambitious life goals have been documented among those with bipolar spectrum disorder, existing literature had not tested whether the more severe consequences of bipolar I disorder would dampen tendencies toward heightened ambitions. We found that persons with bipolar I disorder endorsed significantly higher ambitions for popular fame than did control participants. These effects did not appear to be due to age, sex, or education levels, as groups were matched on these characteristics. Nor were current manic symptoms responsible for these effects. The current findings extend previous results with milder forms of disorder in indicating that the ambitions of persons with bipolar I disorder are extremely high. Indeed, aspirations for popular fame were high in the bipolar sample even among those with more extensive histories of episodes, more psychiatric hospitalizations, comorbid anxiety and substance abuse disorders, and among those who were unemployed. Also as hypothesized, greater ambitions for popular fame and financial success predicted increases in manic symptoms over time, controlling for baseline symptoms. This is the first study to show that these elevated ambitions can predict manic symptoms.

In this study, persons with bipolar disorder reported lower aspirations for intrinsically motivated goals regarding family and friendships than did control participants. This profile has also been noted in samples at risk for bipolar disorder (Gruber & Johnson, 2009). One exception to this profile of extrinsically oriented ambitions is noted—unlike findings with milder samples, people with bipolar disorder did not endorse high aspirations for financial success, even when those who were unable to work were excluded. It may be that financial aspirations are not sustained as the con-

sequences of the disorder become more severe, even though we were not able to identify variables that related to lower financial aspirations in the bipolar group.

On the whole, findings regarding high aspirations for popular fame and low aspirations for friendships and family suggest that people with bipolar disorder adopt extrinsically rather than intrinsically motivated goals. As pursuing extrinsic goals has been related to a desire for social dominance (Duriez, Vansteenkiste, Soenens, & De Witte, 2007), these findings fit with others in suggesting that bipolar disorder is related to a heightened desire for power (Gilbert, McEwan, Hay, Irons, & Cheung, 2007; Gilbert et al., 2009).

Despite support for hypotheses, it is important to note several limitations in this study. Regarding the WASSUP scale, items on the Political Influence subscale were rarely endorsed in this sample and other samples (cf. Johnson, Eisner, & Carver, 2009), and perhaps as a consequence, the scale did not correlate with expected outcomes, as has been observed in previous studies. As a self-report scale, the WASSUP scale is also vulnerable to biases in response styles. Future studies of goal-setting in bipolar disorder should integrate behavioral measures of willingness to pursue difficult goals (Harmon-Jones et al., 2008; Hayden et al., 2008). Moreover, findings regarding the prediction of manic symptoms over time must be interpreted cautiously, as the follow-up subsample was small, and few participants reported severe manic symptoms at follow-up. Further, among persons with bipolar disorder, those who completed the follow-up reported a later onset of mania compared to those who did not complete the follow-up analyses.

Notwithstanding these limitations, this study extends previous work by showing that even persons with a more severe history of manic symptoms endorse ambitious goal-setting, and that this ambitious goal-setting predicts more severe symptoms of mania over time. Other findings suggest that overly positive views of the self (Lam, Wright, & Sham, 2005), Behavioral Approach System sensitivity (Meyer, Johnson, & Winters, 2001), beliefs about the importance of goals (Alloy et al., 2009; Francis-Raniere, Alloy, & Abramson, 2006), and goal engagement (Lozano & Johnson, 2001) can predict increases in mania. Evidence across these studies suggests an important role for cognitive and personality variables related to goal dysregulation as predictors of the course of manic symptoms. Findings of the current study, then, augment a growing literature that suggests that mania is related to a distinct set of cognitive processes regarding goals, which are relevant for understanding the course of manic symptoms. A core goal for future research will be to understand the biological, social, and personality variables that contribute to goal dysregulation within bipolar disorder.

Several early studies suggest that a better understanding of goal dysregulation might be relevant for treatment planning. When surveyed, many persons with bipolar I disorder have reported that they try to avoid overly stimulating goal-relevant activities as a way of preventing manic episodes (Lam & Wong, 1997). Use of these strategies was found to predict less risk of mania over time (Lam, Wong, & Sham, 2001). We have designed a mania treatment that involves techniques for modulating high goal setting. Over the course of the intervention, participants demonstrated significant decreases in WASSUP scores and interviewer ratings of manic symptom severity

(Johnson & Fulford, 2009). Hence for persons with bipolar disorder, a greater awareness of how goal dysregulation relates to the course of disorder, along with strategies for avoiding overly intense goal pursuit, might be helpful.

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