

# Transfer of Value From Fit

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People experience regulatory fit when they pursue a goal in a manner that sustains their regulatory orientation (E. T. Higgins, 2000). Five studies tested whether the value experienced from regulatory fit can transfer to a subsequent evaluation of an object. In Studies 1 and 2, participants gave the same coffee mug a higher price if they had chosen it with a strategy that fit their orientation (eager strategy/promotion; vigilant strategy/prevention) than a strategy that did not fit. Studies 3–5 investigated possible mechanisms underlying this effect. Value transfer was independent of positive mood, perceived effectiveness (instrumentality), and perceived efficiency (ease), and occurred for an object that was independent of the fit process itself. The findings supported a value confusion account of transfer.

There is no more important variable in motivation and decision making than value. In thinking about value, no concept has been more central than the hedonic principle. People approach pleasure and avoid pain. This hedonic principle underlies a wide variety of motivation and decision-making models, including animal learning models (e.g., Mowrer, 1960; Thorndike, 1935), personality models (e.g., Atkinson, 1964), social psychological models (e.g., Ajzen & Fishbein, 1980), and cognitive models (e.g., Edwards, 1955; Kahneman & Tversky, 1979). Although the hedonic principle provides essential insights into the underpinnings of motivation and decision making, its dominance has taken attention away from other psychological principles. In particular, because the hedonic principle concerns approaching desired outcomes and avoiding undesired outcomes, it has contributed to an emphasis on outcomes. Models of decision making, for example, whether they assume rationality or not, are concerned with people's representation of the outcomes of a decision.

Outcomes include consequences of the process involved in pursuing a goal. It has been recognized, for example, that the process involved in making a particular decision can have costs that need to be taken into account. These costs include both emotional costs (e.g., Janis & Mann, 1977) and costs in cognitive effort or time (e.g., Payne, Bettman, & Johnson, 1993; Simon, 1955, 1967). Such costs are negative outcomes of making the

decision and are weighed along with the positive outcomes in some kind of costs–benefits analysis.

It is also well-recognized that the outcome of a goal pursuit varies in value depending on the relevance of the goal to an individual's general orientation. For example, the value of an activity to a person increases when his or her specific target goals within the activity are relevant to his or her more general reasons for activity engagement (Harackiewicz & Sansone, 1991; Sansone & Harackiewicz, 1996). People feel better when they pursue specific goals that are relevant to their motivational orientations, such as a specific goal that is relevant to their need to be close to others (e.g., Brunstein, Schultheiss, & Graessman, 1998; Clary, Snyder, Ridge, Miene, & Haugen, 1994; Isaac, Sansone, & Smith, 1999). Life satisfaction in general is increased when individuals' day-to-day strivings are relevant to their major aims in life (Sheldon & Elliot, 1999).

The present article is concerned with value experiences derived from a different property of the goal pursuit process—value from the strategic manner in which a goal is pursued rather than value from relevance to desired end-states. It has been recognized for centuries that there is value from how a goal is pursued that is independent of the consequences of the goal pursuit. This kind of value is captured in cultural maxims such as “It is not enough to do good, one must do it the right way,” “The ends do not justify the means,” and “Never good through evil.” These maxims distinguish between value from the outcomes or consequences of goal pursuit and value from pursuing goals with proper means (see Merton, 1957). The literature has shown that, independent of the outcomes of a decision, people value the fairness of decision procedures (e.g., Thibaut & Walker, 1975; Tyler & Lind, 1992), and they value means that provide a justification for their decision (e.g., Pennington & Hastie, 1988; Tetlock, 1991; Tversky & Shafir, 1992).

Value from proper means occurs when the means of goal pursuit agree with established rules and normative principles. The value derives from the relation between the means and the normative rules. This article is concerned with a different kind of value from

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the manner in which a goal is pursued—value from regulatory fit. Value from fit derives from the relation between the manner of goal pursuit and the self-regulatory orientation of the person pursuing the goal. What matters for value from fit is not whether individuals use means of goal pursuit that agree with established rules (value from proper means) or whether the specific goal pursued is relevant to the individuals' general orientation (value from goal relevance). Instead, what matters for value from fit is whether individuals pursue a goal in a manner that sustains their own self-regulatory orientation, whether that orientation is chronic or momentary (see Higgins, 2000, 2002).

Individuals can pursue the same goal activity with different regulatory orientations and in different ways. Consider, for example, students in the same course who are working to attain an *A*. Some students are oriented toward an *A* as an accomplishment, whereas others are oriented toward an *A* as a responsibility. Some students read material beyond the assigned readings as a strategic means to attain an *A*, whereas others are careful to fulfill all course requirements. The fit between these different orientations and strategic means varies. Reading extra, nonassigned material fits (i.e., sustains) an accomplishment orientation better than a responsibility orientation, whereas fulfilling course requirements fits a responsibility orientation better than an accomplishment orientation. For all students, receiving an *A* in the course will have certain outcome benefits regardless of their regulatory orientation and the strategies they use. Independent of this value from outcome, however, there is an additional value from regulatory fit.

When people engage in goal pursuit activities in a manner that fits their orientation, they feel right about what they are doing (Higgins, 2002). There is evidence that the activity engagement itself is evaluated more positively when the strategic nature of the activity fits the actor's regulatory orientation (see Freitas & Higgins, 2002; Higgins, 2000). Independent of the outcomes of a goal pursuit, regulatory fit creates value from the activity engagement itself. What previous research has not considered is whether this value from regulatory fit has effects after the goal pursuit process is over. Might the value experienced from regulatory fit, from feeling right about what one is doing, spill over or transfer to an object that is evaluated after the goal pursuit process has been completed?

We recognize that there is substantial evidence in the decision-making literature that variables other than just outcome costs and benefits influence choice itself (e.g., Weber, 2001). Choice may be determined by heuristics, such as "take the best" or "take the last" (Gigerenzer & Todd, 1999), by principles, such as "if offered drugs, just say no" (Prelec & Hershstein, 1991), or simply by habits (Ronis, Yates, & Kirscht, 1989). Choice may also be determined by decision rules that people consider appropriate for their role or identity (March, 1994). Expert decision makers often make choices based on similar situations in the past and the actions taken (Simon, 1989; Weber, Boeckenholt, Hilton, & Wallace, 1993). Affect experienced at the moment of decision making (Loewenstein, Weber, Hsee, & Welch, 2001; Wright & Barbour, 1975), or anticipated affect (Schwarz, 2000), may affect choice as well.

The present research differs from this previous research by considering the effect of the fit relation between a decision maker's regulatory orientation and the strategy he or she uses to make the decision. It also differs from this previous research by exam-

ining the impact of regulatory fit on the subsequent value of the chosen object itself rather than on which object is chosen.

Studies 1 and 2 address the first-generation research question, "Is there a phenomenon?" (Zanna & Fazio, 1982). Specifically, does fit versus nonfit while engaging in goal pursuit increase the value of an object that is evaluated after this activity has been completed? These studies control for choice per se by using an object (a Columbia University coffee mug) that almost all of the participants prefer to the alternative (an inexpensive pen). The impact of fit on the postchoice monetary value of this object is examined for just those participants who chose this same object. Given that Studies 1 and 2 demonstrate the phenomenon, Studies 3–5 extend them by investigating the later-generation questions of *when* and *how* the phenomenon occurs.

All of the present studies examine regulatory fit on the basis of the relations among variables identified in regulatory focus theory (Higgins, 1997, 1998). Regulatory focus theory assumes that self-regulation operates differently when serving fundamentally different needs, such as the distinct survival needs of nurturance (e.g., nourishment) and security (e.g., protection). Differences in socialization can produce chronic individual differences in regulatory focus (see Higgins & Silberman, 1998). Nurturant parenting engenders a *promotion focus* in which self-regulation is concerned with accomplishments, hopes, and aspirations (i.e., ideals). It involves the presence of positive outcomes (e.g., "bolstering") and the absence of positive outcomes (e.g., "love withdrawal"). Security parenting engenders a *prevention focus* in which self-regulation is concerned with safety, duties, and obligations (oughts). It involves the absence of negative outcomes (e.g., "safeguarding") and the presence of negative outcomes (e.g., "criticism").

Momentary situations are also capable of temporarily inducing either promotion focus concerns or prevention focus concerns. Just as the responses of caretakers to their children's actions communicate to them about how to attain desired end-states, performance feedback or task instructions can communicate concerns with either the presence and absence of positive outcomes (promotion concerns) or the absence and presence of negative outcomes (prevention concerns). Thus, the distinction between promotion focus concerns and prevention focus concerns applies to both chronic individual differences and momentary situations.

Regulatory focus theory also distinguishes between different strategic means of goal attainment. It distinguishes between an *eager strategy* and a *vigilant strategy* (see Crowe & Higgins, 1997; Higgins, 1997, 1998). In signal detection terms (e.g., Tanner & Swets, 1954; see also Trope & Liberman, 1996), an eager strategy involves ensuring "hits" and ensuring against errors of omission or "misses," and a vigilant strategy involves ensuring "correct rejections" and ensuring against errors of commission or "false alarms." Because an eager strategy ensures the presence of positive outcomes (ensure hits; look for means of advancement) and ensures against the absence of positive outcomes (ensure against errors of omission; do not close off possibilities), it fits promotion focus concerns with the presence and absence of positive outcomes. Similarly, because a vigilant strategy ensures the absence of negative outcomes (ensure correct rejections; be careful) and ensures against the presence of negative outcomes (ensure against errors of commission; avoid mistakes), it fits prevention focus concerns

with the absence and presence of negative outcomes (see Crowe & Higgins, 1997; Higgins, 1997).

If strategic eagerness fits promotion and strategic vigilance fits prevention, then people in a promotion focus should prefer to pursue goals with an eager strategy and people in a prevention focus should prefer a vigilant strategy. Indeed, these strategic preferences have been found in several studies (for a review, see Higgins, 2000). As one example, Crowe and Higgins (1997) experimentally induced either a promotion or prevention focus and examined participants' "risky" or "conservative" bias in recognition memory. The participants were first shown a list of target items. Following a delay, they were then given test items that included both old target items from the original list and new distractor items not from the original list. The participants were asked to respond "yes" if they believed the test item was an old target item, and to respond "no" if they believed the test item was a new distractor item. Using the eager strategy of ensuring hits and ensuring against errors of omission would produce "yes" responses (a risky bias), whereas using the vigilant strategy of ensuring correct rejections and ensuring against errors of commission would produce "no" responses (a conservative bias). Crowe and Higgins found that promotion participants preferred an eager risky bias whereas prevention participants preferred a vigilant conservative bias (see also Friedman & Förster, 2001).

The results of Crowe and Higgins's (1997) study, as well as findings from other studies (see Higgins, 2000), provide evidence that strategic eagerness fits promotion and strategic vigilance fits prevention. The present set of studies examine the effects of such fit on subsequent object evaluation. In Studies 1, 2, 3, and 5, participants varied in their chronic promotion and prevention orientations, and fit was experimentally manipulated by assigning them to use either an eager strategy or a vigilant strategy. In Study 4, participants' promotion and prevention orientations were manipulated as well as the strategy they used, creating a full factorial design. Outcome value was held constant in every study either by creating conditions where the vast majority of participants choose the same object, by having all participants pursue the same goal, or by separating the fit of goal pursuit from the object that is later evaluated.

Let us now return to the question with which we began—can the value experienced from regulatory fit, from feeling right about what one is doing, transfer to an object that is evaluated after the goal pursuit process has been completed? We propose that value from regulatory fit can transfer to a subsequent object of evaluation because of value confusion. What if people experience value like they experience other objects and events in their lives? If they do, then they could confuse their experiences of different kinds of value. It is well-known, for example, that people confuse the sources of episodic experiences (Johnson & Raye, 1981), the sources of accessibility experiences (Tversky & Kahneman, 1973), and the sources of excitation and feeling experiences (Schachter & Singer, 1962; Schwarz & Clore, 1983; Zillman, 1978). What if people confuse the sources of different value experiences? If people confuse the value experience of regulatory fit with the value experience of evaluating a subsequent object, then they could transfer the former to the latter.

The general purpose of our studies is to test whether there is a phenomenon of transfer of value from fit. After establishing that there is a phenomenon, our studies begin to examine both when

and how the transfer occurs. As alternatives to our value confusion account of transfer, we consider a dissonance (or self-perception) account, a positive mood account, and a perceived efficiency or perceived effectiveness account.

### Study 1: Transfer of Value From Fit to Assigned Price

This study measured participants' chronic promotion orientation and chronic prevention orientation, respectively, in terms of the strength of their ideal self-guides (their hopes and aspirations) and the strength of their ought self-guides (their beliefs about their duties and obligations). Fazio (1986, 1995) has used reaction time to measure attitude strength, assuming that the latency required to produce a given attitude is a reflection of its accessibility, and that accessibility measures strength. Fazio (1986, 1995) has empirically demonstrated the predictive utility of this operationalization. Bassili (1995, 1996) has also provided compelling evidence that the use of reaction times as an implicit measure of attitude strength is preferable to explicit measures (see also Greenwald & Banaji, 1995). Inspired by this research on attitude accessibility, Higgins, Shah, and Friedman (1997) measured individual differences in promotion strength and prevention strength through reaction times to producing one's ideal and ought self-guides. Higgins et al. (1997) also found that promotion strength and prevention strength are independent of actual-ideal discrepancy and actual-ought discrepancy, respectively. Studies on performance and decision making have found strong support for the validity and utility of this measure (e.g., Shah & Higgins, 1997; Shah, Higgins, & Friedman, 1998). The details of the Self-Guide Strength measure are given below in the *Procedure* section.

## Method

### Participants

Eighty-five Columbia University students (41 men and 44 women) were paid for their participation. All participants indicated that English was their native language. There were no significant differences between male and female participants in any of the results reported below.

### Procedure

Participants first completed the Self-Guide Strength measure as part of a larger battery of measures. The Self-Guide Strength measure is an idiographic measure that asks participants to list attributes describing certain self-representations from their own standpoint (see Higgins et al., 1997). Participants were initially provided with a definition of their ideal and ought self. Their ideal self was defined as the type of person they ideally would like to be, the type of person they hoped, wished, or aspired to be. Their ought self was defined as the type of person they believed they ought to be, the type of person they believed it was their duty, obligation, or responsibility to be. They were told that they would be asked to provide attributes that described their ideal and ought selves. The attributes describing the ideal self had to be different from those describing the ought self, and all attributes were to be provided as quickly and accurately as possible.

Participants were then asked to list the attributes in a seemingly random order—one ideal attribute, followed by two ought attributes, another ideal attribute, another ought attribute, and a final ideal attribute. After listing each of the ideal attributes, participants were asked to rate the extent to which they ideally would like to possess the attribute (ideal extent) and the extent to which they actually possessed the attribute (actual/ideal extent) on

a 4-point scale from 1 to 4 (*slightly; moderately; a great deal; extremely*). Similarly, after listing each of the ought attributes, they were asked to rate the extent to which they ought to possess the attribute (ought extent) and the extent to which they actually possessed the attribute (actual/ought extent) on the same 4-point scale.

The computer measure also recorded the time each participant took to produce each attribute and make the corresponding extent determinations. All reaction-time measures were first transformed using a natural logarithmic transformation because the reaction time distributions were positively skewed (see Fazio, 1995; Judd & McClelland, 1989). Then one total ideal strength assessment and one total ought strength assessment were calculated by summing attribute reaction times and extent reaction times (e.g., ideal extent and actual/ideal extent) across the three ideal attributes and, separately, across the three ought attributes.

After the participants completed the Self-Guide Strength measure, they were told that in appreciation of their taking part in the study, they would receive a gift, over and above the payment they had been promised. They were given a choice between a Columbia University coffee mug and an inexpensive disposable pen. These objects had been selected so that the mug was clearly more expensive and desirable and would be chosen by almost everyone.

The experimental manipulation was the way in which the participants made their choice. Half of them were told to think about what they would gain by choosing the mug and what they would gain by choosing the pen (an eager strategy). The other half were told to think about what they would lose by not choosing the mug and what they would lose by not choosing the pen (a vigilant strategy). It should be noted that the basic process of making the decision is the same in both conditions. Both the eager-gain and vigilant-not lose strategies have the participants think about the *positive attributes* of each object. In addition, actually choosing the mug is a *positive event* in both conditions because the participants now possess the positive attributes of the mug that they previously thought about.

The few participants who chose the pen were paid and thanked for their participation. For those participants who chose the mug, they were then shown a new reference pen, which was more expensive than the original disposable pen. They were then asked, "If the price of this pen is \$3, what do you think is the price of the coffee mug?"

### Results and Discussion

The prediction was that even though the participants chose the *same* mug, when the strategy used to make this choice fit participants' regulatory orientation (eager strategy/promotion; vigilant strategy/prevention), they would assign a higher monetary value to the mug than when the strategy did not fit (eager strategy/prevention; vigilant strategy/promotion).

All continuous independent variables were centered by transforming them into deviation scores (see Aiken & West, 1991). In the first analysis, price was regressed on ideal strength, ought strength, type of framing (coded 1 for eager-gain framing and -1 for vigilant-not lose framing), the interaction of framing with ideal strength, and the interaction with ought strength. The only significant effects were the two interactions (all other  $F$ s < 1). Specifically, there was a positive interaction between ideal strength and strategic framing,  $\beta = 1.15$ ,  $F(1, 74) = 7.67$ ,  $p < .01$ , indicating that the stronger was participants' promotion focus the higher was the assigned price in the eager-gain condition than in the vigilant-not lose condition. Independent of this effect, there was also a negative interaction between ought strength and strategic framing,  $\beta = -1.09$ ,  $F(1, 74) = 8.47$ ,  $p < .01$ , indicating that the stronger was participants' prevention focus the higher was the assigned price in the vigilant-not lose condition than in the eager-gain

condition. The absence of main effects is notable. It indicates that neither chronic promotion strength nor chronic prevention strength nor the strategy used to make the decision (i.e., eager-gain vs. vigilant-not lose) affected the assigned price. Only the interactions reflecting fit had significant effects on the assigned price.

To illustrate the nature of these interactions, a tertile split was performed on the difference between ideal and ought strength. Participants in the high tertile were predominant promotion and participants in the low tertile were predominant prevention. Table 1 reports mean prices provided by predominant promotion and prevention participants in each of the framing conditions. Participants with a predominant promotion focus assigned a higher price to the mug in the eager-gain than in the vigilant-not lose condition, whereas participants with a predominant prevention focus assigned a higher price in the vigilant-not lose than in the eager-gain condition. The price assigned to the mug when there was regulatory fit (eager strategy/promotion; vigilant strategy/prevention) was almost 50% higher than when there was a nonfit. These results show, consistent with the prediction, that the participants assigned a higher value to the mug when the strategy they used previously to choose the mug fit versus did not fit their regulatory orientation.

### Study 2: Transfer of Value From Fit to Price Offered

Assigning a monetary price to an object one possesses, as each participant did in Study 1, is a reasonable way to measure its value to that person. One might wonder, however, if the value would seem different if one had to spend one's own money to possess the object rather than assigning a price after receiving the object as a gift. In other words, what would happen if each participant first chose which object they preferred, but then had to decide how much they were willing to spend of their own money to possess the object? In colloquial terms, would they put their own money (Study 2) where their mouth was (Study 1)? The procedure used in this study was basically the same as that in Study 1, but instead of asking participants to assess the value of the mug, they were given the opportunity to spend their own money to purchase it. The price they offered to buy the mug was the dependent measure.

### Method

#### Participants

One hundred twenty-two Columbia University students (57 men and 65 women) were paid for their participation. All participants indicated that English was their native language. There were no significant differences between male and female participants in any of the results reported below.

Table 1  
Mean Assigned Price of the Chosen Mug

| Predominant focus | Framing of the choice strategy |               |
|-------------------|--------------------------------|---------------|
|                   | Eager/gain                     | Vigilant/loss |
| Promotion         | \$8.78                         | \$6.32        |
| Prevention        | \$5.00                         | \$8.07        |

### Procedure

After participants completed the Self-Guide Strength measure (see Study 1 for a description of the measure), they were asked to choose between a coffee mug and a pen “as part of a study conducted by the Marketing Department.” The experimental manipulation was the same as before. Specifically, half of participants were told to think about what they would gain by choosing the mug and what they would gain by choosing the pen (eager means). The other half were told to think about what they would lose by not choosing the mug and what they would lose by not choosing the pen (vigilant means). (As in Study 1, the few participants who chose the pen were paid, thanked for their participation, and dismissed.)

After participants chose the mug, they were given the opportunity to own it. They were shown an envelope and told that it contained the price of the mug. The participants did not know what was the hidden price in the envelope. They were then given \$5, their payment for participating in the experiment. The participants could use this money, plus any other money they had with them, to buy the mug if they wished. If the price they offered was less than the amount in the envelope, they would not get the mug. However, if the price they offered was more than or equal to the amount in the envelope, they would get the mug for the price they offered. The dependent measure was the price participants offered to buy the mug.

### Results and Discussion

Once again, the prediction is that, even though participants chose the *same* mug, when the means used to make this choice fit participants’ motivational state (eagerness means fit promotion focus; vigilance means fit prevention focus), they would be willing to pay more for the mug. All continuous independent variables were centered by transforming them into deviation scores (see Aiken & West, 1991). In the first analysis, price was regressed on ideal strength, ought strength, type of framing (coded 1 for gain framing and  $-1$  for not lose framing), the interaction of framing with ideal strength, and the interaction with ought strength. As before, the only significant effects were the two interactions (all other  $F$ s  $< 1$ ). Specifically, there was a positive interaction between ideal strength and strategic framing,  $\beta = 0.43$ ,  $F(1, 116) = 13.45$ ,  $p < .001$ , indicating that the stronger was participants’ promotion focus the higher was the price in the eager–gain framing condition and the lower was the price in the vigilant–not lose framing condition. Independent of this effect, there was also a negative interaction between ought strength and strategic framing,  $\beta = -0.45$ ,  $F(1, 116) = 14.12$ ,  $p < .001$ , indicating that the stronger was participants’ prevention focus the higher was the price in the vigilant–not lose framing condition and the lower was the price in the eager–gain framing condition. Again, the absence of main effects is notable and indicates that neither chronic promotion strength nor chronic prevention strength nor the strategy used to make the decision affected the assigned price.

To illustrate the nature of these interactions, a tertile split was again performed on the difference between ideal and ought strength. Table 2 reports the mean prices offered by predominant promotion and prevention participants in each of the framing conditions. The mean prices were lower in this study than in the previous one, possibly because participants generally did not want to offer much more than the \$5 they received for participating in the study. Participants with a predominant promotion focus offered a higher price in the eager–gain than in the vigilant–not lose framing condition, whereas participants with a predominant prevention focus offered a higher price in the vigilant–not lose than in

Table 2  
Mean Price Offered for the Chosen Mug

| Predominant focus | Framing of the choice strategy |               |
|-------------------|--------------------------------|---------------|
|                   | Eager/gain                     | Vigilant/loss |
| Promotion         | \$4.76                         | \$3.11        |
| Prevention        | \$2.49                         | \$4.68        |

the eager–gain framing condition. These results show, consistent with the prediction, that when the means used to choose the mug fit participants’ motivational orientation (eagerness/promotion; vigilance/prevention), they were willing to pay more for it. More generally, the price assigned to the mug when there was regulatory fit was almost 70% higher than when there was no regulatory fit—even higher than in Study 1 despite the fact that the participants were now spending their own money. The results of Studies 1 and 2 demonstrate that value from fit can be transferred to outcome value. This value can increase the perceived monetary value of the object of people’s decision; that is, there can be value transfer even when measured by people spending their own money.

### General Discussion of Studies 1 and 2

Studies 1 and 2 found that regulatory fit from how a choice is made can increase the monetary value of what was chosen—a transfer of value from *how* to *what*. These studies answer the first-generation question, “Is there a phenomenon?” The results clearly support the conclusion that fit versus nonfit during a goal pursuit activity can increase the value of an object that is evaluated after the activity has been completed. But does one need to assume that what is going on is a transfer of a value experience? And if there is a transfer of a value experience, might something other than the fit experience be transferred?

What might be going on other than a transfer of a value experience? Although all participants in Studies 1 and 2 were actually free to make whatever choice they liked, it is possible that when there was a regulatory fit during the choice process, the participants experienced their choice as more free than when there was a nonfit. If so, then the fit conditions would be psychologically equivalent to a “high choice” condition, whereas the nonfit conditions would be “low choice.” If one makes this assumption (plus the additional assumption that the choice was not too easy), then the motivational underpinnings of the increase could be more like those described in dissonance theory (e.g., Wicklund & Brehm, 1976) or self-perception theory (e.g., Bem, 1972) rather than a transfer of value from *how* to *what*. Regulatory fit would still be an important psychological variable and the phenomenon of fit increasing value would still be novel, but the explanation for the fit effect on the mug price would be different.

According to these theories, one would expect the perceived value of the chosen object, the mug, to be higher in the high-choice fit conditions than the low-choice nonfit conditions. In addition, one would expect the perceived value of the forsaken object, the pen, to show the opposite pattern—to be lower in the high-choice fit conditions than the low-choice nonfit conditions. This is the classic postdecisional regret phenomenon in which there is post-choice spreading of the two alternatives, with the chosen object

becoming more valued and the forsaken object becoming less valued (see Brehm, 1956; Wicklund & Brehm, 1976). Such spreading would produce an interaction of regulatory fit with type of object (mug vs. pen).

The value transfer notion per se does not predict this interaction, especially if one conceptualizes the value transfer as a value confusion. As described earlier, the value confusion notion is that because people confuse the value experience of regulatory fit with the value experience of evaluating a subsequent object, they transfer the former to the latter. One might expect the chosen object to get the lion's share of such value transfer given its salience as the choice, but even the alternative object could receive some value transfer. This would not produce an interaction of regulatory fit with type of object (mug vs. pen) because the fit effect would be in the same direction for both objects. In Study 3, the participants were asked to assign a price to the pen as well as to the mug. Self-perception and dissonance theories (given the above assumptions) predict an interaction of regulatory fit with type of object, but value confusion does not.

In addition to there being alternatives to the fit effect involving value transfer (i.e., the dissonance and self-perception accounts of the fit effect), there are also alternative ways to conceptualize value transfer itself. We propose that the value transfer involves value confusion. An alternative possibility is that the value transfer involves transfer of positive affect. A regulatory fit could produce a more pleasant state than a nonfit, and this pleasant state could transfer positivity to the later evaluation of the chosen object. Once again, regulatory fit would function as a new source of positive affect that increases value through transfer, but the transfer itself would derive from a classic affect mechanism rather than from confusing the regulatory fit value experience with the experience involved in subsequent object evaluation.

We propose that the regulatory fit experience of feeling right about what one is doing during goal pursuit is not the same as the pleasantness of one's state during goal pursuit. We believe that regulatory fit produces a sense of correctness and importance about what one is doing that is more than just a pleasant state. Indeed, Camacho, Higgins, and Luger (2003) found that participants evaluated a conflict resolution as more "right" when the manner of resolution fit their regulatory focus, and this effect was independent of just the positivity of their mood. Thus, "feeling right" from regulatory fit is more than just positive affect. Study 3 includes measures of positive affect to test whether regulatory fit increases positive affect and whether the fit effect is independent of positive affect. (Study 5 further tests whether regulatory fit transfers to evaluations of "importance" as would be predicted if regulatory fit produces a sense of importance.)

### Study 3: Value Transfer to Price Assigned to Chosen and Forsaken Object

#### *Method*

#### *Participants*

Forty-two Columbia University students (15 men and 27 women) were paid \$3 for their participation. All participants indicated that English was their native language. There were no significant differences between male and female participants in any of the results reported below.

#### *Procedure*

The basic procedure was almost identical to that used in Studies 1 and 2 except that the participants completed the Self-Guide Strength measure in a separate session that took place a week or more prior to the session of the choice study. After participants had made their choice between the mug and the pen, the experimenter gave them a questionnaire to complete. The questionnaire was composed of mood items and price items. Half of the participants completed the price items first and the mood items second, and half completed the mood and price items in the reverse order. This order variable had no effect on any of the results reported below.

*Mood items.* The mood items prompted participants to indicate how they felt currently with respect to each of several emotions, on a scale from 1 (*not at all*) to 9 (*extremely*). There were eight mood items: *good*, *happy*, *dejected* (reverse scored), *relaxed*, *positive*, *cheerful*, *tense* (reverse scored), and *content*. These items were summed in subsequent analyses to form an index of positive mood.

*Price items.* Participants were asked to open an envelope. Inside the envelope was a more expensive pen than the original pen. This pen was referred to in the questionnaire as the "reference pen." Participants were asked, "If the price of the reference pen (the one in the envelope) is \$3, what do you think is the price of the coffee mug?" After participants answered this question, they were asked "If the price of the reference pen (the one in the envelope) is \$3, what do you think is the price of the (other) pen?" After completing the questionnaire, all participants were allowed to take home their choice and were paid, debriefed, and thanked.

#### *Results and Discussion*

Two participants chose the pen instead of the coffee mug and were excluded from the analysis. Mug and pen prices were first converted to  $z$  scores to control for the variance in the price of the mug versus the pen that was due solely to the overall greater price of the mug. All continuous independent variables were centered by transforming them into deviation scores (see Aiken & West, 1991). A repeated measures contrast between participants' ratings of the mug and the pen was then regressed on ideal strength, ought strength, strategic framing (eager = 1, vigilant = -1), and the order in which the mood and price items were completed (mood first = 1; price first = -1), as well as the Ideal Strength  $\times$  Strategic Framing and Ought Strength  $\times$  Strategic Framing interactions. Positive mood was also included in the regression analysis as a covariate. To reiterate, a dissonance or self-perception account of our findings would predict that mug price would be higher in fit conditions, but that pen price would be lower in fit conditions. This would result in three-way Ideal Strength  $\times$  Framing  $\times$  Object Contrast (mug vs. pen) and Ought Strength  $\times$  Framing  $\times$  Object Contrast repeated measures interactions. In contrast, a value confusion account would predict higher prices in fit conditions for both the mug and the pen. This would result in only two-way Ideal Strength  $\times$  Framing and Ought Strength  $\times$  Framing between-participants interactions.

Results showed that the Ideal Strength  $\times$  Strategic Framing between-subjects interaction had a significant effect on price,  $F(1, 34) = 4.50$ ,  $p < .05$ , as did the Ought Strength  $\times$  Strategic Framing between-subjects interaction,  $F(1, 34) = 9.69$ ,  $p < .01$ . In particular, ideal strength predicted higher prices in the eager-gain condition than in the vigilant-not lose condition for both the mug,  $\beta = 0.37$ ,  $t(34) = 1.69$ ,  $p = .10$ , and the pen,  $\beta = 0.35$ ,  $t(34) = 1.67$ ,  $p = .10$ . In contrast, ought strength predicted higher prices in the vigilant-not lose framing condition than in the eager-

gain condition for both the mug,  $\beta = -0.61$ ,  $t(34) = -2.89$ ,  $p < .01$ , and the pen,  $\beta = -0.41$ ,  $t(34) = -2.03$ ,  $p = .05$ . There were no other repeated measures or between-subjects effects. Once again, the absence of main effects indicates that neither chronic promotion strength nor chronic prevention strength nor the strategy used to make the decision affected the assigned price. Of most importance, neither of the three-way repeated measures interactions (Ideal Strength  $\times$  Strategic Framing  $\times$  Object Contrast; Ought Strength  $\times$  Strategic Framing  $\times$  Object Contrast) were significant (both  $F$ s  $< 1$ ).

As in Studies 1 and 2, to illustrate the nature of these interactions, a tertile split was performed on the difference between ideal and ought strength. Table 3 shows the mean prices (both raw and adjusted) assigned to the mug and the pen as a function of predominant regulatory focus and strategic framing. As can be seen in Table 3, the results for the mug replicate the findings of Studies 1 and 2. The assigned price of the mug in this study was over 40% higher in the fit conditions than in the nonfit conditions. As also shown in Table 3, the results for the pen have the same pattern as the results for the mug, with the assigned price of the pen being 24% higher in the fit conditions than in the nonfit conditions.

Overall, these results indicate that the regulatory fit effect for the mug price and the pen price were the same. In addition, by including positive mood as a covariate, these results show that the regulatory fit effect on increasing the monetary value of the mug (and the pen) is independent of participants' positive mood. This is not surprising because separate analyses showed that neither the Ideal Strength  $\times$  Strategic Framing interaction nor the Ought Strength  $\times$  Strategic Framing interaction had any effect on the positive mood index (both  $t$ s  $< 1.1$ ). That is, regulatory fit did not increase positive mood.

The fact that the fit/nonfit pattern was the same for the pen price as for the mug price is consistent with the transfer from value confusion interpretation of the fit effect but it does not support a self-perception theory or dissonance theory interpretation. These findings are consistent with the notion that regulatory fit (vs. nonfit) places the participants in a specific state that influences their subsequent evaluative responses in a similar way; that is, transfer of value from the fit experience to the object evaluation experience. If the higher price for the mug in the fit condition was due instead to some kind of inferential comparison of the chosen versus forsaken alternatives, one would expect the mug and the

pen to show opposite effects (i.e., a spreading of the two alternatives). The results of Study 3 also show that the specific state of regulatory fit is not simply a pleasant state that transfers to evaluative judgments because fit did not increase positive mood and the fit effect on increasing assigned price was independent of participants' positive mood.

### General Discussion of Studies 1–3

Studies 1–3 provide strong evidence that the monetary value of a chosen object is higher when it was previously chosen using a strategy that fits a decision maker's regulatory orientation (eager–gain strategy/promotion; vigilant–not lose strategy/prevention) than a strategy that does not fit (vigilant–not lose strategy/promotion; eager–gain strategy/prevention). In all three studies, there was no main effect of promotion versus prevention orientation and no main effect of using an eager–gain strategy versus a vigilant–not lose strategy. Only the interactions of orientation and strategy were significant. Study 3 also found that regulatory fit did not affect participants' positive mood and that the fit effect was independent of positive mood.

The fact that type of regulatory focus interacts with type of choice strategy raises the question of whether the higher price of the mug in the fit conditions than in the nonfit conditions was because regulatory fit increases mug price, nonfit decreases mug price, or both effects occur. Simply put, *what* is the fit effect? If fit increases mug price, then one would expect the increase in mug price to be greater when an eager–gain strategy is used by participants with a stronger promotion focus and when a vigilant–not lose strategy is used by participants with a stronger prevention focus. If nonfit decreases mug price, then one would expect the decrease in mug price to be greater when a vigilant–not lose strategy is used by participants with a stronger promotion focus and an eager–gain strategy is used by participants with a stronger prevention focus.

Because Studies 1–3 included independent assessments of promotion (ideal) and prevention (ought) strength, a meta-analysis of the regression of mug price on promotion and prevention strength, across the three studies, allows direct examination of this issue (Winer, 1971; Wolf, 1986). All four predictions were supported. Within eager–gain framing across the three studies, promotion (ideal) strength was associated significantly with positive value transfer ( $Z = 3.65$ ,  $p < .0003$ ), and prevention (ought) strength was associated significantly with negative value transfer ( $Z = -2.98$ ,  $p < .003$ ). Within vigilant–not lose framing across the three studies, prevention (ought) strength was associated significantly with positive value transfer ( $Z = 3.44$ ,  $p < .0006$ ), and promotion (ideal) strength was associated significantly with negative value transfer ( $Z = -2.22$ ,  $p < .03$ ). These analyses document two independent effects—regulatory fit produces a positive value transfer and regulatory nonfit produces a negative value transfer. These findings are a step beyond just showing that there is a fit effect of more positive object evaluation following a fit than a nonfit goal pursuit process. We now know more about *what* is this effect—the overall fit effect is produced by both a fit increasing value and a nonfit decreasing value.

The fact that there is a significant nonfit effect of decreasing mug value has implications as well for the self-perception and dissonance explanations described earlier. According to these the-

Table 3  
Mean Assigned Prices for the Chosen Mug and Nonchosen Pen

| Predominant focus | Framing of the choice strategy |                  |                  |                  |
|-------------------|--------------------------------|------------------|------------------|------------------|
|                   | Mug                            |                  | Pen              |                  |
|                   | Eager/gain                     | Vigilant/loss    | Eager/gain       | Vigilant/loss    |
| Promotion         | \$6.94<br>(.50)                | \$4.61<br>(-.44) | \$0.69<br>(.26)  | \$0.52<br>(-.14) |
| Prevention        | \$5.20<br>(-.20)               | \$6.86<br>(.47)  | \$0.53<br>(-.14) | \$0.61<br>(.16)  |

Note. Numbers in parentheses are the mug and pen scores separately converted to  $z$  scores, with the means adjusted for positive mood and order of mood and price measures.

ories, it is the high-choice condition that produces change. The low-choice condition is equivalent to baseline, either because there is no dissonance when there is low responsibility or no self-inference when an action is demanded. Although these theories predict an increase in mug price in the fit high-choice condition, they do not predict a decrease in mug price in the nonfit low-choice condition. In contrast, the notion of regulatory fit producing a state of feeling right about what one is doing and nonfit producing a state of feeling wrong about what one is doing, with each of these value experiences transferring to later object evaluation, does predict both the fit and nonfit effects.

Studies 1–3 involve participants assigning monetary value to an object that they have chosen using either a strategy that fits or does not fit their regulatory orientation. The higher price given to the chosen object when it was chosen with fit than nonfit raises the question of what are the boundary conditions for the fit phenomenon. We know from Studies 1–3 that there is a fit phenomenon. The next generation question is *when* does this phenomenon occur? Is it restricted to cases where the object that is later evaluated was included in the regulatory fit activity itself, such as assigning a price to the mug that was previously chosen with regulatory fit, or might value from fit transfer to a subsequent object that was not even part of the fit activity itself? Addressing this question not only begins to consider the question of when does the fit effect occur, but it also contributes to understanding *how* the fit effect occurs.

One kind of inferential explanation for the fit effect found in Studies 1–3 is that when people feel right about how they made their choice, they infer that it was clearly a good choice, and a good choice has high value. Regulatory fit would still be part of the story, but it would increase the evaluation of the chosen object through a simple inference process rather than through value confusion. This kind of explanation would restrict the fit effect to evaluative objects that were part of the goal pursuit activity itself. In contrast, the value transfer from value confusion explanation does not have this restriction. If the value experience from feeling right about the manner of one's goal pursuit can be confused with the value experience of evaluating a subsequent object, then that object need not be part of the goal pursuit activity itself.

Study 4 addresses these issues by manipulating fit versus nonfit through participants planning eager or vigilant strategies for attaining promotion or prevention goals, and later evaluating depicted dogs on the dimension of good-naturedness. Because participants' goal pursuits have nothing to do with evaluating dogs, a "simple inference" explanation of the fit effect would not predict a fit effect to be found in this study. In contrast, a value confusion explanation of the fit effect would predict a fit effect.

Study 4 also permits another issue to be addressed. The dependent measure in Studies 1–3 was the assigned or offered price for the mug, which relates to what a participant is willing to pay for the mug. This raises the possibility that the fit effect was on evaluated "costs" rather than on evaluated "benefits." Perhaps the value of the mug per se did not increase, but paying more was experienced as less painful. Study 4 addresses this possibility as well because the participants directly evaluate the positivity (i.e., benefits) of the target object.

Study 4 also extends Studies 1–3 by experimentally manipulating the regulatory focus orientation involved in the regulatory fit. According to the theory of value from fit (Higgins, 2000), it is the

relation between the strategies people use in their goal pursuit and their current orientation during goal pursuit that determines regulatory fit. Studies 1–3 used ideal strength as a measure of chronic predisposition to be in a promotion orientation, and used ought strength as a measure of chronic predisposition to be in a prevention orientation (see also Higgins et al., 1997; Shah & Higgins, 1997; Shah et al., 1998). Current regulatory focus orientation can also be induced situationally. Study 4 used a situational manipulation to experimentally induce regulatory focus orientation, and, like Studies 1–3, also manipulated the type of strategy that participants used.

The experimental manipulation of regulatory focus orientation contributes in another way to answering the *when* question. It is possible that the fit effect is restricted to cases where regulatory orientation is a personality variable. Perhaps there needs to be a history of promotion individuals chronically using eager strategies and prevention individuals chronically using vigilant strategies in order for them to experience regulatory fit and nonfit. Perhaps the type of person who is predisposed to experiencing regulatory fit versus nonfit is also the type of person who becomes either predominant promotion preferring eager strategies or predominant prevention preferring vigilant strategies. We believe, however, that the fit effect is not restricted to this personality case. Rather, we predict that a situationally induced state of promotion or prevention focus will also produce a fit effect. The design of Study 4 also permits this *when* question to be addressed.

#### Study 4: Value Transfer to an Object Separate From the Fit Process

##### *Method*

##### *Participants*

Ninety-two State University of New York at Stony Brook undergraduates (50 women, 41 men, 1 participant failed to indicate gender) participated in exchange for credit toward an introductory psychology course. There were no significant effects of gender in the study. All participants indicated that English was their native language.

##### *Procedure*

Participants first underwent a regulatory fit manipulation and next, in a purportedly unrelated task, rated how good-natured they perceived several photographed dogs to be.

*Regulatory fit manipulation.* Each participant completed one of four versions of a regulatory fit manipulation (adapted from Freitas & Higgins, 2002). The *promotion* orientation versions were titled "Hopes and Aspirations" and began with "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." The *prevention* orientation versions were titled "Duties and Obligations" and began with "Please think about something you believe you ought to do. In other words, please think about a duty or obligation you currently have. Please list the duty or obligation in the space below." Participants next listed either five eagerness-related or five vigilance-related action plans. Eager plans were elicited with the following 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]." Vigilant plans were elicited with the following 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]."

All participants completed the above-described procedure twice for two different goals, with their assignment to the different regulatory fit conditions held constant (i.e., the same focus orientation and the same strategy). This repetition was intended to strengthen the regulatory fit manipulation.

*Dog ratings.* Next, in what was described as an independent, pilot study requiring the establishment of average ratings of various stimuli, all participants were asked to view and rate black-and-white photocopied photographs of three dogs. For each photographed dog, participants used a 5-point scale (1 = *not at all*, 5 = *extremely*) to answer the question “How good-natured does this dog look?” Each participant’s responses to these three items were averaged to provide a single dog-rating index (Cronbach’s  $\alpha = .67$ ).

*Results and Discussion*

Participants’ dog ratings were analyzed in a 2 (regulatory focus: promotion, prevention)  $\times$  2 (strategy type: eager, vigilant) analysis of variance. As in Studies 1–3, there were no main effects ( $F_s < 1.37$ ), indicating that neither type of current regulatory focus alone nor type of strategic planning alone affected participants’ ratings of the dogs’ good-naturedness. As predicted, the Type of Regulatory Focus  $\times$  Type of Strategy interaction was significant,  $F(1, 88) = 6.09, p < .02$ . Planned comparisons examined the nature of this interaction. As shown in Table 4, among participants who generated eager strategies, those in a promotion orientation evaluated the photographed dogs as more good-natured than did those in a prevention orientation,  $F(1, 88) = 3.03, p < .09$ . In contrast, among participants who generated vigilant strategies, those in a prevention orientation evaluated the photographed dogs as more good-natured than did those in a promotion orientation,  $F(1, 88) = 3.07, p < .09$ .

Study 4 found that participants evaluated photographed dogs as being more good-natured when, in a previous “unrelated” task, they had planned their personal goals with strategies that fit their current orientation (eager strategies/promotion; vigilant strategies/prevention) than with strategies that did not fit (vigilant strategies/promotion; eager strategies/prevention). These results provide important information about the boundary conditions of when the fit effect occurs. First, these results show that it is not necessary for the evaluated object, which shows the fit effect increase in value, to be part of the goal pursuit activity in which the fit was experienced. Second, these results show that it is not necessary for the regulatory orientation to which a strategy fits (or does not fit) to be a chronic orientation of a personality nature. It can also be experimentally induced by a situational manipulation.

These expansions of the boundary conditions also have implications for how best to interpret the fit effect of increasing the positivity of a subsequent object evaluation. The results of Study 4 would not have occurred if the fit effect was simply tied to personality or if it was simply an inference that choosing some-

thing in the right way must mean that it is a valuable choice. The results of Study 4 are consistent with the proposal that the fit effect derives from a transfer of the value experience of feeling right about the manner of goal pursuit to the subsequent object evaluation experience.

The results of Studies 1–4 provide strong evidence that there is a fit effect phenomenon, and they begin to address the next generation questions of what is the fit effect, when does it occur, and how does it occur. Several competing explanations for how the fit effect occurs have been ruled out by the results of these studies, including self-perception and dissonance accounts, a simple inference account, and positive mood transfer.

Another alternative to value confusion for explaining how fit increases the value of the chosen object is that fit increases either the perceived effectiveness (instrumentality) or the perceived efficiency (ease) of the strategic process of goal pursuit. Individuals would perceive the strategic means as being more effective or efficient in the fit than in the nonfit conditions during the decision process, and infer that a choice made with effective or efficient means is a high quality choice. This alternative is another type of inferential explanation. It could not account for the findings of Study 4, but it is nevertheless an interesting alternative that deserves empirical attention because it could also increase positive evaluation. Study 5 measured participants’ perceptions of the effectiveness and efficiency of the strategy they used to make their choice. One purpose of Study 5 was to test both whether regulatory fit increases perceptions of effectiveness and efficiency and whether the fit effect is independent of these perceptions.

Regulatory fit theory proposes that when people use a strategy in goal pursuit that fits their regulatory orientation, they feel right about what they are doing, and this value experience can transfer to the value experience involved in subsequent object evaluation (Higgins, 2000). Similar to other examples of source confusion in the psychological literature, individuals treat the value experience created by fit in goal pursuit as if it derived from the value experienced when an object is later evaluated. The results of Studies 1–4 are consistent with this proposal and not with the alternative accounts described earlier. One disadvantage of these studies, however, is that the dependent measures of transferred value (e.g., monetary price) are quite removed from the experience that regulatory fit is hypothesized to produce. If “feeling right” from regulatory fit produces a sense of correctness and importance about what one is doing (see Camacho et al., 2003), then it should be possible to demonstrate a fit effect for “importance” as the dependent measure of object evaluation. This was another purpose of Study 5.

Study 5: Value Transfer to the Importance of an Object

*Method*

*Participants*

One hundred ninety-eight Columbia University students (102 men, 95 women, 1 participant who failed to report gender) were paid for their participation. All participants indicated that English was their native language. There were no significant differences between male and female participants in any of the results reported below.

Table 4  
*Mean Ratings of Good-Naturedness of Photographed Dogs*

| Momentary focus | Framing of strategy generation |          |
|-----------------|--------------------------------|----------|
|                 | Eager                          | Vigilant |
| Promotion       | 3.50                           | 3.28     |
| Prevention      | 3.10                           | 3.71     |

### Procedure

As in Studies 1–3, participants' chronic promotion versus prevention orientation was measured using the Self-Guide Strength measure, and regulatory fit was experimentally manipulated by varying whether participants were assigned to use eager or vigilant strategies during goal pursuit. Everyone completed the strength measure at the beginning of the experimental session as part of a larger battery of (irrelevant) questionnaires. Following this, participants were asked to complete an additional exercise that had been included "... as a favor to a colleague who studies developmental psychology." They were then handed a questionnaire with instructions at the top explaining that "The transition from elementary school to middle school (i.e., junior high school) is an important time in adolescents' lives," and that their task was to think about things that might improve this transition. A large number of blanks were then provided for participants to list their suggestions and it was emphasized that they could list as many or as few as they wished.

To manipulate regulatory fit, the strategic nature of the improvements that participants were asked to generate was varied. Half of the participants were given an *eager* strategy of making improvements. The exercise was entitled "Maximizing the Positive Aspects of Middle School" and the improvements they were instructed to think about were things "... that you think should be *added* to middle school in order to ensure that students gain as many positive experiences as possible during this transition." The other half of the participants were given a *vigilant* strategy of making improvements. The exercise was entitled "Eliminating the Negative Aspects of Middle School" and the improvements they were instructed to think about were things "... that you think should be *eliminated* from middle school in order to ensure that students avoid as many negative experiences as possible during this transition."

Once participants finished listing their suggested improvements, everyone was asked to judge the importance of middle school experiences by rating the "... extent to which people's middle school experiences can influence their later social development," on a scale from 1 (*not at all*) to 9 (*extremely*). Finally, participants were asked several questions about their experiences of using either the eager or vigilant approach to the task, including the perceived effectiveness of the strategy for improvement they used ("How generally effective do you think adding things to [eliminating things from] middle school would be for improving people's experiences?") and the perceived efficiency of the strategy they used ("How easy was it for you to list things that should be added to [eliminated from] middle school in order to improve people's experiences?" and "How quickly were you able to list things that should be added to [eliminated from] middle school in order to improve people's experiences?"). All of these questions were also answered on a scale from 1 (*not at all*) to 9 (*extremely*).

### Results and Discussion

We predicted that regulatory fit would have two independent effects: (a) an increase in motivational intensity (i.e., increasing the output of items generated for improving middle school); and (b) higher evaluations of importance (i.e., the ratings of the influence of middle school on later development). All continuous independent variables were first centered by transforming them into deviation scores (see Aiken & West, 1991). Next, the number of strategies generated and the importance ratings were simultaneously regressed on ideal strength, ought strength, type of strategy (coded 1 for eager strategy and -1 for vigilant strategy), the interaction of type of strategy with ideal strength, and the interaction of type of strategy with ought strength. In addition, perceived effectiveness ratings, and an index of the two perceived efficiency ratings ( $\alpha = .92$ ) were also included as covariates to test for the

regulatory fit effect on the number of strategies generated and on the importance evaluation independent of perceived efficiency and perceived effectiveness.

Multivariate results showed a main effect of type of strategy for improvement (Wilks's  $\Lambda = .89$ ),  $F(2, 191) = 11.55$ ,  $p < .01$ . An examination of the separate univariate results revealed that this effect was significant for the number of improvements generated,  $\beta = 0.30$ ,  $t(192) = 4.67$ ,  $p < .01$ , but not for the importance ratings,  $\beta = -0.11$ ,  $t(192) = -1.50$ ,  $p > .10$ . Overall, participants using an eager strategy (i.e., adding things to middle school) generated more improvements than participants using a vigilant strategy (i.e., eliminating things from middle school).

This type of strategy effect was qualified, however, by two interaction effects. Multivariate results showed both a significant Ideal Strength  $\times$  Type of Strategy interaction (Wilks's  $\Lambda = .96$ ),  $F(2, 189) = 4.14$ ,  $p < .05$ , and a significant Ought Strength  $\times$  Type of Strategy interaction (Wilks's  $\Lambda = .93$ ),  $F(2, 189) = 6.82$ ,  $p < .01$ . Univariate results revealed that, as predicted and replicating our previous studies, these interactions were in opposite directions both for the number of improvements generated—Ideal Strength  $\times$  Strategic Framing interaction,  $\beta = 0.19$ ,  $t(190) = 1.74$ ,  $p < .10$ ; Ought Strength  $\times$  Strategic Framing interaction,  $\beta = -0.28$ ,  $t(190) = -2.63$ ,  $p < .01$ —and for the importance ratings—Ideal Strength  $\times$  Strategic Framing interaction,  $\beta = 0.27$ ,  $t(190) = 2.13$ ,  $p < .05$ ; Ought Strength  $\times$  Strategic Framing interaction,  $\beta = -0.30$ ,  $t(190) = -2.35$ ,  $p < .05$ . The analysis for the importance evaluation was conducted a second time, this time including the number of improvements generated as a covariate. The results remained the same. Thus, the fit effect on the importance evaluation was independent of the fit effect on the number of improvements generated (i.e., independent of motivational intensity). It is also notable that, once again, neither chronic promotion strength nor chronic prevention strength had any significant effects.

To illustrate the central findings for the importance evaluation, a tertile split was performed as in Studies 1–3 on the difference between participants' ideal strength and their ought strength. Table 5 shows the mean importance ratings given by predominant promotion and prevention participants for the eager and vigilant strategy conditions. The values reported in both tables are adjusted for perceived efficiency and effectiveness. As shown in Table 5, the importance evaluations were higher in the two fit conditions (eagerness/promotion; vigilance/prevention) than in the two nonfit conditions (eagerness/prevention; vigilance/promotion).

A final set of analyses were performed to measure the relation between regulatory fit and perceived efficiency and effectiveness. These variables were simultaneously regressed on ideal strength, ought strength, type of strategy (coded 1 for eager strategy and -1

Table 5  
Mean Ratings of Importance of Middle School Experiences

| Chronic focus | Type of strategy |          |
|---------------|------------------|----------|
|               | Eager            | Vigilant |
| Promotion     | 7.06             | 6.99     |
| Prevention    | 6.92             | 7.53     |

Note. All means are adjusted for perceived efficiency and effectiveness.

for vigilant strategy), the interaction of type of strategy with ideal strength, and the interaction of type of strategy with ought strength. Both the total multivariate and the independent univariate results showed a main effect for type of strategy (Wilks's  $\Lambda = .82$ ),  $F(2, 193) = 21.29$ ,  $p < .01$ , reflecting the fact that participants reported greater perceived effectiveness,  $\beta = 0.41$ ,  $t(194) = 6.16$ ,  $p < .01$ , and greater perceived efficiency,  $\beta = 0.34$ ,  $t(194) = 5.08$ ,  $p < .01$ , when using an eager strategy than a vigilant strategy. No other effects were significant. Thus, regulatory fit was not related to perceived efficiency or effectiveness. Moreover, as reflected in the above analyses in which perceived efficiency and effectiveness were included as covariates, the fit effect was independent of perceived efficiency and effectiveness.

The results of Study 5 show that regulatory fit between the manner of goal pursuit and individuals' goal orientation (eager strategy/promotion; vigilant strategy/prevention) can increase the subsequent evaluation of an object's importance (i.e., the importance of middle school experiences). These results support the notion that "feeling right" from regulatory fit produces a sense of importance, and this value experience can transfer to a subsequent evaluation of an object's importance. Study 5 also shows that this fit effect is independent of the perceived efficiency or effectiveness of the strategy used in the goal pursuit. Finally, Study 5 measured an additional effect of regulatory fit that has been found previously—increasing motivational intensity as reflected in increased output (see Higgins, 2000). Specifically, regulatory fit produced a higher number of improvements listed than nonfit. The fact that the fit effect on the subsequent evaluation of an object's importance was independent of the fit effect on motivational intensity suggests that the fit effect is independent of just level of arousal or excitation. That is, value transfer from value confusion is not simply some new version of the classic excitation effect (e.g., Zillman, 1978).

### Summary and Conclusions

Regulatory fit occurs when individuals pursue goals in a strategic manner that sustains their regulatory orientation (Higgins, 2000). When regulatory fit occurs, individuals feel right about what they are doing, and this value experience can transfer to a subsequent evaluation of an object. The present studies are the first to examine this transfer of value from fit.

The first generation question for any research program is "Is there a phenomenon?" (Zanna & Fazio, 1982). The results of the five studies reported here clearly indicate that there is a phenomenon. For the case of individuals in a promotion or prevention orientation, when a strategy was used in goal pursuit that fit their orientation (eager strategy/promotion; vigilant strategy/prevention), then the positivity of a subsequent object evaluation was greater than when the strategy did not fit their orientation (vigilant strategy/promotion; eager strategy/prevention). This was found when the goal pursuit was to make a choice between a mug and a pen, to plan how to attain one's personal goals, and to list improvements for middle school, and when the object evaluation was, respectively, assigning or offering a price for the chosen mug, evaluating the good-naturedness of photographed dogs, and evaluating the importance of middle school experiences. It is also notable that neither promotion focus nor prevention focus nor type of strategy used had any significant main effects on these depen-

dent measures. Only the interactions representing fit or nonfit had significant effects on object evaluation.

The fact that there is value transfer from regulatory fit is itself significant. Studies 1–3 demonstrate that the monetary value of the *same* chosen object, including how much of their own money individuals are willing to offer to buy it, can be much higher simply because they used a choice strategy that fit versus did not fit their regulatory orientation during the prior choice process. This is true even though the choice is relatively easy and straightforward for everyone, with the chosen object being clearly preferable to the alternative. Study 4 shows that the fit effect occurs even when regulatory fit is experimentally induced by planning personal goals with fitting or nonfitting strategies and the subsequent object of evaluation is totally unrelated to this goal pursuit process, that is, evaluating the good-naturedness of photographed dogs. Study 5 shows that the effect of fit between orientation and strategy occurs even when individuals evaluate the importance of an aspect of life with which they are very familiar from a long past history, that is, middle school experiences.

The present studies go beyond the first generation question of whether there is a phenomenon and begin to answer the later-generation questions of what, when, and how the phenomenon occurs. An initial question concerns *what* is the fit effect. Does fit increase value or does nonfit decrease value, or do both occur? A meta-analysis of Studies 1–3 clearly showed that the fit effect derives from both fit during the goal pursuit process increasing subsequent object evaluation and, independently, nonfit decreasing subsequent object evaluation. Our studies also begin to address questions about *when* the fit effect occurs. Study 4 demonstrates that the fit effect is not restricted to cases where the object that is later evaluated is part of the fit activity itself. Study 4, which experimentally manipulated participants' current regulatory focus, also shows that the fit effect is not restricted to cases where the fit orientation is a chronic personality variable.

There is also evidence from other research programs that the fit effect is not restricted to regulatory focus variables. Research by Avnet and Higgins (in press), for example, experimentally induced either a *locomotion* orientation, which constitutes the aspect of self-regulation that is concerned with movement from state to state, or an *assessment* orientation, which constitutes the aspect of self-regulation that is concerned with making comparisons (see Higgins, Kruglanski, & Pierro, in press; Kruglanski et al., 2000). The participants chose a book light from among a set of different book lights using either a progressive elimination strategy (i.e., eliminate the worst alternative at each phase until only one alternative remains) or a full evaluation strategy (i.e., make comparisons among all of the alternatives for all of the attributes and then choose the one with the best attributes overall). Using the same general paradigm as Study 2, Avnet and Higgins found that the participants offered more of their own money to buy the chosen book light in the fit conditions (assessment/full evaluation; locomotion/progressive elimination) than in the nonfit conditions. Future research could test for the fit effect for other distinct orientations that have their own specific strategic emphasis or manner of goal pursuit that sustains each orientation, as is the case for near versus distant temporal construal (e.g., Trope & Liberman, 2000) and for deliberation versus implementation (e.g., Gollwitzer, 1990).

Our studies also begin to address the question of *how* the fit effect occurs. Study 3 found that the pattern of value transfer from fit was the same for the forsaken pen as it was for the chosen mug. These findings do not support an interpretation of the fit effect in terms of either self-perception theory or dissonance theory. If one assumes that the fit conditions are experienced as “high choice” (and also assume that the choice is not too easy), these theories would predict an opposite effect for the pen and the mug (i.e., the classic spreading effect of post-decisional regret). In addition, if one assumes that the nonfit conditions are experienced as “low choice,” then these theories would not predict our finding of nonfit decreasing value. It should also be noted that if one does not assume that fit is like high choice and nonfit is like low choice, then these theories are simply silent on the fit effect and cannot account for the basic findings. Study 4 addresses the possibility that a simple inference process might account for the fit effect; for example, when you feel right about a choice it must have high value. This simple inference requires that the object of evaluation be part of the goal pursuit process in which fit is experienced. This requirement was not met in Study 4 and yet the fit effect was still found.

Another approach to answering the *how* question is to consider alternative psychological variables that might mediate the fit effect. Three reasonable alternatives are positive mood, perceived strategic effectiveness (instrumentality), and perceived strategic efficiency (ease). Regulatory fit could increase each of these. Regulatory fit and its effect on subsequent object evaluation would still be important, but this effect would be mediated by these psychological variables rather than, as proposed, the value experience of fit being transferred to subsequent object evaluation because of value confusion. Study 3 found that regulatory fit was unrelated to positive mood, and the fit effect remained when positive mood was controlled for statistically. Study 5 found that regulatory fit was unrelated to either perceived efficiency or perceived effectiveness, and the fit effect remained when perceived efficiency and effectiveness were included as covariates in the analysis. The fact that a fit effect on evaluated importance also remained in Study 5 when a measure of motivational intensity (i.e., amount of output) was included as a covariate in the analysis also suggests that the fit effect is not mediated by arousal or excitation.<sup>1</sup>

The results of our studies rule out these major alternative accounts for how the fit effect occurs. The results are consistent with our proposal that when individuals use a strategy of goal pursuit that fits their current regulatory orientation, they feel right about what they are doing, and this value experience transfers to the value experience involved in subsequent object evaluation. We believe that feeling right produces a sense of correctness or importance. As mentioned earlier, Camacho et al. (2003) found that regulatory fit increases judgments of what is “right,” including even judgments of what is “moral.” In a recent study by Freitas and Molden (2002), students momentarily induced into a prevention (ought) orientation characterized vigilant actions as “the *right* thing to do” to obtain acceptance into college, whereas students momentarily induced into a promotion (ideal) orientation characterized eager actions as “the *right* thing to do,” and these effects were independent of the perceived efficiency or effectiveness of the anticipated actions. These findings support the notion that regulatory fit produces a sense of correctness. The fit effect on subsequent evaluations of importance that was found in Study 5

supports the notion that regulatory fit produces a sense of importance.

Future research needs to explore further the nature of the phenomenological experience produced by regulatory fit, as well as the process that transfers this experience to subsequent evaluations. A recent study by Spiegel and Higgins (2002), for example, has shown that value transfer from regulatory fit is eliminated when participants’ attention is drawn to their “feeling right” fit experience. Using the same paradigm as Study 1, participants varying in promotion and prevention strength chose between the coffee mug and the pen using either an eager–gain strategy or a vigilant–not lose strategy. After they made their choice, but before they assigned a price, the participants were told the following:

In the task you just completed, you were given the goal of choosing between two items, and were asked to use the strategy of thinking about what you would gain by choosing each item [or lose by not choosing each item]. Sometimes using strategies to pursue goals can make people “feel right” about their goal pursuit. On the following scale, indicate how much you “feel right” about your goal pursuit.

After responding on the scale (which went from 0 = *not at all* to 6 = *extremely*), the participants were then asked to assign a price to the chosen mug. The fit effect was eliminated in this condition ( $F < 1$ ).

Other studies have shown that transfer from source confusion (i.e., misattribution) can be eliminated by drawing individuals’ attention to the source of the experience that is being transferred (e.g., Förster & Strack, 1998; Schwarz & Clore, 1983). This elimination of the fit effect by drawing participants’ attention to their “feeling right” fit experience supports our proposal that the transfer is due to value confusion. It also supports the notion that regulatory fit involves an experience of “feeling right.”

Another issue for future research is the role of value transfer in life satisfaction. The results of the present studies suggest that life satisfaction does not depend solely on the positive or negative outcomes of daily goal pursuits. Instead, life satisfaction also depends on whether the strategies that individuals use to pursue their goals fit or do not fit their chronic orientations, such as high promotion individuals using eager strategies (fit) or vigilant strategies (nonfit) to pursue their goals and deal with everyday problems. The value experience from regulatory fit may be related to what existentialists called “feeling alive” rather than just living, which contributes to overall well-being. Well-being could even go

<sup>1</sup> A recent study by Spiegel and Higgins (2002) replicated Study 1, including measures of positive mood, perceived efficiency, and perceived effectiveness. The basic fit effect interaction between regulatory focus orientation and strategic framing was again found, with the assigned price for predominant promotion strength participants being significantly higher with the eager–gain strategy ( $M = \$7.24$ ) than the vigilant–not lose strategy ( $M = \$4.93$ ), and for predominant prevention strength participants being significantly higher with the vigilant–not lose strategy ( $M = \$5.70$ ) than the eager–gain strategy ( $M = \$3.85$ )—a difference in assigned price between fit and nonfit of almost 50%. In addition, like Study 3, regulatory fit was unrelated to positive mood and the fit effect remained when positive mood was included as a covariate, and, like Study 5, regulatory fit was unrelated to either perceived efficiency or perceived effectiveness and the fit effect remained when perceived efficiency and effectiveness were included as covariates.

up or down from day to day depending on whether fitting or nonfitting strategies are used during a particular day. Future research exploring the nature of the regulatory fit experience and how it transfers to other value experiences could provide new insights into where value in life comes from.

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