Regulatory Fit and Resisting Temptation during Goal Pursuit

Antonio L. Freitas

Yale University

Nira Liberman

Indiana University, Bloomington

and

E. Tory Higgins

Columbia University

Received May 7, 2001; revised August 31, 2001; accepted September 4, 2001; published online February 11, 2002

Because avoiding obstacles to goal attainment is a favored means of prevention-focused self-regulation, the authors proposed that resisting tempting diversions from task completion would better fit a prevention focus than a promotion focus, thus affecting task enjoyment and performance. Whether deciphering encrypted messages (Study 1) or solving math problems (Study 2), when exposed to attractive distracting video clips, participants in a prevention focus reported greater task enjoyment than did participants in a promotion focus, whereas the reverse was true when the distracting clips were not presented. Indeed, prevention-focused participants enjoyed the tasks more when they had to resist temptation than when they did not. In Study 2, prevention-focused participants outperformed promotion-focused participants under distracting (but not nondistracting) conditions, and regression analyses suggested that task enjoyment mediated this effect. Different regulatory states thus appear to differentially equip people to deal with tempting diversions from goal attainment. © 2002 Elsevier Science (USA)

Everyday life is rife with distractions. Cleaning out the garage while the sun beckons on a Saturday afternoon, completing a homework assignment while a sibling watches a funny television program, and typing a report while the diversions of the Internet lie a mouse-click away, for example, all require focusing on goal-directed activities while forgoing attractive, immediately available, alternative activities. How do people realize these self-regulatory feats?

Avoiding Distractions through Strategies and Plans

People can use various strategies for avoiding distractions. While working toward a long-term goal, for instance, people may mentally transform potential diversions into less attractive phenomena, as when a child avoids eating an immediately available marshmallow by construing it as a puffy white cloud (Metcalfe & Mischel, 1999; Mischel, 1996). Moreover, when planning a difficult task that potentially can be hampered by distractions, people may deter themselves from abandoning their action plans by selfimposing future penalties for task incompletion (Rachlin, 2000; Trope & Fishbach, 2000). People also can structure their environments such that potential diversions are less accessible (e.g., Brownell, Marlatt, Lichtenstein, & Wilson, 1986), as when an avid Internet chess player chooses to work on a non-networked computer. Moreover, people are less susceptible to potential distractions if they make specific implementation intentions about how to deal with them (Gollwitzer, 1996; Patterson & Mischel, 1976).

Avoiding Distractions through Regulatory Fit

We propose that, apart from the strategies people deliberately use to avoid goal-unrelated distractions, some regulatory states may facilitate avoiding distractions better than



Nira Liberman is now at Tel Aviv University.

Address correspondence and reprint requests to Antonio L. Freitas, Department of Psychology, Yale University, P.O. Box 208205, New Haven, CT 06520. E-mail: antonio.freitas@yale.edu.

others. According to regulatory focus theory (Higgins, 1997, 1998), different regulatory states arise when people follow different types of "self-guides:" (a) *ideal* self-guides, individuals' representations of desired states as hopes or aspirations; and (b) ought self-guides, individuals' representations of desired states as duties or responsibilities. Following an ideal self-guide entails adopting a promotion focus, that is, a regulatory state oriented toward accomplishment and a heightened sensitivity to opportunities to advance goal attainment. Accordingly, eagerness to approach matches to desired states is a preferred means of promotionfocused goal attainment. By contrast, following an ought self-guide entails adopting a prevention focus, that is, a regulatory state oriented toward responsibility and a heightened sensitivity to impediments to goal attainment. Accordingly, vigilance to avoid mismatches to desired states is a preferred means of prevention-focused goal attainment. Participants primed to consider their hopes and aspirations are thus especially oriented toward eager behaviors, whereas participants primed to consider their duties and obligations are especially oriented toward vigilant behaviors (Crowe & Higgins, 1997; Higgins, Roney, Crowe, & Hymes, 1994; Shah, Higgins, & Friedman, 1998).

Consistent with the "regulatory fit" hypothesis that one source of action value is the action's fit with one's regulatory state (Higgins, 2000), people in a prevention focus experience vigilance-related actions more positively than eagerness-related actions, whereas people in a promotion focus experience eagerness-related actions more positively than vigilance-related actions. Thus, participants primed to consider their duties and obligations anticipate enjoying vigilance-framed action plans (e.g., "avoid missing any classes") more than eagerness-framed action plans (e.g., "attend all classes"), whereas the reverse is true for participants primed to consider their hopes and aspirations (Freitas & Higgins, in press). Besides the positive affect that people feel from acting in ways instrumental to helping them reach their goals and from their intrinsic interest in actions (for reviews, see chapters in Sansone & Harackiewicz, 2000), the same actions can be experienced more or less positively as a function of their fit to one's regulatory state. By influencing subjective experiences of task engagement, regulatory fit should influence task motivation as well as enjoyment (e.g., Sansone & Smith, 2000). Indeed, participants primed to consider their duties and obligations (rather than their hopes and aspirations) not only enjoyed performing a vigilance-framed task (crossing out "harmful" four-sided figures) more than an eagerness-framed task (circling "helpful" four-sided figures) but also were more willing to repeat the vigilance-framed task, and regression analyses suggested that this latter effect was mediated by task enjoyment (Freitas & Higgins, in press).

Can a regulatory fit analysis illuminate how people resist tempting diversions to focus on a task at hand? Goalunrelated diversions, whether positive or negative in valence, represent obstacles to goal attainment. Given that avoiding obstacles to goal attainment fits a prevention focus better than a promotion focus, we propose that forgoing tempting diversions from task completion should fit a prevention focus better than a promotion focus. This proposal implies that, even without using particular strategies for dealing with distractions, simply being in a prevention (rather than a promotion) focus could increase one's task enjoyment and performance when distractions are present.

Previous findings provide intriguing, albeit indirect, support for this proposal. In one experiment, children performed a boring pegboard task while an attractive distraction, "Mr. Clown Box," encouraged them to pursue other actions such as pressing his nose (Patterson & Mischel, 1976). Children equipped with a vigilance strategy for dealing with the distraction ("I'm not going to look at Mr. Clown Box") warded off the distracting Mr. Clown Box and attended to their work more effectively than did children equipped with an eagerness strategy ("I'm going to look at my work"). Similarly, when working on math problems while attractive television commercials vied for their attention, college students provided with vigilance intentions for dealing with the distraction completed more math problems than did students provided with eagerness intentions (Schaal, 1993; reviewed in Gollwitzer, 1996). Despite the agreement of these findings, a conceptual understanding of the greater effectiveness of vigilance strategies is needed (Gollwitzer, 1996). We suggest that, besides implementation intentions' highly effective function of linking a behavioral plan to an environmental trigger (Gollwitzer, 1999), intentions that invoke vigilance also might induce a prevention focus, whereas intentions that invoke eagerness also might induce a promotion focus. Such differences in regulatory focus, we propose, should facilitate differences in regulatory fit, with people in a prevention (rather than a promotion) focus becoming more engaged in tasks that require warding off distractions. Because in these earlier studies participants received explicit strategies for handling distractions, however, it also is possible that the tasks' particular contents or structures afforded the vigilance strategies greater efficacy than they did the eagerness strategies. Moreover, these earlier investigations did not measure participants' subjective experiences of task interest and enjoyment, which figure prominently in the regulatory fit hypothesis.

Current Experiments

Testing our ideas requires manipulating regulatory focus (e.g., by altering task framing or self-guide accessibility) without assigning explicit strategies for dealing with distractions. Even without receiving different distraction-relevant strategies, people in a prevention focus should be more engaged in warding off a tempting diversion than should people in a promotion focus. Previous research has shown already that people positively experience actions that help them to meet their goals (e.g., Carver & Scheier, 1999; Harackiewicz & Sansone, 1991). A strong test of the regulatory fit hypothesis entails examining whether regulatory fit affects task enjoyment even when task success is controlled, such as when people perform an easy task on which everyone succeeds. Accordingly, we conducted two experiments: one using an easy task (Study 1), in which we expected to find effects of regulatory fit on task enjoyment, and one using a more difficult task (Study 2), in which we expected to find effects of regulatory fit on both task enjoyment and performance.

STUDY 1

After learning that distracting video clips might appear on their computer monitors as they worked, participants of Study 1 completed a message decryption task framed in either prevention terms (as a search for counterfeit messages to be rejected) or promotion terms (as a search for authentic messages to be accepted). Because the task involved the use of a very simple rule, we expected all participants to excel at it. In spite of such uniform task success, however, we predicted that regulatory fit would affect participants' subjective experiences of task enjoyment. Because approaching matches to desired states is the preferred means of promotion-focused self-regulation, we expected participants who received the promotion framing to favor the "no distraction" condition, in which they would be free to attempt matches without the hindrance of distractions. Thus, when the aforementioned distraction was not presented, we expected participants who received the promotion framing to experience greater task enjoyment than participants who received the prevention framing. By contrast, because avoiding obstacles to desired states is the preferred means of prevention-focused self-regulation, when the distraction was presented (thus requiring its avoidance), we expected participants who received the prevention framing to experience greater task enjoyment than participants who received the promotion framing. We operationalized participants' subjective experiences of task enjoyment as their task interest and enjoyment, self-reported immediately on task completion (for similar operationalizations, see Deci, Koestner, & Ryan, 1999; Eisenberger, Pierce, & Cameron, 1999; Lepper & Henderlong, 2000; Sansone & Smith, 2000).¹

¹ Although more specific emotional experiences (concerning elation vs relief) are differentially associated with ideal- and ought-focused goal attainment (Higgins, 1987), such conceptually distinct emotional experiences relate equally positively to people's subjective experiences of task engagement (Higgins, 2000). Thus, overall indications of task interest and enjoyment are sensitive to task-related differences in subjective experience for both prevention- and promotion-focused participants (Freitas & Higgins, in press).

Method

Participants. A total of 90 undergraduates (52 women and 38 men) participated via computer in individual sound-proofed cubicles.

Message decryption task. The promotion task framing, titled "Detecting and Accepting Authentic Messages," stated,

Your job in this experiment is to detect AUTHENTIC messages and mark them for ACCEPTANCE. You will be taught a rule for detecting authentic messages, and you will be asked to use this rule to determine whether or not incoming messages are authentic and must be accepted immediately. We have good reason to believe that certain types of messages are authentic and thus must be accepted immediately. To help improve our message system, your job will be to detect these authentic messages and mark them for acceptance. Please use the following rules to accept messages: If a message has more odd numbers than it has vowels: ACCEPT the message. Otherwise, do NOT accept the message.

In the prevention framing, titled "Detecting and Rejecting Counterfeit Messages," the words "authentic," "acceptance," and "accept" were replaced with the words "counterfeit," "rejection," and "reject," respectively. Accordingly, all participants used the same criterion (more odd numbers than vowels) to identify messages. Whereas participants who received the promotion framing used this criterion to mark messages for acceptance, participants who received the prevention framing used it to mark messages for rejection.

Participants next received examples of 14-character alphanumeric strings satisfying the criterion (e.g., AX8E7-6H5U-TP3M9) and not satisfying the criterion (e.g., B6E7-6H6UQ-TP3A3). Participants subsequently performed three learning trials in which a message (i.e., a 14-character alphanumeric string) appeared on their computer screens. By selecting one of two boxes below the message, participants indicated whether or not the message satisfied the criterion. In the promotion framing, these boxes were labeled "ACCEPT" and "do NOT accept;" in the prevention framing, these boxes were labeled "REJECT" and "do NOT reject." Following each learning trial, participants received feedback concerning whether or not their responses were correct and a reminder of the criterion for identifying messages.

All participants next were informed,

During the upcoming test trials, video clips may or may not play in the background as you decide whether or not to accept [reject] each message. If a video clip does play, simply ignore the video and focus on whether or not you will accept [reject] the message. Answer each question as quickly and as accurately as you can. Get ready to decide whether or not to ACCEPT [REJECT] messages!

All participants next worked through 12 test trials that were identical to the learning trials described above, with the two exceptions that (a) feedback was not provided and (b) video clips $(320 \times 240 \text{ pixels})$ appeared in the center of half of participants' computer screens. The video clips' soundtracks were broadcast through external speakers in each participant's soundproofed cubicle. The video clips contained previews of upcoming films, funny animated commercials, and film preview spoofs, all targeted to young adult audiences. A different video clip accompanied each of the 12 test trials, and the order in which the 12 video clips were presented was reversed for half of the participants. The video clips' lengths varied from 2.5 to 3.5 min, although most participants saw only the beginning portion of each clip, given that participants spent an average of 13.29 s (SD = 5.45) completing each test trial.

Dependent variables. Following the test trials, participants' recall of the task instructions was assessed with the question, "Which of the following were the instructions for the task you just completed?" (5-point scale: 1 = focus onthe video clips and ignore the coded messages, 5 = focus onthe coded messages and ignore the video clips). Participants' motivation to comply with the task rules was assessed with the question, "How important was it to you to follow the instructions of this experiment?" (5-point scale: 1 = not at all, 5 = extremely; same scale used for all items below). Two items assessed participants' subjective experiences of enjoyment of the message decryption task: (a) "How much did you enjoy deciding whether or not to accept the messages?" and (b) "How interesting was if for you to decide whether or not to accept the messages?" Two items assessed participants' subjective experiences of enjoyment of the video clips: (a) "How interesting do you think the video clips were?" and (b) "How much did you enjoy watching the video clips?" The order in which these six questions were assessed varied randomly across participants. Each participant's responses to the two items assessing enjoyment of the message decryption task were averaged to form an index of task enjoyment ($\alpha = .82$), each participant's responses to the two items assessing enjoyment of the video clips were averaged to form an index of video clip enjoyment ($\alpha = .81$), and each participant's responses on the 12 test trials were averaged to form a single index representing percentage of correct responses $(\alpha = .59).$

Results

All participants correctly recalled their instructions to ignore the video clips and focus on the message decryption task. The percentage of correct responses on the test trials was quite high (M = 89%, SD = 13%). The modal score was 100% correct responses. As expected given this near constancy in task success, there were no significant effects of regulatory focus framing, of video clip presence, or of the interaction between these two variables, all Fs < 1.2.

Regarding task enjoyment, there were no significant main effects of regulatory focus framing or of video clip distraction, both Fs < 1.0, but as predicted and as shown in Fig. 1, a

FIG. 1. Mean ratings of enjoyment of a message decryption task, as a function of regulatory focus framing (promotion vs prevention) and presence versus absence of distracting video clips, Study 1.

significant interaction between the two variables emerged, $\beta =$.43, F(1, 86) = 5.66, p = .02. Among participants not exposed to video clips while working on the message decryption task, those who received the promotion framing reported greater task enjoyment (M = 2.75) than did those who received the prevention framing (M = 2.15), t(43) = 2.17, p < .05, d = .65. Among participants exposed to video clips, by contrast, those who received the prevention framing reported nonsignificantly more task enjoyment (M = 2.61) than did those who received the promotion framing reported nonsignificantly more task enjoyment (M = 2.61) than did those who received the promotion framing (M = 2.23), t(43) = 1.25, ns, d = .37.

The Framing \times Distraction interaction remained significant when controlling for participants' reported importance of complying with the task instructions, $\beta = .43$, F(1, 85) = 5.68, p <.02. Participants' enjoyment of the message decryption task was not associated significantly with their percentage of correct responses, r(88) = -.17, p > .10. Accordingly, controlling also for participants' task performance did not attenuate appreciably the Framing \times Distraction interaction, $\beta = .41$, F(1, 84) = 5.83, p < .02. Helping to rule out the possibility that this interaction reflected a difference in participants' enjoyment of the particular video clips used in this study, participants who received the prevention (M = 3.02) and promotion (M = 2.84) framing reported similar degrees of video clip enjoyment, t(43) = 0.53, ns, d = .16. Finally, helping to confirm that our experiment required participants to forgo a more desirable activity while completing a less desirable activity, participants rated watching the video clips to be more enjoyable (M = 2.93) than working on the message decryption task (M = 2.38), t(44) = 2.48, p < .02, d = .51.

Discussion

We proposed that avoiding tempting diversions from goal attainment better fits a prevention focus than a promotion focus. Consistent with this proposal, Study 1 found that participants who received a prevention-focused task fram-



3.5

3

2.5

ing (relative to those who received a promotion-focused task framing) reported greater enjoyment of a message decryption task when they tried to avoid distracting video clips than when they did not. This finding was not attributable to participants' motivation to comply with the experimental instructions, their liking for the video clips used in the study, or their task success.

STUDY 2

Can regulatory fit also affect people's task performance while facing distraction? To examine this question, in Study 2, participants first wrote essays intended to increase the accessibility of their ideal or ought self-guides. In an ostensibly unrelated task, they next completed math problems while distracting video clips appeared or did not appear on their computer monitors. In a pilot study, 40 undergraduates correctly answered 60% (SD = 32%) of these math problems, suggesting that this task is considerably more difficult than that used in Study 1. Accordingly, we expected regulatory fit to affect not only participants' enjoyment of the math task but also their performance on it.

Method

Participants. A total of 123 undergraduates (78 women and 45 men) participated via computer in individual sound-proofed cubicles.

Math practice. Participants began the experiment by completing three practice multiplication (e.g., 33×17) or addition (e.g., 135 + 77 - 209) problems, without the use of a calculator, pencil, or pen ($\alpha = .48$).

Regulatory focus priming. Participants next spent 5 to 10 min writing an essay describing how their personal standards (described as either *ideals* or *oughts*) had changed as they had matured (cf. Higgins et al., 1994). The *ideal* instructions stated,

Describe how your hopes and aspirations are different now from what they were when you were growing up. In other words, what accomplishments would you ideally like to meet at this point in your life? What accomplishments did you ideally want to meet when you were a child?

In the *ought* condition, the phrase "hopes and aspirations" was replaced with the phrase "duties and obligations," the word "ideally" was replaced with the phrase "think you ought," and the word "accomplishments" was replaced with the word "responsibilities."

Math task. In a purportedly unrelated task, all participants next were instructed that a video clip might play as they worked through nine math problems. This instruction stated,

While you are completing the upcoming math problems, some video clips may or may not play in the background. Undergraduates have rated these clips to be highly interesting and distracting. If video clips



FIG. 2. Mean ratings of enjoyment of math task, as a function of regulatory focus priming (promotion vs prevention) and presence versus absence of distracting video clips, Study 2. Means are adjusted for math practice performance.

do play, focus your attention on the math problems and simply ignore the video clips. Answer the math problems as quickly and as accurately as you can.

All participants next completed nine math problems requiring, as did the practice problems, either two-digit multiplication or multiple-term addition or subtraction. Video clips appeared in the center of the computer screens of half of the participants. Each clip contained five shorter clips (described in Study 1) that played continuously as participants worked through all nine math problems. This clip's total length was 14.2 min, although most participants saw only the beginning portion of it given that participants spent an average of 4.88 min (SD = 2.17) completing the set of math problems.

Dependent variables. The dependent variables assessed in this study were exactly the same as those described in Study 1 (except that the words "math task" were substituted for any words referring to the message decryption task), yielding indices of task enjoyment ($\alpha = .88$), video clip enjoyment ($\alpha = .94$), and task performance ($\alpha = .80$).

Results

All participants correctly recalled their instructions to ignore the video clips and focus on the math task. The percentage of correct responses on the math trials was lower (M = 59%), and demonstrated greater variability (SD =30%), than that observed for Study 1's message decryption task. Regarding participants' percentage of correct responses, there were no significant main effects of regulatory focus priming or of video clip distraction, both Fs < 1.0, but as predicted, a significant interaction between the two variables emerged, $\beta = .35$, F(1, 119) = 4.85, p = .03. Participants' performance on the practice and test trials were correlated significantly, r(121) = .41, p < .01.



FIG. 3. Mean proportions of correct responses on a math task, as a function of regulatory focus priming (promotion vs prevention) and presence versus absence of distracting video clips, Study 2. Means are adjusted for math practice performance.

Because participants completed the practice trials prior to undergoing the regulatory focus priming procedure, their practice performance can serve as a measure of individual differences in math expertise. By controlling for participants' practice performance, we isolated the effect of the Priming \times Distraction interaction on participants' test trial performance, $\beta = .33$, F(1, 118) = 5.16, p < .03. As shown in Fig. 2, when controlling for participants' practice performance, among participants exposed to video clips, those who received the prevention priming correctly solved a greater proportion of math problems (adjusted M = 0.66) than did those who received the promotion priming (adjusted M = 0.49), $\beta = .27$, F(1, 57) = 4.59, p < .05. Among participants not exposed to video clips, by contrast, there was no significant difference between the groups, with participants who received the promotion priming performing somewhat better (adjusted M = 0.63) than participants who received the prevention priming (adjusted M = 0.57), $\beta = -.07, F < 1.0.$

Regarding task enjoyment, consistent with results from Study 1, there were no significant main effects of regulatory focus priming or of video clip distraction (both Fs < 1.0), but a significant interaction between the two variables emerged, $\beta = .43$, F(1, 119) = 7.62, p < .01. Participants' enjoyment of the test trials and their performance on the practice trials were correlated significantly, r(121) =.18, p < .05. By controlling for participants' practice performance, we isolated the effect of the Priming \times Distraction interaction on participants' task enjoyment, $\beta =$.42, F(1, 118) = 7.50, p < .01. As shown in Fig. 3, when controlling for participants' practice performance, among participants exposed to video clips, those who received the prevention priming reported greater task enjoyment (adjusted M = 2.51) than did those who received the promotion priming (adjusted M = 1.98), $\beta = .25$, F(1, 57) =3.81, p < .06. Among participants not exposed to video

clips, by contrast, those who received the promotion priming reported greater task enjoyment (adjusted M = 2.26) than did those who received the prevention priming (adjusted M = 1.70), $\beta = -.25$, F(1, 57) = 3.99, p < .05.

The Priming \times Distraction interactions predicting both task performance, $\beta = .33$, F(1, 117) = 5.28, p < .03, and enjoyment, $\beta = .42$, F(1, 117) = 7.43, p < .01, remained significant when also controlling for participants' reported importance of complying with the instructions of ignoring the video clips. Supporting our proposal that regulatory fit can increase task enjoyment independent of task performance, the Priming × Distraction interaction predicting task enjoyment remained significant when controlling for task performance, $\beta = .30$, F(1, 116) = 4.04, p < .04.05. Supporting our proposal that increasing task enjoyment helps to explain how regulatory fit improves task performance, the Priming \times Distraction interaction predicting task performance was no longer significant, $\beta = .19$, $F(1, \beta)$ (116) = 1.96, p > .16, when also controlling for task enjoyment, which itself accounted for unique variance in task performance, $\beta = .32$, F(1, 116) = 15.51, p < .01. Baron and Kenny's (1986; see also Kenny, Kashy, & Bolger, 1998) modification of the Sobel (1982) test showed that this reduction was statistically significant, Z = 2.31, p < .02. Finally, as in Study 1, participants who received the prevention (M = 2.91) and promotion (M = 3.09)priming reported similar degrees of enjoyment of the video clips, t(58) = 0.54, ns, d = .15, and participants rated watching the video clips to be more enjoyable (M = 3.01) than working on the math task (M = 2.24), t(59) = 3.29,p < .01, d = .64.

Discussion

Despite procedural departures from Study 1, enhancing regulatory fit by pairing the avoidance of distracting video clips with a prevention focus again enhanced participants' subjective experiences of task enjoyment. Moreover, prevention-primed participants outperformed promotionprimed participants under distracting (but not nondistracting) conditions, and regression analyses suggested that this effect was mediated by task enjoyment. This mediational result should be taken with the caveat that the proposed mediator, the subjective experience of task enjoyment, was assessed immediately after the outcome measure, task performance. Our finding in Studies 1 and 2 that the regulatory fit effect on task enjoyment held when controlling statistically for participants' task performance helps to allay the potential concern that our posttask assessments of task enjoyment reflected simply participants' differential degrees of satisfaction with a job well done. Nevertheless, future research needs to examine the effects of regulatory fit on online indices of task enjoyment. Asking participants to report continually on their task enjoyment as they work through tasks might interrupt their task concentration (Pashler, Johnston, & Ruthruff, 2000) or bias their attention toward affective indicators of task progress (Martin, Ward, Achee, & Wyer, 1993). Accordingly, indirect measures, such as participants' degree of losing track of the passage of time, potentially may prove more fruitful (cf. Csikszentmihalyi, 2000).

GENERAL DISCUSSION

Completing everyday tasks often requires eschewing interesting diversions. In both of our experiments, for example, participants rated the distracting video clips they viewed to be more enjoyable than the tasks they completed. How do people successfully pursue their goals in the face of such temptations? Although the deliberate strategies people use are very useful (e.g., Brownell et al., 1986; Gollwitzer, 1996: Mischel. 1996: Rachlin. 2000: Trope & Fishbach. 2000), we hypothesized that some regulatory states might equip people to avoid distractions better than do others. Because avoiding obstacles to goal attainment is a preferred means of self-regulation while in a prevention focus, we proposed that avoiding attractive diversions from task completion should fit a prevention focus better than a promotion focus. Assuming that people are more engaged in actions that fit well with their regulatory states (Higgins, 2000), we posited that avoiding attractive obstacles to goal pursuit should be more enjoyable when in a prevention focus than when in a promotion focus, and we predicted that such differences in task enjoyment would facilitate differences in task performance.

Findings from two studies supported these ideas. Whether deciphering encrypted messages (Study 1) or answering math problems (Study 2), whether regulatory focus was manipulated via priming (Study 2) or via task framing (Study 1), and whether involving a task on which more than 60% of participants earned greater than 90% success (Study 1) or a task on which fewer than 10% of participants earned greater than 90% success (Study 2), participants in a prevention focus reported greater task enjoyment when exposed to distracting video clips than did participants in a promotion focus. By contrast, when not exposed to aforementioned distracting video clips, participants in a promotion focus reported greater task enjoyment than did participants in a prevention focus. Meta-analysis across the two studies showed that, overall, both of these simple effects were statistically significant, Z = 1.98, p < .05, and Z =3.10, p < .01, respectively.² In Study 2, moreover, participants in a prevention focus outperformed participants in a promotion focus under distracting (but not nondistracting) conditions. Although future experiments need to verify the processes underlying this finding, regression analyses supported our proposal that increasing task enjoyment helps to explain how regulatory fit increases task performance.

These findings illustrate how value can transfer from the fit between regulatory state and strategic action to the action itself. Previous work shows that value can transfer indirectly from goal to action when an action meets not only an intended goal but also additional goals, as when eating in front of the television not only satisfies hunger but also provides entertainment (e.g., Brownell, 1997). Accordingly, it is important to note that our regulatory focus manipulations had no discernible effect on participants' enjoyment of the video clips we provided. Thus, the data do not suggest that participants differentially transferred value from the video clips to the tasks. Instead, it seems that the fit between regulatory focus and the strategic action of avoiding obstacles to task completion affected participants' task enjoyment. Apart from the value transferred from goals to actions, then, our findings suggest that an independent source of action value derives from an action's fit to one's regulatory state. This idea implies that the value of regulatory fit might transfer not only to one's own actions but also to other phenomena. For example, if another person's actions strategically fit one's own regulatory state, then it is possible that one will imbue the other person with additional value, as reflected in increased liking or attraction. Future research should address this possibility.

James (1890/1950) argued that diligently practicing temptation-resisting behaviors is the surest way of increasing their subsequent use. Our findings indicate that, without requiring the time-consuming process of committing to habit many specific behavioral sequences, instantiating different regulatory states, even momentarily, can influence the enjoyability of broad strategic inclinations, thus affecting the likelihood that particular behaviors are enacted in particular contexts. Because knowing when to be hopeful and when to be dutiful may help people to meet everyday goals, future research might profitably examine people's lay understandings of regulatory fit.

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.
- Brownell, K. D. (1997). *The LEARN program for weight control* (7th ed.). Dallas, TX: American Health.
- Brownell, K. D., Marlatt, G. A., Lichtenstein, E., & Wilson, E. (1986). Understanding and preventing relapse. *American Psychologist*, **41**, 765–782.
- Carver, C. S., & Scheier, M. F. (1999). Themes and issues in the self-

² It also is informative to examine, across the two studies, the task enjoyment effects of the video distraction within the two regulatory focus conditions. Meta-analyses showed that prevention-focused participants actually reported greater task enjoyment when facing the distraction than when not facing it, Z = 3.14, p < .01, whereas the reverse was true of promotion-focused participants, although this latter effect only bordered on statistical significance, Z = 1.73, p < .09.

regulation of behavior. In R. S. Wyer (Ed.), *Perspectives on behavioral self-regulation: Advances in social cognition* (Vol. 12, pp. 1–107). Mahwah, NJ: Erlbaum.

- Crowe. E., & Higgins, E. T. (1997). Regulatory focus and strategic inclinations: Promotion and prevention in decision making. *Organizational Behavior and Human Decision Processes*, **69**, 117–132.
- Csikszentmihalyi, M. (1975). *Beyond boredom and anxiety*. San Francisco: Jossey–Bass.
- Csikszentmihalyi, M. (2000). The contribution of flow to positive psychology. In J. E. Gillham (Ed.), *The science of optimism and hope: Research essays in honor of Martin E. P. Seligman* (pp. 387–395). Philadelphia: Templeton Foundation Press.
- Deci, E. L., Koestner, R., & Ryan, R. M. (1999). A meta-analytic review of experiments examining the effects of extrinsic rewards on intrinsic motivation. *Psychological Bulletin*, **125**, 627–668.
- Dweck, C. S. (1999). Self-theories: Their role in motivation, personality, and development. Philadelphia: Psychology Press/Taylor & Francis.
- Eisenberger, R., Pierce, W. D., & Cameron, J. (1999). Effects of reward on intrinsic motivation–negative, neutral, and positive: Comment on Deci, Koestner, and Ryan. *Psychological Bulletin*, **125**, 677–691.
- Freitas, A. L., & Higgins, E. T. (in press). Enjoying goal-directed action: The role of regulatory fit. *Psychological Science*.
- Gollwitzer, P. M. (1996). The volitional benefits of planning. In P. M. Gollwitzer, & J. A. Bargh (Eds.), *The psychology of action: Linking cognition and motivation to behavior* (pp. 287–312). New York: Guilford.
- Gollwitzer, P. M. (1999). Implementation intentions: Strong effects of simple plans. American Psychologist, 54, 493–503.
- Harackiewicz, J. M., & Sansone, C. (1991). Goals and intrinsic motivation: You can get there from here. *Advances in Motivation and Achievement*, 7, 21–49.
- Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist*, **52**, 1280–1300.
- Higgins, E. T. (1998). Promotion and prevention: Regulatory focus as a motivational principle. Advances in Experimental Social Psychology, 46, 1–46.
- Higgins, E. T. (2000). Making a good decision: Value from fit. *American Psychologist*, **55**, 1217–1230.
- Higgins, E. T., Roney, C., Crowe, E., & Hymes, C. (1994). Ideal versus ought predilections for approach and avoidance: Distinct self-regulatory systems. *Journal of Personality and Social Psychology*, **66**, 276–286.
- James, W. (1950). *Principles of psychology* (Vol. 1). New York: Dover. (Original work published 1890)

- Kenny, D. A., Kashy, D. A., & Bolger, N. (1998). Data analysis in social psychology. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *Handbook of social psychology* (4th ed., Vol. 1, pp. 233–265). New York: McGraw–Hill.
- Lepper, M. R., & Henderlong, J. (2000). Turning "play" into work and "work" into play: 25 years of research on intrinsic versus extrinsic motivation. In C. Sansome & J. M. Harackiewicz (Eds.), *Intrinsic and extrinsic motivation: The search for optimal motivation and performance*. New York: Academic Press.
- Martin, L. L., Ward, D. W., Achee, J. W., & Wyer, R. S. (1993). Mood as input: People have to interpret the motivational implications of their moods. *Journal of Personality and Social Psychology*, 64, 317–326.
- Metcalfe, J., & Mischel, W. (1999). A hot/cool-system analysis of delay of gratification: Dynamics of willpower. *Psychological Review*, **106**, 3–19.
- Mischel, W. (1996). From good intentions to willpower. In P. M. Gollwitzer & J. A. Bargh (Eds.), *The psychology of action: Linking cognition* and motivation to behavior (pp. 197–218). New York: Guilford.
- Pashler, H., Johnston, J. C., & Ruthruff, E. (2000). Attention and performance. Annual Review of Psychology, 52, 629–651.
- Patterson, C. J., & Mischel, W. (1976). Effects of temptation-inhibiting and task-facilitating plans on self-control. *Journal of Personality and Social Psychology*, **33**, 209–217.
- Rachlin, H. (2000). The science of self-control. Cambridge, MA: Harvard Univ. Press.
- Sansone, C., & Harackiewicz, J. M. (Eds.). (2000). Intrinsic and extrinsic motivation: The search for optimal motivation and performance. New York: Academic Press.
- Sansone, C., & Smith, J. L. (2000). Interest and self-regulation: The relation between having to and wanting to. In C. Sansone & J. M. Harackiewicz (Eds.), *Intrinsic and extrinsic motivation: The search for* optimal motivation and performance. New York: Academic Press.
- Schaal, B. (1993). Impulskontrolle: Wie Vorsätze beherrschtes Handeln erleichtern [Impulse control: How implementation intentions facilitate controlled behavior]. Unpublished master's thesis, Ludwigs-Maximilians-Universtät, München.
- Shah, J. E., Higgins, E. T., & Friedman, R. S. (1998). Performance incentives and means: How regulatory focus influences goal attainment. *Journal of Personality and Social Psychology*, **74**, 285–293.
- Sobel, M. E. (1982). Asymptotic confidence intervals for indirect effects in structural models. In S. Leinhardt (Ed.), *Sociological methodology 1982* (pp. 290–312). San Francisco: Jossey–Bass.
- Trope, Y., & Fishbach, A. (2000). Counteractive self-control in overcoming temptation. *Journal of Personality and Social Psychology*, **79**, 493– 506.