

Chapter 11

Motivations for Promotion and Prevention

Daniel C. Molden
Angela Y. Lee
E. Tory Higgins

From the beginning, the study of psychology has been intimately associated with the study of motivation (e.g., Triplett, 1898). Early pioneers in clinical (Freud, 1905/1953), personality (Murray, 1938), behavioral (Lewin, 1935), and even perceptual (Bruner & Postman, 1947) research fully embraced the importance of understanding people's motives, needs, desires, and goals for explaining their thoughts and actions. As exemplified by this handbook, contemporary psychologists continue to embrace the importance of these concepts and are busy employing them to derive basic motivational distinctions that could potentially integrate many areas of study.

What are some fundamental distinctions that have been identified? Examples discussed throughout the current volume include differences between needs and goals that are pursued consciously versus unconsciously (Chartrand, Dalton, & Cheng, Chapter 22; Ferguson, Hassin, & Bargh, Chapter 10), that are con-

cerned with approaching desired outcomes versus avoiding undesired outcomes (Elliot & Fryer, Chapter 15; Gable & Strachman, Chapter 37), or that originate in a focus on oneself as a lone individual versus oneself as part of a larger social entity (Batson, Ahmad, Powell, & Stocks, Chapter 9; Finkel & Rusbult, Chapter 36; Leary & Cox, Chapter 2). In this chapter, we explore a separate motivational distinction that we believe is equally fundamental: needs or goals that are concerned with growth and advancement versus safety and security (cf. Bowlby, 1969; Maslow, 1955).

We begin our discussion of advancement (i.e., *promotion*) versus security (i.e., *prevention*) motivations with a basic characterization of these motivations from the perspective of regulatory focus theory (Higgins, 1997). Following this, we review some general consequences of promotion or prevention concerns for (1) sensitivities during evaluation, (2) strategies of judgment and reasoning, and (3) basic

goal pursuit processes; we then describe the implications of these consequences for a variety of important social phenomena. We conclude by taking a broad perspective on this body of work and considering the unique costs and benefits of an emphasis on promotion or prevention.

REGULATORY FOCUS THEORY: PROMOTION AND PREVENTION MOTIVATIONS

People are motivated to fulfill a variety of basic needs that are central to their survival within both physical and social environments. In considering such needs, researchers have frequently differentiated those concerned with advancement (i.e., nourishment, growth, and development) from those concerned with security (i.e., shelter, safety, and protection; see Bowlby, 1969; Maslow, 1955). Building upon this differentiation, regulatory focus theory (Higgins, 1997) proposes that beyond originating in different needs, motivations for advancement and security also foster different modes of goal pursuit. That is, this theory suggests that people represent and experience basic needs for advancement (*promotion concerns*) in an entirely different fashion than they do basic needs for security (*prevention concerns*).

Representing the Pursuit of Promotion versus Prevention Concerns

When pursuing promotion concerns, people are focused on gains. That is, they view themselves as striving toward the presence of positive outcomes (i.e., *gains*) and striving to avoid the absence of positive outcomes (i.e., unrealized opportunities, or *non-gains*). For example, people with a promotion focus on improving their relationships with others would represent this goal as strengthening social connections and avoiding missed social opportunities. In contrast, when pursuing prevention concerns, people are focused on losses. That is, they view themselves as striving toward the absence of negative outcomes (i.e., protection from threats, or *non-losses*) and as striving to avoid the presence of negative outcomes (i.e., *losses*). For example, people with a prevention focus on protecting their relationships with others would represent this goal as eliminating anything that might threaten social connections

and avoiding social exclusion (see Higgins, 1997).

Experiencing Promotion- versus Prevention-Focused Outcomes

In addition to differing in how they are represented, promotion and prevention concerns differ in how they are experienced in the course of goal pursuit. Although perceived gains following success at promotion-focused goals and perceived non-losses following success at prevention-focused goals are both pleasurable, these experiences vary in the type of pleasure that occurs. Because gains are experienced as the presence of positive outcomes, promotion-related success elicits emotions reflecting this pleasurable presence, such as elation and cheerfulness. However, because non-losses are represented as the absence (i.e., elimination) of negative outcomes, prevention-related success elicits emotions reflecting this pleasurable absence, such as relaxation and quiescence (Higgins, 1987, 1997).

Similarly, although perceived non-gains following failure at promotion-focused goals and perceived losses following failure at prevention-focused goals are both painful, these experiences vary in the type of pain that occurs. Because non-gains are experienced as the absence of (i.e., unrealized) positive outcomes, promotion-related failure elicits emotions reflecting this painful absence, such as sadness and dejection. However, because losses are represented as the presence of negative outcomes, prevention-related failure elicits emotions reflecting this painful presence, such as nervousness and agitation (Higgins, 1987, 1997).

Beyond varying in the *type* of pleasure or pain elicited, experiences of successfully pursuing promotion or prevention concerns also vary in the *intensity* of this pleasure or pain (Idson, Liberman, & Higgins, 2000; Liberman, Idson, & Higgins, 2005). Because elation involves high motivational arousal (i.e., high eagerness; cf. Barrett & Russell, 1999), successful promotion evokes relatively intense positive feelings. In contrast, because relaxation involves low motivational arousal (i.e., low vigilance; cf. Barrett & Russell, 1999), successful prevention evokes less intense positive feelings. Thus, in the earlier examples, the happiness of people who are able to improve their social relationships should feel more intense than the

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Because dejection involves low motivational arousal (i.e., low eagerness; cf. Barrett & Russell, 1999), however, failed promotion evokes relatively less intense negative feelings. In contrast, because agitation involves high motivational arousal (i.e., high vigilance; cf. Barrett & Russell, 1999), failed prevention evokes more intense negative feelings. Thus, to use the earlier examples again, the sadness of people who fail to improve their social relationships should feel less intense than the anxiety of people who fail to protect such relationships from harm. (For more extensive discussions of the experience of promotion vs. prevention concerns, see Higgins, 1987, 2000.)

Distinguishing Promotion-Prevention Concerns from Approach-Avoidance Motivations

Although promotion concerns relate to the presence and absence of gains, and prevention concerns relate to the presence and absence of losses, it is important to note that the distinction between these concerns is *not* simply equivalent to the distinction between motivations to approach desired (i.e., positive) end-states and to avoid undesired (i.e., negative) end-states (e.g., Carver, 2004; Elliot & Fryer, Chapter 15, this volume). Instead, concerns with promotion or prevention describe separate and distinct contexts in which more general desires for approaching positives or avoiding negatives can arise (Higgins, 1997). For example, imagine two students in an upper-level college course. Both are highly motivated to earn an A, which clearly involves approaching a positive end-state; however, the first views this as an opportunity to improve his or her class rank, whereas the second views this as a necessity for protecting his or her good standing in the premedical program. Thus, although both students have approach motivations, for the first these motivations would relate more to promotion concerns, whereas for the second they would relate more to prevention concerns. Moreover, in both cases the students' motivations are clearly distinct from those of a hypothetical third student who is highly motivated to avoid earning an F.

This separation of promotion versus prevention and approach versus avoidance motivations is shown in Figure 11.1. The top half illustrates

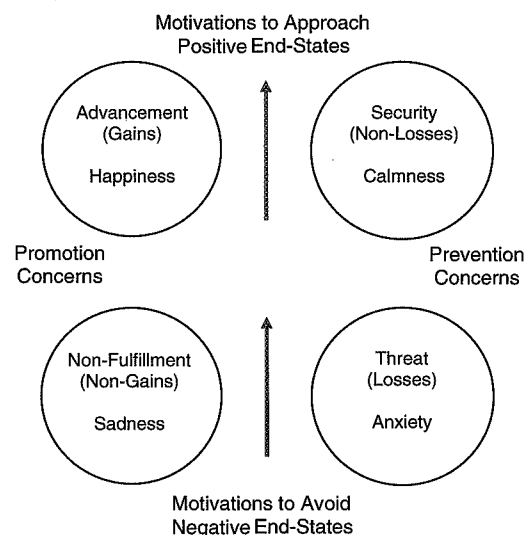


FIGURE 11.1. An illustration of the separation between promotion versus prevention concerns and motivations to approach positive end states versus avoid negative end states. Note that motivations for approach (the top half of the figure) and avoidance (the bottom half of the figure) each involve both promotion (the left half of the figure) and prevention (the right half of the figure) concerns, and that promotion and prevention concerns each include both motivations for approach and avoidance.

how motivations to approach positive end-states (e.g., earning an A) can involve either promotion or prevention concerns. When focused on promotion, approach motivation reflects desires for advancement and anticipations of happiness, whereas when focused on prevention, it reflects desires for security and anticipations of calmness. The bottom half illustrates how motivations to avoid negative end-states (e.g., earning an F) can also involve either promotion or prevention concerns. When focused on promotion, avoidance motivation reflects desires to avoid nonfulfillment and anticipations of sadness, whereas when focused on prevention, it reflects desires to avoid threat and anticipations of anxiety. Comparing the top and bottom halves of Figure 11.1 thus distinguishes between motivations for approaching positive end-states versus avoiding negative end-states (see Carver, 2004; Elliot & Fryer, Chapter 15, this volume), whereas comparing the left and right halves distinguishes between a promotion focus on advancement versus a prevention focus on security (see Higgins, 1997).

Another important point illustrated by Figure 11.1 is the ambiguity that arises when simple comparisons are made between desires to approach gains and desires to avoid losses (e.g., Kahneman & Tversky, 1979; Lockwood, Jordan, & Kunda, 2002). As can be seen by comparing the upper left and lower right portions of Figure 11.1, this contrast confounds promotion concerns with general approach motivations and prevention concerns with general avoidance motivations. Therefore, researchers testing hypotheses uniquely tied to motivations for promotion or prevention should take extra care to ensure that their measurements or manipulations focus on only a single common end-state (i.e., either a positive end-state that everyone approaches or a negative end-state that everyone avoids; see, e.g., Molden & Higgins, 2004; Roese, Hur, & Pennington, 1999). Another effective strategy would be to utilize experimental conditions representing all four of the promotion-prevention \times approach-avoid conditions displayed in Figure 11.1 (e.g., Idson et al., 2000; Lee, Aaker, & Gardner, 2000, Studies 2 and 4; Shah & Higgins, 1997). This latter methodology allows both types of motivational distinctions to be examined simultaneously and independently.¹

Activating Promotion and Prevention Motivations

Given the important differences between promotion and prevention motivations we have described thus far, one question that immediately arises is this: What determines when each of these motivations is activated? As mentioned, everyone possess both advancement and security needs. However, certain circumstances may highlight one of these needs over the other and lead people to temporarily view whatever goal they are currently pursuing primarily in terms of promotion or prevention. What are some of these circumstances?

Because promotion and prevention concerns are each associated with unique representations and experiences, situations that evoke such representations or experiences can activate these concerns. For example, when goals involve gain-focused incentives (success brings rewards and failure brings the absence of rewards), pursuit of these goals should evoke promotion motivations. In contrast, when goals involve loss-focused incentives (success

eliminates penalties and failure brings penalties), pursuit of these goals should evoke prevention motivations (e.g., Crowe & Higgins, 1997; Idson et al., 2000; Shah & Higgins, 1997). Similarly, circumstances that cue elated or dejected experiences should implicitly signal the possibility of promotion-relevant outcomes and activate these motivations. In contrast, circumstances that cue relaxed or agitated experiences should signal the possibility of prevention-relevant outcomes and activate these motivations (e.g., Roese et al., 1999; see Higgins, 2000; cf. LeDoux, 1996).

Other situations that can activate promotion and prevention motivations in a similar manner are those calling to mind personal standards that are particularly relevant to such motivations. Previous research on self-discrepancy theory (Higgins, 1987) has shown that when considering self-standards involving hopes and aspirations (i.e., their *ideals*), people view meeting these standards in terms of gaining or not gaining positive outcomes, which then leads to elation or dejection, respectively. Thus circumstances that bring attention to ideal self-standards should also activate promotion motivations. In contrast, research has also shown that when considering self-standards involving duties and obligations (i.e., their *oughts*), people view meeting these standards in terms of eliminating or failing to eliminate negative outcomes, which then leads to relaxation or agitation, respectively. Thus circumstances that bring attention to ought self-standards should also activate prevention motivations (e.g., Higgins et al., 1994; Idson & Higgins, 2000; Molden & Higgins, 2004, 2006).

Although the circumstances activating promotion versus prevention concerns discussed thus far involve specific incentives, emotions, or self-representations, there are many more general ways in which such circumstances can arise. For example, situations that highlight people's uniqueness and positive distinctiveness from others (i.e., create *independent self-construals*) can increase attention to ideal self-standards, whereas those that highlight social harmony and duties toward others (i.e., create *interdependent self-construals*) can increase attention to ought self-standards (Lee et al., 2000). Also, situations that lead people to represent their goals abstractly and project them into the distant future can inspire thoughts about how such goals might advance impor-

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tant ideals, whereas those that lead people to represent their goals concretely and project them only into the near future can inspire thoughts about how such goals might secure the fulfillment of important obligations (Förster & Higgins, 2005; Pennington & Roese, 2003). Furthermore, situations where people are targets of stereotypes involving expectations of high performance (e.g., "Women are good at verbal tasks") can create a diffuse promotion focus on the potential for gains, whereas situations where people are targets of stereotypes involving expectations of low performance (e.g., "Women are bad at math") can create a diffuse prevention focus on the poten-

tial for losses (Seibt & Förster, 2004). Finally, the lost social connections that occur when one is actively rejected or cast out by others can inspire prevention-oriented strategies of protecting oneself against further loss, whereas the missed opportunities for social gains that occur when one is more passively ignored or excluded by others can inspire promotion-oriented strategies of pursuing missed gains (Molden, Lucas, Gardner, Dean, & Knowles, 2006).

Thus, as summarized in Figure 11.2, many different types of circumstances can selectively activate promotion versus prevention motivations; this makes an understanding of

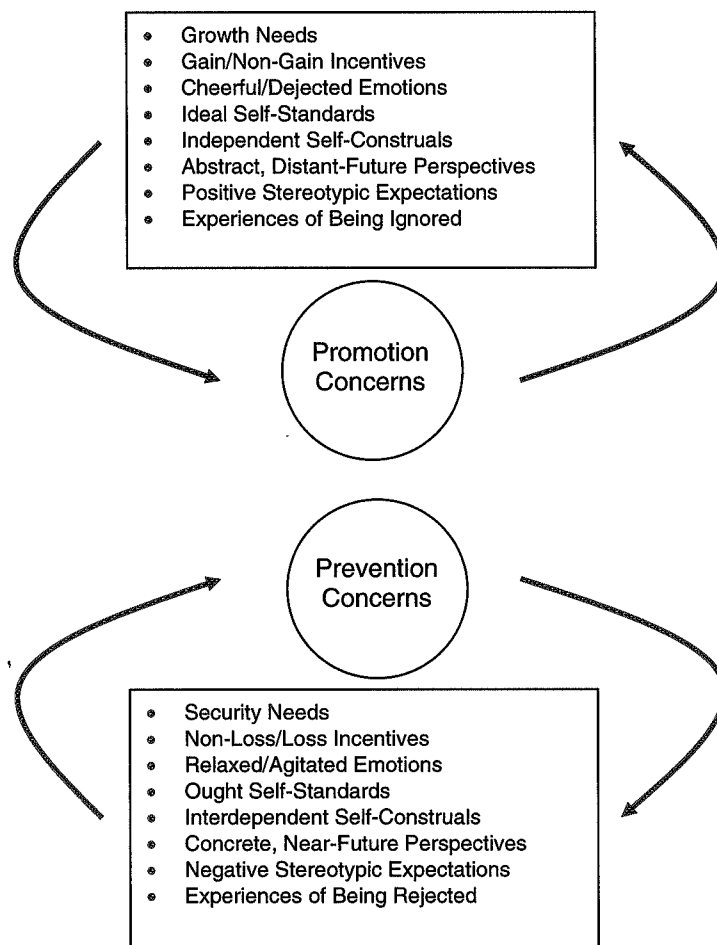


FIGURE 11.2. Circumstances that activate promotion or prevention concerns. Note that although the presence of any one of these psychological situations may be sufficient to activate such concerns, these concerns, once activated, may subsequently bring aspects of the remaining constellation of related psychological situations to mind as well.

such motivations important for a wide range of behaviors. Furthermore, this figure also illustrates that although any one of these circumstances may be sufficient to activate promotion or prevention concerns, such concerns, once activated, may subsequently bring aspects of the remaining motivationally relevant circumstances to mind as well. For example, goals perceived as involving independent self-construals have been shown to be generally associated with sensitivities for gain versus non-gain incentives, ideal self-standards, and elated or dejected reactions, whereas goals perceived as involving interdependent self-construals have been shown to be generally associated with sensitivities for non-loss versus loss incentives, ought self-standards, and relaxed or agitated reactions (Aaker & Lee, 2001; Lee et al., 2000; see also Seibt & Förster, 2004). It may well be that independent or interdependent goals also differentially activate abstract or concrete perspectives and positive or negative self-stereotypes as well, and further explorations of the reciprocal relationships between the antecedents of promotion or prevention motivations could be an interesting topic for future research.

One final point that should be made about the activation of promotion and prevention motivations is that just as certain circumstances can create a temporary focus on advancement or security needs, so too can prolonged exposure to similar circumstances create a more chronic focus on one of these needs. That is, just as situations that evoke temporary concerns with independence versus interdependence or ideal versus ought self-standards can generally place people in a promotion versus prevention focus, so too can a social upbringing that continually emphasizes independent accomplishments or meeting ideal self-standards versus interdependent responsibilities or meeting ought self-standards lead to the development of chronically promotion- or prevention-focused individuals (see Higgins, Shah, & Friedman, 1997; Higgins & Silberman, 1998; Lee et al., 2000; Manian, Strauman, & Denney, 1998). Thus, as is illustrated in the following sections, differences between promotion and prevention motivations are relevant for understanding both individual personalities and the general demands of different tasks and situations.²

PSYCHOLOGICAL CONSEQUENCES OF PROMOTION VERSUS PREVENTION MOTIVATIONS

Having discussed the basic distinctions between promotion versus prevention motivations, and the different circumstances responsible for producing each, we now review research that illustrates the primary consequences of these separate motivations on people's evaluative processes, their judgment and decision making, and the way in which they pursue their goals.

Promotion- and Prevention-Focused Evaluative Sensitivities

Sensing Possibilities for Advancement versus Security

One fundamental distinction we have drawn between promotion and prevention motivation is that promotion concerns are rooted in advancement needs, whereas prevention concerns are rooted in security needs. Therefore, those focused on promotion versus prevention should show a special interest in, and sensitivity to, information that is particularly relevant for advancement versus security (cf. Kunda, 1990). In one demonstration of this effect, Evans and Petty (2003) exposed people to persuasive messages portraying a product as helping to fulfill their advancement or security needs. When presented with a convincing advancement-oriented message, individuals with chronic promotion concerns processed it more thoroughly, and liked the product more, than did individuals with chronic prevention concerns. However, when presented with a convincing security-oriented message, the reverse was true (see also Aaker & Lee, 2001; Kim, 2006; Quinn & Olson, 2006).

Additional research by Freitas, Travers, Azizian, and Berry (2004) has shown that such differential evaluation of advancement- or security-relevant information can also occur at a less conscious level as well. Many studies have suggested that people feel more positive about stimuli that are easily processed, because this provides implicit information that such stimuli have been frequently encountered and do not threaten one's security (see Zajonc, 2001). If this is correct, then processing ease should be a stronger evaluative cue for those with a prevention versus a promotion focus. Consistent with this,

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Sensing Goals

A second distinction between promotion and prevention motivation is that above is a promotion versus prevention focus, respectively promotion and prevention related information or absence of information concerned with the presence of the promotion. In one study by Markman, people perform a task with various incentives for points for responses and responses, which that involve When provided, those have been tempo discriminated than those that have been tempo performing reverse was

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Freitas and colleagues found that manipulating the ease with which a series of pictures were processed had a greater effect on people's positive feelings about the pictures following the tempo-rary activation of their prevention rather than promotion concerns.

Sensing Gains versus Losses

A second fundamental distinction between pro-motion and prevention motivation described above is a primary focus on gains versus losses, respectively. Therefore, those concerned with promotion should be more sensitive to gain-related information that involves the presence or absence of positive outcomes, whereas those concerned with prevention should be more sen-sitive to loss-related information that involves the presence or absence of negative outcomes. In one study supporting this proposal, Markman, Baldwin, and Maddox (2005) had people perform a difficult category-learning task with visual stimuli. Some were given in-centives for learning that involved gaining points for entry into a raffle for correct re-sponses and not gaining points for incorrect re-sponses, whereas others were given incentives that involved not losing points or losing points. When provided with gain or non-gain incen-tives, those for whom promotion concerns had been temporarily activated made more optimal discriminations between the visual categories than those for whom prevention concerns had been temporarily activated. However, when performing with non-loss or loss incentives, the reverse was true.

In another study demonstrating this effect, people read about the events of several days in the life of a hypothetical student and later re-called these events (Higgins & Tykocinski, 1992). Some of the events described the pres-ence or absence of positive outcomes (e.g., finding \$20 on the street, or missing a planned date at the movies, respectively), whereas oth-ers described the presence or absence of nega-tive outcomes (e.g., being stuck in a crowded subway, or having a hard day of classes can-celed, respectively). Promotion-focused indi-viduals were found to recall more events in-volving both the presence and absence of positives rather than negatives, but the oppo-site was true for prevention-focused individuals (see also Higgins et al., 1994; Jain, Agrawal, & Maheswaran, 2006).

Sensing Elation and Dejection versus Relaxation and Agitation

The third fundamental distinction between promotion and prevention motivation de-scribed earlier is the greater frequency of emotional experiences involving elation and dejection versus relaxation and agitation, re-spectively. Given this frequency, those focused on promotion should be more sensitive to af-fective evaluations of elation versus dejection, whereas those focused on prevention should be more sensitive to affective evaluations of relax-ation versus agitation. Such effects were clearly demonstrated in a series of studies by Shah and Higgins (2001; see also Strauman, 1990). Across five separate experiments, they found that those who were promotion-focused were faster to evaluate experiences in terms of elation or dejection, whereas those who were prevention-focused were faster to evaluate ex-periences in terms of relaxation or agitation. Moreover, these findings occurred (1) both when promotion versus prevention concerns were measured individually and when they were experimentally induced; (2) for people's reports of how frequently they had felt these emotions over the past week, as well as how in-tensely they were currently experiencing them; and (3) both when people were making self-focused emotional appraisals and when they were reacting to common emotionally laden objects (e.g., cockroaches, money, flowers, etc.).

Neurological Correlates of Promotion versus Prevention Evaluative Sensitivities

A particularly striking finding that broadly re-lates promotion and prevention motivations to all three of these different sensitivities comes from a recent study by Amodio, Shah, Sigelman, Brazy, and Harmon-Jones (2004). Much research on asymmetries in the activity of the brain's frontal cortex has shown that such asymmetries are related to specific mo-tivational and emotional processes (see Davidson & Irwin, 1999). Gain-oriented moti-vations and emotions are associated with rela-tively greater left-hemisphere activity in this re-gion, whereas loss-oriented motivations and emotions are associated with relatively greater right-hemisphere activity (but see Friedman & Förster, 2005). Amodio and colleagues showed

that chronically promotion-focused individuals showed increased baseline activity in the left frontal cortex and decreased baseline activity in the right frontal cortex, whereas chronically prevention-focused individuals showed increased baseline activity in the right frontal cortex and decreased baseline activity in the left frontal cortex. As the authors note, this indicates that promotion and prevention motivations create different "pre-goal states" that alter their sensitivities, and reveals that such differences can even be detected at the neurological as well as the behavioral level.

Promotion- and Prevention-Focused Judgments and Decisions

In addition to influencing the outcomes to which people are most sensitive (i.e., advancement or security, gains or losses), promotion or prevention motivations can also affect the judgment strategies people use when considering such outcomes (see Higgins & Molden, 2003; Molden & Higgins, 2004, 2005; see also Higgins, Chapter 23, this volume). Because promotion concerns center on gains, such concerns create preferences for *eager* judgment strategies. To borrow the terminology of signal detection theory (Tanner & Swets, 1954), this involves seeking *hits* (i.e., ensuring the addition of positive outcomes) and avoiding *errors of omission* (i.e., ensuring against overlooking positive outcomes). In contrast, because prevention concerns center on losses, such concerns create preferences for *vigilant* judgment strategies. To borrow signal detection terminology again, this involves seeking *correct rejections* (i.e., ensuring the elimination of negative outcomes) and avoiding *errors of commission* (i.e., ensuring against accepting negative outcomes).

An initial demonstration of this association between promotion versus prevention motivations and eager versus vigilant judgment strategies, respectively, comes from a study by Crowe and Higgins (1997). People viewed a list of nonsense words and were later given a recognition test including both words from the original list and new words not on the original list (see also Friedman & Förster, 2001). During the test, they were asked to respond "yes" if they had seen a word before and "no" if they had not seen the word before. In such tests, people may have a bias for responding "yes" in order to ensure that they identify all of the orig-

inal words and to guard against errors of omission, which reflects an eager strategy, or they may have a bias for responding "no" in order to ensure that they eliminate all of the words they have not seen before and to guard against errors of commission, which reflects a vigilant strategy. When task incentives evoked promotion concerns, people were indeed biased toward "yes" responses, whereas when task incentives evoked prevention concerns, people were indeed biased toward "no" responses.

Another early study demonstrating that eager judgment strategies are linked to promotion concerns and that vigilant judgment strategies are linked to prevention concerns had people solve anagrams while their eagerness or vigilance was measured implicitly (Förster et al., 1998). On half of the problems, the force with which people pulled toward themselves on a scale (i.e., their arm flexion pressure) was used as an index for their eagerness, whereas on the other half, the force with which they pushed away from themselves on a scale (i.e., their arm extension pressure) was used as an index for their vigilance (cf. Cacioppo, Priester, & Berntson, 1993). It has long been known that as people move closer to goal completion, their overall motivational strength increases (the "goal looms larger" effect; Lewin, 1935). The results of this study revealed, however, that as people approached the end of the anagram set, those with chronic or temporarily induced promotion concerns showed greater increases in eagerness than vigilance (i.e., the strength of their pull vs. their push on the scale), whereas the reverse was true for those with chronic or temporarily induced prevention concerns.

Strategies for Considering Alternative Hypotheses

Several more recent lines of research have explored the larger implications of promotion versus prevention judgment strategies for a variety of judgment processes. One of these processes is the consideration of alternative hypotheses. In general, an eager, promotion-focused strategy of considering alternatives should involve being open to many possibilities and setting lower thresholds for accepting potentially relevant information; this strategy increases the chance of identifying correct hypotheses and of avoiding the omission of any information that might be important. When one is using this strategy, it is thus better to en-

dorse a hypothesis being wrong. This is the risk being w hypothesis. However, a strategy of considering alternatives involves narrowing the range of possibilities by setting high thresholds for accepting hypotheses. This strategy increases the chance of missing a hypothesis that is correct. This strategy involves being risk averse (and risk promotion concerns endorse more judgment than

Several studies and Higgins, examining the effects of others' actions on a person's helplessness. Several experiments on promotion concerns measured implicitly, results showed that participants did not rate as more concerned clearly did those who, more, this constant consequences people their explanation how helpful in the future greater need the helpful formed less who perform promotion predictions about than did the

Addition (2004, 2005) influences judgment strategies consider different perception. One finding is that temporarily induced promotion concerns increase the number of traits identified and (2) encourage own intelligence

against errors of omission strategy, or they ending "no" in order to state all of the words and to guard against omissions reflects a vigilant strategy evoked promotion indeed biased toward concerns, people did "no" responses. Demonstrating that eagerness is linked to promotion judgment concerns had to do with their eagerness or implicitly (Förster et al., 2001). In problems, the force of the goal toward themselves (flexion pressure) was not eagerness, whereas eagerness with which they evaluated on a scale (i.e., eagerness) was used as an example. Cacioppo, Priester, and others have long been known for their goal completion, and strength increases effect; Lewin, 1935). However, it was revealed, however, that the end of the anagram temporarily induced greater increases (i.e., the strength of the goal on the scale), whereas those with chronic or prevention concerns.

of research have examined the effects of promotion and prevention strategies for a variety of tasks. One of these is the consideration of alternative options. In an eager, promotion-considering alternatives to many possibilities, it is better for accepting position; this strategy in identifying correct hypothesis, the omission of any option may be important. When it is thus better to en-

dorse a hypothesis that might be correct (and risk being wrong) than to fail to endorse the hypothesis (and possibly miss being right). However, a vigilant, prevention-focused strategy of considering alternatives should involve narrowing in on what seems most certain and setting higher thresholds for accepting potentially relevant information; this strategy increases the chance of rejecting incorrect hypotheses and avoiding commitment to alternatives that are mistaken. When one is using this strategy, it is thus better to fail to endorse a hypothesis that might be correct (and possibly miss being right) than to endorse the hypothesis (and risk being wrong). Overall, those with promotion concerns should therefore typically endorse more alternative hypotheses during judgment than those with prevention concerns.

Several studies by Liberman, Molden, Idson, and Higgins (2001) tested this possibility by examining the hypotheses people form about others' actions. Participants read about a target person's helpful behavior and then evaluated several explanations for this behavior. Whether promotion versus prevention concerns were measured individually or induced experimentally, results confirmed that although participants did not differ on which explanation they rated as most likely, those with promotion concerns clearly endorsed more explanations than did those with prevention concerns. Furthermore, this difference was found to have important consequences for the subsequent impressions people formed of the target. Following their explanations, participants also predicted how helpfully the target person might behave in the future. Because they had endorsed a greater number of different explanations for the helpful behavior, and therefore presumably formed less certain impressions of the person who performed it (see Kelley, 1973), those with promotion concerns also made less certain predictions about the target's future helpfulness than did those with prevention concerns.

Additional research by Molden and Higgins (2004, 2006) has recently demonstrated similar influences of promotion versus prevention judgment strategies on the hypotheses people consider during social categorization and self-perception. Overall, as is consistent with previous findings, those with either chronic or temporarily induced promotion concerns (1) used more trait categories to label others' behaviors, and (2) endorsed more explanations for their own intellectual performance, than did those

with chronic or induced prevention concerns. Furthermore, those with promotion concerns again seemed to form less certain impressions than those with prevention concerns and made less certain predictions about their own future intellectual performance.

Effects of promotion and prevention motivations on the strategic consideration of alternative hypotheses are not, however, limited to the domains of attribution and social perception. Friedman and Förster (2001) have also examined such effects in the area of insight and creative thought. They reasoned that because promotion concerns eagerly enhance the more open consideration of alternative hypotheses, they could also generally facilitate a more "exploratory" processing style and boost creativity. In contrast, because prevention concerns vigilantly narrow the consideration of alternative hypotheses, they could generally initiate a more "cautious" processing style and inhibit creativity. Consistent with this hypothesis, several studies revealed that, compared to those with chronic or induced prevention concerns, those with chronic or induced promotion concerns (1) solved more insight problems; (2) generated a higher quantity and quality of innovative uses for common, everyday objects; and (3) overcame previous associations in memory to produce more novel responses on word completion problems (see also Crowe & Higgins, 1997). Combined with the findings discussed above, this suggests that promotion and prevention judgment strategies have far-reaching influences on people's consideration of alternative hypotheses during reasoning.

Strategies for Decision Making

Another implication of promotion versus prevention strategic preferences for basic judgment processes involves the relative weight given to particular considerations during decision making. Those with promotion concerns may adopt eager decision strategies that focus on the possibility for gains whereas those with prevention concerns may adopt more vigilant decision strategies that focus on the possibility for losses. These motivations may then affect people's vulnerabilities to classic decision biases (e.g., Kahneman & Tversky, 1979).

One set of studies that supports this proposal examined two different types of decisions (Higgins et al., 2001). The first decision involved choosing between two different (non-

refundable) trips that had accidentally been scheduled on the same day. One trip cost \$50 and the other cost \$100, but the \$50 trip was expected to be more enjoyable. Since all of the money had already been spent, it would be a mistake to choose based on which trip avoided the greatest financial loss (i.e., the greater *sunk cost* of the \$100 option) rather than on which trip promised the greatest personal gain (i.e., the greater enjoyment of the \$50 option). Although this type of sunk-cost mistake is quite common, because of their preference for gain-focused decision strategies, promotion-focused individuals were less likely to make this type of error than prevention-focused individuals. The second decision involved imagining that one was the president of a company that had invested heavily in a product that was only 90% ready, but had already been made obsolete by the competition. The choice was between investing additional resources to finish the product or abandoning the project altogether. Since the product was unlikely to be successful, here it would be a mistake to choose based on the hope that an unexpected gain might justify continuing to add to the money already spent (i.e., the sunk cost of the original investment) rather than on the probability of losing additional resources on an already failed project. Although this type of mistake is also common, because of their preference for vigilant decision strategies, prevention-focused individuals were less likely to make this type of error than promotion-focused individuals.

Another example of differences in the types of decision errors influenced by promotion or prevention motivations was observed in a study by Brockner, Paruchuri, Idson, and Higgins (2002). People tend to overestimate the probability of *conjunctive* events, which require the joint presence of many separate occurrences. That is, people often do not recognize that no matter how likely each occurrence is individually, if any one fails to materialize, then the entire event will not happen (Bar-Hillel, 1973). Prevention concerns, however, create vigilant decision strategies focused on how losses could occur unless *all* necessary steps have been taken to eliminate them. These concerns should thus produce greater understanding of conjunctive events and lead to more accurate estimates of their occurrence, which is what Brockner and colleagues found. In contrast, people tend to underestimate the probability of *disjunctive* events, which merely

require the singular presence of one of several separate occurrences. That is, people often do not recognize that no matter how *unlikely* each occurrence is individually, only one must materialize for the event to happen (Bar-Hillel, 1973). Promotion concerns, however, create eager decision strategies focused on how gains can often be obtained by many possible means, *any* of which could suffice. These concerns should thus produce greater understanding of disjunctive events and lead to more accurate estimates of their occurrence, which is also what Brockner and colleagues found.

Differences in the decision strategies favored by those with promotion versus prevention motivations are not only relevant for predicting errors in judgment, however. They may also predict how people prioritize particular features of their choice options. For example, Raghunathan and Pham (1999) induced either a dejected or an agitated mood, and then had people choose between the option of a high-salary job with low security or an average-salary job with high security. Those whose promotion concerns were activated by their dejected mood displayed a gain-focused decision strategy and favored the high-salary job despite its low security. In contrast, participants whose prevention concerns were activated by their agitated mood displayed a loss-focused decision strategy and favored the high-security job despite its lesser rewards.³

Finally, in addition to influencing the strategies they employ during decision making, promotion and prevention motivations can affect people's strategies for coping with the consequences of their decisions. When decisions turn out poorly, people often generate *counterfactuals*, which involve mentally undoing these decisions and imagining alternate realities (Roese, 1997). Sometimes counterfactuals reverse a mistaken inaction (e.g., "If only I had done more research . . ."), whereas sometimes they reverse a mistaken action (e.g., "If only I hadn't listened to my colleague . . ."). Because mentally reversing inactions allows one to imagine correcting errors of omission, this represents an eager strategy of counterfactual thinking and should be seen more in those with promotion concerns. In contrast, because mentally reversing actions allows one to imagine correcting errors of commission, this represents a vigilant strategy of counterfactual thinking and should be seen more in those with prevention concerns. Roese and colleagues (1999)

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Promotion Goal Pursuit

Given the prevention motivation, it is found that prevention-focused individuals, as found by Spiegel, 2001, across people, pursue their goals, their prior reactions to goal completion

Choosing Goals

Many track records recognize two goals people process, and (see Feather, 1997) *valence-value* relative comparison that although goals on value that they increase, increasing over other

Shah and colleagues (1998) have found, however, that people should display prevention motivation concerns which can be both likelihood focused in expectancy goals: The expectation of a decision to justify, Shah and colleagues (1998) who promote theoretical concerns a honors situations for had on the

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confirmed this pattern of results in several studies, in which people both considered hypothetical scenarios and described particular instances of their own behavior.

Promotion- and Prevention-Focused Goal Pursuit

Given their effects on evaluation and judgment, it is not surprising that promotion and prevention motivations can also have profound effects on goal pursuit (see Higgins & Spiegel, 2004). Below, we trace such effects across people's choices of what goals to pursue, their initiation of goal directed action, their priorities during goal pursuit, and their reactions following successful or unsuccessful goal completion.

Choosing among Goals

Many traditional accounts of goal pursuit recognize two primary factors influencing which goals people choose: (1) expectations for success, and (2) the value placed on this success (see Feather, 1982). Moreover, these *expectancy-value* accounts also include an interactive component between these factors, such that although everyone should prefer either goals on which they expect to succeed or goals that they value highly, as the value of a goal increases, expectations of success should become increasingly important in choosing this goal over others.

Shah and Higgins (1997) proposed, however, that this interactive effect on goal choice should differ for those with promotion versus prevention motivations. People with promotion concerns want to maximize advancement, which can best be done by choosing goals that are both highly valuable and have high likelihood for advancement. Thus promotion-focused individuals should show the typical expectancy \times value interaction in their choice of goals: The more valuable the goal, the more expectations of success should influence their decision to pursue it. Consistent with this hypothesis, Shah and Higgins found that for students who were chronically or temporarily promotion-focused, the more valuable a hypothetical course was to them (i.e., the greater relevance a high grade had for acceptance into an honors society), the more influence expectations for success (i.e., receiving a high grade) had on their desire to enroll in the course.

In contrast, people with prevention concerns emphasize security, which can best be done by choosing the goals that have high security value, regardless of how likely it is that this security can be attained. That is, the larger a threat to security, the more necessary it is to prevent this threat, and the less expectations for success should determine one's attempts to do so (i.e., one must try no matter what the odds). Thus prevention-focused individuals should show a different expectancy \times value interaction in their choice of goals: The more valuable the goal, the *less* expectations of success should influence their decision to pursue it. Consistent with this hypothesis, Shah and Higgins (1997) also found that for students who were chronically or temporarily prevention-focused, the more valuable a hypothetical college course was to them, the less influence expectations for success had on their desire to enroll in the course.

Beyond expectancy-value considerations, another factor that can determine what goals people choose is whether these goals maintain some currently stable (and desirable) situation or whether they bring about some new desirable situation. Typically, people display a *status quo bias* in their goal choice and focus on maintenance over attainment (Kahneman, Knetsch, & Thaler, 1991). However, since maintaining a desirable situation primarily concerns security, whereas attaining something new primarily concerns advancement, this status quo bias may also differ for those with promotion versus prevention motivations. Liberman, Idson, Camacho, and Higgins (1999) confirmed this possibility by giving people a choice between working to maintain an old prize they had already received or to attain an equally attractive new prize. Chronically and temporarily prevention-focused individuals displayed the standard status quo bias (across studies, only 19–29% of them chose to work for the new prize), whereas chronically and temporarily promotion-focused individuals did not and were equally likely to choose to work for the old or the new prize (cf. Lerner et al., 2004).

Initiating Goal-Directed Action

Having chosen one or more goals to pursue, people must then decide when they need to begin acting to address these goals. Several classic theories of self-regulation (e.g., Maslow, 1955)

suggest that perceived deficits (or *minimal* goals involving necessary outcomes) take priority over perceived opportunities for growth (or *maximal* goals involving ideal outcomes). Freitas, Liberman, Salovey, and Higgins (2002) thus hypothesized that because prevention motivations involve fulfilling minimum standards to avoid deficits (i.e., losses), and promotion motivations involve pursuing maximum standards for ideal growth (i.e., gains), people may typically act to address prevention concerns before promotion concerns. Supporting this hypothesis, when participants were solving anagrams where half of the problems were paired with promotion incentives (i.e., correct solutions were rewarded with monetary gains) and half were paired with prevention incentives (i.e., correct solutions protected against monetary losses), they were more likely to attempt the prevention-oriented problems before the promotion-oriented problems.

Emphasizing Speed versus Accuracy in Goal Completion

Once people have initiated action toward their goals, another decision they soon face is whether to prioritize speed or accuracy in completing these goals (see Sanders, 1998). Prioritizing speed is a "riskier" strategy focused on maximizing potential gains over time. People should therefore be more likely to utilize this strategy when pursuing promotion concerns. In contrast, prioritizing accuracy is a more "cautious" strategy focused on minimizing potential losses over time. People should therefore be more likely to utilize this strategy when pursuing prevention concerns. Förster, Higgins, and Bianco (2003) examined this possibility by having people draw connections between sequentially numbered points (i.e., "connect the dots") to form several pictures. Speed was assessed by the number of points people connected by the end of a specified time period, and accuracy was assessed by the number of points they skipped while making the connections. Across three studies in which promotion or prevention concerns were both individually measured and experimentally induced, promotion-focused individuals did indeed produce faster (i.e., a higher quantity of) responses, whereas prevention-focused individuals did indeed produce more accurate responses (i.e., fewer mistakes). Moreover, as in other studies discussed earlier, preferences for promotion- or prevention-oriented

pursuit priorities intensified toward the end of the task, as goal completion "loomed larger" (see Förster et al., 1998).

Responding to Success and Failure Feedback

During goal pursuit, people often receive feedback regarding their progress toward achieving their goal, which then often influences their continued progress (Carver, 2004; Lewin, 1935). Success feedback typically increases approach motivations and focuses people on the positive end-state they are pursuing, whereas failure feedback typically increases avoidance motivations and focuses people on the negative end-state from which they wish to distance themselves. However, recent research suggests that these effects may be more or less prevalent, depending on whether such feedback addresses promotion or prevention concerns (Förster, Grant, Idson, & Higgins, 2001; Idson & Higgins, 2000).

Fulfilling promotion concerns produces elation and high motivational intensity (Idson et al., 2000; Liberman et al., 2005). When focused on promotion, success feedback should therefore be highly motivating and increase commitment toward approaching further success. In contrast, fulfilling prevention concerns produces relaxation and low motivational intensity. When focused on prevention, success feedback should therefore be less motivating and lead to smaller increases in commitment toward approaching further success. To test this possibility, Förster and colleagues (2001) gave people anagram problems that were framed in terms of opportunities for either promotion (i.e., gaining points) or prevention (i.e., preventing lost points). Halfway through the problems, some people were told that they were doing well, and their eager, approach motivations were implicitly assessed during the second half by measuring their arm flexion pressure, as described earlier. Those working on promotion-focused problems showed greater increases in their approach motivations, as well as greater persistence and performance on these problems, than did those working on prevention-focused problems.

Furthermore, failing to fulfill prevention concerns produces agitation and high motivational intensity (Idson et al., 2000; Liberman et al., 2005). When focused on prevention, failure feedback should therefore be highly motivating and increase commitment toward avoiding fur-

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Retaining Information Following Goal Completion

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ure. To test this possibility, halfway through a
set of promotion- or prevention-focused ana-
gram problems, some people were told that
they were not doing well, and their vigilant,
avoidance motivations were implicitly assessed
during the second half by measuring their arm
extension pressure, as described earlier (Förster
et al., 2001). Those working on prevention-
focused problems showed greater increases in
their avoidance motivations, as well as greater
persistence and performance on these prob-
lems, than did those working on promotion-
focused problems. Thus, success feedback in-
creased motivation and performance more for
those with promotion concerns, whereas fail-
ure feedback increased motivation and perfor-
mance more for those with prevention con-
cerns (see also Idson & Higgins, 2000).

Retaining Information Following Goal Completion

Once people complete their goals, information
tied to these goals often fades quickly from
memory (Lewin, 1935). This fading serves a
functional purpose and frees people's limited
cognitive resources for the demands of new ob-
jectives. Yet it could also be functional in these
circumstances to retain goal-relevant informa-
tion, since this could facilitate the reinitiation
of the goal if the need arises. Hedberg and Hig-
gins (2006) recently proposed that people's
promotion versus prevention motivations may
influence the extent to which goal-relevant in-
formation fades or is retained following goal
completion. Because they focus on gains, those
with promotion concerns should show greater
fading, to maximize the cognitive resources
available for identifying new opportunities for
gains. In contrast, because they focus on losses,
those with prevention concerns should show
greater retention, to minimize the chance that
they will be caught off guard if previous goals
reemerge. In a study supporting this hypothe-
sis, people with chronic promotion or preven-
tion concerns viewed a series of images and at-
tempted to identify how many times pictures of
eyeglasses were followed by pictures of scis-
sors. The concept *eyeglasses* therefore signaled

a possibility for goal completion, and should
have been highly activated during the task, but
this activation should then have faded when
the task was over. As expected, those with pro-
motion concerns indeed showed a marked de-
cay in the activation of eyeglass-related con-
cepts (assessed via a lexical decision task) as
soon as 1 minute following the identification
task. However, those with prevention concerns
still showed increased activation of (and behav-
ioral response to) these concepts up to 15 min-
utes later.

To summarize, the research reviewed thus
far reveals a host of ways in which promotion
and prevention motivations affect evaluation,
judgment and decision making, and goal pur-
suit. Given these effects on such fundamental
psychological processes, whether people are
motivated by promotion or prevention has
wide-reaching implications for how they con-
duct and experience many aspects of their lives.
In the space remaining, we explore some of
these implications for people's social interac-
tions and social behavior.

IMPLICATIONS OF PROMOTION VERSUS PREVENTION MOTIVATION FOR SOCIAL BEHAVIOR

Research on promotion and prevention moti-
vations has recently begun to investigate how
these motivations might influence many as-
pects of people's social lives. Here we consider
these influences at several different levels of so-
cial interaction: relationships with intimate
partners, relationships within groups, and in-
tergroup relations.

Promotion- and Prevention-Focused Relationships

Intimate relationships fulfill people's basic
needs for acceptance, yet they can also be pain-
ful sources of rejection and betrayal. One
important question when examining relation-
ships, then, is this: How do people respond
when rejection or betrayal does occur? Recent
studies by Molden and Finkel (2006) have sug-
gested that people's motivations for promotion
or prevention can influence such responses by
altering their focus on the perceived benefits of
repairing a relationship versus the perceived
cost of allowing the relationship to deteriorate.

Following both real and imagined betrayals by acquaintances, friends, and romantic partners, those with promotion concerns showed greater forgiveness in relationships where they trusted that future gains were still possible, whereas those with prevention concerns showed greater forgiveness in relationships where they were committed to protecting against losing their attachment to and investment in their partners.

Converging evidence for the greater attachment concerns shown by prevention-focused individuals comes from another study that more closely examined how promotion or prevention motivations affect people's reactions to rejection from close others (Ayduk, May, Downey, & Higgins, 2003). In this study, promotion- or prevention-focused individuals completed a daily diary with their dating partners. On days where the couples experienced conflict, prevention-focused individuals reported greater suppression of thoughts and feelings that might perpetuate this conflict; also, even when feeling highly rejected by their partners, they expressed their displeasure in more passive (e.g., distancing) than active (e.g., retaliating) ways. Thus prevention concerns also seem to lead people to guard against conflict that could damage their attachment to a close relationship partner, even when a compelling reason for this conflict does exist.

Promotion- and Prevention-Focused Groups

Outside of intimate relationships, social interactions largely occur within a group context. Although group affiliations can be fleeting and arbitrary (e.g., riders on the uptown train) or lasting and meaningful (e.g., Red Sox or Yankees fans), such affiliations have important effects on social behavior (see Levine & Moreland, 1998). One well-established effect is that group members tend to converge on a unifying set of opinions and practices. Levine, Higgins, and Choi (2000) thus asked: (1) Do people form group affiliations based on shared promotion or prevention motivations, and (2) do such group members converge to display behaviors associated with such motivations?

To answer this, Levine and colleagues (2000) had three-person groups perform a recognition memory task (similar to that in Crowe & Higgins [1997], described above) and gave them either promotion- or prevention-focused incentives for overall group performance. Each

group member reported his or her recognition judgment aloud, and over the course of the task, most groups (27 out of 34) did indeed develop a common response strategy. Furthermore, for promotion-focused groups, this strategy reflected eagerly ensuring hits and guarding against errors of omission, but for prevention-focused groups, it reflected vigilantly ensuring correct rejections and guarding against errors of commission. Thus not only can shared promotion or prevention concerns create common group norms, but they can influence group-level judgments and behaviors as well.

Promotion- and Prevention-Focused Intergroup Relations

Besides convergence on shared norms, another well-established effect of affiliating with either meaningful or arbitrary groups is the favoritism that develops toward members of one's own ingroup over members of outgroups (Levine & Moreland, 1998). Might promotion or prevention motivations play a role in these types of group processes as well?

Two separate programs of research have investigated this question (Sassenberg, Kessler, & Mummendy, 2003; Shah et al., 2004). Each has shown that favoritism in rewarding and embracing ingroup members is driven by promotion concerns, because this eagerly develops ties to positively viewed groups, whereas favoritism in punishing and rejecting outgroup members is driven by prevention concerns, because this vigilantly eliminates ties to negatively viewed groups. In one study by Shah and colleagues (2004) illustrating this effect, people were assigned to teams competing on a word-matching task and were then asked about both their teammates and their competitors. Those for whom promotion concerns had been activated were more interested in getting to know their teammates than their competitors, and felt happier about meeting the former, whereas those for whom prevention concerns had been activated showed neither of these differences. However, those for whom prevention concerns had been activated were more interested in avoiding contact with their competitors than their teammates, and felt more anxious about meeting the former, whereas those for whom promotion concerns had been activated showed neither of these differences. A second study by Shah and colleagues showed similar

effects when perceived in how closely assessed.

As these prevention motivations expressions of favoritism experiencing is clearly perception is perceived advancement and low motivation discriminant security, the high motivation the differences discussed early Higgins, 2004) discrimination be more in such experience discriminant ment.

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effects when people's actual behaviors toward a perceived ingroup or outgroup member (i.e., how closely they sat next to this person) were assessed.

As these results show, promotion and prevention motivations may affect people's expressions of intergroup favoritism. Do these motivations influence how people experience favoritism shown by other groups as well? Experiencing discrimination from another group is clearly painful. However, if this discrimination is perceived as blocking opportunities for advancement, this pain may involve dejection and low motivational intensity, whereas if this discrimination is perceived as a threat to one's security, this pain may involve agitation and high motivational intensity. Thus, analogous to the differential effects of failure feedback discussed earlier (Förster et al., 2001; Idson & Higgins, 2000), people who experience discrimination as diminishing their security may be more motivated to act toward preventing such experiences than people who experience discrimination as diminishing their advancement.

Consistent with this hypothesis, Quinn and Olson (2006) demonstrated that in general, prevention-focused women report stronger intentions to engage in actions aimed at reducing discrimination toward women (e.g., participating in protests regarding women's issues), as well as a greater frequency of having previously performed such actions, than do promotion-focused women. However, as would be expected, Quinn and Olson also showed that in instances where such actions are explicitly framed as removing obstacles to advancement, promotion-focused women report stronger intentions to engage in these behaviors than do prevention-focused women. Taken together, the studies by Quinn and Olson (2006) and by Shah and colleagues (2004) therefore suggest that considering people's promotion versus prevention motivations in the context of intergroup relations could be important for understanding how people behave toward their ingroups and outgroups, and how they perceive and respond to behaviors by other members of these groups.

Overall, a growing body of research has shown that people's motivations for promotion and prevention have marked implications for many aspects of their social interactions. Therefore, in future explorations of social

behavior, beyond considering people's larger motivations for affiliation and belonging (Leary & Cox, Chapter 2, this volume), it may also be fruitful to consider whether they are currently representing such motivations as promotion or prevention concerns (see Molden et al., 2006).

SUMMARY AND CONCLUSIONS: COSTS AND BENEFITS OF PROMOTION OR PREVENTION

In this chapter, we have discussed a wide variety of ways in which promotion and prevention motivations have profound and distinct effects on thoughts, feelings, and behavior. Considering these effects as a whole, it may be tempting to ask, Is one motivational orientation "better" than the other? That is, are there greater benefits and fewer costs associated with a promotion or prevention focus?

At first glance, it may indeed seem that people motivated by promotion enjoy certain advantages over those motivated by prevention. Compared to the loss focus of prevention concerns, the gain focus of promotion concerns produces (1) more pleasurable responses to success and less painful responses to failure (Idson et al., 2000), (2) greater open-mindedness and creativity (Crowe & Higgins, 1997; Friedman & Förster, 2001; Liberman et al., 2001), and (3) greater flexibility and adaptiveness during goal pursuit (Liberman et al., 1999; Shah & Higgins, 1997). However, many of these qualities are not as universally advantageous as they seem. First, although the dejection arising from failed attempts at promotion can be less intense than the agitation arising from failed attempts at prevention (Idson et al., 2000), this dejection is also less motivating and results in less activity toward avoiding future failures (Förster et al., 2001; Idson & Higgins, 2000; Quinn & Olson, 2006). Indeed, in extreme cases, this reduced motivation can reach the point of having no interest in doing anything—a state associated with the extremely painful condition of clinical depression. Also, while promotion concerns allow a more open-minded consideration of alternatives during judgment, this can create greater uncertainty and indecision when these judgments must be applied or acted upon (Liberman et al., 2001; Molden & Higgins, 2004,

2006). Finally, whereas a promotion focus supports more flexibility in what goals are adopted and sustained, it also more readily allows important goals to be abandoned when success appears unlikely or when setbacks are encountered (Liberman et al., 1999; Shah & Higgins, 1997).

When one is comparing promotion and prevention motivations, it may therefore be more accurate to characterize such motivations as involving a series of complementary compromises. A promotion focus prioritizes flexibility, open-mindedness, and speedy, eager progress, but it does so by sacrificing commitment, certainty, and careful, vigilant analysis. A prevention focus reverses these priorities and sacrifices. Whatever one's emphasis, however, all of these qualities are important components of self-regulation and goal pursuit, and all are required for the successful execution of such processes. This is clearly illustrated in a study by Grant and Higgins (2003), which related people's histories of effectively regulating both their promotion and prevention concerns to their emotional and overall well-being. Although there were differences in what specific behaviors and emotions mediated the influences of effective promotion and effective prevention, results showed that both independently, and additively, predicted greater well-being. Thus the most crucial factor in comparing the advantages of promotion or prevention motivations in any given situation may be whether eagerness or vigilance best fits the demands of the current task at hand (see Higgins, Chapter 23, this volume).

To conclude, the research reviewed in this chapter has conclusively demonstrated that concerns with advancement (i.e., promoting gains) and concerns with security (i.e., preventing losses) are fundamentally distinct in how they are represented and experienced, and thus have fundamentally different effects on the processes of evaluation, judgment and decision making, and goal pursuit. What researchers are just beginning to explore are the implications of these various effects for how people navigate and interact with their social environments, as well as with the individuals that exist within those environments. Given the variety and importance of such interactions, continued research along these lines promises not only to expand our understanding of growth and security motivations, but also to provide greater insights into social behavior as a whole.

NOTES

1. Indeed, findings from several studies using this methodology have shown separate main effects of both promotion versus prevention and approach versus avoidance manipulations on a variety of different measures (e.g., people's strategic focus during problem solving or in social situations, and their emotional well-being; see Carver, Lawrence, & Scheier, 1999; Förster, Higgins, & Idson 1998; Higgins, Roney, Crowe, & Hymes, 1994). This further illustrates the independence of these two motivational distinctions.

2. Several different methods have been developed for measuring and manipulating promotion versus prevention concerns (see Förster et al., 1998; Higgins et al., 1994, 1997, 2001; Roeser et al., 1999; Shah, Brazy, & Higgins, 2004; Shah & Higgins, 1997). Space limitations preclude a detailed description or comparison of these methods in the studies presented in this chapter, however, and interested readers are encouraged to examine the original articles for more information on the specific operationalizations used in each study.

3. Raghunathan and Pham (1999) discussed these effects solely in terms of affective influences on decision making and did not relate them to larger promotion or prevention motivations. However, based on our earlier discussion of the emotional sensitivities associated with such motivations (see also Higgins, 2000; Roeser et al., 1999), we suggest that by selectively inducing dejection or agitation, they did indeed activate more general promotion or prevention concerns (see also Lerner, Small, & Lowenstein, 2004).

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