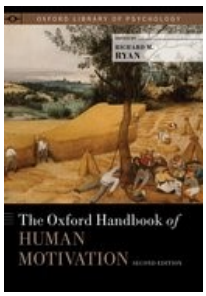

The Oxford Handbook of Human Motivation (2nd edn)

Richard M. Ryan (ed.)

https://doi.org/10.1093/oxfordhb/9780190666453.001.0001

Published: 2019 **Online ISBN:** 9780190666484 **Print ISBN:** 9780190666453

CHAPTER

4 Regulatory Focus Theory and Research: Catching Up and Looking Forward After 20 Years

Abigail A. Scholer, James F. M. Cornwell, E. Tory Higgins

https://doi.org/10.1093/oxfordhb/9780190666453.013.4 Pages 47–66

Published: 12 August 2019

Abstract

This chapter explores the motivational dynamics of the promotion and prevention systems outlined in regulatory focus theory (Higgins, 1997). It includes a review of the core tenets of the theory—identifying and responding to important and frequently asked questions—in discussing significant research of the past two decades since the theory made its debut. In particular, the chapter includes a discussion of what defines each system, how regulatory focus orientations are commonly measured and manipulated, what differentiates promotion and prevention motivation from approach and avoidance motivation, what characterizes the trade-offs of each system, and newer developments in research on regulatory fit, group dynamics, and motivational flexibility. Throughout, avenues for future research are suggested.

Keywords: regulatory focus, promotion, prevention, motivation, self-regulation, regulatory fit

Subject: Social Psychology, Psychology

Series: Oxford Library of Psychology

Collection: Oxford Handbooks Online

p. 47 Any stroll across the Internet or down the self-help aisle in a bookstore makes it obvious that people are hungry to understand motivation. People want to know how to motivate themselves, their partners, their children, their employees. People want answers to big questions: Why do I engage in behaviors that go against long-term interests? Why is change so hard? Why does she see the glass as half full and I see it as half empty? Motivation science researchers have grappled with these same questions and addressed these issues from many valuable perspectives: investigating how people navigate conflicts between fleeting desires and long-term goals (e.g., Fujita, 2011; Mischel, Cantor, & Feldman, 1996), studying factors that increase goal commitment and performance (e.g., Locke & Latham, 1990; Zhang & Huang, 2010), examining what makes an effective parent (e.g., Sears, Maccoby, & Levin, 1957) or leader (e.g., Bass, 1985; Burns, 1978), and exploring the fundamental motivations that make us tick, effectively or otherwise, across the many challenges we face (Gray, 1970; Higgins, 1997; Ryan & Deci, 2000). In this chapter, we explore how

regulatory focus theory (Higgins, 1997) addresses these issues and discuss how the motivational distinctions it introduces contribute to a richer understanding of the dynamics of goal pursuit.

In the 20 years since regulatory focus theory was introduced (Higgins, 1997, 1998), it has generated many new studies on motivation science. The discoveries from these studies have led to developments in the theory itself, provided evidence to support novel implications of the theory, and suggested new questions to explore. On this 20th anniversary of the theory, this chapter provides an opportunity to take stock, look back at what research has revealed over this period, and probe new developments and future horizons in testing the theory. We have organized our discussion by responding to the fundamental and frequently asked questions that people often have when encountering this theory, highlighting in each section what we see as exciting opportunities for future research.

What Is Regulatory Focus Theory?

Regulatory focus theory distinguishes between two coexisting motivational systems (promotion, prevention) that serve essential but different survival needs (Higgins, 1997). Although the systems differ in multiple ways, as we will discuss, the two core differences between the systems concern differences in what fundamentally motivates goal pursuit (growth and advancement for *promotion* versus security and safety for *prevention*) and which regulatory strategies are preferred in goal pursuit (eagerness for *promotion* versus vigilance for *prevention*). Psychological theories have long recognized growth (i.e., to develop and be nurtured) and security as fundamental needs (Bowlby, 1969, 1973; Higgins, 1987; Mowrer, 1960). Thus, people need both systems to be maximally effective in the world. However, as we will discuss in more detail, in any given moment, the concerns of one system may predominate over the other because of either chronic or situational differences in accessibility.

What Is Promotion Motivation?

Individuals with a promotion focus are sensitive to growth-related concerns such as advancement and progress. They dream big and broadly, aspiring for the next big leap, pursuing ideals. Given these concerns, promotion-focused individuals are maximally sensitive to two different outcomes: gains versus nongains. This difference between gains and nongains reflects what counts as success and failure within the promotion system. Success is reflected in gains, positive deviations from the status quo or neutral state—the difference between 0 and +1. Thus, even when all is going well, promotion-focused individuals are looking around to see how things could go better. Promotion-focused individuals are less sensitive to negative deviations from the status quo or neutral state—the difference between 0 and -1 (Brendl & Higgins, 1996; Higgins, 1997; Higgins & Tykocinski, 1992). Instead, failure for a promotion-focused individual is captured simply by remaining at 0 and failing to advance. Even if 0 is a satisfactory state, it is not enough to simply hold onto it within the promotion system. It does not represent the gains that define success (Higgins & Cornwell, 2016).

These promotion-focused concerns with moving toward gains and away from nongains are best served using eager approach strategies in goal pursuit—enthusiastically approaching matches to desired end states or gains and approaching mismatches to undesired end states or nongains (Crowe & Higgins, 1997; Higgins, Roney, Crowe, & Hymes, 1994; Liberman, Molden, Idson, & Higgins, 2001; Molden & Higgins, 2005; Wang & Lee, 2006). Promotion-related eagerness is reflected in many types of tactics and behaviors, such as considering multiple alternatives (Liberman et al., 2001), emphasizing positive possibilities (Scholer, Ozaki, & Higgins, 2014; Zhang & Mittal, 2007), focusing on the forest over the trees (Semin,

Higgins, de Montes, Estourget, & Valencia, 2005), prioritizing speed (Förster, Higgins, & Bianco, 2003), and general openness to change (Cornwell & Higgins, 2013; Higgins, 2008).

What Is Prevention Motivation?

Individuals with a prevention focus are sensitive to security-related concerns such as maintaining safety and upholding duties and responsibilities. This sensitivity to the absence and presence of negative outcomes is reflected in greater assigned significance to the difference between 0 and -1 than to the difference between 0 and +1 (Brendl & Higgins, 1996; Higgins, 1997; Higgins & Tykocinski, 1992). In other words, prevention-focused individuals are maximally sensitive to nonlosses versus losses. Important nonlosses are those related to maintaining safety and doing what you ought to do (fulfilling duties and responsibilities). Therefore, success for a prevention-focused individual is captured by maintaining a satisfactory state, by holding onto 0 (a nonloss). Failure is reflected in the inability to maintain 0, being less than 0 at -1 (a loss). Importantly, as we discuss in more detail in the section on system level differences, this means that a satisfactory status quo of 0 has a very different meaning within the prevention system than the promotion system; it is a positive nonloss in prevention but a negative nongain in promotion (Higgins & Cornwell, 2016).

These prevention-focused concerns with moving toward nonlosses and away from losses are best served using vigilant avoidance strategies in goal pursuit—avoiding mismatches to desired end states or nonlosses and avoiding matches to undesired end states or losses (Crowe & Higgins, 1997; Higgins et al., 1994; Liberman et al., 2001; Molden & Higgins, 2005; Wang & Lee, 2006). Prevention-related vigilance is generally reflected in many types of tactics and behaviors, such as carefully vetting the alternatives one considers (Liberman et al., 2001), emphasizing the possibility that things might go wrong (Scholer et al., 2014), focusing on the trees over the forest (Förster & Higgins, 2005), prioritizing accuracy (Förster et al., 2003), and generally embracing norms and the status quo ↳ (Zhang, Cornwell, & Higgins, 2014; Zhang, Higgins, & Chen, 2011).

p. 49

Where Does Regulatory Focus Motivation Come From?

Different styles of caretaker–child interactions contribute to individual differences in the chronic strength of the promotion and prevention systems (Higgins, 1987, 1997; Keller, 2008; Manian, Papadakis, Strauman, & Essex, 2006; Manian, Strauman, & Denney, 1998). The caretaker–child interactions that contribute to children developing a promotion focus emphasize desired end states as ideals (hopes, wishes, and aspirations) and making advancements that move to a better state. Caretakers communicate, explicitly and implicitly, that what matters is making progress, making gains. Instructional scaffolding to support children's progress in learning is a classic example of promotion-focused caretaking. In contrast, the caretaker–child interactions that contribute to children developing a prevention focus emphasize desired end states as oughts (duties, responsibilities, and obligations) and maintaining a satisfactory state rather than a worse state. Caretakers communicate that what matters is to maintain safety and security, to be prepared for what might jeopardize the current satisfactory condition. Teaching children good manners and proper social practices are examples of prevention-focused caretaking.

Both prospective and retrospective studies provide evidence that nurturing and bolstering parenting styles (e.g., the child receives lot of encouragement) are associated with stronger ideal self-guides in children (Manian et al., 2006) and stronger promotion focus in adults (Keller, 2008), whereas punitive and controlling parenting styles (e.g., the child must follow specific rules for obedience) are associated with stronger ought self-guides in children (Manian et al., 2006) and stronger prevention focus in adults (Keller,

2008). Notably, and importantly, children can receive both promotion and prevention caretaking styles and thereby develop both strong promotion and strong prevention systems of self-regulation. However, what it means to strongly develop both systems rather than one system being dominant is still not fully understood and needs more research.

Just as caretakers can establish a world that strengthens promotion versus prevention sensitivities, so too can situations temporarily activate promotion versus prevention concerns. Situational forces may arise from the structure of incentive systems that emphasize the distinction between gains/nongains versus losses/nonlosses, from leaders who focus on aspirations and ideals versus duties and oughts, from tasks that highlight growth versus security, from goal stages that emphasize progress versus maintenance, and from broader cultural contexts that emphasize moving beyond versus embracing the status quo (Fulmer et al., 2010). Relatively little research has examined how interactions between chronic and temporary tendencies may play out in behavior, but there are suggestions that individuals may sometimes face conflict between a predominant personal chronic orientation that is at odds with a temporarily or institutionally activated situational concern (Lisjak, Molden, & Lee, 2012). Investigating these interactions is an important direction for future research.

Recent work also highlights the dynamic ways in which an individual's motivational orientation is shaped by relationship-specific identities (Boldero & Francis, 2000; Browman, Destin, & Molden, 2017). Browman et al. (2017) found not only that individuals show significant variability in the strength of regulatory focus motivations across identities (e.g., as a student versus as a close relationship partner), but also that these identity-specific regulatory focus motivations are better predictors of domain-specific goals than domain-general regulatory focus orientations. For instance, the strength of an individual's student-identity regulatory focus was a better predictor of the likelihood of endorsing promotion versus prevention academic goals relative to an individual's domain-general regulatory focus. Furthermore, Browman et al. provided evidence that experimentally activating a particular identity (e.g., student versus best friend) led to increased accessibility of the regulatory focus motivation associated with that identity. In other words, if an individual has a promotion motivational orientation associated with her boss, but a prevention motivational orientation associated with her romantic partner, her likelihood of approaching current tasks with an eager or vigilant orientation may depend, in part, on who she just saw for lunch (respectively, her boss or her romantic partner).

These findings are also consistent with work on social cognitive transference that suggests that encountering new individuals who resemble significant others can influence whether the promotion versus prevention system is activated. For instance, Reznik and Andersen (2007) provide evidence that transference processes can lead to the activation of promotion-relevant or prevention-relevant self-
p. 50 discrepancies associated with significant others. ↳ In one study, participants expected to interact with a target individual who resembled a parent who held a self-guide for them from which they were discrepant (Reznik & Andersen, 2007). Although all individuals evaluated the target more positively when the target resembled the individuals' parent than when he or she did not, the individuals also experienced more depressed affect if they had ideal (promotion) self-discrepancies associated with that parent and experienced more hostile/agitated affect if they had ought (prevention) self-discrepancies associated with that parent. Furthermore, individuals with ought discrepancies were more likely to want to avoid interaction with the target, whereas individuals with ideal discrepancies were more likely to want to approach interaction with the target.

How Is Regulatory Focus Motivation Measured and Manipulated?

As noted earlier, promotion and prevention orientations can arise either from chronic accessibility (personality differences or institutionalized situational differences) or from temporary accessibility (momentary situational factors). The systems are orthogonal, such that at a chronic level, individuals can simultaneously have strong promotion and prevention systems. However, at any given moment, one system is likely to predominate—as a result of chronic and/or momentary factors—and guide behavior. Because we believe that what ultimately matters in terms of predicting behavior is the motivational *state* that one is currently in, whether that arises from chronic or temporary accessibility (Higgins, 1999), we review both how regulatory focus can be assessed as a chronic variable and how it can be situationally manipulated.

Two commonly employed measures to assess chronic differences in regulatory focus are the regulatory focus strength measure (Higgins, Shah, & Friedman, 1997) and the Regulatory Focus Questionnaire (Higgins et al., 2001). The Regulatory Focus Questionnaire captures differences in individual histories of being successful in the promotion versus prevention systems. Thus, a higher score on the promotion scale reflects promotion pride—a subjective history of success with promotion-related eagerness and a higher score on prevention pride reflects a subjective history of success with prevention-related vigilance. In contrast, the regulatory focus strength measure assesses differences in the chronic accessibility and sensitivity of the promotion or prevention system. Scores on strength provide information about the accessibility of these systems, but do not reveal an individual's history of success/failure within the system.

Other measures to assess chronic differences in regulatory focus have also been developed (Cunningham, Raye, & Johnson, 2005; Lockwood, Jordan, & Kunda, 2002; Ouschan, Boldero, Kashima, Wakimoto, & Kashima, 2007; Wallace, Johnson, & Frazier, 2009). These measures differ in the extent to which they capture the core facets of the regulatory focus systems, as has been highlighted by Summerville and Roese (2008) and Haws, Dholakia, and Bearden (2010). In a comprehensive analysis of measures that researchers often use to assess regulatory focus, Haws et al. (2010) concluded that the Regulatory Focus Questionnaire was the top-performing scale. It not only had adequate internal consistency and stability, but also had the best predictive validity.

However, Haws et al. (2010) also discussed cases in which other scales may be particularly useful given the interests and predictions of the researchers. Indeed, as discussed in the prior section, there may be cases where it is preferable to assess domain-specific regulatory focus motivations (Browman et al., 2017; Wallace et al., 2009) or differences in cultural or institutional orientations (Fulmer et al., 2010). Given the broad scope of regulatory focus theory, we see this as an exciting area for future research. For example, under what conditions would particular facets of each system—a history of successful regulation versus sensitivity to gains/nonlosses versus accessibility of ideals/oughts—be the best predictor of behavior?

Promotion and prevention regulatory states can also be temporarily induced. As with chronic measures of regulatory focus, several different approaches for manipulating regulatory focus have been employed. Promotion and prevention orientations can be induced by framing an identical set of task payoffs for success or failure as involving gain/nongain (promotion) or nonloss/loss (prevention; e.g., Shah & Higgins, 1997; Shah, Higgins, & Friedman, 1998) or by having individuals remember episodes from their past when they were successful either within the promotion system or within the prevention system (Higgins et al., 2001). Promotion and prevention states can also be induced by priming ideals or oughts or by having participants complete a maze that highlights nurturance versus security concerns (Friedman & Förster, 2001).

p. 51 Another common regulatory focus induction is to ask individuals to reflect on current ideals or ↳ oughts (Freitas & Higgins, 2002) or how current ideals and oughts have changed since childhood (Higgins et al., 1994; Liberman et al., 2001). Analyses of responses using this measure have shown that participants' essays

do not differ in the use of positive or negative affective words, but do differ in expected ways in the use of promotion (e.g., ideal/ideally, hope, wish, advance/advancement, hit, promote/promotion, aspiration/aspire, add, maximize, open, attain/attainment, support, nurture, challenge/challenging, new, and novel) versus prevention words (e.g., ought, responsibility, necessity, prevent/prevention, vigilant/vigilance, protect/protection, cautious, careful, duty, obligation, defend, safety, security, must, should, omit, and stable) (Scholer, Zou, Fujita, Stroessner, & Higgins, 2010).

Recently, researchers (e.g., Kanze, Huang, Conley, & Higgins, 2018) have begun to use more sophisticated content analysis techniques to assess the accessibility of promotion and prevention constructs. These analytic techniques involve both computer-aided textual analysis and manual coding to assess qualitative and quantitative differences in regulatory focus language. These analytic techniques can be applied to many sources of data (recorded conversations, formal speeches, advertising posters, tweets, websites, books). Via these techniques, for instance, it would be possible to assess an individual's current motivational orientation as captured in his or her speech patterns, regardless of its chronic or situational origin. Because these techniques can also be applied to existing text, they provide new avenues for utilizing rich sources of big data.

Are Promotion and Prevention Different From Approach and Avoidance?

One of the most common questions and confusions about regulatory focus theory is whether promotion and prevention motivations are simply redundant with approach and avoidance motivation. The short answer is no. The longer answer involves a discussion of the nature of self-regulatory hierarchies and the different ways in which approach and avoidance can unfold at different levels in a hierarchy. In this section, we introduce the conceptual framework that differentiates promotion and prevention from approach and avoidance. We also review empirical evidence that supports distinguishing between promotion/prevention and approach/avoidance motivations.

Regulatory focus theory joins other self-regulatory models that have emphasized in different ways the importance of differentiating among levels of self-regulation (Cantor & Kihlstrom, 1987; Carver & Scheier, 1998; Elliot, 2006; Elliot & Church, 1997; Kruglanski et al., 2002; G. A. Miller, Galanter, & Pribram, 1960; Pervin, 1989; Vallacher & Wegner, 1987). Although these approaches differ in the ways that they parse levels of the hierarchy, they all emphasize the importance of recognizing that the levels of self-regulation are defined by different concerns (e.g., goals, strategies, behaviors) and are independent (e.g., there is more than one behavior that can serve a given goal). The distinctions among different levels of the hierarchy that have been emphasized within regulatory focus (system, strategy, tactic) are critical for understanding the relation between promotion/prevention and approach/avoidance motivations (see also Higgins, 1997; Scholer & Higgins, 2008, 2013).

System Level: Promotion and Prevention Goals

The system level defines an individual's overarching motivational concerns and goals. Goals serve as the end states, standards, or references points that guide behavior (Austin & Vancouver, 1996; Kruglanski et al., 2002). One of the most common distinctions made at the system level is about approach versus avoidance motivation—whether individuals are regulating in relation to a desired end state (e.g., a goal to achieve professional success) or undesired end state (e.g., a goal to avoid being a professional failure). Further, and importantly, the system level also reflects what *type* of desired and undesired end states individuals are regulating. As reviewed above, both promotion focus and prevention focus operate *within* each aspect of the system level. Individuals in a promotion focus are concerned with *approaching* gains, ideals, and growth and *avoiding* nongains and nonfulfillment. Individuals in a prevention focus are concerned with *approaching* nonlosses, oughts, and safety and *avoiding* losses and danger. Thus, at the system level, regulatory focus theory is orthogonal to the distinction between approaching desired end states and avoiding undesired end states (Higgins, 1997).

The distinction between approach/avoidance and promotion/prevention motivations at the system level has been supported empirically in many different ways. Confirmatory factor analyses provide evidence that measures of system-level approach/avoidance (e.g., Behavioral Inhibition Scale/Behavior Avoidance Scale;
p. 52 Carver & White, 1994) are distinct from ↳ measures of regulatory focus (Cornwell & Higgins, 2015).[1] The "goal looms larger" effect—motivation increasing as individuals draw closer to the desired end state—occurs for both promotion and prevention goals (Förster, Higgins, & Idson, 1998). Additional evidence comes from studies that hold constant whether individuals are regulating the approach of desired end states or the avoidance of undesired end states, showing differences in the regulation of promotion versus prevention end states. These studies provide evidence that achieving or failing to achieve promotion versus prevention desired end states have distinct emotional signatures, result in distinct patterns of neural activation, and differentially engage or threaten individuals who are chronically promotion or prevention focused. We explore these distinctions in more detail next.

Success and Failure Feel Different

Success in the promotion system reflects the presence of a positive outcome (gain), leading to cheerfulness-related emotions such as happiness and joy. Failure in a promotion focus reflects the absence of a positive outcome (nongain), leading to dejection-related emotions such as sadness and disappointment. In contrast, success in the prevention system reflects the absence of a negative outcome (maintaining nonloss), leading to quiescence-related emotions such as peacefulness and calm. Failure in a prevention focus reflects the presence of a negative outcome (loss), resulting in agitation-related emotions such as anxiety and worry (Higgins, 1997, 2001; Shah & Higgins, 2001). Indeed, individuals in a promotion focus are faster at appraising how cheerful or dejected a given object makes them feel, whereas individuals in a prevention focus are faster at appraising how quiescent or agitated an object makes them feel (Shah & Higgins, 2001).

More broadly, the representation of success as a gain or nonloss and the representation of failure as a nongain or loss matters for predicting someone's emotional response. Priming ideal (promotion) discrepancies leads to increases in dejection, whereas priming ought (prevention) discrepancies leads to increases in agitation, whether those discrepancies are directly activated (Boldero, Moretti, Bell, & Francis, 2005; Higgins, Bond, Klein, & Strauman, 1986; Strauman, 1989; Strauman & Higgins, 1987) or activated by encountering someone who resembles a significant other who holds ideals or oughts for that individual (Reznik & Andersen, 2007; Shah, 2003). Being socially rejected (a prevention negative state) leads to increased anxiety and withdrawal, but being socially ignored (a promotion nongain) leads to sadness and attempts to reengage (Molden, Lucas, Gardner, Dean, & Knowles, 2009). Furthermore, whereas promotion-

focused individuals are more motivated to perform well when imagining potential dejection, prevention-focused individuals are more motivated to perform well when imagining potential agitation (Leone, Perugini, & Bagozzi, 2005).

Distinct Patterns of Neural Activation

Promotion and prevention desired end states are also associated with distinct patterns of neural activation (Strauman et al., 2013). In an initial experimental session, 2 months prior to engaging in a functional magnetic resonance imaging task, all participants provided information about two types of desired end states: the kind of person they ideally wanted to be (promotion goals) and the kind of person they believed it was their obligation to be (prevention goals). Thus, all participants provided information about positively valenced, desired end states that they wanted to approach. These were idiographic, such that the same goal content (being kind) could be an ideal for one individual and an ought for another. However, these goals differed in terms of the regulatory focus concerns they represented for a given individual. Two months later, participants completed a priming task in the functional magnetic resonance imaging scanner in which they were primed with their own ideal and ought goals as well as yoked ideal and ought goals from other participants. Promotion and prevention goal priming led to distinct patterns of activation. Promotion goal priming was associated with bilateral activation in the occipital pole and lingual gyrus as well as predominantly left-sided activation of the caudate and thalamus. In contrast, prevention goal priming was associated with activation in the left and right precuneus cortex and left and right posterior cingulate cortex. In addition, and importantly, individual differences in regulatory focus, but not more general approach/avoidance dispositions (Carver & White, 1994) predicted the strength of activation in response to promotion and prevention priming.

p. 53

Different Types of Desired End States Engage the System

As another illustration of the ways in which each regulatory system is sensitive to different positive outcomes, Cesario, Corker, and Jelinek (2013) manipulated both regulatory focus and outcome sensitivities in a persuasive message they presented to participants. Participants were first induced into a promotion or prevention focus before reading a persuasive message about the importance of dental hygiene. They then had to imagine they had $5 and were deciding how much to pay for a bottle of mouthwash. In both conditions, participants were told that their current dental hygiene was at an acceptable level. In the gains condition, participants were asked to think about how buying the mouthwash could advance their hygiene from acceptable to excellent, whereas in the nonloss condition, participants were asked to think about how buying the mouthwash would maintain their dental hygiene. Whereas participants in the promotion-focused condition offered significantly more money for the mouthwash when the message was framed in terms of gain versus nonloss, the opposite pattern was observed for participants in the prevention-focused condition.

Although research such as this makes clear that there can be more than one type of desired end state, it does not mean that the implications of pursuing gains versus nonlosses are equivalent. Indeed, a recent finding illustrates just how powerful the consequences can be when people are asked what they are doing to win versus not lose. Kanze et al. (2018) examined the transcripts of investor/entrepreneur question-and-answer sessions at Techcrunch Disrupt, one of the largest venues for the debut of new technology start-ups. Given the stated importance of combating gender bias in the tech industry, it is notable that male entrepreneurs were offered far more money than their female counterparts. Interestingly, however, a regulatory focus analysis of these interactions revealed that this was due, at least in part, to the answers investors were eliciting through the types of questions that they asked. Whereas investors tended to ask men promotion-focused questions (e.g., What is your plan to succeed?), they tended to ask women prevention-focused

questions (e.g., What is your plan to not fail?); the entrepreneurs tended to respond in kind (e.g., matching prevention-focused questions with prevention-focused answers). Because entrepreneurs who gave prevention-focused answers generally received less money than those who gave promotion-focused answers, this led to the men raising more than five times as much money as the women. What this clearly shows is that there are nontrivial effects of pursuing qualitatively different desired end states.

Different Types of Undesired End States Threaten the System

Regulatory focus also influences what types of undesired end states are problematic. Cortes, Scholer, Kohler, and Cavallo (2018) examined how regulatory focus contributes to the ways in which individuals define success and failure in romantic relationships, hypothesizing that relationship growth and gains would be particularly important for promotion-focused individuals but not prevention-focused individuals and that a lack of growth would be a problem for relationship well-being for promotion-focused but not prevention-focused individuals. In one study, all participants first completed a lengthy questionnaire about their current relationship. They then received (bogus) feedback about their relationship quality. As part of this feedback, participants received information about the "growth potential" of their relationship. Some participants were told that their relationship had reached its peak amount of growth and would likely not develop further (growth threat), whereas other participants were told that their relationship had significant room to grow further (growth opportunity). As predicted, Cortes et al. found that this gain/nongain information was irrelevant for prevention-focused individuals in that it did not predict subsequent relationship well-being. In contrast, and as predicted, promotion-focused participants reported higher relationship well-being when they believed there was room for future gains but not when they experienced the growth threat of facing a future of nongains.

The *How* of Goal Pursuit: Strategies and Tactics

Whereas the system level captures the nature of the end states that individuals are regulating, lower levels in the hierarchy capture the means or plans that individuals are using to pursue these goals (i.e., the *how* of goal pursuit). Within regulatory focus theory, we have focused on the differences between two levels of how —strategies and tactics (Higgins, 1997; Scholer & Higgins, 2008; Scholer, Stroessner, & Higgins, 2008;
p. 54 Scholer et al., 2010). Strategies are the links between goals at a higher ↳ level and tactics or behavior at a lower level. Strategies reflect the general plans or means for goal pursuit. Tactics are the instantiation of a strategy in a given context, capturing the means or process at a more concrete, in-context level (Cantor & Kihlstrom, 1987; Higgins, 1997).

Regulatory Focus Strategies

As noted earlier, at the strategic level differences between promotion and prevention motivation relate to preferences for using, respectively, eager approach strategies (approaching matches to desired end states, approaching mismatches to undesired end states) or vigilant avoidance strategies (avoiding mismatches to desired end states, avoiding matches to undesired end states) (Crowe & Higgins, 1997; Liberman et al., 2001; Molden & Higgins, 2005). In other words, at the strategic level of how individuals engage in goal pursuit, promotion and prevention motivation are aligned with strategic approach and avoidance motivation. Thus, it is not that there is no relationship between regulatory focus and approach/avoidance. Rather, it is that this alignment occurs at the *strategic*, as opposed to system, level. Therefore, depending on the level at which an approach–avoidance researcher is measuring or manipulating these motivations, it may or may not intersect with regulatory focus research (for more extensive discussion of the importance of clearly defining the levels of approach and avoidance, see Scholer & Higgins, 2008, 2013).

The eager strategic means preferred by individuals in a promotion focus reflect their concerns with advancement and progress, their pursuit of ideals and gains, and their relative sensitivity to the difference between 0 and +1. The vigilant strategic means preferred by individuals in a prevention focus reflect their concerns with safety and responsibility, their need to guard against mistakes, and their relative sensitivity to the difference between 0 and -1. As promotion- and prevention-focused individuals draw closer to desired end states, strategic eagerness increases for promotion-focused individuals and strategic vigilance increases for prevention-focused individuals (Förster, Grant, Idson, & Higgins, 2001; Förster et al., 1998).

Regulatory Focus Tactics

Eagerness and vigilance are enacted in specific situations by the tactics that individuals adopt. Individuals may adopt different supporting tactics because of differing situational opportunities or constraints or because a particular tactic better supports strategic and motivational concerns. For instance, one can protect and maintain a vigilant strategy by imagining the possibility of failure or by deflating positive self-evaluations. One can boost eagerness by optimistically imagining success or by inflating positive self-evaluations (Grant & Higgins, 2003; Scholer et al., 2014).

In the past decade, there have been significant developments in understanding the ways in which eager and vigilant strategies are enacted tactically. Early work in regulatory focus suggested that eager strategies would typically result in risky approach tactics and vigilant strategies would typically result in conservative avoidance tactics (Crowe & Higgins, 1997). However, more recent developments with both human and nonhuman animals provide evidence that depending on the nature of the situation, both risky or conservative tactics can support both promotion and prevention concerns (Franks, Higgins, & Champagne, 2012; Franks et al., 2013; Scholer et al., 2008, 2010; Stroessner, Scholer, Marx, & Weisz, 2015; Zou, Scholer, & Higgins, 2014).

Specifically, to predict whether eagerness or vigilance will result in risky or conservative tactics, it is necessary to consider where an individual currently is in relation to the status quo 0 point. As we reviewed earlier, 0 has very different meaning within the promotion and prevention systems; it is a state to approach within the prevention system and a state to avoid within the promotion system. Therefore, prevention-focused individuals are motivated to maintain this state, whereas promotion-focused individuals are motivated to move away from it. Risky tactics are more likely to move individuals away from their current state, making them more appealing for promotion- versus prevention-focused individuals at the 0 point. Indeed, research that has examined preferences for risky or conservative tactics at the 0 point find that promotion motivation is associated with a risky bias, whereas prevention motivation is associated with a conservative bias (Crowe & Higgins, 1997; Florack & Hartmann, 2007; Levine, Higgins, & Choi, 2000).

The associations between promotion and prevention and riskiness change when the current state is below versus at or above the status quo 0 point. As discussed earlier, prevention-focused individuals are particularly sensitive to the difference between 0 and -1 because this represents the difference between success (nonloss) and failure (loss) within this system. In contrast, promotion-focused individuals are not
p. 55 especially sensitive to this difference because both states represent failure within this system. At -1, ↳ consequently, the meaning of risky tactics differs between promotion- and prevention-focused individuals. When individuals experience a change in status from 0 to -1, this engages the prevention system. In this current state of failure, prevention-focused vigilance leads individuals to do whatever is necessary—including taking risks—to move to a state of nonloss.

Consistent with this motivational approach, we have found that prevention motivation, not promotion motivation, predicts a liberal (risky) bias in a signal detection framework when the stimuli are negative (versus neutral) and risk-seeking (versus risk-averse) choice when individuals have experienced financial

loss and the risky option is the only one that can restore the status quo (Scholer et al., 2008, 2010). Importantly, the research reveals that prevention-motivated risk-seeking below the status quo is clearly only a tactic used to restore safety: Prevention-focused individuals do not choose the risky option unless it is necessary. After experiencing a loss, prevention-focused individuals did not choose the risky option if the conservative option could restore their lost status quo or if neither option could return them to safety (Scholer et al., 2010). Indeed, when the risky option is the only way to restore the lost status quo, prevention motivation does not predict increased liking, but does predict decreased disliking of the risky option (Scholer et al., 2010). In other words, riskiness is a tactic that is selected not because it is liked, but because it is instrumental for serving the underlying prevention motivation.

Prevention-focused risky tactics under a state of loss or threat can manifest in several ways. For example, under conditions of nonthreat, prevention focus is associated with decreased bias toward out-group members (Stroessner et al., 2015). However, if prevention-focused individuals perceive a threat to their own group, they may engage in risky tactics (i.e., risky errors of commission—assuming an out-group member is dangerous) that are likely to lead to increased bias toward out-group members to ensure safety and security. For example, when threat is low, White prevention-focused individuals do not advocate different treatment for a suspicious White versus Arab airline passenger. However, under conditions of heightened threat, White prevention-focused individuals are more likely to advocate that an Arab individual should be subject to invasive airport screening, whereas they do not advocate this treatment for a similarly suspicious White individual. In contrast, the judgments of promotion-focused participants are unaffected by this threat manipulation (Stroessner et al., 2015).

Similar patterns of risky tactics in the service of prevention motivation have been observed in research on regulatory focus motivation in nonhuman animals (Franks et al., 2012, 2013). For instance, in one study with Long–Evans rats, Franks et al. (2012) classified rats as those that were particularly motivated by safety and nonloss (darkness) versus those that were motivated by nurturance and gains (food rewards). They observed rats in an open enclosure and recorded the relative amount of time they spent pursuing darkness versus food rewards. In a separate testing session, separated in time by 6 months, the rats were exposed to a noxious novel object in proximity to their satisfactory, safe home cage (i.e., a change from 0 to -1). Approaching the novel object is a risky behavior that can operate in the service of maintaining safety—to eliminate the threat, the rats can approach and bury the object. Just as has been observed with human animals, Franks et al. (2012) found that rats who exhibited a tendency to pursue safety in the open enclosure (prevention motivation) spent the longest time with the noxious novel object. The tendency to pursue gains in the open enclosure (promotion motivation) did not predict time spent with the noxious novel object.

Interestingly, prevention motivation to uphold obligations may sometimes lead individuals to engage in risky behaviors that seem at odds with maintaining safety. Beck, Scholer, and Schmidt (2017) had participants engage in an air traffic simulation in which participants could route planes through predetermined flight paths (no risks) or through risky shortcut zones in which there was the possibility of accidents and near misses (coming too close to another object). Participants could earn money by meeting the goal of landing a target number of airplanes within a prescribed amount of time, but payouts were negatively influenced by whether participants experienced near misses. Beck et al. manipulated whether efficiency (vs. safety) was framed as an obligation in the task. Participants for whom efficiency was an obligation were more likely to use risky shortcut behaviors to manage high workloads compared both to individuals for whom safety was an obligation and to individuals for whom efficiency was an opportunity. Individuals for whom efficiency was an obligation (vs. opportunity) were also more likely to resume the use of shortcut behaviors following a near miss. When individuals experienced the possibility of not meeting
p. 56
their goals—in this case, the goal of efficiency rather than safety—risks ↳ were embraced to uphold important obligations. These findings demonstrate the power of shared ought goals in guiding choices, even over safety, where the power of shared oughts has a history in our socialization with significant others.

Just as the sensitivities of prevention motivation predict tactical switches between risky and conservative options in changes between 0 and -1, so too do the sensitivities of promotion motivation predict tactical switches between risky and conservative options in changes between 0 and +1. Within the promotion system this represents the difference between failure (nongain) and success (gain). In contrast, prevention-focused individuals are not especially sensitive to this difference because both states represent success. At 0 and +1, consequently, the meaning of risky tactics differs between promotion- and prevention-focused individuals. When individuals are currently at 0 or experience a change in status from 0 to +1, this engages the promotion system. Success is about the presence of gains and the experience of progress; risky tactics are embraced when promotion-focused individuals feel stuck in nongains. If promotion-focused individuals have just experienced significant progress, however, the motivation to take risks diminishes.

Consistent with these predictions, we have found that promotion motivation, not prevention motivation, predicts risky choice when individuals receive feedback that a financial investment has resulted in no change from their initial state (Zou et al., 2014). However, if they receive feedback that their investment has returned a large gain, they are more likely to choose the conservative versus risky option. Furthermore, simply framing a financial gain as low or high progress results in the same pattern of results. If a financial gain is framed as low progress, promotion motivation predicts risky choice; if the same financial gain is framed as high progress, promotion motivation predicts the choice of a conservative option (Zou et al., 2014). Indeed, the preference for a conservative rather than a risky option following a large gain for promotion-focused individuals was mediated by perceptions of progress, such that it was precisely those who believed that they had made substantial progress in the gains they achieved who switched from a risky to a conservative tactic.

Therefore, it is this perception of progress (movement from nongains to gains) that may be critical for understanding the tactics that individuals in a promotion focus will embrace. If people perceive that not enough progress has been made and a risky choice has the potential to make real progress, then promotion-focused individuals will be motivated to make the risky choice. Consistent with this argument, Zou and Scholer (2016) found, in an examination of risk-seeking preferences across different decision domains (e.g., social, financial, recreational), that promotion motivation was associated with risky preferences only in domains in which participants perceived true potential for progress (a gain:loss ratio exceeding 1). Thus, for promotion-focused individuals to make the risky choice, they must believe both that not enough progress has been made yet and that the risky choice has the potential to make real progress. Indeed, the reason that promotion-focused individuals tend to make a conservative choice, rather than a risky choice, after they perceive having made real progress (i.e., to reach +1) could be because they no longer believe that they can make any additional real gain given the high level of their current condition. This possibility needs to be examined in future research.

Is One Type of Motivation Better Than the Other?

Depending on where you stand—your own chronic levels of promotion or prevention motivation, whether you hail from Osaka or Oakland—your biases regarding the question of whether promotion versus prevention motivation is superior are likely to become apparent. To the consummate promotion-focused individual, it may seem incomprehensible that a vigilant focus on what might go wrong could ever be better than eagerly focusing on the potential for upsides. To the quintessential prevention-focused individual, nothing could be more apparent than all the ways that the world has fallen apart when unrealistic eagerness has been employed rather than grown-up vigilance. However, as we will discuss in detail below, one of the key (bipartisan) tenets of regulatory focus theory is that both motivations are essential. In contrast to motivational theories that focus primarily on how some types of motivation are more functional than others, regulatory focus theory highlights the trade-offs of both promotion and prevention motivation. Neither is generally superior or inferior. It depends on the individual, the situation, and the outcomes examined.

Research in the past 2 decades has given us greater understanding of these trade-offs of promotion and prevention motivation, inspiring new research directions. We begin by briefly highlighting some of the
p. 57 trade-offs of both systems (for a more extended review, see Scholer & Higgins, 2012). ↳ We then discuss three areas of research that showcase how consideration of these trade-offs is useful and generative: (a) work on regulatory fit theory, (b) work on group dynamics, and (c) work on metamotivation.

Trade-Offs in Promotion and Prevention Motivation

Different Highs, Different Lows

As reviewed earlier, success and failure have distinct emotional signatures for promotion and prevention goals. These differences not only result in distinct vulnerabilities within each system, but also mean that how it feels to attain the good life in promotion versus prevention is not the same. Both prevention- and promotion-focused individuals experience a sense of well-being when they successfully attain a goal and a sense of dissatisfaction when they do not (e.g., Grant & Higgins, 2003; Molden et al., 2009). However, whereas promotion goals expose individuals to the upside of joy and the downside of depression, prevention goals expose individuals to the upside of calm and the downside of anxiety (Idson, Liberman, & Higgins, 2000, 2004).

Several studies support the link between failures in the promotion system and depression (Eddington et al., 2009; Jones, Papadakis, Hogan, & Strauman, 2009; A. K. Miller & Markman, 2007; Papadakis, Prince, Jones, & Strauman, 2006; Strauman et al., 2006; Vieth et al., 2003) and suicidal ideation (Cornette, Strauman, Abramson, & Busch, 2009). Indeed, it is when the motivational system is particularly strong (when promotion really matters) that individuals are most vulnerable to failures within the system (Higgins et al., 1997; Strauman, 2002). Self-systems theory, a structured psychotherapy to treat the depression that is associated with individuals who are failing to meet chronic promotion goals, has been shown to be particularly effective at reducing symptoms for depression for these individuals (Strauman et al., 2006; Vieth et al., 2003).

Similarly, strong prevention motivation creates possible vulnerability to anxiety disorders (Klenk, Strauman, & Higgins, 2011). Individuals with chronic actual–ought discrepancies are more likely to experience anxiety (Scott & O'Hara, 1993; Strauman, 1989; Strauman et al., 2001). For instance, Scott and O'Hara (1993) found that university students diagnosed with any one of a number of anxiety disorders (generalized anxiety disorder, panic attacks, agoraphobia, social phobia, or obsessive–compulsive disorder)

had higher actual–ought discrepancy scores than nonanxious or depressed students. Individuals with social phobia also have higher actual–ought discrepancy scores relative to depressed or control participants (Strauman, 1989).

Although research on the emotional trade-offs of regulatory focus motivations has tended to focus on emotional vulnerabilities, an important direction for future research is to further examine the ways in which the different highs of the two systems (joy and peace) may result in distinct ways of experiencing the "good life." For instance, some research has found that whereas promotion themes in life narratives are related to greater reported life satisfaction, prevention themes are unrelated (Manczak, Zapata-Gietl, & McAdams, 2014). Part of examining this may depend on how the good life is measured; successful promotion and prevention motivation may be related to different positive outcomes. It may also be, as we discuss in the next section, that the aspects of life that keep a promotion-focused individual engaged (i.e., eagerness and optimism) are consonant with a sense of well-being, whereas the aspects of life that keep a prevention-focused individual engaged (i.e., vigilance and defensive pessimism) can, at times, work against a sense of well-being. But, once again, there can be potential biases, including ideological biases, in how we measure well-being.

Engaged by Failure Versus Success

Although both promotion- and prevention-focused individuals pursue success and avoid failure, the distinct preferences for eager and vigilant strategies have important implications for how anticipated and experienced success and failure work within each system. Eagerness is difficult to maintain when one is feeling dejected after failure; vigilance is difficult to maintain when one is feeling calm after success. Thus, eagerness is bolstered by reflecting on possible, past, and current success. Vigilance is bolstered by reflecting on possible, past, and current failure. For example, Idson and Higgins (2000) found that promotion-focused individuals showed a decline in performance after failure feedback relative to success feedback, whereas prevention-focused individuals showed the opposite pattern—better performance after failure feedback than after success feedback (see also Förster et al., 2001; Idson et al., 2000, 2004; van-Dijk & Kluger, 2004). Promotion-focused individuals persist longer when reflecting on potential strengths, whereas prevention-focused individuals persist longer when reflecting on potential weaknesses (Scholer et al., 2014).

p. 58 These dynamics result in system-specific vulnerabilities. Although increasing eagerness tends to feel ↳ good, its closer coupling with success versus failure feedback means it can become untethered from reality. Because promotion-focused individuals may be less attentive to failure and areas that need improvement, this has the potential to reduce the effectiveness of learning. Promotion-focused individuals protect themselves against negative feedback by being generally optimistic (Grant & Higgins, 2003) and having high self-esteem (Higgins, 2008). Promotion-focused individuals are also more likely to develop illusions of control regarding uncontrollable outcomes (Langens, 2007). Promotion-focused individuals may, at times, be overly optimistic and overeager (even manic), when being realistic would serve them well.

Vigilance, in contrast, can be emotionally and cognitively exhausting even if it keeps a firmer grip on possible failures. Prevention-focused individuals are more likely to generate subtractive (vigilant) counterfactuals when reflecting on past failures (Roese, Hur, & Pennington, 1999), and they perform better on subsequent tasks when they employ counterfactuals that sustain vigilance (Markman, McMullen, Elizaga, & Mizoguchi, 2006). To maintain their vigilance, prevention-focused individuals respond to failure by lowering expectancies even more (Förster et al., 2001). This means that they may be overly attentive to negative signals; they may not give themselves or others enough credit for success and may be less likely to adopt those positive illusions that can buffer against a number of negative health outcomes (Taylor, Lerner,

Sherman, Sage, & McDowell, 2003). Strategic vigilance taken too far may be problematic, even to the extent of producing pathological generalized anxiety disorder (Higgins, 2006; Klenk et al., 2011).

Commitment Versus Exploration

Effective self-regulation involves the capacity to commit and exploit that which is in front of you as well as a willingness and capacity to change direction and explore new horizons when necessary. The prevention system, all else being equal, excels at commitment. The promotion system, all else being equal, excels at exploration. Indeed, Cornwell and Higgins (2015) found that promotion and prevention were the strongest indicators of openness values and conservation values, respectively, even more than measures of system-level approach/avoidance.

Several studies support the idea that prevention focus is associated with commitment to the status quo (Chernev, 2004; Crowe & Higgins, 1997; Jain, Lindsey, Agrawal, & Maheswaran, 2007; Liberman, Idson, Camacho, & Higgins, 1999) and, in general, reduced openness to change (Higgins, 2008; Leikas, Lönnqvist, Verkasalo, & Lindeman, 2009; Vaughn, Baumann, & Klemann, 2008). In the political realm, prevention motivation is associated with attachment to the status quo/binding morality (Boldero & Higgins, 2011; Cornwell & Higgins, 2013). When making decisions or comparing options, prevention-focused individuals consider relatively few alternatives (Crowe & Higgins, 1997; Liberman et al., 2001; Molden & Higgins, 2004), also paying less attention to romantic alternatives than promotion-focused participants (Finkel, Molden, Johnson, & Eastwick, 2009). One reason for the consideration of fewer alternatives may be that prevention-focused individuals are relatively more content with moderate, "safe" options that promise neither extreme highs nor lows (Zhang & Mittal, 2007). Prevention-focused (but not promotion-focused) individuals are also susceptible to the endowment effect, in which people value an object more simply because they possess it (Chernev, 2004; Liberman et al., 1999).

This maintenance focus has its upsides. By limiting the paths that they consider, prevention-focused individuals have a better chance of protecting commitments they have already made. Prevention-focused individuals who are chronically or temporarily concerned about health issues are more likely to engage in health care-taking behaviors (Uskul, Keller, & Oyserman, 2008) and are more successful at maintaining changes after successful initiation (e.g., weight loss) than are promotion-focused individuals (Fuglestad, Rothman, & Jeffery, 2008). The downside of this devotion to the status quo and a restricted option set can be increased errors and/or missed opportunities. Prevention-focused individuals may miss opportunities to improve their situation because they are content with "good enough"—they are content with nonlosses being satisfactory and gains not being necessary. Furthermore, perceptions of current states can be amiss, and prevention-focused individuals may be more likely to stay in or perpetuate suboptimal states that they have categorized as nonlosses even though, in fact, they are negative. Indeed, research suggests that prevention-focused individuals are more likely to anoint past behaviors and experiences as a status quo that needs to be maintained, regardless of whether these behaviors are ethical (Zhang et al., 2014) or desirable (Zhang et al., 2011).

Unlike prevention-focused individuals, promotion-focused individuals are eager to seek new horizons.
p. 59 Promotion motivation is positively correlated with ↳ openness to experience (Higgins, 2008; Vaughn et al., 2008) and negatively associated with values related to stability and tradition (Cornwell & Higgins, 2015; Leikas et al., 2009). Promotion-focused participants keep their options open by employing a greater number of categories when sorting objects relative to prevention-focused participants (Crowe & Higgins, 1997; Liberman et al., 2001; Molden & Higgins, 2004). Promotion-focused individuals also value the desired end state of having all the latest and greatest technology more than prevention-focused individuals (Herzenstein, Posavac, & Brakus, 2007; Higgins, 2002; Stam & Stanton, 2010). Relative to prevention-focused individuals, promotion-focused individuals are more willing to give up an activity they are working

on or an object they currently possess for a new activity or object (Chernev, 2004; Crowe & Higgins, 1997; Liberman et al., 1999). In search of the ultimate gain, promotion-focused individuals prefer extreme highs, even at the risk of some extreme lows, rather than a middling experience (Zhang & Mittal, 2007).

Being able to see the good in multiple paths can bring challenges to one's current commitments. As maximizers (Hughes & Scholer, 2017), promotion-focused individuals are more likely to ask themselves whether their present circumstances are acceptable. Promotion-focused individuals report paying more attention to romantic alternatives and being more proactive about pursuing them relative to prevention-focused individuals (Finkel et al., 2009). Promotion-focused individuals who tend to be chronic thrill-seekers are more likely to engage in health-detrimental behaviors, such as using stimulants to push through an illness (Uskul et al., 2008). Promotion-focused individuals may not as easily resist tempting distractions (Freitas & Higgins, 2002; Sengupta & Zhou, 2007). Although promotion-focused individuals may be less likely to miss opportunities (Galinsky, Leonardelli, Okhuysen, & Mussweiler, 2005), they run the risk of never being truly content with accepting their circumstances as they are.

It Is the Fit That Counts

At this point, it should be clear that both promotion and prevention motivational systems have upsides and downsides. To understand when and why certain motivational strategies are effective, it is critical to consider the interrelations among levels in the hierarchy. Specifically, as developed in regulatory fit theory, a key determinant of the effectiveness of a given strategy is how it fits the underlying goal orientation (Higgins, 2000). When a promotion-focused individual employs eager strategies and a prevention-focused individual employs vigilant strategies, they experience regulatory fit (Higgins, 2000). Hundreds of studies show that when people use strategies that fit their underlying goal orientation, they are more engaged in goal pursuit, they feel right about what they are doing, and the value of decisions and behaviors is intensified (Higgins, 2000, 2006). A recent meta-analysis provided evidence that the regulatory fit effect is robust and reliable as assessed by changes in evaluations, behavioral intentions, and behavior (Motyka et al., 2014).

To illustrate both the power and the subtlety of many of these regulatory fit effects, we discuss an early and classic regulatory fit paradigm (Higgins, Idson, Freitas, Spiegel, & Molden, 2003). In the study, chronic differences in regulatory focus strength were measured prior to participants making a choice between an attractive coffee mug and a cheap disposable pen. In making their choice, half of the participants were told to think about what they would gain by choosing the mug and what they would gain by choosing the pen (eager approach strategy). The other half of the participants 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 avoidance strategy). Thus, in both conditions participants were thinking about the same kind of positive attributes (e.g., I would gain a cool vessel for drinking coffee if I choose the mug; I would lose a cool vessel for drinking coffee if I do not choose the mug), and in both conditions making the choice itself resulted in a desired end state (owning the positive attributes of the mug they selected). The critical dependent variable was how much money participants were willing to spend to purchase the mug.

Consistent with regulatory fit theory, the price offered to buy the mug was almost 70% higher under regulatory fit than under nonfit (Higgins et al., 2003; Study 2). Thus, although all participants were approaching a desired end state, the strategic means they used had a significant effect on their experience of the decision activity, which in turn intensified the value of the mug. It is notable that there was no main effect of regulatory focus goal orientation and no main effect of the strategic means in these studies. In other words, it was not better overall to be promotion or prevention oriented or to use eager or vigilant strategies. Rather, it was the interaction that mattered.

p. 60 Current research into the dynamics of regulatory fit and nonfit are examining how the mechanisms of ↳ regulatory fit can differ depending on how much the decision or activity at hand matters to an individual (Avnet, Laufer, & Higgins, 2013), the conditions under which nonfit may actually lead to benefits to performance or decision-making (Fridman, Scherr, Glare, & Higgins, 2016), and whether the manner in which regulatory fit is created differentially affects downstream outcomes (Motyka et al., 2014). Researchers are also starting to examine more fully how the extent to which an individual's motivational orientation fits or does not fit with the dominant cultural orientation (at the national or organizational level) influences goal pursuit and well-being. For instance, Fulmer et al. (2010) found that culture can act as an intensifier of the relation between individual differences and well-being, such that the relation between promotion motivation and well-being was stronger in cultures that were predominantly promotion oriented. It is also possible that when individuals are in cultures that fit their predominant orientation, this may afford more opportunities to engage in situations (e.g., aligned incentive and feedback systems) that naturally lead to fit.

Group Dynamics

The dynamics of promotion and prevention motivation not only influence intraindividual effectiveness, but also play a role in the effectiveness and well-being of dyads and groups. Research in recent years suggests that regulatory focus complementarity in relationships (e.g., one predominantly promotion-focused partner, one predominantly prevention-focused partner) may be linked to enhanced well-being (Bohns & Higgins, 2011; Bohns et al., 2013). Complementarity may be especially likely to lead to well-being and effective performance to the extent that the partners have a common goal and tasks can be divided in a way that individuals can specialize in the strategies and goals at which they excel and for which they care most about (Bohns & Higgins, 2011). Regulatory focus complementarity may also engender higher performance to the extent that the vulnerabilities of each system constrain each other (e.g., deeper consideration of both negative and positive possibilities, concern for both speed and accuracy). Although empirical work on the benefits of regulatory focus complementarity on performance is relatively lacking, recent research on the group dynamics of complementarity in regulatory mode motivational orientations (Mauro, Pierro, Mannetti, Higgins, & Kruglanski, 2009) provides promising paradigms and guidance.

Research on regulatory focus complementarity in romantic relationships suggests that its benefits are apparent in situations in which partners have shared goals. When partners have complementary regulatory focus orientations, individuals can adopt their preferred strategy (e.g., promotion-focused partner eagerly dreaming of retirement travel) while their partner can still implement his or her preferred strategy (e.g., prevention-focused partner vigilantly ensuring that all financial matters are in order). Consistent with these predictions, Bohns et al. (2013) found that among couples with high goal congruence (i.e., "I'm confident that my partner and I generally share the same goals for our relationship"), regulatory focus complementarity led to greater relationship satisfaction. For individuals with low goal congruence, regulatory focus complementarity was unrelated to relationship satisfaction.

This boundary condition for the benefits of regulatory focus complementarity suggests potentially interesting tensions between the benefits of similarity and complementarity in dyads and groups. Although complementarity may be beneficial for allowing individuals to employ preferred strategies, complementarity may create challenges when dyads or groups are still establishing core priorities or defining success and failure. Given the differences in how promotion- and prevention-focused individuals define success, for instance, complementary couples may sometimes experience conflicting perspectives on whether their romantic relationship is satisfying (Cortes et al., 2018). Understanding the conditions under which similarity and complementarity are beneficial or problematic is an exciting direction for future work.

Metamotivation

As we have discussed throughout this chapter, the relative strengths and vulnerabilities of promotion and prevention goals and strategies depend on the dynamics of a given situation. Recently, researchers have begun to investigate the extent to which individuals understand and can take advantage of the qualitative trade-offs of these motivational states, a component of metamotivation. Building on earlier work in educational psychology on motivation regulation (Boekaerts, 1995; Corno, 1993) and integrating insights from the cognitive, developmental, and educational psychology literatures on metacognition (Dunlosky & Metcalfe, 2009; Wolters, 2003), researchers conceptualize metamotivation as the knowledge and
p. 61 management of one's motivational states—both quality and quantity—in the pursuit ↳ of one's goals (Miele & Scholer, 2018; Scholer & Miele, 2016). Metamotivation encompasses two reciprocal sets of processes: *metamotivational monitoring* and *metamotivational control.* Monitoring involves assessing the quantity and quality (e.g., promotion versus prevention) of one's motivation to pursue a particular goal, while control involves using these assessments to select and execute strategies that bolster or change one's motivation. Within the context of regulatory focus, initial research has started to examine the extent to which individuals recognize how different situations offer distinct motivational affordances.

For instance, situations that are typically best performed with eager motivation may be characterized by one or all of the following: associative, divergent, and flexible thinking (e.g., a creative brainstorming task; Friedman & Förster, 2001); a focus on the abstract or big picture (e.g., developing a company's vision statement; Förster & Higgins, 2005; Semin et al., 2005); incentive structures in which gains are prevalent and rewarded (e.g., bonuses based on bigger-than-expected profits (Higgins et al., 1997); and situations when having fun and indulgence are the primary goal (e.g., a fun vacation; Dholakia, Gopinath, Bagozzi, & Nataraajan, 2006). In contrast, situations that are typically best performed with vigilance motivation are characterized by convergent, analytic thinking (e.g., Graduate Record Examination logic problems; Seibt & Förster, 2004), a focus on concrete or local details (e.g., quality control inspections; Förster & Higgins, 2005; Semin et al., 2005), incentive structures in which potential losses are prevalent and costly (e.g., military surveillance; Higgins et al., 1997); and times when lapses in attention are problematic (e.g., avoiding temptations; Freitas, Liberman, & Higgins, 2002). Individuals commonly must juggle different situations that involve eager versus vigilant motivation. Even within the same goal (e.g., rolling out a new marketing campaign), each motivational strategy can be optimal at different stages in the process (e.g., being eager when initially brainstorming the campaign, being vigilant when reviewing the final press release).

Scholer and Miele (2016) found that many individuals in North America appeared to hold two competing metamotivational beliefs. On the one hand, individuals exhibited some awareness of task–motivation fit: They said they would prefer to perform prevention-inducing recall activities before engaging in tasks requiring vigilant as opposed to eager processing strategies, but would prefer to perform promotion-inducing recall activities before engaging in tasks requiring eager strategies. Furthermore, they consistently expected prevention-inducing recall activities and incentives (but not promotion-inducing activities and incentives) to result in better performance on tasks requiring vigilant as opposed to eager processing strategies. On the other hand, these studies revealed that North American participants also held beliefs about the strong utility of promotion motivation, such that they generally expected to perform better, regardless of task type, when engaging in activities that induce promotion motivation. Given cross-cultural differences in promotion versus prevention predominance, it would be interesting in future research to examine individuals' general expectations in nations outside North America (e.g., China, Japan, South Korea).

Research in this area offers promising new directions for understanding how people attempt to manage their own (and others') motivational states. It is not yet known what types of means people might

spontaneously use to induce a desired motivational state, the cultural factors that might influence whether individuals tend to see promotion or prevention motivation as more generally useful, and the conditions that facilitate versus hinder the translations of accurate metamotivational knowledge into behavior. However, just as prior research has shown the central role that the direct management of cognition, emotions, and behavior has in goal pursuit, this area suggests novel possibilities of understanding how people may directly manage motivational states, including those outlined in regulatory focus theory.

Concluding Thoughts

The past 2 decades have broadened and deepened our understanding of the promotion and prevention motivational systems, as well as their impacts on the thoughts, feelings, decisions, and behaviors of both human and nonhuman animals. We also have a better understanding of the systems' operation and development across the life span, as well as advances in the measurement of chronic regulatory focus and the variety of methods by which it can be experimentally induced in state form.

However, there is still much more to learn about these systems, with each discovery generating new questions concerning how these two systems contribute to our surviving and thriving as motivated animals. Research on regulatory focus has qualified our thinking about approach and avoidance motivation,
p. 62 throwing three distinct motivational levels ↳ into stark relief, highlighting how promotion and prevention differences lead to experiential and behavioral differences at the system, strategic, and tactical levels of motivation. Furthermore, the trade-offs that exist within and between the two systems highlight the importance of research on regulatory focus complementarity within individuals, dyads, and groups, as well as metamotivational competencies to shift motivational dynamics to be a better strategic fit with the demands of the circumstances. Over the course of 2 decades, much has been learned by careful research, and each newly secured discovery continues to highlight new opportunities to be pursued.

References

Austin, J. T., & Vancouver, J. B. (1996). Goal constructs in psychology: Structure, process, and content. *Psychological Bulletin,* 120 , 338–375.
Google Scholar WorldCat

Avnet, T., Laufer, D., & Higgins, E. T. (2013). Are all experiences of fit created equal? Two paths to persuasion. *Journal of Consumer Psychology,* 23 , 301–316.
Google Scholar WorldCat

Bass, B. M. (1985). *Leadership and performance beyond expectations*. New York, NY: Free Press.
Google Scholar Google Preview WorldCat COPAC

Beck, J. W., Scholer, A. A., & Schmidt, A. M. (2017). Workload, risks, and goal framing as antecedents of shortcut behaviors. *Journal of Business and Psychology,* 32 , 421–440.
Google Scholar WorldCat

Boekaerts, M. (1995). Self-regulated learning: Bridging the gap between metacognitive and metamotivation theories. *Educational Psychologist,* 30 , 195–200.
Google Scholar WorldCat

Bohns, V. K., & Higgins, E. T. (2011). Liking the same things, but doing things differently: Outcome versus strategic compatibility in partner preferences for joint tasks. *Social Cognition,* 29 , 497–527.
Google Scholar WorldCat

Bohns, V. K., Lucas, G. M., Molden, D. C., Finkel, E. J., Coolsen, M. K., Kumashiro, M., … Higgins, E. T. (2013). Opposites fit: Regulatory focus complementarity and relationship well-being. *Social Cognition,* 31 , 1–14.
Google Scholar WorldCat

Boldero, J., & Francis, J. (2000). The relation between self-discrepancies and emotion: The moderating roles of self-guide importance, location relevance, and social self-domain centrality. *Journal of Personality and Social Psychology,* 78 , 38–52.
Google Scholar WorldCat

Boldero, J. M., & Higgins, E. T. (2011). Regulatory focus and political decision making: When people favor reform over the status quo. *Political Psychology,* 32 , 399–418.
Google Scholar WorldCat

Boldero, J. M., Moretti, M. M., Bell, R. C., & Francis, J. J. (2005). Self-discrepancies and negative affect: A primer on when to look for specificity, and how to find it. *Australian Journal of Psychology,* 57 , 139–147.
Google Scholar WorldCat

Bowlby, J. (1969). *Attachment* (Vol. 1). New York, NY: Basic Books.
Google Scholar Google Preview WorldCat COPAC

Bowlby, J. (1973). *Separation: Anxiety and anger* (Vol. 2). New York, NY: Basic Books.
Google Scholar Google Preview WorldCat COPAC

Brendl, C. M., & Higgins, E. T. (1996). Principles of judging valence: What makes events positive or negative? *Advances in Experimental Social Psychology,* 28 , 95–160.
Google Scholar WorldCat

Browman, A. S., Destin, M., & Molden, D. C. (2017). Identity-specific motivation: How distinct identities direct self-regulation across distinct situations. *Journal of Personality and Social Psychology,* 113 , 835–857.
Google Scholar WorldCat

Burns, J. M. (1978). *Leadership*. New York, NY: Harper & Row.
Google Scholar Google Preview WorldCat COPAC

Cantor, N., & Kihlstrom, J. F. (1987). *Personality and social intelligence*. Englewood Cliffs, NJ: Prentice Hall.
Google Scholar Google Preview WorldCat COPAC

Carver, C. S., & Scheier, M. F. (1998). *On the self-regulation of behavior*. New York, NY: Cambridge University Press.
Google Scholar Google Preview WorldCat COPAC

Carver, C. S., & White, T. L. (1994). Behavioral inhibition, behavioral activation, and affective responses to impending reward and punishment: The BIS/BAS Scales. *Journal of Personality and Social Psychology,* 67 , 319–333.
Google Scholar WorldCat

Cesario, J., Corker, K. S., & Jelinek, S. (2013). A self-regulatory framework for message framing. *Journal of Experimental Social Psychology,* 49 , 238–249.
Google Scholar WorldCat

Chernev, A. (2004). Goal orientation and consumer preference for the status quo. *Journal of Consumer Research,* 31 , 557–565.
Google Scholar WorldCat

Cornette, M. M., Strauman, T. J., Abramson, L. Y., & Busch, A. M. (2009). Self-discrepancy and suicidal ideation. *Cognition and Emotion,* 23 , 504–527.
Google Scholar WorldCat

Corno, L. (1993). The best-laid plans: Modern conceptions of volition and education research. *Educational Researcher,* 22 (2), 14–22.
Google Scholar WorldCat

Cornwell, J. F. M., & Higgins, E. T. (2013). Morality and its relation to political ideology: The role of promotion and prevention concerns. *Personality and Social Psychology Bulletin,* 39 , 1164–1172.
Google Scholar WorldCat

Cornwell, J. F. M., & Higgins, E. T. (2015). Approach and avoidance in moral psychology: Evidence for three distinct motivational levels. *Personality and Individual Differences,* 86 , 139–149.
Google Scholar WorldCat

Cortes, K., Scholer, A. A., Kohler, A., & Cavallo, J. V. (2018). Perceiving relationship success through a motivational lens: A regulatory focus perspective. *Personality and Social Psychology Bulletin,* 44, 795–808.
Google Scholar WorldCat

Crowe, E., & Higgins, E. T. (1997). Regulatory focus and strategic inclinations: Promotion and prevention in decision-making. *Organizational Behavior and Human Decision Processes,* 69 , 117–132.
Google Scholar WorldCat

Cunningham, W. A., Raye, C. L., & Johnson, M. K. (2005). Neural correlates of evaluation associated with promotion and prevention regulatory focus. *Cognitive, Affective & Behavioral Neuroscience,* 5 , 202–211.
Google Scholar WorldCat

Dholakia, U. M., Gopinath, M., Bagozzi, R. P., & Nataraajan, R. (2006). The role of regulatory focus in the experience and self-control of desire for temptations. *Journal of Consumer Psychology,* 16 , 163–175.
Google Scholar WorldCat

Dunlosky, J., & Metcalfe, J. (2009). *Metacognition* (Vol. ix). Thousand Oaks, CA: Sage.
Google Scholar Google Preview WorldCat COPAC

Eddington, K. M., Dolcos, F., McLean, A. N., Krishnan, K. R., Cabeza, R., & Strauman, T. J. (2009). Neural correlates of idiographic goal priming in depression: Goal-specific dysfunctions in the orbitofrontal cortex. *Social Cognitive and Affective Neuroscience,* 4 , 238–246.
Google Scholar WorldCat

Elliot, A. J. (2006). The hierarchical model of approach–avoidance motivation. *Motivation and Emotion,* 30 , 111–116.
Google Scholar WorldCat

Elliot, A. J., & Church, M. A. (1997). A hierarchical model of approach and avoidance achievement motivation. *Journal of Personality and Social Psychology,* 72 , 218–232.
Google Scholar WorldCat

Finkel, E. J., Molden, D. C., Johnson, S. E., & Eastwick, P. W. (2009). Regulatory focus and romantic alternatives. In J. P. Forgas, R. F. Baumeister, & D. M. Tice (Eds.), *Self-regulation: Cognitive, affective, and motivational processes* (pp. 319–335). New York, NY: Oxford University Press.
Google Scholar Google Preview WorldCat COPAC

Florack, A., & Hartmann, J. (2007). Regulatory focus and investment decisions in small groups. *Journal of Experimental Social Psychology,* 43 , 626–632.
Google Scholar WorldCat

Förster, J., Grant, H., Idson, L. C., & Higgins, E. T. (2001). Success/failure feedback, expectancies, and approach/avoidance motivation: How regulatory focus moderates classic relations. *Journal of Experimental Social Psychology,* 37 , 253–260.
Google Scholar WorldCat

Förster, J., & Higgins, E. T. (2005). How global versus local perception fits regulatory focus. *Psychological Science,* 16 , 631–636.
Google Scholar WorldCat

Förster, J., Higgins, E. T., & Bianco, A. T. (2003). Speed/accuracy decisions in task performance: Built-in trade-off or separate strategic concerns? *Organizational Behavior and Human Decision Processes,* 90 , 148–164.
Google Scholar WorldCat

Förster, J., Higgins, E. T., & Idson, L. C. (1998). Approach and avoidance strength during goal attainment: Regulatory focus and the “goal looms larger” effect. *Journal of Personality and Social Psychology,* 75 , 1115–1131.

Franks, B., Higgins, E. T., & Champagne, F. A. (2012). Evidence for individual differences in regulatory focus in rats, *Rattus norvegicus*. *Journal of Comparative Psychology,* 126 , 347–354.

Franks, B., Reiss, D., Cole, P., Friedrich, V., Thompson, N., & Higgins, E. T. (2013). Predicting how individuals approach enrichment: Regulatory focus in cotton-top tamarins (*Sanguinus oedipus*). *Zoo Biology,* 32 , 427–435.

Freitas, A. L., & Higgins, E. T. (2002). Enjoying goal-directed action: The role of regulatory fit. *Psychological Science,* 13 , 1–6.
Google Scholar WorldCat

Freitas, A. L., Liberman, N., & Higgins, E. T. (2002). Regulatory fit and resisting temptation during goal pursuit. *Journal of Experimental Social Psychology,* 38 , 291–298.
Google Scholar WorldCat

Fridman, I., Scherr, K. A., Glare, P. A., & Higgins, E. T. (2016). Using a non-fit message helps to de-intensify negative reactions to tough advice. *Personality and Social Psychology Bulletin,* 42 , 1025–1044.
Google Scholar WorldCat

Friedman, R. S., & Förster, J. (2001). The effects of promotion and prevention cues on creativity. *Journal of Personality and Social Psychology,* 81 , 1001–1013.
Google Scholar WorldCat

Fuglestad, P. T., Rothman, A. J., & Jeffery, R. W. (2008). Getting there and hanging on: The effect of regulatory focus on performance in smoking and weight loss interventions. *Health Psychology,* 27 (Suppl.), S260–S270.
Google Scholar WorldCat

Fujita, K. (2011). On conceptualizing self-control as more than the effortful inhibition of impulses. *Personality and Social Psychology Review,* 15 , 352–366.
Google Scholar WorldCat

Fulmer, C. A., Gelfand, M. J., Kruglanski, A. W., Kim-Prieto, C., Diener, E., Pierro, A., & Higgins, E. T. (2010). On "feeling right" in cultural contexts: How person–culture match affects self-esteem and subjective well-being. *Psychological Science,* 21 , 1563–1569.

Galinsky, A. D., Leonardelli, G. J., Okhuysen, G. A., & Mussweiler, T. (2005). Regulatory focus at the bargaining table: Promoting distributive and integrative success. *Personality and Social Psychology Bulletin,* 31 , 1087–1098.
Google Scholar WorldCat

Grant, H., & Higgins, E. T. (2003). Optimism, promotion pride, and prevention pride as predictors of quality of life. *Personality and Social Psychology Bulletin,* 29 , 1521–1532.
Google Scholar WorldCat

Gray, J. A. (1970). The psychophysiological basis of introversion–extraversion. *Behaviour Research and Therapy,* 8 , 249–266.
Google Scholar WorldCat

Haws, K. L., Dholakia, U. M., & Bearden, W. O. (2010). An assessment of chronic regulatory focus measures. *Journal of Marketing Research,* 47 , 967–982.
Google Scholar WorldCat

Herzenstein, M., Posavac, S. S., & Brakus, J. J. (2007). Adoption of new and really new products: The effects of self-regulation systems and risk salience. *Journal of Marketing Research,* 44 , 251–260.
Google Scholar WorldCat

Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review,* 94 , 319–340.
Google Scholar WorldCat

Higgins, E. T. (1997). Beyond pleasure and pain. *American Psychologist,* 52 , 1280–1300.
Google Scholar WorldCat

Higgins, E. T. (1998). From expectancies to worldviews: Regulatory focus in socialization and cognition. In J. M. Darley & J. Cooper (Eds.), *Attribution and social interaction: The legacy of Edward E. Jones* (pp. 243–309). Washington, DC: American Psychological Association.
Google Scholar Google Preview WorldCat COPAC

Higgins, E. T. (1999). Persons or situations: Unique explanatory principles or variability in general principles? In D. Cervone & Y. Shoda (Eds.), *The coherence of personality: Social-cognitive bases of consistency, variability, and organization* (pp. 61–93). New York, NY: Guilford Press.
Google Scholar Google Preview WorldCat COPAC

Higgins, E. T. (2000). Making a good decision: Value from fit. *American Psychologist,* 55 , 1217–1230.
Google Scholar WorldCat

Higgins, E. T. (2001). Promotion and prevention experiences: Relating emotions to nonemotional motivational states. In J. P. Forgas (Ed.), *Handbook of affect and social cognition* (pp. 186–211). Hillsdale, NJ: Erlbaum.
Google Scholar Google Preview WorldCat COPAC

Higgins, E. T. (2002). How self-regulation creates distinct values: The case of promotion and prevention decision making. *Journal of Consumer Psychology,* 12 , 177–191.
Google Scholar WorldCat

Higgins, E. T. (2006). Value from hedonic experience and engagement. *Psychological Review,* 113 , 439–460.
Google Scholar WorldCat

Higgins, E. T. (2008). Culture and personality: Variability across universal motives as the missing link. *Social and Personality Psychology Compass,* 2 , 608–634.
Google Scholar WorldCat

Higgins, E. T., Bond, R. N., Klein, R., & Strauman, T. J. (1986). Self-discrepancies and emotional vulnerability: How magnitude, accessibility, and type of discrepancy influence affect. *Journal of Personality and Social Psychology,* 51 , 5–15.
Google Scholar WorldCat

Higgins, E. T., & Cornwell, J. F. M. (2016). Securing foundations and advancing frontiers: Prevention and promotion effects on judgment & decision making. *Organizational Behavior and Human Decision Processes,* 136 (Suppl. C), 56–67.
Google Scholar WorldCat

Higgins, E. T., Friedman, R. S., Harlow, R. E., Idson, L. C., Ayduk, O. N., & Taylor, A. (2001). Achievement orientations from subjective histories of success: Promotion pride versus prevention pride. *European Journal of Social Psychology,* 31 , 3–23.
Google Scholar WorldCat

Higgins, E. T., Idson, L. C., Freitas, A. L., Spiegel, S., & Molden, D. C. (2003). Transfer of value from fit. *Journal of Personality and Social Psychology,* 84 , 1140–1153.
Google Scholar WorldCat

Higgins, E. T., Roney, C. J. R., Crowe, E., & Hymes, C. (1994). Ideal versus ought predilections for approach and avoidance: Distinct self-regulatory systems. *Journal of Personality and Social Psychology,* 66 , 276–286.
Google Scholar WorldCat

Higgins, E. T., Shah, J., & Friedman, R. (1997). Emotional responses to goal attainment: Strength of regulatory focus as moderator. *Journal of Personality and Social Psychology,* 72, 515–525.
Google Scholar WorldCat

Higgins, E. T., & Tykocinski, O. (1992). Self-discrepancies and biographical memory: Personality and cognition at the level of psychological situation. *Personality and Social Psychology Bulletin,* 18 , 527–535.
Google Scholar WorldCat

Hughes, J., & Scholer, A. A. (2017). When wanting the best goes right or wrong: Distinguishing between adaptive and maladaptive maximization. *Personality and Social Psychology Bulletin,* 43 , 570–583.
Google Scholar WorldCat

Idson, L. C., & Higgins, E. T. (2000). How current feedback and chronic effectiveness influence motivation: Everything to gain versus everything to lose. *European Journal of Social Psychology,* 30 , 583–592.
Google Scholar WorldCat

Idson, L. C., Liberman, N., & Higgins, E. T. (2000). Distinguishing gains from nonlosses and losses from nongains: A regulatory focus perspective on hedonic intensity. *Journal of Experimental Social Psychology,* 36 , 252–274.
Google Scholar WorldCat

Idson, L. C., Liberman, N., & Higgins, E. T. (2004). Imagining how you'd feel: The role of motivational experiences from regulatory fit. *Personality and Social Psychology Bulletin,* 30 , 926–937.
Google Scholar WorldCat

Jain, S. P., Lindsey, C., Agrawal, N., & Maheswaran, D. (2007). For better or for worse? Valenced comparative frames and regulatory focus. *Journal of Consumer Research,* 34 , 57–65.
Google Scholar WorldCat

Jones, N. P., Papadakis, A. A., Hogan, C. M., & Strauman, T. J. (2009). Over and over again: Rumination, reflection, and promotion goal failure and their interactive effects on depressive symptoms. *Behaviour Research and Therapy,* 47 , 254–259.
Google Scholar WorldCat

Kanze, D., Huang, L., Conley, M. A., & Higgins, E. T. (2018). We ask men to win & women not to lose: Closing the gender gap in startup funding. *Academy of Management Journal*. Advance online publication.
doi:10.5465/amj.2016.1215 10.5465/amj.2016.1215
Google Scholar Google Preview WorldCat COPAC Crossref

Keller, J. (2008). On the development of regulatory focus: The role of parenting styles. *European Journal of Social Psychology,* 38 , 354–364.
Google Scholar WorldCat

Klenk, M. M., Strauman, T. J., & Higgins, E. T. (2011). Regulatory focus and anxiety: A self-regulatory model of GAD-depression comorbidity. *Personality and Individual Differences,* 50 , 935–943.
Google Scholar WorldCat

Kruglanski, A. W., Shah, J. Y., Fishbach, A., Friedman, R., Chun, W. Y., & Sleeth-Keppler, D. (2002). A theory of goal systems. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 34, pp. 331–378). New York, NY: Academic Press.
Google Scholar Google Preview WorldCat COPAC

Langens, T. A. (2007). Regulatory focus and illusions of control. *Personality and Social Psychology Bulletin,* 33 , 226–237.
Google Scholar WorldCat

Leikas, S., Lönnqvist, J.-E., Verkasalo, M., & Lindeman, M. (2009). Regulatory focus systems and personal values. *European Journal of Social Psychology,* 39 , 415–429.
Google Scholar WorldCat

Leone, L., Perugini, M., & Bagozzi, R. P. (2005). Emotions and decision making: Regulatory focus moderates the influence of anticipated emotions on action evaluations. *Cognition and Emotion,* 19 , 1175–1198.
Google Scholar WorldCat

Levine, J. M., Higgins, E. T., & Choi, H.-S. (2000). Development of strategic norms in groups. *Organizational Behavior and Human Decision Processes,* 82 , 88–101.
Google Scholar WorldCat

Liberman, N., Idson, L. C., Camacho, C. J., & Higgins, E. T. (1999). Promotion and prevention choices between stability and change. *Journal of Personality and Social Psychology,* 77 , 1135–1145.
Google Scholar WorldCat

Liberman, N., Molden, D. C., Idson, L. C., & Higgins, E. T. (2001). Promotion and prevention focus on alternative hypotheses: Implications for attributional functions. *Journal of Personality and Social Psychology,* 80 , 5–18.
Google Scholar WorldCat

Lisjak, M., Molden, D. C., & Lee, A. Y. (2012). Primed interference: The cognitive and behavioral costs of an incongruity between chronic and primed motivational orientations. *Journal of Personality and Social Psychology,* 102 , 889–909.
Google Scholar WorldCat

Locke, E. A., & Latham, G. P. (1990). *A theory of goal setting and task performance*. Englewood Cliffs, NJ: Prentice Hall.
Google Scholar Google Preview WorldCat COPAC

Lockwood, P., Jordan, C. H., & Kunda, Z. (2002). Motivation by positive or negative role models: Regulatory focus determines who will best inspire us. *Journal of Personality and Social Psychology,* 83 , 854–864.
Google Scholar WorldCat

Manczak, E. M., Zapata-Gietl, C., & McAdams, D. P. (2014). Regulatory focus in the life story: Prevention and promotion as expressed in three layers of personality. *Journal of Personality and Social Psychology,* 106 , 169–181.
Google Scholar WorldCat

Manian, N., Papadakis, A. A., Strauman, T. J., & Essex, M. J. (2006). The development of children's ideal and ought self-guides: Parenting, temperament, and individual differences in guide strength. *Journal of Personality,* 74 , 1619–1645.
Google Scholar WorldCat

Manian, N., Strauman, T. J., & Denney, N. (1998). Temperament, recalled parenting styles, and self-regulation: Testing the developmental postulates of self-discrepancy theory. *Journal of Personality and Social Psychology,* 75 , 1321–1332.
Google Scholar WorldCat

Markman, K. D., McMullen, M. N., Elizaga, R. A., & Mizoguchi, N. (2006). Counterfactual thinking and regulatory fit. *Judgment and Decision Making,* 1 , 98–107.
Google Scholar WorldCat

Mauro, R., Pierro, A., Mannetti, L., Higgins, E. T., & Kruglanski, A. W. (2009). The perfect mix: Regulatory complementarity and the speed–accuracy balance in group performance. *Psychological Science,* 20 , 681–685.
Google Scholar WorldCat

Miele, D. B., & Scholer, A. A. (2018). The role of metamotivational monitoring in motivation regulation. *Educational Psychologist,* 53, 1–21.
Google Scholar WorldCat

Miller, A. K., & Markman, K. D. (2007). Depression, regulatory focus, and motivation. *Personality and Individual Differences,* 43 , 427–436.
Google Scholar WorldCat

Miller, G. A., Galanter, E., & Pribram, K. H. (1960). *Plans and the structure of behavior*. New York, NY: Holt.
Google Scholar Google Preview WorldCat COPAC

Mischel, W., Cantor, N., & Feldman, S. (1996). Principles of self-regulation: The nature of willpower and self-control. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 329–360). New York, NY: Guilford Press.
Google Scholar Google Preview WorldCat COPAC

Molden, D. C., & Higgins, E. T. (2004). Categorization under uncertainty: Resolving vagueness and ambiguity with eager versus vigilant strategies. *Social Cognition,* 22 , 248–277.
Google Scholar WorldCat

Molden, D. C., & Higgins, E. T. (2005). Motivated thinking. In K. Holyoak & B. Morrison (Eds.), *Handbook of thinking and reasoning* (pp. 390–409). New York, NY: Cambridge University Press.
Google Scholar Google Preview WorldCat COPAC

Molden, D. C., Lucas, G. M., Gardner, W. L., Dean, K., & Knowles, M. L. (2009). Motivations for prevention or promotion following social exclusion: Being rejected versus being ignored. *Journal of Personality and Social Psychology,* 96 , 415–431.
Google Scholar WorldCat

Motyka, S., Grewal, D., Puccinelli, N. M., Roggeveen, A. L., Avnet, T., Daryanto, A., … Wetzels, M. (2014). Regulatory fit: A meta-

analytic synthesis. *Journal of Consumer Psychology, 24* , 394–410.
WorldCat

Mowrer, O. H. (1960). *Learning theory and behavior*. New York, NY: Wiley.
Google Scholar Google Preview WorldCat COPAC

Ouschan, L., Boldero, J. M., Kashima, Y., Wakimoto, R., & Kashima, E. S. (2007). Regulatory focus strategies scale: A measure of individual differences in the endorsement of regulatory strategies. *Asian Journal of Social Psychology,* 10 , 243–457.
Google Scholar WorldCat

Papadakis, A. A., Prince, R. P., Jones, N. P., & Strauman, T. J. (2006). Self-regulation, rumination, and vulnerability to depression in adolescent girls. *Development and Psychopathology,* 18 , 815–829.
Google Scholar WorldCat

p. 65 Pervin, L. A. (1989). *Goal concepts in personality and social psychology*: A historical introduction. In L. A. Pervin (Ed.), ↳ *Goal concepts in personality and social psychology* (pp. 1–17). Hillsdale, NJ: Erlbaum.
Google Scholar Google Preview WorldCat COPAC

Reznik, I., & Andersen, S. M. (2007). Agitation and despair in relation to parents: Activating emotional suffering in transference. *European Journal of Personality,* 21 , 281–301.
Google Scholar WorldCat

Roese, N. J., Hur, T., & Pennington, G. L. (1999). Counterfactual thinking and regulatory focus: Implications for action versus inaction and sufficiency versus necessity. *Journal of Personality and Social Psychology,* 77 , 1109–1120.
Google Scholar WorldCat

Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist,* 55 , 68–78.
Google Scholar WorldCat

Scholer, A. A., & Higgins, E. T. (2008). Distinguishing levels of approach and avoidance: An analysis using regulatory focus theory. In A. J. Elliot (Ed.), *Handbook of approach and avoidance motivation* (pp. 489–503). New York, NY: Psychology Press.
Google Scholar Google Preview WorldCat COPAC

Scholer, A. A., & Higgins, E. T. (2012). Too much of a good thing? Trade-offs in promotion and prevention focus. In R. M. Ryan (Ed.), *The Oxford handbook of human motivation* (pp. 65–84). New York, NY: Oxford University Press.
Google Scholar Google Preview WorldCat COPAC

Scholer, A. A., & Higgins, E. T. (2013). Dodging monsters and dancing with dreams: Success and failure at different levels of approach and avoidance. *Emotion Review,* 5 , 254–258.
Google Scholar WorldCat

Scholer, A. A., & Miele, D. B. (2016). The role of metamotivation in creating task-motivation fit. *Motivation Science,* 2 , 171–197.
Google Scholar WorldCat

Scholer, A. A., Ozaki, Y., & Higgins, E. T. (2014). Inflating and deflating the self: Sustaining motivational concerns through self-evaluation. *Journal of Experimental Social Psychology,* 51 , 60–73.
Google Scholar WorldCat

Scholer, A. A., Stroessner, S. J., & Higgins, E. T. (2008). Responding to negativity: How a risky tactic can serve a vigilant strategy. *Journal of Experimental Social Psychology,* 44 , 767–774.
Google Scholar WorldCat

Scholer, A. A., Zou, X., Fujita, K., Stroessner, S. J., & Higgins, E. T. (2010). When risk seeking becomes a motivational necessity. *Journal of Personality and Social Psychology,* 99 , 215–231.

Google Scholar WorldCat

Scott, L., & O'Hara, M. W. (1993). Self-discrepancies in clinically anxious and depressed university students. *Journal of Abnormal Psychology,* 102 , 282–287.
Google Scholar WorldCat

Sears, R. R., Maccoby, E. E., & Levin, H. (1957). *Patterns of child rearing*. Evanston, IL: Row, Peterson.
Google Scholar Google Preview WorldCat COPAC

Seibt, B., & Förster, J. (2004). Stereotype threat and performance: How self-stereotypes influence processing by inducing regulatory foci. *Journal of Personality and Social Psychology,* 87 , 38–56.
Google Scholar WorldCat

Semin, G. R., Higgins, E. T., de Montes, L. G., Estourget, Y., & Valencia, J. F. (2005). Linguistic signatures of regulatory focus: How abstraction fits promotion more than prevention. *Journal of Personality and Social Psychology,* 89 , 36–45.
Google Scholar WorldCat

Sengupta, J., & Zhou, R. (2007). Understanding impulsive eaters' choice behaviors: The motivational influences of regulatory focus. *Journal of Marketing Research,* 44 , 297–308.
Google Scholar WorldCat

Shah, J. (2003). The motivational looking glass: How significant others implicitly affect goal appraisals. *Journal of Personality and Social Psychology,* 85 , 424–439.
Google Scholar WorldCat

Shah, J., & Higgins, E. T. (1997). Expectancy × value effects: Regulatory focus as determinant of magnitude and direction. *Journal of Personality and Social Psychology,* 73 , 447–458.

Shah, J., & Higgins, E. T. (2001). Regulatory concerns and appraisal efficiency: The general impact of promotion and prevention. *Journal of Personality and Social Psychology,* 80 , 693–705.
Google Scholar WorldCat

Shah, J., Higgins, E. T., & Friedman, R. S. (1998). Performance incentives and means: How regulatory focus influences goal attainment. *Journal of Personality and Social Psychology,* 74 , 285–293.
Google Scholar WorldCat

Stam, K. R., & Stanton, J. M. (2010). Events, emotions, and technology: Examining acceptance of workplace technology changes. *Information Technology & People,* 23 , 23–53.
Google Scholar WorldCat

Strauman, T. J. (1989). Self-discrepancies in clinical depression and social phobia: Cognitive structures that underlie emotional disorders? *Journal of Abnormal Psychology,* 98 , 14–22.
Google Scholar WorldCat

Strauman, T. J. (2002). Self-regulation and depression. *Self and Identity,* 1 , 151–157.
Google Scholar WorldCat

Strauman, T. J., Detloff, A. M., Sestokas, R., Smith, D. V., Goetz, E. L., Rivera, C., & Kwapil, L. (2013). What shall I be, what must I be: Neural correlates of personal goal activation. *Frontiers in Integrative Neuroscience,* 6 , 1–14.
Google Scholar WorldCat

Strauman, T. J., & Higgins, E. T. (1987). Automatic activation of self-discrepancies and emotional syndromes: When cognitive structures influence affect. *Journal of Personality and Social Psychology,* 53 , 1004–1014.
Google Scholar WorldCat

Strauman, T. J., Kolden, G. G., Stromquist, V., Davis, N., Kwapil, L., Heerey, E., & Schneider, K. (2001). The effects of treatments for depression on perceived failure in self-regulation. *Cognitive Therapy and Research,* 25 , 693–712.
Google Scholar WorldCat

Strauman, T. J., Vieth, A. Z., Merrill, K. A., Kolden, G. G., Woods, T. E., Klein, M. H., … Kwapil, L. (2006). Self-system therapy as an intervention for self-regulatory dysfunction in depression: A randomized comparison with cognitive therapy. *Journal of Consulting and Clinical Psychology,* 74 , 367–376.
Google Scholar WorldCat

Stroessner, S. J., Scholer, A. A., Marx, D. M., & Weisz, B. M. (2015). When threat matters: Self-regulation, threat salience, and stereotyping. *Journal of Experimental Social Psychology,* 59 (Suppl. C), 77–89.
Google Scholar WorldCat

Summerville, A., & Roese, N. J. (2008). Self-report measures of individual differences in regulatory focus: A cautionary note. *Journal of Research in Personality,* 42 , 247–254.
Google Scholar WorldCat

Taylor, S. E., Lerner, J. S., Sherman, D. K., Sage, R. M., & McDowell, N. K. (2003). Are self-enhancing cognitions associated with healthy or unhealthy biological profiles? *Journal of Personality and Social Psychology,* 85 , 605–615.
Google Scholar WorldCat

Uskul, A. K., Keller, J., & Oyserman, D. (2008). Regulatory fit and health behavior. *Psychology & Health,* 23 , 327–346.
Google Scholar WorldCat

Vallacher, R. R., & Wegner, D. M. (1987). What do people think they're doing? Action identification and human behavior. *Psychological Review,* 94 , 3–15.
Google Scholar WorldCat

van-Dijk, D., & Kluger, A. N. (2004). Feedback sign effect on motivation: Is it moderated by regulatory focus? *Applied Psychology: An International Review,* 53 , 113–135.
Google Scholar WorldCat

Vaughn, L. A., Baumann, J., & Klemann, C. (2008). Openness to experience and regulatory focus: Evidence of motivation from fit. *Journal of Research in Personality,* 42 , 886–894.
Google Scholar WorldCat

Vieth, A. Z., Strauman, T. J., Kolden, G. G., Woods, T. E., Michels, J. L., & Klein, M. H. (2003). Self-system therapy (SST): A theory-based psychotherapy for depression. *Clinical Psychology: Science and Practice,* 10 , 245–268.
Google Scholar WorldCat

Wallace, J. C., Johnson, P. D., & Frazier, M. L. (2009). An examination of the factorial, construct, and predictive validity and utility of the Regulatory Focus at Work Scale. *Journal of Organizational Behavior,* 30 , 805–831.
Google Scholar WorldCat

Wang, J., & Lee, A. Y. (2006). The role of regulatory focus in preference construction. *Journal of Marketing Research,* 43 , 28–38.
Google Scholar WorldCat

Wolters, C. A. (2003). Regulation of motivation: Evaluating an underemphasized aspect of self-regulated learning. *Educational Psychologist,* 38 , 189–205.
Google Scholar WorldCat

Zhang, S., Cornwell, J. F. M., & Higgins, E. T. (2014). Repeating the past: Prevention focus motivates repetition, even for unethical decisions. *Psychological Science,* 25 , 179–187.
Google Scholar WorldCat

Zhang, S., Higgins, E. T., & Chen, G. (2011). Managing others like you were managed: How prevention focus motivates copying interpersonal norms. *Journal of Personality and Social Psychology,* 100 , 647–663.
Google Scholar WorldCat

Zhang, Y., & Huang, S.-C. (2010). How endowed versus earned progress affects consumer goal commitment and motivation. *Journal of Consumer Research,* 37 , 641–654.
Google Scholar WorldCat

Zhang, Y., & Mittal, V. (2007). The attractiveness of enriched and impoverished options: Culture, self-construal, and regulatory focus. *Personality and Social Psychology Bulletin,* 33 , 588–598.
Google Scholar WorldCat

Zou, X., & Scholer, A. A. (2016). Motivational affordance and risk-taking across decision domains. *Personality and Social Psychology Bulletin,* 42 , 275–289.
Google Scholar WorldCat

Zou, X., Scholer, A. A., & Higgins, E. T. (2014). In pursuit of progress: Promotion motivation and risk preference in the domain of gains. *Journal of Personality and Social Psychology,* 106 , 183–201.
Google Scholar WorldCat

Notes

1 Conceptually and empirically, distinctions between the behavioral inhibition system and the behavioral activation system often refer not only to system-level differences, but also to tactical and behavioral differences. For more extended discussion, see Scholer and Higgins (2008).