Abstract—We propose that the fit between an action’s strategic orientation and the actor’s regulatory state can influence the amount of enjoyment the action provides. In two studies using different methods of manipulating regulatory states and of gauging action evaluations, high regulatory fit increased participants’ anticipations of action enjoyment. In a third study, high regulatory fit increased participants’ enjoyment of, perceived success at, and willingness to repeat a novel laboratory task, and these effects were independent of participants’ actual success on the task. Across the three studies, participants in a regulatory state oriented toward accomplishment experienced eagerness-related actions more favorably than whereas participants in a regulatory state oriented toward responsibility experienced eagerness-related actions more favorably than eagerness-related actions. These findings’ implications for understanding task interest and motivation are discussed.

Along with people’s desires to reach a goal, their experiences during the goal-attainment process help determine their motivation to engage in and persist at goal-attainment efforts (Csikszentmihalyi, 1975; Dweck, 1999; Mischel, 1996; Sansone & Smith, 2000). Experiencing action enjoyment affects people’s subsequent action selections (Sansone, Weir, Harpster, & Morgan, 1992), and anticipating action enjoyment affects people’s behaviors in domains ranging from self-evaluation (Freitas, Salovey, & Liberman, 2001) to environmental activism (Loewenstein & Frederick, 1997). A challenge for self-regulation research, then, is understanding what gives rise to the enjoyment of action.

ACTION FOR ITS OWN SAKE

Considerable research suggests that action is especially enjoyable when people perceive themselves to perform it for its own sake rather than to receive an external reward, such as money (Deci, Koestner, & Ryan, 1999; Lepper & Henderlong, 2000). Ryan and Deci’s (2000) self-determination theory, for example, emphasizes the intrinsically enjoyable properties of actions realizing basic psychological needs, such as autonomy and competence (cf. White, 1959). Rewarded actions may be most enjoyable when the reward appears endogenous to the activity (Kruglanski, 1975). In such cases, behavior and reward become associated strongly, so that the behavior itself is experienced as rewarding. Accordingly, intrinsic action enjoyment may be highest when behavior and reward are related singularly, that is, when behavior x (and no other behaviors) achieves reward y (and no other rewards; Shah & Kruglanski, 2000).

ACTION IN THE SERVICE OF GOALS

People enjoy performing actions that help them meet their goals (e.g., Carver & Scheier, 1999). Action enjoyment thus should increase when one’s reasons for engaging in an activity accord with one’s more specific target goals within the activity (Harackiewicz & Sansone, 1991; Powers, 1973; Sansone & Harackiewicz, 1996). People who aim to stay interpersonally connected to others, for example, enjoy activities allowing interpersonal contact more than activities that do not, presumably because an interpersonal activity is an effective means of realizing an interpersonal goal (Isaac, Sansone, & Smith, 1999). Potential volunteers likewise experience particularly positive emotions when they read messages describing volunteering as a means of achieving their personally relevant motivations (Clary, Snyder, Ridge, Miene, & Haugen, 1994). More generally, people report greater life satisfaction when realizing their day-to-day goals helps them meet their important longer-term aims (Sheldon & Elliot, 1999).

ACTION FITTING REGULATORY STATES

Following Higgins (2000), we suggest that another determinant of action enjoyment is the action’s fit with one’s phenomenological state, such as one’s mood, mind-set, or regulatory focus. Previous research shows that some actions better fit certain phenomenological states than others do. People in positive moods, for example, are more likely than people in negative moods to think creatively (Hirt, Levine, McDonald, Melton, & Martin, 1997). Also, people considering proximal-future events are more likely than people considering distal-future events to focus on the details of an event (Trope & Liberman, 2000). We suggest that in these and other cases in which behaviors follow naturally from phenomenological states, the dominant behavioral tendencies will be not only more likely to be carried out but also more enjoyable to carry out, because of a good fit between phenomenological state and action.

Consider two students who share the same goal—earning a high grade point average (GPA)—and the same goal-attainment means—eliminating procrastination. Suppose, however, that these students are in different regulatory states, one oriented toward accomplishment and the other toward responsibility. Although these different regulatory states do not constitute goals in themselves, like moods or mind-sets they should color how the students experience their self-regulatory efforts. As we elaborate in the next paragraph, for example, eliminating procrastination should fit a regulatory state oriented toward responsibility better than one oriented toward accomplishment. And such differences in regulatory fit, we hypothesize, could help determine how much enjoyment an action provides.

Although the regulatory-fit hypothesis should apply whenever actions vary in their fits to phenomenological states, the current research exploited the predictions of regulatory-focus theory (Higgins, 1997, 1998), which distinguishes between two regulatory states and the means that fit them. According to this theory, different regulatory states
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arise when people follow different types of self-guides: (a) ideal self-guides, representations of desired end-states as hopes or aspirations, and (b) ought self-guides, representations of desired end-states as duties or responsibilities. Following an ideal self-guide entails adopting 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 natural means of goal attainment when one is in a regulatory state oriented toward accomplishment. In contrast, following an ought self-guide entails adopting 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 natural means of goal attainment when one is in a regulatory state oriented toward responsibility (Crowe & Higgins, 1997; Shah, Higgins, & Friedman, 1998). In the research described here, we tested whether these differences in regulatory fit would lead eagerness-related actions to be more enjoyable for people oriented toward accomplishment but vigilance-related actions to be more enjoyable for people oriented toward responsibility.

STUDY 1

In Study 1, we manipulated participants’ regulatory states by using an essay-writing task to increase the accessibility of their ideal or ought self-guides. In a second, purportedly unrelated task, participants rated the enjoyability of either eagerness- or vigilance-framed actions. We expected eagerness-framed actions to be rated more enjoyable following ideal-self-guide priming but vigilance-framed actions to be rated more enjoyable following ought-self-guide priming.

Method

Eighty-three undergraduates participated. Each participant completed one of two versions of a regulatory-focus priming procedure (Higgins, Roney, Crowe, & Hymes, 1994). In this procedure, participants spent 5 to 10 min writing a one-page essay describing how their pants spent 5 to 10 min writing a one-page essay describing how their

Results and Discussion

Each participant’s five enjoyability ratings were averaged to provide an anticipated-enjoyment score (α = .72). There were no signifi-

Fig. 1. Participants’ mean ratings of their anticipated enjoyment of other-generated action plans in Study 1, as a function of regulatory state (duty-oriented vs. hope-oriented) and type of action (eagerness vs. vigilance). Error bars indicate 1 SEM.

STUDY 2

Because simply generating an action plan can have considerable volitional impact (Gollwitzer, 1996), a question of theoretical and prac-
tactical importance is whether regulatory fit can influence how much enjoyment people anticipate for action plans they themselves generate. Study 2 examined this question, while using a different method of manipulating regulatory states. Participants in this study were asked to think about either a hope-aspiration or a duty-obligation. They next generated either vigilance-related or eagerness-related action plans. We expected participants oriented toward duties would anticipate greater enjoyment of self-generated vigilance-related actions but participants oriented toward hopes would anticipate greater enjoyment of self-generated eagerness-related actions.

Method

One hundred thirteen undergraduates participated. Each participant completed one of four versions of the experimental questionnaire (one version for each combination of regulatory state and strategy type). The *ideal* versions were titled “Hopes and Aspirations” and began: “Please think about something you ideally would like to do.” In other words, please think about a hope or an aspiration you currently have. Please list the hope or aspiration in the space below.” In the *ought* versions, the words “hope” and “aspiration” were replaced with the words “duty” and “obligation,” and the words “ideally” would like to do” were replaced with the words “think you ought to do.”

Participants next listed either five eagerness-related or five vigilance-related action plans. Eagerness plans were elicited with the statement: “Please list some strategies you could use to make sure ev-... and identification of 17 different objectives. The completed one of four versions of the experimental questionnaire (one version for each combination of regulatory state and strategy type). The *ideal* versions were titled “Hopes and Aspirations” and began: “Please think about something you ideally would like to do.” In other words, please think about a hope or an aspiration you currently have. Please list the hope or aspiration in the space below.” In the *ought* versions, the words “hope” and “aspiration” were replaced with the words “duty” and “obligation,” and the words “ideally” would like to do” were replaced with the words “think you ought to do.”

Participants next listed either five eagerness-related or five vigilance-related action plans. Eagerness plans were elicited with the statement: “Please list some strategies you could use to make sure everything goes right and helps you realize your hope or aspiration [duty or obligation].” Vigilance plans were elicited with the statement: “Please list some strategies you could use to avoid anything that could go wrong and stop you from realizing your hope or aspiration [duty or obligation].” Finally, participants used a 9-point scale (1 = *not at all*, 9 = *very much*) to rate “how enjoyable it would be to perform each strategy.”

Results and Discussion

Each participant’s five enjoyability ratings were averaged to provide an anticipated-enjoyment score (α = .86). Participants oriented toward hope anticipated greater overall action enjoyment (M = 6.15) than did participants oriented toward duty (M = 5.34), F(1, 109) = 4.19, *p < .05*. There was no significant effect of strategy type (F < 1). Most relevant to our hypotheses, the influence of regulatory state on anticipated action enjoyment was moderated by strategy type, F(1, 109) = 11.84, *p < .001*. As shown in Figure 2, among participants oriented toward hope, those who generated eagerness strategies anticipated greater action enjoyment (M = 6.91) than did those who generated vigilance strategies (M = 5.39), t(54) = 2.76, *p < .01*, *d = .75*. In contrast, among participants oriented toward duty, those who generated vigilance strategies anticipated greater action enjoyment (M = 5.94) than did those who generated eagerness strategies (M = 4.71), t(55) = 2.13, *p < .05*, *d = .56*. Despite procedural departures from Study 1, then, enhancing regulatory fit by pairing eagerness actions with ideal self-regulation and vigilance actions with ought self-regulation again enhanced the actions’ anticipated enjoyability. Moreover, because the design of Study 2 required participants to generate their own action plans, its findings should apply to the action plans people pursue in their everyday lives.

STUDY 3

Although the results from Studies 1 and 2 converge to show that differences in regulatory fit affect the amount of enjoyment people anticipate actions to provide, a remaining question is whether differences in regulatory fit also affect the amount of enjoyment people experience during action. Study 3 addressed this question, which seems worthy of attention in light of evidence that people’s estimates of future action enjoyment are not always accurate (Brickman, Coates, & Janoff-Bulman, 1978; Gilbert & Wilson, 2000). Study 3 also examined two potential implications of the relation between regulatory fit and action enjoyment. First, because people may use their enjoyment of a task as information concerning their success at it (Schwarz, 1998), increases in regulatory fit should increase not only people’s task enjoyment but also their perceived task success. Second, because people’s enjoyment of an action may help determine their subsequent motivation to engage in it (Sansone & Smith, 2000), high regulatory fit also should increase people’s interest in repeating a task. To examine these issues, we used the same priming procedure as used in Study 1 to manipulate participants’ regulatory states. Participants next performed a novel laboratory task framed in either vigilance or eagerness terms. On the basis of our theoretical analysis and results from Studies 1 and 2, we expected participants who received the ideal priming to report greater enjoyment of, perceived success at, and willingness to repeat the eagerness-framed task. In contrast, we expected participants who re-

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1. Two raters blind to participants’ experimental conditions coded the contents of the objectives participants listed and identified 17 different objectives (Kappa = .91), which later were combined into five basic goal categories (Kappa = .92; Wicker, Lambert, Richardson, & Kahler, 1984). As in previous research (Shah et al., 1998), the contents of neither the 17 raw objectives nor the five goal categories differed as a function of participants’ assignment to the ideal versus ought regulatory-state manipulation, χ²(16, N = 112) = 14.13, *p > .58*, and χ²(4, N = 112) = 6.03, *p > .19*, respectively.
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received the ought priming to report greater enjoyment of, perceived success at, and willingness to repeat the vigilance-framed task.

Method

Sixty undergraduates participated. Each participant underwent either the ideal or the ought version of the priming procedure described in Study 1. Next, participants completed a purportedly unrelated laboratory task, in which they searched for four-sided figures among an array of various geometrical shapes. Half of the participants received an eagerness framing of this task, titled “Maximizing Helpful Elements”; half received a vigilance framing, titled “Eliminating Harmful Elements.” Following are the instructions for the eagerness framing, with words in brackets showing how the instructions were changed for the participants who received the vigilance framing:

Scientists who work with organic material often try to maximize helpful [minimize harmful] elements within it. After they find a helpful [harmful] element, they nurture it so that it will grow [kill it so that it doesn’t spread]. We are testing people’s performance on a task designed to be similar to this situation. After you finish reading these instructions, the research assistant will bring a stopwatch and 3 sheets of paper with various shapes on them. The rules of this task are: (1) Any four-sided object is a helpful [harmful] element. (2) With your pen, circle [cross out] any 4-sided object you see. (3) You will have 2 minutes to circle [cross out] as many of the 4-sided objects as you can. To do well at this task, you need to be eager to find [vigilant for any sign of the helpful [harmful] four-sided objects. These objects may have various shapes. When you see one of these valuable [dangerous] 4-sided objects, circle it! [cross it out]!

All participants next received identical packets of three different pages of geometrical figures. A timer, set to 2 min, was placed in each participant’s cubicle. After the timer signaled that 2 min had expired, the experimenter collected each participant’s completed task and distributed a follow-up questionnaire. Using 9-point scales (1 = not at all, 9 = extremely), participants answered three questions assessing task enjoyment—“How (a) interesting, (b) enjoyable, (c) exciting was the task?”—and two questions assessing perceived task success—(a) “How well do you think you did on this task?” and (b) “How well would you expect to do if you tried this task again?” Half of the participants answered the enjoyment questions before the success questions, whereas for the remainder this order was reversed. Last, when more than 20 min still remained in the experimental session for which participants had signed up, their willingness to repeat the task was assessed with the question “Would you like to try the task again?” (1 = definitely not, 9 = definitely).

Results and Discussion

Each participant’s responses to the three items assessing task enjoyment were averaged to provide a task-enjoyment score (α = .93), and each participant’s responses to the two items assessing perceived task success were averaged to provide a perceived-success score (α = .94). Participants’ task-enjoyment, perceived-success, and willingness-to-repeat-the-task scores were analyzed in a multivariate analysis of variance. There were no significant main effects of priming or of strategy type (both Fs < 1). As predicted, the Priming × Framing interaction was significant, F(3, 54) = 3.77, p < .02. We next used separate analyses of variance to gauge the effects of this interaction on each of the three dependent variables.

Fig. 3. Participant’s mean ratings of their enjoyment of the laboratory task in Study 3, as a function of regulatory state (duty-oriented vs. hope-oriented) and type of action (eagerness vs. vigilance). Error bars indicate 1 SEM.

Regarding task enjoyment, the Priming × Framing interaction was significant, F(1, 56) = 7.55, p < .01. As shown in Figure 3, following the duty priming, participants who performed the vigilance-framed task reported greater enjoyment (M = 5.80) than did participants who performed the eagerness-framed task (M = 4.07), t(28) = 2.39, p < .025, d = .86. Following the hope priming, in contrast, there was no significant difference between the groups, with participants who completed the eagerness-framed task reporting somewhat greater task enjoyment (M = 4.97) than participants who completed the vigilance-framed task (M = 4.32, p < .05). Thus, the effect of regulatory fit on action enjoyment does not seem to reflect only people’s perceptions that their actions will help them meet their goals.

Regarding perceived success, the Priming × Framing interaction was significant, F(1, 56) = 5.33, p < .05. Following the duty priming, participants who performed the vigilance-framed task reported greater task success (M = 6.93) than did participants who performed the eagerness-framed task (M = 5.47), t(28) = 2.53, p < .02, d = .92. Following the hope priming, in contrast, there was no significant difference between the groups, with participants who completed the eagerness-framed task reporting somewhat greater task success (M = 6.30) than participants who performed the vigilance-framed task (M = 5.77), t(28) = 0.83, n.s., d = .31. Moreover, the Priming × Framing interaction remained significant when the number of four-sided objects each participant circled or crossed out was included as a covariate, F(1, 55) = 4.92, p < .05. This finding suggests that the effect of regulatory fit on people’s inferences of task success is independent of their actual task performance. The results of an ANCOVA that controlled for the number of four-sided objects circle or crossed out (i.e., actual success on the task) and for participants’ perceived task success, F(1, 54) = 4.32, p < .05. Thus, the effect of regulatory fit on action enjoyment does not seem to reflect only people’s perceptions that their actions will help them meet their goals.
Regarding participants’ willingness to try the task again, the Priming × Framing interaction was significant, $F(1, 56) = 9.34, p < .01$. Following the duty priming, participants who performed the vigilance-framed task were more willing to try the task again ($M = 6.47$) than were participants who performed the eagerness-framed task ($M = 4.33$), $t(28) = 2.35, p < .03, d = .88$. Following the hope priming, in contrast, participants who performed the eagerness-framed task were more willing to try the task again ($M = 5.27$) than were participants who performed the vigilance-framed task ($M = 3.67$), $t(28) = 1.96, p < .06, d = .68$ (see Fig. 4). Moreover, the Priming × Framing interaction remained significant in an ANCOVA that controlled for the number of four-sided objects each participant circled or crossed out and for participants’ perceived task success, $F(1, 54) = 5.54, p < .03$. The results of an ANCOVA that controlled for participants’ task enjoyment were consistent with our theorizing that increasing task enjoyment is the mechanism by which regulatory fit increases people’s subsequent interest in performing a task: The Priming × Framing interaction was no longer significant in this analysis, $F(1, 53) = 1.52, p > .22$; participants’ task enjoyment accounted for unique variance in their subsequent task interest, $F(1, 54) = 50.00, p < .01$.

In summary, high regulatory fit increased participants’ enjoyment of, perceived success at, and willingness to repeat a novel laboratory task, and these effects were independent of participants’ actual success at the task. Although future experiments need to verify the processes underlying these findings, analyses of covariance suggested that these effects arose from the effect of regulatory fit on task enjoyment. Moreover, high regulatory fit also increased participants’ perceived success at and willingness to repeat a laboratory task, and analyses of covariance suggested that these effects arose from the effect of regulatory fit on task enjoyment.

These findings are consistent with self-regulatory perspectives emphasizing multiple causes of task interest and motivation (Lepper & Henderlong, 2000). As mentioned earlier, for example, much research within Western cultures suggests that experiencing autonomy can increase task enjoyment and motivation (e.g., Ryan & Deci, 2000). In two of the three studies reported here, however, participants were not free to choose their own goals or even their own means of goal attainment. In the final study, for example, all participants were given the same goal of finding four-sided objects, and all were provided with either vigilance or eagerness means of doing so. Accordingly, this procedure did not foster feelings of autonomy or freedom from control. Independently of the effects of such feelings, then, regulatory fit increased participants’ enjoyment of the tasks and their subsequent interest in continuing them. As also mentioned, other work suggests that people are more intrinsically motivated to perform an activity when the means and the ends of the activity are related singularly (Shah & Kruglanski, 2000). The design of Study 1, though, clearly signaled to participants that the actions they evaluated were multiple, different means of reaching the goal of earning a high GPA. In the absence of any singular relation between means and ends, then, regulatory fit increased participants’ anticipated enjoyment of the means.

Other research we have reviewed shows that people enjoy performing actions when their specific target goals for an action help them meet their more abstract purpose goals, or reasons for engaging in the action (Harackiewicz & Sansone, 1991; Sansone & Harackiewicz, 1996). Thus, it is worth noting that in Study 1 all participants adopted the same purpose goal, earning a high GPA, and highly similar target goals, or means of earning a high GPA, but with the means framed in either eagerness or vigilance terms (e.g., “be prepared for tests” vs. “avoid being unprepared for tests”). Regardless of the means’ instrumentality toward achieving the goal, then, the fit between participants’ regulatory states and the strategic inclination of the means influenced participants’ anticipated enjoyment of them.

Finally, Csikszentmihalyi and LeFevre (1989) showed that people experience optimal task engagement when they perceive both that the task is difficult and that they have high task competency. From this perspective, one might expect regulatory fit to increase task enjoyment by increasing perceived task competency. Results from Study 3, however, showed that regulatory fit influenced participants’ task enjoyment even when their perceived task competency was controlled statistically. In summary, our findings suggest that, apart from people’s perceived autonomy, from whether their means and goals are related singularly, from whether achieving their target goals helps them achieve their purpose goals, and from their degree of perceived task competency, fits between people’s regulatory states and actions also affect their task enjoyment.

In summary, high regulatory fit increased participants’ enjoyment of, perceived success at, and willingness to repeat a laboratory task (Study 3), they rated eagerness-related actions more enjoyable while in a self-regulatory state oriented toward accomplishment but vigilance-related actions more enjoyable while in a self-regulatory state oriented toward responsibility. Although both simple effects were not statistically significant in every study, a meta-analysis of the three studies showed that both simple effects, overall, were statistically significant ($Z = 3.77, p < .01$, and $Z = 2.97, p < .01$, respectively). Moreover, high regulatory fit also increased participants’ perceived success at and willingness to repeat a laboratory task, and analyses of covariance suggested that these effects arose from the effect of regulatory fit on task enjoyment (Study 3).
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Of the many strategies people can use to maintain their interest in and enjoyment of goal-directed action (see Sansone & Smith, 2000), then, calibrating one’s actions to fit one’s phenomenological states may prove especially useful, given our findings that very similar and even identical actions can be framed in different strategic terms and that different regulatory states can be instantiated fairly simply. Accordingly, taking account of regulatory fit might benefit the work not only of decision-making and self-regulation theorists but also of applied psychologists and policymakers interested in helping people pursue actions that maximize their subjective well-being.

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