



FlashReport

Eyes on the prize: The longitudinal benefits of goal focus on progress toward a weight loss goal

Kyle E. Conlon^a, Joyce Ehrlinger^{a,*}, Richard P. Eibach^b, A. William Crescioni^a, Jessica L. Alquist^a, Mary A. Gerend^c, Gareth R. Dutton^c

^a Department of Psychology, Florida State University, USA

^b Department of Psychology, University of Waterloo, Canada

^c College of Medicine, Florida State University, USA

ARTICLE INFO

Article history:

Received 19 October 2010

Revised 3 January 2011

Available online 13 February 2011

Keywords:

Goals

Self-regulation

Weight loss

Motivation

Comparison standards

ABSTRACT

Past research suggests that focusing on what has not yet been accomplished (goal focus) signals a lack of progress towards one's high commitment goals and inspires greater motivation than does focusing on what has already been accomplished (accomplishment focus). The present investigation extends this research to a longitudinal, important domain by exploring the consequences of focusing on one's goals versus accomplishments when pursuing a weight loss goal. Participants were tracked over the course of a 12-week weight loss program that utilized weekly group discussions and a companion website to direct participants' focus toward their end weight loss goal or toward what they had already achieved. Goal-focused participants reported higher levels of commitment to their goal and, ultimately, lost more weight than did accomplishment-focused and no focus control participants. Accomplishment-focused participants did not differ from controls on any measure.

© 2011 Elsevier Inc. All rights reserved.

Each New Year brings with it resolutions to exercise more often, to eat a healthier diet and, for many people, to lose weight. Despite frequent intentions to adopt healthy lifestyles and become more fit, people's success in maintaining and achieving these goals is often elusive (e.g., Honas, Early, Frederickson, & O'Brien, 2003; Kassirer & Angell, 1998; Wadden, Foster, Letizia, & Stunkard, 1992). One strategy for maintaining motivation when pursuing weight loss is to track one's progress relative to an end goal. People often identify specific end goals (Gollwitzer, 1999) and might motivate themselves to achieve those goals by focusing on what they have left to accomplish (i.e. adopting a *goal focus*). For example, a person with a goal focus might count down the pounds they have left to lose in order to reach a goal to lose 30 lb. Alternately, people might motivate themselves by focusing on what they have already achieved in pursuit of their goal (i.e., adopting an *accomplishment focus*). Professional weight loss programs sometimes encourage an accomplishment focus by awarding tokens that celebrate milestones such as 5 or 10 lb lost.

Whether one adopts a goal or an accomplishment focus has important consequences for perceptions of current progress (Eibach & Ehrlinger, 2006, 2010), engagement in goal-consistent behavior (Koo & Fishbach, 2008), and attitudes toward others (Fitzsimons & Fishbach, 2010). For example, accomplishment-focused individuals

perceive greater societal progress toward racial equality than do those focused on the end goal of full equality (Eibach & Ehrlinger, 2006, 2010). Similarly, focusing on what still needs to be accomplished for personal, high commitment goals leads people to view current levels of progress as insufficient, relative to focusing on completed accomplishments (Koo & Fishbach, 2008). When people are highly committed to a goal, a goal focus serves as a signal that insufficient progress has been made and inspires people to work toward the goal. In contrast, an accomplishment focus serves as a cue that progress is being made. This perspective can inspire attempts to balance progress on the target goal with progress on alternative goals. As a result, for high commitment goals, an accomplishment focus can lead to fewer goal-consistent behaviors than goal focus. Koo and Fishbach (2008) found support for these predictions with respect to both predicted and actual goal-relevant behaviors under conditions that highlighted either goal or accomplishment progress.

The present research extends past work to a longitudinal health domain by exploring the effect of holding either a goal or accomplishment focus while pursuing a weight loss goal. To this end, we followed participants over the course of a 12-week weight loss program. Participants were randomly assigned to one of three conditions in which they were encouraged through group meetings and a companion website to focus on the things they had already accomplished in pursuit of their weight loss goal (*accomplishment-focus*) or on what they had left to do in order to achieve their weight loss goal (*goal-focus*). The current study also extends previous research by including a control group of participants who were not

* Corresponding author.

E-mail address: ehrlinger@psy.fsu.edu (J. Ehrlinger).

directed to focus specifically on either what they had already accomplished or on what they still needed to do to reach their goal.

Consistent with previous research, we predicted that a goal focus would serve as a signal that goal progress was insufficient and motivate individuals to work towards their weight loss goals. Specifically, we predicted that goal-focused participants would eat fewer calories, engage in more exercise, and lose a higher percentage of their baseline weight than would participants in accomplishment-focused and control conditions.

We are aware of no previous research that has compared the motivational consequences of focusing on one's accomplishments to a no manipulation control group. Focusing on one's accomplishments might signal that one is making satisfactory progress toward the weight loss goal and lead to progress-induced coasting. Alternatively, a focus on accomplishments might provide feedback that one's diet and exercise behavior are effective means of goal attainment, such that accomplishment-focused participants would show more goal-consistent behavior than controls. As such, we remained agnostic with respect to whether accomplishment-focused participants might differ from control participants.

Method

Participants

Participants were recruited through online advertisements posted on *Craigslist* and paper-based advertisements posted around the Florida State University campus and the surrounding community. Two hundred and five participants completed an online application consisting of demographics and the EAT-26 measure of disordered eating (Garner, Olmsted, Bohr, & Garfinkel, 1982). Sixty-seven prospective participants were excluded from participation because they were not overweight (i.e., their BMI was lower than 25 kg/m²) and/or their responses indicated a potential eating disorder.

After attrition during the 6-week recruitment phase, 109 participants (71.6% female) attended the first program meeting. These participants ranged in age from 18 to 60 (Median = 21.50, SD = 10.26) and in BMI from 25.01 to 53.92 (Median = 30.54, SD = 6.18). This sample was 52.3% non-Hispanic White, 17.4% Black, 11.9% Hispanic, 2.8% Asian, and 3.6% from other racial categories (11.9% did not provide ethnicity information).

Weekly meetings

The program included 12 weekly group meetings during which a program coach distributed materials and led a group discussion focused on a specific theme (e.g., becoming more active) drawn from the Lifestyle Change Program (DPP, 2002). Before each week's discussion, participants were privately weighed using calibrated electronic scales. Participants also provided weekly written estimates of their goal commitment. Using scales ranging from 1 (not at all) to 7 (very), participants rated the degree to which (1) they felt committed to the program objectives and achieving their weight loss goals, (2) it was important to them to reach their weight loss goals, and (3) they anticipated putting effort toward those goals in the next week.

Assignment to group and focus condition

Participants were assigned to one of six groups, based on their stated availability for different meeting times. Condition assignments were then made at the group rather than individual level to ensure that group discussions were consistent with condition. Using random assignment, two groups were assigned to the goal-focus condition, two groups to the accomplishment-focus condition, and two groups to the control condition. Each of two coaches, blind to hypotheses,

were assigned to lead one control, one goal, and one accomplishment group.

Manipulation of focus

We manipulated participants' focus through framing of weekly questionnaires, weekly group discussions, and feedback regarding goal progress on a companion website. For example, participants were asked to describe, in an open-ended written response, their progress with respect to the weekly theme. Goal-focused participants were asked about the progress that they still needed to make in order to reach their weight loss goals. For accomplishment-focused participants, the same questions were framed in terms of the progress that participants had already made toward their weight loss goals. Control participants did not complete any written progress descriptions each week. In addition to the weekly questionnaire, program coaches framed key points in each weekly group discussion in terms of the relevant focus conditions.

Companion website

In addition to the modified weight loss program, we created a secure companion website that featured diet and exercise diaries linked to a database of searchable food items and exercise behaviors. For each meal or snack, participants were encouraged to search the database and record the amount or quantity of the food items consumed. Similarly, participants were encouraged to search the activity database and record the number of minutes they spent performing each exercise activity. The website computed and displayed information, organized by date and user-defined meals, regarding the number of calories consumed or burned for each food item and activity entered.

The website also featured a manipulation of participants' focus in the form of graphs, displayed prominently on the home screen after login, showing their goal progress over time in a way consistent with their focus condition. For participants in the *control* condition, the home page featured a graph displaying their weight over time, as measured at each of weekly meetings up to that time. For participants in the goal-focus condition, the graph displayed their weight loss in a way that supported the focus on their goals. The graph displayed, for each week up to that point, the number of pounds that participants had left to lose to reach their goal weight. Finally, for participants in the accomplishment-focus condition, the graph showed the number of cumulative pounds that participants had lost each week since the start of the program.

In order to explore the effects of goal and accomplishment focus on health behaviors during the program, we created composite food and exercise variables from participants' web-based diary data. For each participant, we summed the reported number of calories consumed and burned through exercise for each week. We divided weekly sums by the reported number of meals for each participant to create measures of the average number of calories per meal for each week. All analyses of website data also controlled for the number of days on which participants logged in to minimize the potential impact of individual differences in food diary compliance. The composite variables for both calories consumed and calories burned were positively skewed and, as such, log-transformed before analyses.

Results

The effect of participant focus on weight loss

We used multilevel modeling to explore within-person weight loss across the 12 weeks (level 1) and the effect of focusing condition on weight loss across the weeks (level 2) as advised by Singer and Willett (2003). Multilevel modeling was selected over other repeated

measures methods because it uses the data provided by each participant to model change over time, including those who remained in the program for only a short time. To explore whether focusing condition facilitated weight loss during the program, we followed common practice in weight loss research (e.g., Bray et al., 2003; Shah, Simha, & Garg, 2006) and calculated the cumulative amount of weight lost each week for each participant as percentage of baseline weight. We controlled for participants' level of trait self-control, age, and BMI at the start of the program in all reported analyses. A set of level two multi-model analysis revealed a significant effect of focusing condition on weight lost at the end of the program, $F(2,66.83) = 7.86, p < .001$. Post hoc analyses revealed that goal-focused participants lost a higher percentage of their beginning weight after 12 weeks (Mean = 4.60%) than did both control (Mean = 2.21%), $B = .05, t(57.58) = 3.45, p < .001$, and accomplishment-focused (Mean = 2.66%) conditions, $B = .46, t(42.13) = 3.67, p < .001$. Control and accomplishment-focused participants did not differ in the amount of weight lost, $B = -.09, t(57.87) = -.70, ns$.

Commitment

Next we explored whether focusing participants on what they had left to achieve inspired higher levels of commitment, relative to participants focused on what they had already accomplished and control participants. We created a composite measure by averaging participants' ratings across the program weeks of their commitment, perceived goal importance, and anticipated effort ($\alpha = .73$). We then conducted multilevel model analyses predicting this measure of commitment from participants' focusing condition, controlling for age, BMI at the start of the program, trait self-control, and the amount of weight lost during the program. Not surprisingly, participants who had lost more weight during the program provided higher ratings of commitment than did those who had lost less weight, $B = 8.62, t(339.21) = 3.11, p < .005$. However, even after controlling for differences in weight loss success, there was a marginally significant effect of focusing condition on participants' rated commitment, $F(2,78.71) = 2.37, p = .10$. Post hoc analyses revealed that goal-focused participants reported being more committed to their goals (Mean = 5.38) than did control participants (Mean = 5.16), $B = .43, t(55.73) = 2.21, p < .05$. Accomplishment-focused participants (Mean = 5.31) did not differ in level of commitment from either goal-focused, $B = .18, t(51.18) = .95, ns$, or control participants, $B = .38, t(48.25) = 1.53, ns$.

Health behaviors

Finally, we explored whether participants' reported diet and exercise behavior, averaged across the program, was influenced by their focusing condition. Contrary to predictions, a level two model predicting the number of calories consumed per meal, on average, from participants' focusing condition revealed no effect of focusing condition on participants' eating behavior, $F(2,58.2) = .40, ns$. A parallel analysis predicting the number of calories burned through exercise, on average, also showed no effect of focusing condition on participants' exercise behavior, $F(2,56.22) = 1.60, ns$.

Discussion

The present investigation extends past research on goal focus to a longitudinal analysis and a health domain. Participants who were goal-focused reported higher commitment to their weight loss goals than control participants and ultimately lost more weight than did both control and accomplishment-focused participants. These findings are consistent with past work suggesting that, for high commitment goals, adopting a goal focus leads people to feel that their goal progress is insufficient and work toward their goals more than participants focused on what they had already accomplished. Note, however, that the effect

of goal and accomplishment-focus on goal-relevant behavior depends upon one's level of commitment (Koo & Fishbach, 2008). Thus, individuals who are already committed to a weight loss goal might benefit from a goal-focus but this strategy is not expected to be effective among those whose goal-commitment is less certain.

Contrary to predictions, there was no effect of condition on participants' eating or exercise behavior. Given the strong relationship between weight and caloric intake, we suspect that the observed effect of goal focus on weight loss may have been mediated by a difference in diet and exercise practices that was not captured by our measures. Participants may have simply lacked the motivation to fully and accurately report their diet and exercise behaviors 3 times a day over a period of 12 weeks. In contrast, participants' weight was measured in the lab by experimenters and was therefore not susceptible to self-report biases.

Fitzsimons and Fishbach (2010) argued that focusing on one's accomplishments might inspire progress-induced coasting and, consequently, decrease motivation. Indeed, both the present investigation and past research suggest that goal pursuit benefits from a focus on what one has left to accomplish over a focus on what is already complete. An accomplishment focus might, however, provide some benefits when pursuing goals such as weight loss that require avoiding temptation for a sustained period of time. Focusing on accomplishments provides positive feedback that might encourage motivation and feelings of self-efficacy beyond the period of initial enthusiasm for goal pursuit. This may explain why accomplishment-focused participants did not differ from goal-focused participants in reported goal commitment or from controls in commitment or percentage of weight lost. The present investigation is the first to compare accomplishment-focused participants to no focus controls and, as such, our understanding of whether and why accomplishment focus might impact motivation and goal pursuit is in its infancy. However, we take these findings to be intriguing evidence that focusing on one's accomplishments might hold a complex relationship with motivation for goal pursuit.

In conclusion, we believe that the present study illustrates how recent theory and research on motivational focus can be used to design practical interventions to facilitate successful goal pursuit. Weight loss programs often highlight the weight that participants lose. These findings suggest that a more successful strategy might come from focusing on what participants have left to accomplish.

References

- Bray, G. A., Hollander, P., Klein, S., Kushner, R., Levy, B., Fitchet, M., et al. (2003). A 6-month randomized, placebo-controlled, dose-ranging trial of topiramate for weight loss in obesity. *Obesity Research*, *11*, 722–733.
- Diabetes Prevention Program Research Group (2002). The diabetes prevention program: Description of lifestyle intervention. *Diabetes Care*, *25*, 2165–2171.
- Eibach, R. P., & Ehrlinger, J. (2006). "Keep your eyes on the prize": Reference points and racial differences in assessing progress toward equality. *Personality and Social Psychology Bulletin*, *32*, 66–77.
- Eibach, R. P., & Ehrlinger, J. (2010). Reference points in men's and women's judgments of progress toward gender equality. *Sex Roles*, *63*(11), 882–893.
- Fitzsimons, G. M., & Fishbach, A. (2010). Shifting closeness: Interpersonal effects of personal goal progress. *Journal of Personality and Social Psychology*, *98*, 535–549.
- Garner, D. M., Olmsted, M. P., Bohr, Y., & Garfinkel, P. (1982). The eating attitudes test: Psychometric features and clinical correlates. *Psychological Medicine*, *12*, 871–878.
- Gollwitzer, P. M. (1999). Implementation intentions: Strong effects of simple plans. *The American Psychologist*, *54*, 493–503.
- Honas, J. J., Early, J. L., Frederickson, D. D., & O'Brien, M. S. (2003). Predictors of attrition in a large clinic-based weight-loss program. *Obesity Research*, *11*, 888–894.
- Kassirer, J. P., & Angell, M. A. (1998). Losing weight: An ill-fated new year's resolution. *The New England Journal of Medicine*, *338*, 52–54.
- Koo, M., & Fishbach, A. (2008). Dynamics of self-regulation: How (un)accomplished goal actions affect motivation. *Journal of Personality and Social Psychology*, *94*, 183–195.
- Shah, M., Simha, V., & Garg, A. (2006). Long-term impact of bariatric surgery on body weight, comorbidities, and nutritional status. *The Journal of Clinical Endocrinology and Metabolism*, *91*, 4223–4231.
- Singer, J. D., & Willett, J. B. (2003). *Applied longitudinal data analysis: Modeling change and event occurrence*. New York, NY: Oxford University Press.
- Wadden, T. A., Foster, G. D., Letizia, K. A., & Stunkard, A. J. (1992). A multicenter evaluation of a proprietary weight reduction program for the treatment of marked obesity. *Archives of Internal Medicine*, *152*, 961–966.