J. Behav. Ther. & Exp. Psychiat. 58 (2018) 12–17

Contents lists available at ScienceDirect

Journal of Behavior Therapy and Experimental Psychiatry

journal homepage: www.elsevier.com/locate/jbtep

The perils of aiming too high: Discrepancy between goals and performance in individuals with depressive symptoms

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ARTICLE INFO

Article history:
Received 21 October 2016
Received in revised form
27 June 2017
Accepted 20 July 2017
Available online 22 July 2017

Keywords:
Depression
Goal setting
Goal monitoring
Performance
Goal-performance-discrepancy

ABSTRACT

Background and Objectives: Negative evaluation processes play a pivotal role in the development and maintenance of depressive symptoms. However, it remains to be understood, whether evaluation processes in depression are impaired by maladaptive goal setting.
Method: In a non-clinical sample (N = 50) of individuals with high (BDI-II-Score: 13–29) and low (BDI-II-Score: 0–3) levels of depressive symptoms goal setting prior to working on a cognitive task was measured. Goal feasibility was experimentally manipulated using an easy and a difficult version of the task.
Results: When goal feasibility was low, a high level of depressive symptoms was associated with setting unattainable goals. Whereas individuals with low level of depressive symptoms adjusted their goals to a lower (more realistic) level when task difficulty increased, individuals with high level of depressive symptoms initially adhered to significantly higher goals, so that their performance failed to meet their self-set standards. After depressed individual revised their goals downwards, their subsequent performance on the task also worsened.
Limitations: The use of a non-clinical sample with self-reported depressive symptoms limits the generalizability of our findings to a clinical population. Future research would benefit from the use of a larger sample with patients suffering from clinical depression.
Conclusions: The findings support the notion that negative evaluation processes in depressed individuals might be linked with their tendency to generate intractable conflicts between self-set inappropriate high goals and their own capacities to perform. However, the findings need to be confirmed in clinical samples to draw conclusions about the role of goal setting in negative evaluation processes in depression.

1. Introduction

Prominent theories of depression (e.g., Beck, 1967; Ellis, 1962; Lewinsohn, Steinmetz, Larson, & Franklin, 1981) assume that cognitive evaluation processes play a pivotal role in the development and maintenance of depressive symptoms. One of the earliest and well known cognitive approaches to depression, which stresses the role of dysfunctional cognitions, is the work of Beck (1967). Central in his conceptualization of depression is the negative cognitive triad, involving negative evaluations about the self, the world, and the future. Beck theorized that one source of these negative evaluations is that depressed individuals set unrealistically high standards for themselves. As a result, the individual would be unable to achieve his or her goals, which in turn would lead to depression (Beck, 1967). Although numerous studies on Beck's model have examined depressive cognitive biases, e.g., negative beliefs about past and future events (for a review, see Gotlib & Joorman, 2010), the *source* of these negative beliefs, i.e., the *criteria* applied in these evaluations have been scarcely understood. Do depressive individuals set different (i.e., higher) standards for their evaluations compared to non-depressed individuals? In the past, no clear empirical consensus has been

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http://dx.doi.org/10.1016/j.jbtep.2017.07.002
0005-7916/

reached concerning this question. On the one hand, it has been shown that subclinical and clinical depression is related to a dysfunctional type of perfectionism (e.g., Wheeler, Blankstein, Antony, McCabe, & Bieling, 2011). On the other hand, only some studies have yielded that depressed individuals set higher standards (e.g., Golin & Terrell, 1977) whereas others found no difference (e.g., Qian, Wang, & Chen, 2002), or even *lower* standards in depressed individuals (e.g., Ahrens, Zeiss, & Kanfer, 1988). These inconsistencies might be due to the fact that previous studies failed to consider potentially confounding variables. First, whether depressed individuals differ in their goal setting from non-depressed individuals might vary in accordance with *situational* parameters, e.g., the feasibility of goals. According to Bandura (1998) depressive affect might especially arise when individuals judge that they lack the efficacy to fulfill difficult goals but continue to strive for them for any sense of satisfaction or repair of self-worth. Low self-efficacy beliefs in combination with the adherence to difficult goals may especially occur when goal-feasibility is low (e.g., when task difficulty is high), whereas high goal feasibility (e.g., when task difficulty is low) might not produce differences in goal setting between depressed and non-depressed individuals. Thus, depressed individuals might not differ from non-depressed individuals in goal setting *per se*, but rather respond less appropriate to changing conditions of goal feasibility. To the best of our knowledge, no study has tested this assumption. Another issue concerns the fact that prior studies did not consider that inadequate goal setting might not only be caused by an (emotionally motivated) inappropriately high standard-setting, but may also be due to impaired skills in monitoring mismatches between goals and current behavior. A key aspect of developing and maintaining an adaptive goal is the ability to make a realistic assessment to what extent the current behavior meets the objectives set. Often there is no external feedback, but the individual has to conduct some kind of internal comparison between the current and the desired state – a process which has also been labeled as self-monitoring ability (Carver & Scheier, 1981). There is some evidence that individuals with depressive symptoms are characterized by a lower accuracy of self-monitoring (e.g., Dunn, Dalgleish, Lawrence, & Ogilvie, 2007). Thus, discrepancies between goals and performance may not only result from inappropriate goals *per se*, but also from failures to detect a "goal mistake". To the best of our knowledge this is the first study investigating the link between depressive symptoms and goal setting while controlling for potential differences in the ability of goal monitoring. In the present study, participants with low and high levels of depressive symptoms were confronted with a cognitive task with varying difficulty levels (easy vs. hard) across experimental conditions. In order to assess goal setting, participants were asked to set themselves goals prior to the task of each difficulty level. Additionally, during the task participants were instructed to estimate their performance on the task, and they were given the opportunity to revise their goals. These measures aimed at assessing individual differences in the ability of goal monitoring. The approach described enabled us to analyze associations between depressive symptoms and goal setting while controlling for potential confounding factors like goal feasibility and goal monitoring. We recruited two distinct groups, one including individuals with self-reported low (BDI-II-Score:0–3) versus high depression scores (BDI-II-Score:13–29). According to the dimensional perspective of the classification of mental disorders (Brown & Barlow, 2005), we considered individuals with high scores to exhibit subclinical depression that differs quantitatively but not qualitatively from clinical depression. We predicted that individuals with a high level of depressive symptoms would set higher goals (i.e., goals that exceed their performance) compared to individuals with a low level of depressive symptoms – but only when goal feasibility is low (i.e., when task difficulty is high). When goal feasibility is high (i.e., when task difficulty level is low) we did not expect participants with a high level of depressive symptoms to differ from participants with a low level of depressive symptoms in their goal setting. Furthermore, we hypothesized that differences in goal setting between groups can be partially traced back to less accurate goal monitoring in depressed individuals. That is, we expect that individuals with a high level of depressive symptoms have more difficulties to detect differences between their actual and their desired performance level, leading to less appropriate goal setting throughout the course of the tasks.

2. Method

2.1. Participants

A total of 132 students (62% females, mean age = 22.68, SD = 2.78) participated in the study. Participants were recruited through public advertisements and the online recruitment system ORSEE (Greiner, 2015). For the purpose of this study, only those participants were included who either exhibited low levels (BDI-II-Score:0–3) or high levels (BDI-II-Score:13–29) of depressive symptoms, using the Beck Depression Inventory-II (BDI-II; Beck, Steer, & Brown, 1996). We formed two groups, one group including individuals with a high level of depressive symptoms (n = 25) and one group with participants with a low level of depressive symptoms (n = 25). For demographic data and mean BDI-scores please see Table 1. Participants completed participation for a base fee of 7 Euro plus performance based reimbursement.

2.2. Materials

Depression. The BDI-II (Beck et al., 1996) is commonly used to quantify the level of depressive symptoms and was used to distinguish between participants with low and high levels of depressive symptoms. The BDI-II is a 21-item self-report questionnaire, which examines depressive symptoms (e.g., loss of interest) during the past two weeks. Each item is rated on a 4-point scale, yielding total scores ranging from 0 to 63 with high scores indicating high severity of depression. The BDI-II showed high internal consistency in this study ($\alpha = 0.81$) and is associated with high content validity (Storch, Roberti, & Roth, 2004). Although Beck et al. (1996) recommend cut-off scores for minimal depression to range from 0 to 13 and for mild to moderate depression from 14 to 29, slightly different cut-off scores (i.e., 0–12 for minimal depression and 13–29 for mild to moderate depression) were found to be more suitable for student samples, with a sensitivity rate of 81% and a specifity rate of 92% (Dozois, Dobson, & Ahnberg, 1998). Therefore, we applied the latter cut-off score (13–29) to determine

Table 1
Descriptive statistics and between group comparisons of demographic data and BDI Scores of individuals with high (High-D-Group) and low (Low-D-Group) levels of depressive symptoms.

	High-D-Group (n = 25)	Low-D-Group (n = 25)	t/χ^2, p
Mean age, yr (SD)	22.5 (3.2)	23.8 (2.5)	1.57, ns
sex, % female	65.4	54.2	0.65, ns
Marital status, %			
Single	100	100	–
Married	0	0	
Beck Depression Inventory			
Mean (SD)	17.1 (3.7)	1.2 (1.0)	−20.1, ***

Note: t t-test-parameter; χ^2 chi-square-test parameter; n.s. not significant; ***$p \leq 0.001$.