

SELF-CRITICISM, GOAL MOTIVATION, AND GOAL PROGRESS

THEODORE A. POWERS

University of Massachusetts Dartmouth

RICHARD KOESTNER AND DAVID C. ZUROFF

McGill University

The current research examined the relations among self-criticism, autonomous versus controlled motivations, and goal progress. Recent researchers have suggested that self-critics are less autonomously motivated, that is, that their goals are less tied to their interests and personal meaning than is true for other individuals, and that the effects of self-criticism on goal progress are mediated by lower levels of autonomous motivation. The results of two short-term, prospective studies conducted in the United States and Canada indicated that self-criticism was negatively associated with goal progress, while autonomous motivation was positively associated with goal progress in one study and marginally associated in the other. The results demonstrated an association between self-criticism and controlled motivation but not autonomous motivation, and they suggest that self-criticism and autonomy act independently on goal progress. In addition, the results indicated an association between self-criticism and rumination and procrastination that appears to mediate the impact of self-criticism on goal progress. These results highlight the need for consideration of both personality and motivational influences in the study of goal pursuits.

To understand the pursuit of personal goals one must consider the importance of both personality and motivational factors, the who and the why. Personality theories and recent empirical findings support the idea that characteristics such as self-criticism may have an impact on how and why people pursue their goals and on their success at accom-

Please send correspondence to Theodore A. Powers, Ph.D., Associate Professor, Department of Psychology, University of Massachusetts Dartmouth, 285 Old Westport Rd., North Dartmouth, MA 02747-2300. E-mail: tpowers@umassd.edu.

Study 1 was funded by grants from the Social Science and Humanities Research Council of Canada (SSHRC) and the Fonds Québécois de Recherche Sur la Société et la Culture, Quebec (FQRSC) to Richard Koestner and David Zuroff.

plishing them (Blatt, 1995; 2004). Self-Determination Theory highlights the central importance of autonomous self-regulation for both successful goal attainment and for quality of life more generally (Deci & Ryan, 2000). Recent efforts have begun to explore the association between self-criticism and autonomous and controlled motivations (Shahar, Henrich, Blatt, Ryan, & Little, 2003). The present research extends this effort and examines the relation of these variables to goal progress.

Self-Determination Theory maintains that motivations vary in the degree to which they are autonomous or controlled (Deci & Ryan 2000). An individual is considered autonomously motivated if he or she experiences goals and decisions to be self-generated or freely chosen. On the other hand, someone is considered to be motivated in a controlled fashion if he or she is controlled by external or internal pressures. Sheldon and his colleagues have extensively explored the role of autonomous versus controlled motivations in understanding the pursuit of personal goals (Sheldon & Elliot, 1998; Sheldon & Elliot, 1999; Sheldon & Kasser, 1998; Sheldon & Hauser-Marko, 2001). They have conducted several studies in which participants indicated their personal goals and their motivations for these goals. Participants were later asked to report on their goal progress, that is, their subjective judgments of the degree to which they had accomplished their goals. The results of these studies consistently indicated that autonomous motivation was associated with greater goal progress.

Recent research has begun to examine how autonomous and controlled motivations might relate to particular personality characteristics (Shahar et al., 2003). These authors contend that self-criticism, a maladaptive form of self-definition characterized by self-regulation that is guided by guilt and fear of reproach, predisposes individuals toward less autonomous motivation and poor adaptation. The self-regulatory functioning of the self-critic closely resembles Ryan's (1995) description of "introjected self-regulation"—a form of controlled motivation based on contingent self-esteem and avoiding guilt. In their study of 860 adolescents, Shahar et al. (2003) found that self-criticism was associated with fewer positive life events, that self-criticism was negatively associated with autonomous motivation, and that the effect of self-criticism on positive life events was mediated by lower levels of autonomous motivation.

In a study more directly related to goal pursuits, Shahar, Kalnitzki, Shulman, & Blatt (2006) examined self-criticism, autonomous and controlled motivations and three "goal appraisal dimensions." Participants were asked to list their current personal strivings in various domains and results were aggregated across domains. Self-criticism was associ-

ated with lower levels of self-reported "present goal progress" and "future goal expectations." Self-criticism was also associated with higher levels of "goal related external motivation" (i.e., controlled motivation), but was not associated with "goal related internal motivation" (i.e., autonomous motivation). The authors expected the effects of self-criticism on the goal appraisal dimensions to be mediated by controlled motivation, but they found that while self-criticism was associated with controlled motivation, this motivation was not significantly predictive of the goal dimensions. Therefore, while Shahar et al. (2003) suggested that there is a mediational link between self-criticism, autonomous and controlled motivations and goal progress, Shahar et al. (2006) failed to confirm this link when specifically considering goal functioning.

The work of Shahar et al. (2003, 2006) is an important step in bringing together the theoretical models of self-criticism and autonomy, and the present research attempts to extend this integration and to consider the role of these variables in the pursuit of personal goals. Shahar et al. (2006) demonstrated a negative association between self-criticism and goal pursuits, and there are clear theoretical reasons why self-criticism may interfere with these pursuits. It is possible that self-critics have developed motivations that are less internally generated or integrated into the self, and will therefore be likely to set less autonomous goals. As a result, the self-critic may be more likely to initiate and regulate goal pursuits based on guilt and self-esteem contingencies rather than based on interest and personal meaning. Self-critics are likely to be more focused on avoiding failure and preventing the loss of approval than on effective goal pursuit. However, based on the differing findings of the two Shahar et al. studies, the question remains as to whether self-criticism and autonomous goal motivation operate in a mediational manner or as independent predictors of goal progress.

PRESENT STUDIES

The first study used a short-term, prospective design and examined the association of self-criticism and autonomous and controlled motivations to progress on academic and social goals. The second study also used a short-term, prospective design and focused on the association of self-criticism and autonomous and controlled motivations to progress on the weight loss goals of college women.

Three hypotheses were offered. First, we expected that self-criticism would be negatively associated with goal progress. Second, we expected that autonomous goal motivation would be positively associated with goal progress. Third, consistent with both Shahar et al. (2003) and

Shahar et al. (2006), we expected self-criticism to be positively associated with controlled motivation.

Given the inconsistencies between the Shahar et al. (2003) and the Shahar et al. (2006), we hoped to determine whether the effect of self-criticism on goal progress was mediated by goal motivation. Such mediation could occur via two pathways. The first would lead from self-criticism to lower autonomous motivation to lower goal progress. The second pathway would lead from self-criticism to higher controlled motivation to lower goal progress. The Shahar et al. (2006) study examining goal processes failed to confirm either pathway. Self-criticism was not directly associated with lower autonomous goal motivation, and controlled motivation (which was associated with self-criticism) was unrelated to goal progress.

STUDY 1

Study 1 was adapted from prospective studies of motivation and goal progress conducted by Sheldon and colleagues (Sheldon & Kasser, 1998; Sheldon & Elliot, 1998). Male and female college students completed a self-criticism scale prior to identifying a relevant academic and social goal that they were trying to achieve during the semester. Participants reported on their goal progress at a one-month follow-up.¹

METHOD

Participants

Participants were recruited for a "study of goal pursuits." Only respondents who indicated that they had a relevant personal goal in both the academic and social domains were included in the study. The sample included 65 women and 22 men. Everyone was paid \$20 for their participation. Four participants did not complete the goal progress measure.

Procedure

Participants were tested in small groups during the second week of the semester and were followed-up by email one month later. Participants

1. Study 1 also included the manipulation of implementation plans. Implementation planning involved completion of a brief paper-and-pencil exercise in which participants specified how, when, and where they would pursue actions related to their stated personal goals. The results for implementation planning are reported in another article (Koestner et al., 2006), indicating that significantly greater goal progress occurred only when implementation plans were combined with autonomy support in comparison to a neutral control condition.

in all conditions were first asked to report on their demographic characteristics and to complete the self-criticism scale. Participants were then randomly assigned to either a control group or to one of two experimental conditions. Participants were then asked to describe an academic and a social goal that they wanted to pursue during the semester.

Implementation Intention Exercises. Participants in the two experimental conditions completed a paper-and-pencil implementation planning exercise that is described in Koestner et al. (2006).

Measures

Goal Motivation. Sheldon and Kasser's (1998) four items for measuring the relative autonomy of goals were used. For each goal, participants rated on a 9-point Likert scale, from 1 ("not at all for this reason") to 9 ("completely because of this reason"). The four types of reasons were, respectively, external ("because somebody else wants you to, or because you'll get something from somebody if you do"), introjected ("because you would feel ashamed, guilty or anxious if you didn't—you feel that you ought to strive for this"), identified ("because you really believe that it is an important goal to have—you endorse it freely and value it wholeheartedly") and intrinsic ("because of the fun and enjoyment which the goal will provide you—the primary reason is simply your interest in the experience itself"). Following previous research by Sheldon and colleagues, a scale assessing autonomous motivation was computed as the mean of intrinsic and identified regulations, whereas a scale assessing controlled motivation was computed as the mean of introjected and external regulation.

Self-Criticism Scale. This scale was created by using fourteen items from the Depressive Experiences Questionnaire (DEQ; Blatt, D'Afflitti, & Quinlan, 1976). An illustrative item included, "I tend to be very critical of myself." These items were those that loaded highest on the self-criticism factor for the DEQ. Participants were asked to rate their agreement with each item on a 7-point Likert scale with 1 representing "Strongly Disagree" and 7 representing "Strongly Agree." The Cronbach's alpha was .86.

Goal Progress. Goal progress for each of the academic and social goals was assessed with a single item: "Please rate the extent to which you made progress on this goal." Ratings were made on a nine-point Likert scale, from 1 ("not at all") to 9 ("totally"). This measure of goal progress has been used in several previous studies (Koestner et al., 2002; Sheldon & Kasser, 1998; Sheldon & Elliot, 1998). Recent studies have repeatedly shown a high degree of agreement between self-report and more direct measures, suggesting the validity of these assessments (Sheeran, Milne, Webb, & Gollwitzer, 2005).

RESULTS

Preliminary Analyses

Progress for participants' academic and social goals were significantly related, $r(82) = .43, p < .01$. The autonomy of academic and social goals were also significantly related, $r(82) = .28, p < .01$, as was the level of controlled motivation of the academic and social goals, $r(82) = .27, p = .01$. We therefore calculated mean progress, autonomy and control scores across the two goals. Gender had no main or interactive effects on goal progress; therefore, male and female participants were combined for subsequent analyses.²

Central Analyses

Table 1 presents the means, standard deviations, and correlations for the main variables. Self-criticism for the sample was relatively low (mid-point of the scale was 4.0), participants reported higher levels of autonomous reasons for their academic and social goals than controlled reasons, and goal progress was considered to be moderate. Self-criticism was negatively associated with goal progress. Autonomous motivation was only marginally positively associated with goal progress. Self-criticism was positively related to controlled motivation. Because self-criticism was unrelated to autonomous motivation and controlled motivation was unrelated to goal progress, it is not possible to construct a mediational pathway that leads directly from self-criticism to motivation to goal progress (Baron & Kenny, 1986).

To test the combined effects of self-criticism and goal motivation on goal progress a multiple regression analysis was conducted. Specifically, goal progress was regressed on self-criticism, autonomous motivation and controlled motivation. The regression model was significant, $R = .34, R^2 = .12, F(3, 79) = 3.28, p < .05$. Self-criticism significantly predicted lower goal progress, $beta = -.23, p < .05$. Autonomous motivation was only marginally predictive of higher goal progress, $beta = .18, p = .10$. Controlled motivation was unrelated to goal progress, $beta = -.07$.

STUDY 2

Study 1 focused on academic and social goals and examined the links among self-criticism, autonomous and controlled motivations, and goal

2. There was no main effect for implementation plans on goal progress in Study 1. There was also no interaction of implementation condition with self-criticism, autonomous motivation, or controlled motivation.

TABLE 1. Means, Standard Deviations, and Correlations for Measures: Study 1

Variable	1	2	3	M	SD
1. Self Criticism	—	—	—	3.23	1.12
2. Autonomous motivation	-.11	—	—	6.70	1.15
3. Controlled motivation	.45**	-.08	—	3.59	1.33
4. Goal Progress	-.29**	.21	-.18	4.86	1.50

* $p < .05$; ** $p < .01$; $df = 82$ for all correlations.

progress. The results were similar to those obtained by Shahar et al. (2006) in showing that self-criticism was associated with controlled motivation and lower goal progress; however, autonomous motivation was only marginally associated with greater goal progress. Study 1 extended Shahar et al. (2006) by using a prospective design and focusing on specific goals in two important domains. Study 2 extends these findings by exploring health related goals, in particular weight loss goals. Weight loss is the most common New Year's resolution among women (Norcross, Ratzin, & Payne, 1989) and many college age women are trying to lose weight either by dieting or exercise (Koestner et al., 2002). The role of autonomous motivation in relation to health goals such as losing weight has been extensively examined by Williams and his colleagues (Williams, Grow, Freedman, Ryan, & Deci, 1996; Williams et al., 2002). In one study autonomous motivation predicted greater weight loss in a sample of obese patients, and also predicted better maintenance of that weight loss (Williams et al., 1996). Similar results have been found in studies of smoking cessation and other medical treatment (Williams, Gagne, Ryan, & Deci, 2002).

Study 2 also examines another potential aspect of the self-regulatory dysfunction of the self-critic. Blatt (1995, 2004) suggests that self-critics are likely to be preoccupied with failure, potential judgment and potential loss of self-esteem. Obsessive rumination about such concerns and the attendant procrastination that is likely to result should distract from effective goal pursuit, and thereby diminish successful accomplishment. Studies have demonstrated how these obstructive practices deleteriously affect the goal pursuit of maladaptive perfectionists who closely resemble self-critics (Rheume et al., 2000). Therefore, it is anticipated that the effect of self-criticism on goal progress may be at least partially mediated by the rumination and procrastination of the self-critic.

Based on the results of Study 1 and earlier findings by Shahar et al. (2003, 2006), we expected that self-criticism would be negatively associated with reported weight loss goal progress. Second, we expected that autonomous goal motivation would be positively associated with goal progress. Third, we expected self-criticism to be positively associated

with controlled motivation, but that controlled motivation would not predict goal progress. Finally, we anticipated that self-criticism would be positively correlated with rumination and procrastination, and that the effect of self-criticism on goal progress would be partially mediated by this association.

METHOD

Participants

Participants for this study were 117 female undergraduate students from the University of Massachusetts Dartmouth. The age range for the participants was from 18 to 35, with a mean age of 19.12 ($SD = 2.16$). Participants were recruited through the participant pool of introductory psychology students. The study was advertised as being appropriate for people who were considering losing weight. The subjects were informed that the purpose was to set a short-term goal that would allow them to "jump-start" a weight loss program. The goal would be something they would try to accomplish during a one-week period. Participants were required to sign up for an initial session that would run for approximately 45 minutes and a second 15-minute follow-up session that would take place online through a website one week later.

Procedure

Participants were randomly assigned to one of two groups: Implementation Intentions or Control. Participants were asked to supply their email address so the researcher would be able to send the website address along with a reminder of their chosen goal directly to them after a one-week period.

During the first session, subjects were asked to formulate one goal related to weight loss that would be carried out for a one-week period. Once the goal was recorded, subjects were administered the Implementation Instructions (for those in the experimental group), and then the goal motivation and self-criticism scales. The implementation intention manipulation was adapted from Koestner et al. (2002).

At the end of a one-week period, subjects received an email with a reminder of their chosen goal and were directed to a website in which they were asked to indicate the amount of progress they had made on their goals and the degree of rumination and procrastination they had experienced. The reported goals included ones like the following: "I will get to the gym three times" or "I will avoid junk food."

Measures

Goal Motivation. This scale was adapted from the one used by Williams et al. (1996) and consisted of items measuring autonomous and

controlled reasons for losing weight. Participants were asked to rate the extent to which they set the weight related goal for a variety of different reasons. This measure was used to be consistent with the health related goal research previously conducted. The scale included three items measuring autonomous motivation (e.g., "I'll feel a lot of personal satisfaction if I do this") and four items measuring controlled motivation (e.g., "I'll feel like a failure if I don't"). Participants responded using a 7-point Likert-type scale with 1 representing "Not at All" and 7 representing "Very Much." The Cronbach's alphas were .75 and .81 for the autonomous and controlled motivation scales, respectively.

Self-Criticism Scale. This scale was identical to the one used in Study 1. The Cronbach's alpha was .80.

Goal Progress. Participants were asked the identical goal progress question as in Study 1. The rating was made on a 9-point scale. Two additional items asked participants to rate their own satisfaction with their goal progress, and the extent to which a significant other would be satisfied with that goal progress. These latter items were added in order to create a more reliable multi-item measure of goal progress. The Cronbach's alpha was .93.

Rumination and Procrastination. A four-item scale was created that asked participants to report the levels of rumination and procrastination that they experienced over the week in their attempts to accomplish their goals. The items included the following: "I kept turning over and over in my mind what I needed to do, but stayed stuck not doing it," "I let other things get in the way of taking steps to accomplish this goal," "I kept thinking a lot about the goal that I was trying to achieve, but had a difficult time putting the thoughts into action," and "I put off taking the necessary steps to accomplish this goal." Participants were asked to rate their agreement with each item on a seven-point Likert scale with 1 representing "Strongly Disagree" and 7 representing "Strongly Agree." The Cronbach's alpha was .91.

RESULTS

Central Analyses

Table 2 presents the means, standard deviations, and correlations for the main variables.³ Self-criticism was negatively associated with goal progress. Autonomous motivation was positively associated with goal

3. There was no main effect for implementation plans on goal progress in Study 2. There was also no interaction of implementation plans with self-criticism, autonomous motivation, controlled motivation, or procrastination and rumination.

TABLE 2. Means, Standard Deviations, and Correlations for Measures: Study 2

Variable	1	2	3	4	M
1. Self Criticism					4.21
2. Autonomous motivation	.15				6.15
3. Controlled motivation	.54**	.26*			3.17
4. Procrastination	.30**	-.21*	.14		4.52
5. Goal Progress	-.21*	.23*	.04	-.55**	5.48

* $p < .05$; ** $p < .01$; $df = 116$ for all correlations.

progress. Self-criticism was positively associated with controlled motivation. Rumination and procrastination was positively associated with self-criticism, and negatively associated with autonomous goal motivation and with goal progress. All of the above results were maintained when the single-item measure of goal progress from Study 1 was used by itself.

To test the combined effects of self-criticism and goal motivation on goal progress, a multiple regression analysis was conducted. Specifically, goal progress was regressed on self-criticism, autonomous motivation and controlled motivation. The regression model was significant, $R = .36$, $R^2 = .13$, $F(3,113) = 5.43$, $p < .01$. Self-criticism significantly predicted lower goal progress, $beta = -.32$, $p < .01$. Autonomous motivation significantly predicted higher goal progress, $beta = .24$, $p < .05$. Controlled motivation was unrelated to goal progress, $beta = .15$.

Because self-criticism was unrelated to autonomous motivation and controlled motivation was unrelated to goal progress, it is not possible to construct a mediational pathway that leads directly from self-criticism to motivation to goal progress (Baron & Kenny, 1986). To examine whether rumination and procrastination mediated the negative association of self-criticism to goal progress we considered the four criteria outlined by Baron and Kenny (1986). The first three criteria for mediation were established by the correlations described above: self-criticism, rumination and procrastination, and goal progress were all significantly associated with one another. The final criterion requires that the association between the initial variable and the outcome is reduced to non-significance after controlling for the mediator. A partial correlation analysis revealed that the association between self-criticism and goal progress was reduced from $r(116) = -.21$, $p = .05$ to $pr(115) = -.10$, ns , after controlling for rumination and procrastination. The Sobel test, which measures whether a mediator carries the influence of an independent

variable to a dependent variable, was highly significant, $t(116) = 2.99, p < .001$.

There was also evidence that the association of autonomous motivation to goal progress was mediated by rumination and procrastination, though to a lesser extent. Specifically, the association of autonomous motivation to goal progress ($r(116) = .23$), was reduced when rumination and procrastination was controlled ($pr(115) = .14$). The Sobel test was significant, $t(116) = 2.17, p < .05$.

GENERAL DISCUSSION

The current research explored the associations among self-criticism, autonomous and controlled motivations, and examined the impact of each on reported goal progress. Consistent with expectations, the results of the current studies demonstrated that self-criticism was negatively associated with goal progress. Autonomous motivation was positively associated with goal progress in Study 2 and marginally associated in Study 1. In both studies, self-criticism was positively associated with controlled motivation, but controlled motivation did not predict goal progress. Self-criticism was unrelated to autonomous motivation.⁴

The negative association between self-criticism and goal progress is consistent with Shahar et al. (2006) and the previous literature suggesting the harmful effects of self-criticism more generally (Blatt, 1995, 2004). The present research represented an advance over the Shahar et al. (2006) study because it used a prospective research design and assessed specific goals in three distinct domains—academic, social, and health related. Consistent with the central prediction derived from Self-determination Theory, autonomous motivation was positively associated with goal progress in Study 2 and marginally associated in Study 1. Interestingly, if the results of our two studies are combined meta-analytically with those of Shahar et al. (2006), a coherent picture of the relation of self-criticism, goal motivation, and goal progress emerges. That is, across the three studies, self-criticism is negatively associated with goal progress, mean $r = -.28, p < .001$; self-criticism is positively associated with controlled motivation, mean $r = .45, p < .001$; and

4. The current studies found inconsistent associations between controlled and autonomous motivations. A close examination of previous goal studies suggests that such inconsistency is not uncommon. The original Sheldon and Elliot (1998) studies distinguishing autonomous and controlled goal motivation reported very modest negative associations, while two recent studies of work goals found that autonomous and controlled motivation tended to be positively correlated with one another (Judge et al., 2005).

self-criticism is unrelated to autonomous motivation, mean $r = .01$, *ns*. The supposition that the harmful impact of self-criticism on goal progress is due to the self-critic's impaired autonomous motivation, therefore, is not supported by the current results. Rather than autonomy mediating the effects of self-criticism, the results suggest that both self-criticism and autonomous motivation contribute independently to the prediction of goal progress.

The results failed to demonstrate a significant negative association between controlled motivation and goal progress, an association that would be derived from Self-Determination Theory. A careful examination of previous research using the personal goal paradigm reveals that while the positive association of autonomous motivation with goal progress is reliably obtained, it is, in fact, very common for controlled motivation to be unrelated to progress. For example, in the original article distinguishing autonomous and controlled forms of goal motivation the authors reported that in all three of their studies controlled motivation was unrelated to goal attainment (Sheldon & Elliot, 1998). Other studies including Shahar et al. (2006) have failed to find a negative association between controlled motivation and goal progress, and Judge, Bono, Erez, and Locke (2005) reported nonsignificant positive associations between controlled motivation and progress in their two studies of work goals. It appears that the preponderance of evidence supports a significant positive association between autonomous motivation and goal progress, but does not consistently support a significant negative association between controlled motivation and goal progress. A comprehensive meta-analysis of previous goal self-determination research would be needed to resolve this issue.

If the effect of self-criticism on goal progress is not mediated through autonomous or controlled motivation, perhaps it is mediated by some other factors. The results of Study 2 suggest that self-critics' tendencies toward rumination and procrastination play a role in mediating the effects of self-criticism on goal progress. It is possible that the focus of the self-critic on potential failure, critical evaluation or the potential erosion of self-esteem leads to a process of obsessive rumination and procrastination that in turn compromises successful goal attainment. The current findings indicate such a process, which is consistent with Rheaume et al.'s (2000) study of maladaptive perfectionists. It appears that the self-regulatory functioning of the self-critic may be impaired by both the focus on evaluative concerns and the ruminative practices that may be engendered. We did not assess the precise content of the ruminations, but it seems reasonable to speculate that they may be focused on potential failure and or potential external evaluation, judgment or criticism. Future research is needed to examine the exact nature and content of

these ruminations and other aspects of the self-critics' ruminative practices, as they appear to be substantial predictors of reported goal progress. It would also be useful to examine not only the predisposing trait of self-criticism but, additionally, the process of self-critical activity that the self-critics engage in as they pursue their goals.

LIMITATIONS

The present research is limited in a number of ways. To begin, the measure of goal progress was either a single or three-item measure and based solely on self-report. Multiple and more direct measures of goal progress such as observations, or actual weight measurements would be a desirable addition. Likewise, the measure of rumination and procrastination was brief and not validated; therefore, interpretation of the mediation effect must be tentative until the results can be replicated with better validated measures. Although we used prospective designs, the core analyses of the present studies were correlational, and therefore, it is important to note that causal inferences cannot be supported. While we suggest that the personality and motivational factors are predisposing, more complex longitudinal and experimental designs would be required to establish causal links. The prospective design in Studies 1 and 2 was also based on a relatively short time duration between the collection of data for the predictor and the goal progress measures (one month in Study 1 and one week in Study 2). Given this short time frame, it is difficult to know if the effects of the predictor variables on goal progress would be sustained if a longer time period had elapsed before data on the goal progress measures were collected. The current studies are also limited by being restricted to a college student sample. Future research would be needed to generalize these results to the population at large or to demonstrate differences among groups. These results particularly call for examination in a clinical sample of overweight or obese individuals. Finally, our relatively small sample sizes substantially limited the capacity to employ more sophisticated statistical modeling.

CONCLUSIONS

The present results are in agreement with Shahar et al. (2003) that both self-criticism and autonomy are important factors in personal functioning. Self-criticism is significantly associated with diminished goal progress, and this effect appears to be mediated at least in part by rumination and procrastination. These among other potential factors appear to limit the self-critic's capacity to freely and adaptively pursue his or her goals,

and these effects appear to be present across several arenas of goal pursuit, including academic, social, and health-related goals.

Consistent with prior research, the current results also demonstrate that autonomy is an important predictor of goal progress. In particular, the results on weight loss goals confirm the importance of autonomous self-regulation in weight management, and they have significant potential implications for weight management and disease management in general. Weight loss in particular, but other forms of disease management as well, present a challenging arena for health care professionals and significant others. The temptation is always great to intervene with the best of intentions; however, efforts that fail to support autonomy or that in fact undermine autonomous self-regulation may sabotage the very success these efforts are intended to promote. Alternatively, interventions that are specifically designed to support autonomous goal related motivation may provide a substantial boost to these intervention efforts.

Both self-criticism and autonomy appear to be important predictors of goal progress; however, they appear to exert their effects independently. Understanding the pursuit of goals, whether as a self-directed process or as part of a health care intervention, requires a nuanced and comprehensive consideration of both the important influences of personality and of different types of motivation as well.

REFERENCES

- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173-1182.
- Blatt, S. J. (1995). The destructiveness of perfectionism. Implications for the treatment of depression. *American Psychologist, 50*, 1003-1020.
- Blatt, S. J. (2004). *Experiences of depression: Theoretical, clinical and research perspectives*. Washington, DC: American Psychological Association.
- Blatt, S. J., D'Affliti, J. P., & Quinlan, D. M. (1976). Experiences of depression in normal young adults. *Journal of Abnormal Psychology, 85*, 383-389.
- Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry, 11*, 227-268.
- Gollwitzer, P. M. (1999). Implementation intentions: Strong effects of simple plans. *American Psychologist, 54*, 493-503.
- Judge, T. A., Bono, J. E., Erez, A., & Locke, E. A. (2005) Core self-evaluations and job and life satisfaction: The role of self-concordance and goal attainment. *Journal of Applied Psychology, 90*, 257-268.
- Koestner, R., Horberg, E. J., Gaudreau, P., Powers, T. A., DiDio, P., Bryan, C., Jochum, R., & Salter, N. (2006). Bolstering implementation plans for the long haul: The benefits of simultaneously boosting self-concordance or self-efficacy. *Personality and Social Psychology Bulletin, 32*, 1-12.

- Koestner, R., Lekes, N., Powers, T. A., & Chicoine, E. (2002). Attaining personal goals: Autonomy plus implementation intentions equals success. *Journal of Personality and Social Psychology, 83*, 231–244.
- Koestner, R., Losier, G., Vallerand, R., & Carducci, D. (1996). Identified and introjected forms of political internalization: Extending self-determination theory. *Journal of Personality and Social Psychology, 70*, 1025–1036.
- Norcross, J. C., Ratzin, A. C., & Payne, D. (1989). Ringing in the New Year: Change processes and reported outcomes of resolutions. *Addictive Behavior, 14*, 205–212.
- Rheume, J., Freeston, M. H., Ladouceur, R., Bouchard, C., Gallant, L., Talbot, F., & Vallieres, A. (2000). Functional and dysfunctional perfectionists: Are they different on compulsive-like behaviors? *Behavior Research and Therapy, 38*, 119–128.
- Ryan, R. M. (1995). Psychological needs and the facilitation of integrative processes. *Journal of Personality, 63*, 397–427.
- Shahar, G., Henrich, C. C., Blatt, S. J., Ryan, R., & Little, T. (2003). Interpersonal relatedness, self-definition, and their motivational orientation during adolescence: A theoretical and empirical integration. *Developmental Psychology, 39*, 470–483.
- Shahar, G., Kanitzki, E., Shulman, S., & Blatt, S. J. (2006). Personality, motivation and the construction of goals during the transition to adulthood. *Personality and Individual Differences, 40*, 53–63.
- Sheeran, P., Milne, S., Webb, T., & Gollwitzer, P. M. (2005). Implementation intentions and health behaviors. In M. Conner and P. Norman (Eds.) *Predicting health behavior: Research and practice with social cognition models* (pp. 276–323). Buckingham, UK: Open University Press.
- Sheeran, P., Webb, T. L., & Gollwitzer, P. M. (2005). The interplay between goal intentions and implementation intentions. *Personality and Social Psychology Bulletin, 31*, 87–98.
- Sheldon, K. M., & Elliot, A. J. (1998). Not all personal goals are personal: Comparing autonomous and controlled reasons as predictors of effort and attainment. *Personality and Social Psychology Bulletin, 24*, 546–557.
- Sheldon, K. M., & Elliot, A. J. (1999). Goal striving, need-satisfaction, and longitudinal well-being: The autonomy model. *Journal of Personality and Social Psychology, 76*, 482–497.
- Sheldon, K. M., & Houser-Marko, L. (2001). Autonomy, goal attainment, and the pursuit of happiness: Can there be an upward spiral? *Journal of Personality and Social Psychology, 80*, 152–165.
- Sheldon, K. M., & Kasser, T. (1998). Pursuing personal goals: Skills enable progress, but not all progress is beneficial. *Personality and Social Psychology Bulletin, 24*, 1319–1331.
- Williams, G. C., Grow, V. M., Freedman, Z. R., Ryan, R., & Deci, E. L. (1996). Motivational predictors of weight loss and weight-loss maintenance. *Journal of Personality and Social Psychology, 70*, 115–126.
- Williams, G. C., Gagne, M., Ryan, R., & Deci, E. L. (2002). Facilitating autonomous motivation for smoking cessation. *Health Psychology, 21*, 40–50.
- Williams, G. C., Minicucci, D. S., Kouides, R., Levesque, C. S., Chirov, V. I., Ryan, R., & Deci, E. L. (2002). Self-determination, smoking and health. *Health Education Research Theory and Practice, 17*, 512–521.

Copyright of Journal of Social & Clinical Psychology is the property of Guilford Publications Inc. and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.