See discussions, stats, and author profiles for this publication at: https://www.researchgate.net/publication/277641188

A Review of Multilevel Regulatory Focus in Organizations

Article *in* Journal of Management · May 2015 DOI: 10.1177/0149206315575552

itations 3	READS 838
authors, including:	
Paul Johnson	Mickey B. Smith
University of Mississippi	University of South Alabama
9 PUBLICATIONS 391 CITATIONS	11 PUBLICATIONS 93 CITATIONS
SEE PROFILE	SEE PROFILE
Craig Wallace	Aaron D. Hill
Oklahoma State University - Stillwater	Oklahoma State University - Stillwater
40 PUBLICATIONS 2,255 CITATIONS	28 PUBLICATIONS 505 CITATIONS
SEE PROFILE	SEE PROFILE

Journal of Management Vol. 41 No. 5, July 2015 1501–1529 DOI: 10.1177/0149206315575552 © The Author(s) 2015 Reprints and permissions: sagepub.com/journalsPermissions.nav

A Review of Multilevel Regulatory Focus in Organizations

Paul D. Johnson

University of Mississippi Mickey B. Smith University of Southern Mississippi J. Craig Wallace Aaron D. Hill

Robert A. Baron

Oklahoma State University

Over the past 15 years, regulatory focus has gained prominence as a theory of self-regulatory motivation. Building from personality and social psychology research, the nomological network of regulatory focus spans individuals, groups, and organizations. This review provides an appraisal of regulatory focus from a multilevel perspective as it relates to organizational behavior, human resources, strategic management, and entrepreneurship. We begin with a discussion of the theoretical foundations of regulatory focus, including hierarchical motivation and regulatory fit theory. Using these foundations, we summarize empirical research on regulatory focus and provide actionable avenues for future research on regulatory focus, with particular attention paid to how individuals adjust their motivational strategies on the basis of context. We also consider regulatory focus as a collective function of teams to develop our understanding of motivational processes in the workplace.

Keywords: regulatory focus; self-regulation; collective motivation; multilevel

When I'm old and dying, I plan to look back on my life and say "wow, that was an adventure," not "wow, I sure felt safe."

-Tom Preston-Werner, Github Cofounder (2008)

E-mail: pdjohnso@olemiss.edu

Corresponding author: Paul D. Johnson, Department of Management, University of Mississippi, Oxford, MS 38677, USA.

I don't look to jump over 7-foot bars: I look around for 1-foot bars that I can step over.

-Warren Buffet, Chairman and CEO of Berkshire Hathaway (BrainyQuote, n.d.)

People often strive for similar goals but use dissimilar behaviors to achieve those goals. Mr. Buffet and Mr. Preston-Werner are both highly successful businesspersons; however, the above quotes reflect two different perspectives on strategies used to pursue their goals. In the first instance, risk is preferred over safety during goal striving, while in the second, safety is preferred over risk. Both individuals presumably possess similar goals about financial success, but the strategies and tactics regulating action toward these goals contrast. Higgins (1997) observed that while pleasure and pain are noteworthy as end states, a hedonistic perspective on human action underestimates the complexity of motivated behavior. Regulatory focus theory (RFT) differentiates goal-oriented self-regulation into two independent regulatory systems, prevention regulatory focus and promotion regulatory focus (Higgins, 1997, 1998). In this review, we build upon and review research on the hierarchical, multilevel nature of regulatory focus by highlighting potential research directions, knowledge gaps, and methodological challenges related to the study of regulatory focus in management.

Over 200 studies investigating regulatory focus have been published, including studies across multiple levels. Meta-analyses highlight the empirical work on regulatory focus in relation to personality-based antecedents (Lanaj, Chang, & Johnson, 2012) and relevant job-related attitudes and behaviors (Gorman et al., 2012); however, a number of questions remain unanswered or unasked regarding the multilevel nature of regulatory focus. In this review, we summarize the application of RFT across the breadth of management research, including organizational behavior, human resources (HR), entrepreneurship, and strategy, with the intent of stimulating new and interesting research on RFT.

We have two goals for this review. First, we seek to enhance the research effectiveness of scholars interested in regulatory focus. We address the usage of regulatory focus in the organizational sciences by discussing common misunderstandings of researchers new to the construct. The second goal for this review is to illuminate regulatory focus as a multilevel concept with implications for individuals, teams, and organizations. Individuals do not generally operate absent of external influence, so researchers have recently applied RFT to multilevel phenomena based on collective regulatory focus (CRF). Furthermore, although there are few studies of regulatory focus at the organization level, we will discuss the potential for research in this area. To accomplish these goals, we begin by discussing RFT's theoretical underpinnings, including a brief review of the hierarchical nature of RFT (Scholer & Higgins, 2008) and regulatory fit (Higgins, 2000). We then review research on regulatory focus between individuals, paying particular attention to the regulatory fit between leaders and followers. An evaluation of the state of research on regulatory focus in HR management and entrepreneurship is then followed by considering the hierarchical regulatory focus as a collective self-regulatory process in teams and the self-regulatory processes of strategic management. We close our review with a brief statement on methodological issues and a discussion of future directions of RFT research and provide a final observation of the future for RFT in management research.

Foundations of Regulatory Focus

Higgins (1997) observed that prior theories of motivation that used hedonism as a basis for analysis (cf. expectancy theory; Vroom, 1964) fell short of describing the intricate relationships that exist among approach and avoidance motivation because they failed to assert how or why people seek pleasure or avoid pain, only that they do. To develop the principles that underlie approach-avoidance motivation, Higgins (1997, 1998) introduced RFT by integrating the end states that form the basis of hedonistic motivation (approaching pleasure and avoiding pain) with the self-regulation of affect, behaviors, and cognitions toward those end states. As a result, Higgins (1997, 1998) established promotion regulatory focus and prevention regulatory focus as two independent, self-regulatory systems of behavioral strategic choice by which individuals approach pleasure and avoid pain using different means. To be clear, regulatory focus is orthogonal to approach/avoidance motivation in that each facet includes both approaching desired end states and avoiding undesired end states. These facets manifest as unique preferences in the goals, intentions, and salient outcomes that motivate people. Antecedents to regulatory focus include needs, values, and situational framing (Higgins, 1997). Although typically considered a chronic disposition, environmental or personal changes may alter a person's regulatory focus state.

A person using a promotion focus strives for goals through self-growth and pursuit of their ideal selves (Higgins, 1997). A promotion-focused orientation tends to center on hopes and aspirations when regulating behavior, resulting in motivation by accomplishments and salient outcomes of gains (positive and desired) or nongains (negative and undesired). These individuals do not consider potential losses when striving for their goals; rather, they strategically move toward desired end states (and away from undesired) by maximizing their chances for a match between their current states and the actual outcome by ensuring that they do not commit errors of omission. That is, they actively pursue goals by trying out numerous behaviors to see what works. Additionally, promotion focus results in pleasure when rewarded for and pain when *not* rewarded for accomplishments, which results in emotional responses associated with cheerfulness and dejection, respectively (Brockner & Higgins, 2001).

Prevention focus emphasizes the "ought self" and focuses goal-striving strategies on the fulfillment of duty or responsibility (Higgins, 1997). Prevention-focused individuals attend to obligation and accountability in the regulation of behavior, resulting in motivation to prevent mistakes, perception of salient outcomes as nonloss (positive and desired) or loss (negative and undesired), and strategic movement toward desired end states (and away from undesired) by minimizing their chances for a mismatch between their current state and the outcome by ensuring they do not commit errors of commission. That is, they guard against committing errors in pursuit of their goals. Furthermore, they experience pleasure when there is an absence of negative consequences and experience pain when those negatives are present, resulting in the emotional experience of quiescence and agitation, respectively (Brockner & Higgins, 2001).

Hierarchy of Regulatory Focus

Regulatory focus independently operates across three levels of motivational abstraction: system, strategic, and tactical (Scholer & Higgins, 2008). This model follows a number of motivation theories that employ multiple levels of self-regulation to explain the complexities

of motivated behavior (cf. Carver & Scheier, 1998). The system level most closely maps to a preference for end states or outcomes, the strategic level to a general preference for means, and the tactical level to situationally specific means. Further investigation of this self-regulatory hierarchy provides one of the most fruitful areas of future research in organizations; however, misunderstandings of the hierarchy can lead to weak theoretical development, poor research design, and the misinterpretation of results. See Figure 1 for an illustration of this hierarchy.

The system level of regulatory focus pertains to overarching individual goals and endstate preferences (Higgins, 1997). At this level, much of the prior work operationalizes regulatory focus as an orientation (i.e., chronic promotion focus or chronic prevention focus), which serves as a general reference point by which people view their world. People have general goal preferences classified by pleasure and pain that tend to be consistent across situations (Higgins, 1997, 2000). For example, consider Steve and Emily, each of whom desire career success but for different reasons. Emily, who is promotion focused, anticipates the pleasure of achieving and the pain of not achieving success in her career as a result of a need for growth and advancement. Steve, who is prevention focused, anticipates the pleasure of not failing and the pain of failing to have a successful career as a result of a need for safety and responsibility. Emily desires a good career for feelings of accomplishment, while Steve does not want a bad career because of a lack of financial stability. In each case, the individual anticipates the pain of remaining in his or her current position (promotion: I did not succeed; prevention: I failed), along with the pleasure of success (promotion: I succeeded; prevention: I did not fail). While both individuals anticipate pleasure and pain associated with success or lack thereof, regulatory focus includes end-state desirability as a reference point for motivated action.

Independent of the system level, regulatory focus at the strategic level addresses the general means used for goal striving (Higgins, 1997). Most commonly, studies have considered whether a person (1) strives for desired outcomes using eagerness strategies associated with promotion focus or (2) strives for desired outcomes using vigilant strategies associated with prevention focus. Both Steve and Emily approach the desired goal of career advancement using behavioral strategies that result from being prevention focused and promotion focused, respectively. Promotion focus leads Emily to generally prefer eager strategies, such as a low threshold for project approval (approaching gains) and a lack of due diligence (avoiding nongains). As a result, Emily will demonstrate a general willingness to approve projects, even if thorough due diligence has not been accomplished. Failure is irrelevant to her, only success matters. In contrast, a prevention focus leads Steve to generally prefer diligent strategies, such as high levels of due diligence (approaching nonlosses) and a high threshold for project approval (avoiding losses). As a result, Steve approves only those projects he is sure of and then only after he has performed thorough due diligence on the project. Successful projects are irrelevant to him, only projects that do not fail. In each case, the regulatory focus strategies are generalizable sets of means independent of end states (system) and situational means (tactics).

At the next level of the hierarchy are the self-regulatory tactics used by individuals in specific situations during goal striving (Scholer & Higgins, 2008). The tactical level differs from the strategic level because it is the "instantiation of strategy in a given context" (Scholer & Higgins: 490). That is, tactics enact strategies. For example, two decision biases exist at



Figure 1 An Example of the Hierarchical Model of Regulatory Focus Where Both Individuals Want a Successful Career (as They See It)

the tactical level of RFT: risky bias and conservative bias (Crowe & Higgins, 1997). Risky bias results in a permissive relationship with risk taking, while a conservative bias embodies a less permissive relationship with risk. As a result, individuals may tactically adjust their biases depending on the situation. If Steve and Emily's boss indicates that the organization desperately needs higher levels of profitability resulting from new projects, Emily would adopt a more risky bias (promotion-based tactic) in the project approval process by tactically increasing her generally high-risk threshold (promotion strategy). Despite a general preference for caution and safety (prevention strategy), Steve would also adopt a more risky bias (promotion tactic) in response to his boss's exhortations by relaxing his vigilant due diligence activities and decreasing his project approval threshold. Thus, despite having strategic preferences aligned with prevention focus, context would influence him to be more promiscuous in project approval.

However, if their boss demanded less financial loss associated with failed projects, we could expect Steve and Emily to tactically adjust their approval decisions for a more conservative bias. Each would remain disposed toward their preferred general strategies, but contextual demands would cause Steve and Emily to become more conservative. For both, their approval threshold would become higher and due diligence would increase. The ability to alter tactics in response to context results from the independence of each level from the other levels.

Regardless of hierarchical preferences, individuals self-regulate behavior to adjust to situational factors. For example, researchers demonstrated that, counter to preferences, prevention-focused individuals seek risk when a situation takes them from the safety of status quo (Scholer, Zou, Fujita, Stroessner, & Higgins, 2010). When there is a choice between safe and risky options that can restore a status quo state from a loss state, a

prevention focus predicts risk aversion in decision making. However, when faced with a lack of options that resolve the loss condition to the status quo, prevention focus predicts risk seeking. That is, when prevention-focused subjects experience a loss state but have no way to return to status quo, they exhibit risk-seeking behaviors associated with promotion-oriented tactics. Status quo is the salient outcome for prevention focus at the systemic and strategic level, but individuals make tactical decisions as if they were promotion focused. Promotion-focused individuals do not experience this because of a lack of salience of the status quo state.

Regulatory Fit Theory

One of the implications of the hierarchical nature of regulatory focus is that individuals may act in a manner that is aligned or unaligned with their chronic regulatory orientation as determined by situational factors affecting their regulatory state. The alignment of state regulatory focus (strategic and tactical levels) with chronic regulatory focus (system level) is termed "regulatory fit" (Higgins, 2000, 2006). Regulatory fit theory suggests that the alignment of situationally specific behaviors with the actor's chronic regulatory focus provides positive motivational benefits, such as engagement or value creation (Higgins, 2000, 2006). Individuals may self-regulate behaviors in ways that match (e.g., promotion strategies with chronic promotion focus) or mismatch (e.g., prevention strategies with chronic promotion focus) their regulatory orientation. When alignment occurs between action and disposition, individuals experience increased motivational strength and activation.

When the situational frame aligns with the regulatory focus of the subject, the individual "feels right," which increases motivation and effort in goal pursuit. Shah, Higgins, and Friedman (1998) found that when task incentives aligned with the chronic regulatory focus of the participant, both promotion focus and prevention focus enhanced motivation and performance. Lee and Aaker (2004) found similar effects of fit on persuasion. A message framed as promotion focus was more persuasive when gains were the focal outcome, while a message framed as prevention focus was more persuasive when losses were the focal outcome. The effect of framing and regulatory fit has also been found in the perceptions of fairness, with higher levels of justice perceptions being perceived in congruent message/focus conditions versus incongruent conditions (e.g., Li, Evans, Christian, Gilliand, Kausel, & Stein, 2011).

Some of these patterns of fit due to framing have implications for organizations. For example, in situations with high information load, individuals seek information that is consistent with their regulatory focus orientation as they selectively process the most easily accessible information first (Yoon, Sarial-Abi, & Gürhan-Canli, 2012). As a result, promotion-focused individuals rely on positive information when overloaded with information because few cognitive resources are available to process information that does not "fit." The same is true for negative information and prevention focus. These studies imply that regulatory fit may bias decision-making processes in highly dynamic and stressful organizational contexts. Wallace, Little, and Shull (2008) found that during normal tasks, promotion focus related positively to production performance and prevention focus related positively to safety performance, with null crossover effects. However, increases in task complexity revealed

negative relationships between promotion focus and safety as well as between prevention focus and production.

Similarly, temporally distant future goals are more aspirational, so as the goal approaches and becomes more "real," the effect of promotion on motivation decreases. Individuals with a prevention focus act out of duty and responsibility, so their motivation is unaffected by the temporal distance of goals (Pennington & Roese, 2003). However, Förster, Higgins, and Idson (1998) studied RFT and the "goal looms larger" effect, finding that as goal completion approaches, motivation increases with either facet of regulatory focus, resulting in enhanced eagerness for promotion focus (i.e., individuals accomplish tasks faster) and increased vigilance for prevention focus (i.e., individuals strive to make fewer errors). These contrary findings about temporal features of goal striving may lie in the hierarchical nature of regulatory focus and regulatory fit. Goals in the distant future fit individuals with a promotion focus, so they increase motivation in response to regulatory focus in its most abstract form, the system level. However, as goal completion nears and action is needed, individuals engage in behavior that aligns with their chronic focus absent external stimuli. These results may have implications for procrastination in the workplace. Generally, individuals with a prevention focus should experience less procrastination as a result of a preference for responsibility, while promotion-focused individuals procrastinate more. However, situational framing associated with regulatory fit may suppress this tendency if perceptions can be reframed. Regulatory fit captures a host of other important effects in the workplace. Thus, we subsequently include discussions of fit throughout the review as a catalyst for future research.

Literature Review

A holistic review of regulatory focus is unwieldy because of the breadth of topics that have been researched, so we leave the review of personality and work outcomes to recent meta-analyses (Gorman et al., 2012; Lanaj et al., 2012). Instead, we focus this review on the interpersonal aspects of regulatory focus, both between individuals and within groups and organizations. We begin with a brief review of regulatory focus in leadership and HR management and follow with entrepreneurship, strategic management, and methods. Table 1 depicts some of the future research topics included in this review.

Micro-Organizational Research of Regulatory Focus

Regulatory fit and leadership. Leaders serve organizations as "makers of meaning" (Brockner & Higgins, 2001). In this role, they frame organizational goals to focus follower attention on specific outcomes that are organizationally important. However, results of research on regulatory fit suggest that leaders should tailor their message to fit the regulatory focus of their followers. The study of leader-follower regulatory fit complements the growing literature on person-supervisor fit (Kristof-Brown, Zimmerman, & Johnson, 2005) and interpersonal regulatory fit (Righetti, Finkenauer, & Rusbult, 2011). Research on leader-ship styles is expansive, but recent work integrating RFT has shed new light on old results. For instance, transformational leadership positively affected the motivational strength of promotion-oriented followers (Benjamin & Flynn, 2006), while a transactional leadership

General Suggestions	Individual Level	Team Level
 Conduct longitudinal studies across content areas to evaluate a dynamic model of regulatory focus. Study the interaction between facets of the dual path model. How and when does switching occur? Attend to the hierarchical levels of regulatory focus in studies. Assess effects of regulatory focus within relationships. This includes relationships for individuals, groups, and organizations. It could also be examined using social network analysis concepts. 	 Assess the relationship between regulatory focus and attachment theory. Examine whether the ability to manage one's own emotions extends to managing one's regulatory focus Methodological Further develop implicit measures of regulatory focus that may be used on archival data. Assess the temporal effects of priming regulatory focus. How long does it last? What affects the amount of priming? 	 Examine the role of collective regulatory focus (CRF) team processes, such as conflict and decision making. Further assess the dynamic processes by which CRF develops and is maintained in teams. Consider how regulatory fit attracts individuals with a particular regulatory focus. Study the give and take between regulatory focus facets in innovation teams. Evaluate the development and effects of CRF in virtual teams
Entrepreneurs	Strategy	Multilevel
 Assess the role of regulatory focus in new venture success. Are both facets actually important? Identify whether regulatory fit plays a role in determining entrepreneurial passion. Study entrepreneurial self-regulation throughout the whole entrepreneurial process. Appraise the role of regulatory focus in the initial entrepreneurial action. Determine whether regulatory focus plays a role in business plan development. Does fit matter? 	 Evaluate the CRF of top management teams and competitive dynamics. Study regulatory effects in boards of directors and strategic decisions. Develop further understanding of regulatory focus and contracting. Use other findings to enhance microfoundations of strategic management. Investigate the role of top management team regulatory focus in the study of competitive dynamics. How are competitive action and response affected? 	 Evaluate the cross-level effects of regulatory focus. Does switching occur between individual regulatory focus and CRF? Assess the effects of individual membership in multiple teams. Determine the effects of poor regulatory fit between the individual and the team. Study regulatory focus with regard to leader-member exchange and team-member exchange. Determine whether regulatory focus changes as position within the organizational hierarchy changes.

Table 1 Summary of Suggested Future Research

style related positively to follower maintenance organizational citizenship behaviors (Shin, Kim, Choi, Kim, & Oh, in press). In addition, regulatory fit between leader-follower regulatory focus reduced turnover intent (Hamstra, Van Yperen, Wisse, & Sassenberg, 2011) and increased feelings of value (Hamstra, Van Yperen, Wisse, & Sassenberg, 2014) when promotion-focused followers viewed leaders as transformational and prevention-focused followers viewed leaders as transformation

However, using a hierarchical perspective on regulatory focus, Stam, van Knippenberg, and Wisse (2010) proposed that visionary appeals, typically considered a promotion-oriented frame, could be couched as avoiding negative and undesirable situations that "fit" followers with a prevention focus. In two experiments, they found that visionary appeals motivated followers to higher levels of performance regardless of the follower regulatory focus, as long as leaders tailored appeals to fit follower regulatory focus. In fact, emotional displays by the leader prior to communication primed follower regulatory focus to make them more receptive to leader persuasion (Venus, Stam, & van Knippenberg, 2013). Stam, van Knippenberg, Wisse, and Nederveen (2014) found that leaders characterized by actions perceived to be promotion oriented seem to be more effective in crisis situations.

Additionally, self-sacrificial leaders who put the interests of the group above their own enhance the prosocial behaviors of followers with high levels of prevention focus (De Cremer, Mayer, van Dijke, Schouten, & Bardes, 2009). Because leaders role model prosocially, they activate a sense of duty and responsibility among their followers, which extends work that found that role models motivate followers with strategies that align with follower regulatory focus (Lockwood, Sadler, Fyman, & Tuck, 2004). Role models who endorse achievement motivate the promotion-focused individual, while those who endorse avoiding failure motivate the prevention-focused individual. Overall, the results of these studies suggest that benefits to the organization, such as lower turnover and increased follower motivation, may accrue by adjusting leader style to fit with follower chronic regulatory focus.

Future research on the regulatory fit between leaders and followers and the associated processes may be beneficial. For instance, emotionally intelligent (EI) leaders perceive and regulate their emotions and the emotions of their followers (George, 2000; Mayer & Salovey, 1995). Affective state is heavily entwined with regulatory focus, as promotion focus relates to cheerfulness/dejectedness emotions, while prevention focus relates to quiescence/agitation emotions (Higgins, 1997; Yen, Chao, & Lin, 2011). Indeed, studies often control subject mood when measuring regulatory focus in individuals (cf. Crowe & Higgins, 1997; Neubert, Kacmar, Carlson, Chonko, & Robert, 2008). Because affect influences regulatory focus and vice versa, high-EI leaders who effectively manage emotions may also more effectively regulate follower state regulatory focus than low-EI leaders. Some of the motivation benefits derived from emotional intelligence may be the result of regulatory fit created by the leader's management of follower state regulatory focus. A similar argument could be made for chronic regulatory focus as an antecedent in leader-member exchange relationships (Sparrowe & Liden, 1997). A determining criterion for the high-quality relationship might be the regulatory fit between leader chronic regulatory focus and followers. High levels of fit within dyads would be more likely to create an exchange relationship in which followers go beyond the performance required by their obligations. In addition, Kark and Van Dijk (2007) proposed that leaders enhance influence via fit by altering their behavior toward different followers on the basis of follower motivational needs.

Regulatory focus and HR management. While RFT research in organizational behavior has flourished, there has been substantially less work with HR management. The HR implications for regulatory focus encompass a broad range of topics, including ethics, job analysis, job design, performance management, compensation, training and development, and selection and recruitment. For example, given that promotion and prevention are rooted in values and needs of individuals, there is the potential to develop selection strategies for promotion and prevention (Higgins, 2000; Kuhn, 2015; Wallace & Chen, 2006). Consider two scenarios: an R&D context and a vigilant work context. In the R&D context, a promotion focus could be of great value as a result of its relationship with innovation performance (Lanaj et al., 2012), whereas in work requiring vigilance, such as air traffic controllers, a prevention focus may be more valuable.

Similar logic applies to HR management in groups and teams, as well as work design. In creative, entrepreneurial, or intrapreneurial contexts, teams tasked with innovating new products or efficiencies could be designed to be disposed toward developing a collective promotion focus (which we discuss later). Once the team identifies a potentially valuable innovation, another team, designed to be disposed toward collective prevention focus, could examine the feasibility of the innovation through a thorough vetting process (P. D. Johnson & Wallace, 2011). Both marketing and resource production firms have been known to design their innovation processes using such a strategy, but research on this structure is limited.

Because regulatory focus is readily malleable, organizations could develop training programs to manage follower regulatory focus. A training intervention may help employees and leaders recognize when it is appropriate to switch focus to maximize task effectiveness (Wallace et al., 2008). For example, in contexts where production and safety are at odds with one another, leaders could learn to recognize when tasks require speed and when they require safety. When these organizational states trigger, they could encourage follower promotion focus or prevention focus, depending on which undertaking is most salient. This capability could lead to dynamic optimal fit processes between task requirements and regulatory foci as work demands and requirements change (Wallace & Chen, 2006). Existing research suggests that leaders can influence climates that are conducive to conditions enabling regulatory foci switching (Wallace, Butts, Johnson, Stevens, & Smith, in press), but much more research is needed to identify effective leader training that results in optimal regulatory foci in followers.

To our knowledge, only twice have researchers manipulated regulatory focus in the workplace (see the Regulatory Focus Methods section below for more discussion); in both cases, they established a regulatory focus condition by changing task instructions for each subject. Van Dijk and Kluger (2004) created a scenario where the subject "had to keep" (prevention) or "desired to have" (promotion) a job. This suggests that in the workplace, the effect of instructions on regulatory focus could be used to frame task performance to enhance organizational outcomes. For example, stock brokerage managers cope with potentially volatile fluctuations in the market, so they may need to adjust their employees' attitudes toward risk. In addition to explicit information about risk, instructions could also be framed using terminology associated with feats (promotion) or diligence (prevention), depending on their market outlook. Thus, in addition to market information, they would have induced a motivational state in their brokers, although the amount of time this state persists has not been studied to our knowledge.

We should also consider the practical and ethical ramifications of manipulation of regulatory focus by organizations. In holding a position of power, managers are uniquely responsible for decisions that affect current or future employees. Brown, Treviño, and Harrison (2005) suggest that ethical leaders are those whom followers perceive as honest and trustworthy and who make principled and fair choices. Manipulating the regulatory focus of followers for organizational gain is ethically challenging, particularly with regard to the individual ramifications of regulatory fit. If fit results in feeling "right" for the individual, misfit is then implied to feel "wrong." A leader who induces a "wrong" fit may be seen by the follower as untrustworthy or unfair. Hamstra, Van Yperen, Wisse, and Sassenberg (2014) found that when there is fit, followers perceive leaders as more effective.

Finally, we note that collective bargaining agreements may have implications for regulatory focus in organizations. Research questions include examining the effects of chronic regulatory focus on union membership, collective bargaining, and contract negotiation, as well as the reciprocal effects of such a contract on the regulatory focus of union members and company managers. Both sides of the union contract may be influenced by a strong situation created by its exacting requirements for interaction. Contractual demands and limitations on managerial and employee action may require vigilance and responsibility more than accomplishment and achievement, possibly resulting in individual and collective prevention focus instead of promotion focus.

Regulatory focus and entrepreneurship. Entrepreneurs often find themselves in highly dynamic and unpredictable environments in which there are few external guides for their decisions or actions. A lack of guidance implies that entrepreneurs must rely primarily on internal resources, such as their own skills, abilities, knowledge, and passion in self-regulating their activities (e.g., Cardon, Wincent, Singh, & Drnovsek, 2009). In short, they depend on self-regulation to successfully navigate the complex environments in which they work (e.g., Vohs & Baumeister, 2011). Brockner, Higgins, and Low (2004) provided a framework for understanding how RFT can help clarify key aspects of the entrepreneurial process. They reached the conclusion that neither promotion nor prevention focus is superior because each offers advantages and disadvantages during the various phases of the entrepreneurial process. For example, Brockner et al. proposed that in the initial, prefounding stage, a key task for entrepreneurs is the generation of ideas for new products or services. During this important phase, entrepreneurs who adopt a promotion focus have important advantages because promotion facilitates creativity, willingness to change, and consideration of new possibilities (e.g., Friedman & Förster, 2001). However, Fitzsimmons and Douglas (2011) reasoned that during early phases of the entrepreneurial process when individuals form intentions concerning entrepreneurship, they often adopt a prevention focus because of concerns about protecting limited resources by avoiding losses. These findings suggest that both promotion and prevention focus offer benefits during the entrepreneurial process and a potential area for future regulatory focus research, as the balance between potential benefits and potential costs provided by a promotion and prevention focus may vary strongly across various process phases.

Although there are other relevant topics, we limit our review of RFT in entrepreneurship to three areas we perceive as most salient: entrepreneurial intentions, opportunity recognition, and the actual financial performance of new ventures. Entrepreneurial intentions reflect a readiness on the part of prospective entrepreneurs to take the actions necessary to adopt this role. Since intentions are often the single best predictor of overt behavior (e.g., Zhao, Seibert, & Lumpkin, 2010), entrepreneurial intentions are useful in predicting whether individuals will actually act to develop opportunities. McMullen and Shepherd (2002) found that as the perceived benefits of entrepreneurial action increased, so too did entrepreneurial intentions, which were stronger for individuals in a promotion focus than in a prevention focus. These results are consistent with RFT, which suggests that achievement and success are salient outcomes for individuals in a promotion focus. However, we wonder whether regulatory fit might play a role in the intent to act entrepreneurially. When the opportunity is personally aspirational, there is a good fit with promotion-focused potential entrepreneurs. Yet social entrepreneurs act out of a sense of responsibility to society; thus, prevention-focused social entrepreneurs may feel activated by such opportunities because of the regulatory fit resulting from feelings of duty and responsibility associated with social activism.

Similarly, many definitions of entrepreneurship (e.g., Shane, 2012) suggest that the entrepreneurial process starts with opportunity recognition, or the identification of a perceived means of generating economic or social value not previously developed by others (Baron, 2006). Identifying an opportunity is an initial step toward positive entrepreneurial outcomes. Individuals with a promotion focus would be more likely to search for and identify new opportunities than those with a prevention focus. Tumasjan and Braun (2012) found that entrepreneurs' levels of promotion focus related positively to both the number and innovativeness (i.e., quality) of identified opportunities, while prevention focus was unrelated to these outcomes. RFT may be particularly relevant to models of opportunity recognition as pattern identification. Specifically, entrepreneurs recognize opportunities for new ventures by perceiving connections between seemingly unrelated events or trends, and these patterns suggest new business opportunities (Baron, 2012). Related research on entrepreneurial alertness suggests that opportunity recognition requires three processes: (1) alert scanning and search for opportunities, (2) alert association and connection across various sources of information (a key aspect of the pattern recognition view), and (3) evaluation of identified opportunities (Tang, Kacmar, & Busenitz, 2012). Consistent with RFT, promotion focus may facilitate the active search and alert association components of alertness. However, with its greater focus on potential costs or losses, a prevention focus may enhance effective evaluation of opportunities.

Finally, actual financial performance of new ventures is a key dependent variable in the field of entrepreneurship. Behavioral processes that link the skills, characteristics, judgment, and actions of individual entrepreneurs to firm-level performance are complex and indirect in nature, involving a variety of mediators and moderators (Baron, 2012). However, evidence indicates that entrepreneurs strongly influence the fortunes of their companies. Recent research concerning the role of self-regulation in entrepreneurship suggests that RFT offers insights into these processes (Nambisan & Baron, 2013). For instance, Jaskiewicz and Luchak (2013) used RFT and regulatory fit as a basis for understanding why family-owned businesses tend to be more successful (i.e., profitable) in stable environments when headed by family-member CEOs but are more successful in more dynamic environments when headed by non-family-member CEOs. They suggest that family-member CEOs are primarily concerned with protecting the family's financial and social interests and so adopt a prevention focus. In stable environments where change is slow and predictable, avoiding losses is an important consideration and may provide important benefits. However, prevention focus is less effective in dynamic settings where flexibility and rapid "changes in course" are essential. Nonfamily CEOs tend to adopt a promotion focus as they seek to enhance growth and gains since achieving these goals will advance their careers. Related studies found that a

match between CEOs' regulatory focus and the industry conditions they faced influenced the performance of their companies (Hmieleski & Baron, 2008; Kammerlander, Burger, Fust, & Fueglistaller, in press).

Future RFT and entrepreneurship research should seek to examine the relationship between regulatory focus and nonfinancial measures of new venture success. Research in personal outcomes of the entrepreneurial process, such as subjective well-being (e.g., Baron, Franklin, & Hmieleski, in press), suggests that investigating their relationship with RFT may be informative as to how people experience these other forms of success. Moreover, entrepreneurial passion involves intense positive feelings toward entrepreneurial activities and plays an important role in many aspects of entrepreneurship (e.g., Cardon et al., 2009) by facilitating several aspects of launching and operating new ventures. Research findings, however, suggest that only promotion focus elicits passion because it more closely aligns with positive affective states (Idson, Liberman, & Higgins, 2000). It seems likely to us that a promotion focus has a significant positive influence on a greater variety of forms of success over prevention focus as a result of its fit with the uncertain and risk-laden life of an entrepreneur.

Another avenue for future research involves examining the relationship between RFT and other aspects of personality and self-regulation. Entrepreneurs score higher on conscientiousness, openness to experience, and optimism than the broader population (e.g., Baron, Hmieleski, & Henry, 2012; Hmieleski & Baron, 2009; Zhao & Seibert, 2006). Promotion focus shows similar relationships (Lanaj et al., 2012) and, as such, it seems likely that entrepreneurs may demonstrate a promotion focus over a prevention focus. Yet a combination of the two forms of regulatory focus is theoretically more advantageous to the entrepreneur, since excessive optimism and very high levels of positive affect can lead entrepreneurs to ignore negative input and to be unwilling to withdraw from failing strategies or courses of action (e.g., Baron et al.; Hmieleski & Baron). To our knowledge, these relationships have not yet been investigated.

As innovation is a key characteristic of entrepreneurship, evidence supports the importance of a promotion focus in the creative process (e.g., Friedman & Förster, 2001). However, prevention focus also has a role in creativity and effective innovation. In an examination of the iterative design thinking process, Kröper, Fay, Lindberg, and Meinel (2011) found that different phases of the design thinking process required different strategies to attain success. For process steps that are oriented toward novel tasks and creativity, subjects tended to have high levels of promotion focus, but when the process demanded analytical tasks, such as synthesizing or testing ideas or accomplishing administrative tasks, subjects tended to have high levels of prevention focus. These results align with suggestions by Brockner et al. (2004) that both facets of regulatory focus are critical to innovation, with promotion focus providing the creative spark and prevention focus encouraging careful evaluation of creative ideas prior to implementation. The role of prevention focus in innovation evaluation may be particularly important to entrepreneurs as a result of lack of resources available to make errors.

Furthermore, because resources are typically quite limited, entrepreneurs often need to acquire financing, specialized labor, and information from external sources to develop opportunities, and they may be more successful in obtaining these resources when there is regulatory fit with potential investors that results in motivational activation for both parties in the relationship (Brockner et al., 2004). Existing research indicates that

potential investors generally focus exclusively on potential gains, which limits the fit when the entrepreneur demonstrates a prevention focus. This is not to say that investors have little interest in avoiding losses—far from it. In fact, they often reject overly optimistic business plans as unrealistic (e.g., Barringer, 2009). Therefore, while a promotion focus seems more likely to generate enthusiasm on the part of investors, there remains the possibility of an inverted-U-shaped function for this relationship in which very high levels of promotion focus are less successful in obtaining the support entrepreneurs seek unless a prevention focus tempers it to some degree. Individuals who demonstrate this combination of promotion and prevention approaches may be more likely to attain success; however, these dynamics remain to be studied.

Finally, despite the frequent use of detailed business plans by first-time entrepreneurs, it may be more important for them to get the business started than to invest large amounts of time in preparing such plans. Some researchers suggest that approaches involving effectuation, bricolage, and improvisation are more useful to entrepreneurs (Frese & Gielnik, 2014). These strategies for entrepreneurial action rely on the dynamic response to the available means, resources, and situation to enhance entrepreneurial success. Individuals with a chronic promotion focus may be more likely to adopt such methods when compared to a chronic prevention focus as a result of greater fit. They may also be able to use them more effectively; however, we can imagine scenarios where, despite the systemic fit of promotion focus with entrepreneurship, the entrepreneur may be inclined to use prevention-focused strategies or tactics. One of these is the choice between preparing detailed business plans and using these other approaches to developing entrepreneurial opportunities. External conditions, personal needs, skills, and the values of individual entrepreneurs may interact to demand one or the other. In addition, prevention-focused entrepreneurs may be more successful when they use a business plan because they indicate due diligence, while promotion-focused entrepreneurs may be more successful without one. Investigating these possibilities offers an intriguing topic for future research.

Meso-Organizational Research of Regulatory Focus

Regulatory focus as a collective structure. CRF, a functional equivalent of individual regulatory focus, is a multilevel construct representing the process by which teams self-regulate to bring action into alignment with team goals (P. D. Johnson & Wallace, 2011). CRF shares similar group antecedents and consequences with individual regulatory focus, as it develops from the *shared* needs and values of individuals that form as they interact with one another to form a collective structure by which other collective constructs develop (Morgeson & Hofmann, 1999). By creating a shared understanding of group needs and values, groups regulate behaviors toward collective goals. Research on group goals is extensive, with broad qualitative (Locke & Latham, 1990) and quantitative (O'Leary-Kelly, Martocchio, & Frink, 1994) analyses finding that group goals enhance individual and team productivity and satisfaction because group goals act as the shared end states that drive collective regulation of behavior.

There are few studies of CRF, but Rietzschel (2011) found that a high climate for innovation in a team, which encourages novelty and experimentation, results in collective promotion focus and enhanced innovation performance. In addition, Levine, Higgins, and Choi (2000) studied the processes that lead to a convergence of strategic orientations in teams. They manipulated three-person teams to induce either a promotion focus or a prevention focus. The group members were then given memory recognition tasks in which they decided collectively whether they remembered a word in a list. In the promotion condition, groups made riskier decisions about the presence of a word versus the prevention condition. This study presented evidence that regulatory focus acts to collectively control behavior in team goal striving.

Similarly, Beersma, Homan, Van Kleef, and De Dreu (2013) found that collective prevention-focused teams had better outcomes when working toward team goals rather than individual goals, while goal interdependence did not influence the success of promotion-focused teams. The authors proposed that interdependence is most salient to prevention-focused teams as a result of the obligations and duties team membership imposes on the individuals. For goals with little interdependence, obligations are not present, which allows individuals to strive for achievement without regard to failing the team. Finally, Sacramento, Fay, and West (2013) found that demanding work resulted in better creativity for individuals with a high promotion focus and that team promotion focus moderated the relationship between the effects of challenge stressors on team creativity. Although there is interest in CRF, means for assessment remain confused. Of these studies, two induced a collective state while the others aggregated on the basis of agreement and used the mean team score to define CRF.

With increased interest in collective motivational processes (Chen & Kanfer, 2006), we see merit in a broad program of study on CRF addressing team self-regulation toward team goals to provide insight into team regulatory processes, particularly with regard to collective antecedents, such as team diversity. In addition, the effects of CRF on collective outcomes, including performance and decision making, should be a fruitful area of study. For example, the self-regulatory effects of CRF on team decisions could provide insight into the operation-alization of groupthink in teams (Janis, 1972). We would expect that groups with high levels of agreement about CRF would be susceptible to groupthink; however, prevention CRF may be less so as a result of the salience of duty and responsibility. Of additional interest is the interaction of individual regulatory focus and CRF on group decision making. Researchers could also examine the development process of regulatory focus both during this developmental process and after CRF is established. Indeed, this is another form of regulatory fit between individuals and their environment. CRF may play a significant role in transforming individual behavior at different stages of the team development process.

Social dynamics. Beyond CRF, however, the interaction of individuals with regard to regulatory focus has gained attention from researchers, including social networks, communication styles, and social norms. Chung and Tsai (2009) examined word-of-mouth advice in social networks as spread by tie strength. Word of mouth passes via strong network ties for both promotion- and prevention-inclined subjects. However, promotion-focused givers of advice also passed similar levels of word of mouth via weak ties. Additionally, Pollack, Forster, Johnson, Coy, and Molden (2015) found that promotion focus in entrepreneurs predicts the number of people influenced by the entrepreneur and revenue generation from the entrepreneurial network.

Regulatory focus also affects how communication occurs. Because promotion orients toward general goals, individuals with a promotion focus use more abstract language regarding desired end states, preferring broad verbiage that leaves open the possibilities for success (Semin, Higgins, de Montes, Estourget, & Valencia, 2005). Individuals with a prevention focus, however, use language characterized by concrete and action-oriented terms that align with error minimization, which may be caused by inexact or vague statements. Furthermore, the salience of obligation to prevention focus enhances the adoption of socially defined norms when compared to promotion focus (Zhang, Higgins, & Chen, 2011), particularly with regard to norms of reciprocity (Keller, Hurst, & Uksul, 2008). For prevention-focused individuals, norm violations with regard to reciprocity lead to aggressive and hostile reactions (Keller et al.). Because people with a chronic prevention focus adopt group norms as a matter of form, they may defer to others within the group to enhance the development of team climates.

Finally, as the shared perceptions of individuals in a group, climate serves as a method for regulating the behavior of the individual to comply with collective expectations (Kuenzi & Schminke, 2009). Wallace and Chen (2006) found that individual prevention focus mediates the effects of safety climate on safety performance among group members. The shared perception of safe behavior among group members that underlies a safe climate creates a context in which loss from unsafe acts is undesirable by group members. The safety climate elicits a prevention focus from individual group members, who go about their daily tasks with a mind toward preventing losses associated with injuries. Groups without a strong safety climate failed to have a strong prevention focus among their members, which resulted in decreased safety performance. Wallace et al. (in press) also found that a high-involvement climate provided a "contextual boost" to the effect of individual promotion focus on innovation performance.

Multilevel regulatory fit. As another form of regulatory fit between individuals and their environment, regulatory fit within groups is critical in determining the regulatory strategies and tactics in which individuals engage to accomplish their goals (Scholer & Higgins, 2008). Regulatory misfit exists when chronic regulatory focus and situationally adapted strategies are not congruent; thus, we expect that when there is a mixture of promotion- and prevention-focused team members, there may be misfit for some individuals in the actions pursued by the team. Early in the team development process, prior to the development of a CRF, the motivational consequences of regulatory fit may be particularly influential on team members because a common cognitive structure for team goal striving has not been established. Despite establishing CRF, however, each individual still possesses a regulatory preference for goal striving and end states. When a mismatch occurs between CRF and individual chronic regulatory focus, lack of fit may leave those having counterfacets of individual regulatory focus demotivated.

Currently, research offers little in the way of explaining how CRF interacts with individual regulatory focus within teams. Research on how and when individuals suppress their personal inclinations in favor of the collective will would provide interesting insight into team processes. On one hand, we expect individuals to exhibit individual chronic regulatory focus in interactions with the team. If the CRF does not "fit," individual performance may decline, conflict may increase, and a number of other possible deleterious outcomes may ensue. Yet regulatory focus is malleable to situational effects, and team dynamics can be strong influences; thus, CRF may suppress the exhibition of individual regulatory focus in favor of the collective. Of additional interest are the conditions and processes by which individual and CRF change dominance. We recommend that researchers assess these interactions longitudinally to increase understanding of how to manage individual and team motivation processes in teams with multiple goals.

The effects of regulatory misfit in teams can create even larger problems when regulatory focus is studied at the collective level. We found no studies to date investigating regulatory misfit with CRF and the organizational situation. Teams that are homogenously composed of promotion or prevention regulatory focus likely have a strong CRF. A homogenous team with a strong promotion CRF may be collectively demotivated by an organizational context that demands duty and responsibility. However, a diverse team composed of team members with various chronic regulatory preferences may be more resilient in the face of misfit despite a unified CRF as a result of the individual activation of team members in response to the organization's contextual demands. Because collective constructs are typically based on agreement and use the resulting mean as representation of the collective structure, individual fit must be assessed in order to study collective fit. We feel that it would be interesting to evaluate fit between CRF and organizational operations, such as company safety policy and quality programs.

Macro-Organizational Research of Regulatory Focus

Regulatory focus and strategic management. There are a limited number of studies in the field of strategic management that use RFT. The first topic to do so builds upon upper echelons theory (Hambrick & Mason, 1984) to address the role of executive regulatory foci in affecting organizational outcomes. For example, Wallace, Little, Hill, and Ridge (2010) investigated the relationship between CEO regulatory focus and firm performance, arguing that both promotion focus and prevention focus relate positively to firm performance. They also proposed that environmental dynamism moderates these relationships, depending on the regulatory fit between the CEO and the competitive environment. They found a positive relationship between CEO promotion focus and firm performance, as well as the moderating effect of environmental dynamism on both facets of regulatory focus, but the results were inconclusive for promotion focus and performance depending on who rated dynamism. Gamache, McNamara, Mannor, and Johnson (in press) make similar arguments with respect to the regulatory fit between a CEO's foci and circumstances, finding direct relationships for CEO regulatory foci and acquisition activity measured in terms of both number and value of acquisitions. However, they find that the regulatory fit with granting CEO stock options does not seem to amplify the positive effect of promotion focus but does seem to weaken the negative effect of prevention focus such that the relationship is present only when CEOs are granted minimal stock options.

A second group of research studies within strategic management integrates RFT with agency theory (Jensen & Meckling, 1976), which argues for the alignment of executive influence on strategic outcomes with shareholder goals via the structure of executive compensation as a means to align interests (for a review, see Devers, Cannella, Reilly, & Yoder, 2007). Wowak and Hambrick (2010) developed theoretical propositions about how regulatory focus affects the responses of executives to contractual incentives aimed at risk taking. They

propose that executives higher in promotion focus will approach risky decisions considering the potential gains, whereas executives higher in prevention focus will dwell on potential losses. As such, executives high in either focus will not be swayed by stock options: The highly promotion-focused executive will be inclined to take risks regardless of options, whereas no amount of potential gain from stock options will be enough to incentivize risk from the highly prevention-focused executive. While these propositions remain untested to our knowledge, the findings of Gamache and colleagues (in press), which treat regulatory foci as the independent variable and incentives as the moderating factor rather than the opposite (as Wowak and Hambrick argue), offer some insight that CEO regulatory foci and incentives interact.

Weber and Mayer (2011) also integrate RFT into effective contract design, arguing that both transaction cost economics and relational views of governance regard contracts as a means to deter opportunism in exchanges; as such, both approaches implicitly take a prevention-focused viewpoint with respect to devising contracts to ensure safeguards. In contrast, the benefits of applying both prevention- and promotion-focused lenses to contractual design simultaneously to help devise agreements that ensure safeguards, while concurrently applying promotion focus, may result in agreements that induce creativity, flexibility, and cooperative behavior in exchanges. These still-untested propositions apply to a wide range of strategy research questions related to both intrafirm and interfirm relationships, such as design of effective executive incentives as well as selection of exchange partners and vertical integration decisions.

A third area of strategy-based RFT research investigates the sociocognitive impact derived by an organization from top management team (TMT) regulatory focus. In general, these studies extend the organizational behavior perspective on leadership framing activities to alter others' responses. For example, Taylor-Bianco and Schermerhorn (2006) propose that a mix of both promotion and prevention focus cascades from top management through the organization to affect the capacity to implement change. Arazy and Gellatly (2012) offer some support for this notion in finding that project leader regulatory focus affects the engagement of other workers in corporate knowledge management systems. Bullard and Manchanda (2013) also take a sociocognitive view of regulatory foci, finding that general actions of an organization affect the inferences that individuals make about the organization. Spanjol, Tam, Qualls, and Bohlmann (2011) discuss the implications of goal pursuit strategies advanced by upper management on product development teams. Rhee and Fiss (2014) utilize RFT to argue that how firms frame the adoption of poison pills in press releases affects stock market reaction. They found support for their hypotheses that announcements of adoption that use shareholder value enhancement (or gain) framing will positively relate to market reaction, but they found a nonsignificant relationship for their argument that a shareholder value protection (or nonloss) framing will also relate positively to stock market reaction. Collectively, these studies indicate not only that leaders can set the tone for promotion or prevention focus to affect organizational phenomena such as creativity but also that organizational-level actions can dictate how people perceive the organization.

Regulatory focus and future strategic management research. Although the application of RFT to strategic management research has been limited, we see a number of avenues for extending this line of inquiry. First, our review identifies a handful of studies that take an

upper echelons perspective on regulatory focus, yet they are limited to studies of single executives, particularly CEOs, and to a narrow set of dependent variables. The emphasis on the CEO is perhaps understandable given the disproportionate influence of the CEO on organizational-level decisions and the difficulty in accessing executives for study (cf. Hambrick & Mason, 1984). Similarly, outcomes of interest focus primarily on organizational performance with little attention on other organizational outcomes important to strategic management theory and practice. Thus, future studies can extend RFT to the TMT by linking TMT regulatory focus (including the CEO) to additional organizational phenomena, such as divestments and outsourcing/insourcing decisions. Because these decisions involve risk and reward, we expect differences among executives in choices made among various strategic alternatives as a result of the influence of regulatory fit between the organization and the environment.

In addition, while our review highlights research that investigates RFT in a social setting, TMTs are unique in many ways from groups/teams/collectives at other levels of the organization. Thus, insights into team processes at other levels may or may not hold in executive settings. McMullen, Shepherd, and Patzelt (2009) proposed a theoretical model of competitive threat attention by firms on the basis of the hierarchical location of the managers and manager regulatory focus, suggesting that a strong prevention focus held by the responsible middle manager leads to an increased identification of threats as that manager enacts vigilant strategies in environmental scanning. However, as managers ascend the organizational hierarchy, other strategic concerns begin to play a more significant role in their positions, resulting in a decreased salience for prevention and an increase in promotion. Strategy researchers could extend this line of thinking by investigating regulatory focus in individual TMT members and the TMT as a whole as they affect intragroup dynamics and organizational outcomes.

Future research on executives could also extend RFT to boards of directors. Prior research articulates that boards serve two primary purposes—providing resources and monitoring (Hillman & Dalziel, 2003). RFT may help to extend our understanding of the degree to which boards do serve these purposes. Collectively, promotion-focused boards may strive to increase resources and pursue success with a disregard to their fiduciary duty to shareholders, while prevention-focused boards may take their duty to the status quo too seriously and miss important strategic opportunities that require a level of risk taking. Again, we revisit regulatory fit with the environment as an influence on the strategic decisions approved by the board. Studies of board regulatory focus may also help address the limited research on board composition outside of more easily observable phenomena (S. G. Johnson, Schnatterly, & Hill, 2013) and may help to explain why certain individuals serve on boards (Finkelstein, Hambrick, & Cannella, 2009).

Our second suggestion is to assess extant theory that remains untested to extend our knowledge of RFT and contracting, particularly by incorporating knowledge gained at other levels of analysis. For example, Holler, Hoelzl, Kirchler, Leder, and Mannetti (2008) relate regulatory foci to tax compliance, finding that compliance is higher when a match exists between individuals' regulatory foci and informational campaigns aimed at highlighting potential for gains from compliance or loss from noncompliance. The evidence that regulatory foci work in concert with situational stimuli (e.g., Hmieleski & Baron, 2008; Wallace et al., 2010) may extend our knowledge of contracts and the role of situational factors of organizations and their executives.

Finally, further research on the sociocognitive perspective of RFT at the highest levels of the organization may extend our understanding of both regulatory focus and TMTs by addressing sociocognitive processes at work. Of specific interest to us are organizational-level climates for promotion or prevention, as they may have important ramifications for outcomes such as operational effectiveness and innovation as well as organizational learning, particularly exploration and exploitation (March, 1991). CRF shows promising evidence for support, but a broad climate shared by a large organization remains unstudied. Important questions include the development and propagation of the climate through an organization (Taylor-Bianco & Schermerhorn, 2006) and the effects of organizational actions as they serve to reinforce the foci (Bullard & Manchanda, 2013). For example, organizational structure seems to affect team performance, with promotion-oriented tasks performed at a higher level by functionally structured teams (Dimotakis, Davison, & Hollenbeck, 2012).

Beyond these currently established topics on RFT and strategy, we see many possibilities for future research as a result of the need to explain differences in human action. For example, RFT may have implications for both the payments perspective (Lippman & Rumelt, 2003a), which aims to understand revenues and rents as a function of payments to rent generating resources, and the bargaining perspective (Lippman & Rumelt, 2003b), which articulates the role of management in discovering or estimating the value of resource combinations. The actions of individuals tasked with both payment and bargaining for an organization will be influenced by their regulatory focus and, hence, organizational revenues and rents. Perhaps promotion-focused individuals are more likely to "overpay" for resources and be aggressive in bargaining as they pursue potentially valuable resource combinations. Their preventionfocused counterparts focus on avoiding valuation errors and are less likely to acquire valuable resources, try new combinations, and bargain conservatively. Similarly, as a result of the individual influence of regulatory focus on decision making, RFT can extend the study of resource orchestration, or how managers structure, bundle, and leverage firm resources, such as how and why managers acquire and accumulate the resources they do and subsequently explain variance in how those resources are bundled (Sirmon, Hitt, & Ireland, 2007). The same logic would also apply to the study of competitive dynamics by investigating the role that regulatory foci play in decision makers' competitive actions and responses (cf. Ketchen, Snow, & Hoover, 2004).

Finally, by adopting a multilevel view of RFT, we can add insight into the microfoundations of strategic management (Felin & Foss, 2005). Individuals compose organizations, which suggests that individuals matter to organizational success. Yet as Felin and Foss note, strategy theorizing has not adequately emphasized the individual as an explanatory element. By addressing individuals' underlying natures, propensities, and motivations, we may explain organizational-level phenomena. Multilevel research that integrates individuals' and groups' regulatory foci to the organizational level explicitly addresses the Felin and Foss point by adding insight into regulatory focus effects on strategic phenomena. An example would be the microfoundations of the routines and capabilities literature: Given that regulatory foci affect individual and group processes, it seems natural to extend this knowledge to organizational routines and capabilities. Organizational routines are patterns of behavior within organizations that are subject to change if conditions change, which aligns well with prevention regulatory focus's preference for the status quo and our conceptualization of regulatory fit and serves as a basis for determining how routines originate in organizations.

Regulatory Focus Methods

Although there are several assessments of general regulatory focus, we concern ourselves primarily with the effects of regulatory focus in the workplace. For a review of all measures, see the meta-analysis by Gorman and colleagues (2012). The predominant measure used in our review was the General Regulatory Focus Measure (GRFM, 16 studies; Lockwood, Jordan, & Kunda, 2002), followed by the Regulatory Focus Questionnaire (RFQ, 7 studies; Higgins, Friedman, Harlow, Idson, Ayduk, & Taylor, 2001), the Regulatory Focus at Work Scale (3 studies; Wallace, Johnson, & Frazier, 2009), the Work Regulatory Focus Scale (WRF, 1 study; Neubert et al., 2008), and the induction of regulatory focus by manipulation (2 studies). While the GRFM and the RFQ both measure general regulatory focus, they are distinctive in that the GRFM measures regulatory focus with regard to the salience of outcomes (gain/nongain, loss/nonloss), while the RFQ evaluates the self-guiding principles of ideals and oughts. Of the measures of regulatory focus validated for the workplace, the Regulatory Focus at Work Scale shows incremental validity over general regulatory focus (Wallace et al.) by evaluating the oughts and ideals that individuals use to self-regulate behavior. Unlike the other scales, the WRF specifically addresses the ideal/ought self-guides as well as the end-state reference points in the items used to assess regulatory focus. The WRF also has significant incremental validity in the workplace over the RFQ (Neubert et al.). The study of CRF typically uses validated individual measures and a referent shift that reflects individual perceptions of CRF by evaluating within-group agreement. While measures validated for individual regulatory focus are useful as a proxy for the collective construct, future research on CRF should consider how such an approach affects the study of regulatory focus in teams.

The induction of state regulatory focus by external manipulation is quite common within general regulatory focus research; however, to our knowledge, it has been employed only twice in a work setting. Van Dijk and Kluger (2004, 2011) used different instructions and facet-specific scenarios on a cognitive task to elicit regulatory focus from their subjects. Although workplace research rarely induces regulatory focus, induction is particularly apt as a result of the malleability of regulatory focus. A number of such manipulation tasks are available and would add interesting insight into workplace motivation.

Another possible area for research is the development of implicit measures of regulatory focus. People self-regulate word usage, actions, behaviors, and many other observable artifacts that strongly suggest an underlying regulatory focus. R. E. Johnson and Steinman (2009) found implicit measurement of regulatory focus to be robust, even when controlling for the explicit measurement of regulatory focus. Although there has been some research of implicit measures of regulatory focus (e.g., Semin et al., 2005), such research could provide real insight into the actions of individuals throughout organizations. One area that may be particularly fruitful is the study of the linguistics of CEOs. Top managers are notoriously hard to study (cf. Cycyota & Harrison, 2006), so an implicit measure of regulatory focus in individuals and organizations would be valuable because verbiage may identify antecedent motivational states prior to important organizational decisions. Stam and colleagues (2014) studied U.S. presidents by using regulatory focus rhetoric associated with each facet of

regulatory focus, and both Gamache et al. (in press) and Rhee and Fiss (2014) utilize measures rooted in language use—the former to measure CEO regulatory foci and the latter to look at framing of issues by firms. These approaches offer promise for measurement in future studies. Another alternative for insight into TMTs and boards of directors would be to use qualitative studies, as they are amenable to small samples while offering rich data not available through a traditional survey (Finkelstein et al., 2009). Further leveraging unobtrusive measures of the construct to augment language-based measures may also be fruitful (Hill, White, & Wallace, 2014).

Themes for Future Research Using Regulatory Focus

This review sought to integrate existing research to create a framework for studying regulatory focus at multiple levels in a social context. We aspired to identify potential avenues for future research at multiple levels of analysis to assist in building understanding on how and why regulatory focus affects behavior. There seem to be four areas of opportunity with potential for progressing the understanding of regulatory focus and motivation in the workplace.

Regulatory Fit and the Hierarchy of Regulatory Focus

As reflected by its regular appearance throughout this review, regulatory fit across all levels of the organization is important to our understanding of regulatory focus. People are social beings who live and work within a complex network of relationships that are reciprocally influential for each member of the unit. Regulatory fit can exist between employees and their supervisors, team members, and collective team focus, so potential ramifications of fit and misfit are numerous and relevant for each field of study included in this review. Evidence suggests that regulatory focus and regulatory fit can have strong effects on motivational (de)activation. When there is fit between people and their leaders or situations, they seem to experience enhanced motivation. When there is misfit, they do not. These motivational consequences result from a (mis)match between individual chronic regulatory focus and situationally specific strategies and tactics used during goal striving. As such, it is important for future research to consider the malleability of state regulatory focus to environmental stimuli as it creates dynamic personal and interpersonal fit. In particular, the interaction of collective and individual regulatory focus, including the suppression of individual strategic preferences, may prove fruitful.

Social Implications of Regulatory Focus

As an individual motivational process, regulatory focus receives a substantial amount of attention; however, research on collective regulatory focus is still in its infancy. Teams and groups do not necessarily abide by the same motivational rules, and because of team dynamic processes, there may be a large number of potential effects of regulatory focus on the collective that cannot be observed, or even present, in individuals. A better understanding of how and why teams do what they do and how these collective actions interact with individual motivation would be valuable to extant knowledge.

A broader perspective on the effects of regulatory focus in a social context also warrants future study. In particular, social network dynamics, including concepts such as centrality and

structural holes, may be informed by the study of regulatory focus within social networks. For instance, Burt, Kilduff, and Tasselli (2013) note that advantage in social networks, such as information breadth and knowledge of arbitrage opportunities, may result from a brokerage position across a structural hole. However, empirical evidence suggests that individuals who occupy similar advantageous positions within a social network may have differential performance success, possibly caused by variation in personality (Burt et al.). We think the research on regulatory focus in social networks may illuminate possible mechanisms for the successful use and development of social network ties that bridge structural holes.

Temporal Variation and Regulatory Focus

While described as a dynamic motivational process, past research has rarely studied temporal variations in regulatory focus, and studying fluctuations in regulatory focus in individuals and teams in response to organizational stimuli may advance understanding. Within individuals, measuring neurological reactions to stimuli may provide insight into the coactivation of promotion and prevention regulatory focus. Using a longitudinal experimental design, researchers may be able to identify the real-time cortical responses to regulatory priming. Such responses may help establish whether regulatory focus is composed of two independent systems (as reflected by continued activity in each cortex) or whether it is more appropriate to consider regulatory focus a bipolar scale as each cortex trips on and off according to salient stimuli (Coan & Allen, 2003).

Regardless of the mechanism underlying the activation of each regulatory focus facet, the study of the interplay between them is potentially a fertile area of research. Promotion and prevention focus each elicit situationally unique benefits and detriments to performance and decision making. The ability to strategically shift between such frameworks seems to be a use-ful skill to possess as individuals, groups, and organizations self-regulate toward desired outcomes. In order to do this, the individual must recognize the need to change. Information that fits with the individual's regulatory focus is more salient, so the lack of observance of indicators for change may place limits on this capability. However, people do change how they self-regulate, so the threshold at which indicators differentially reach criticality would be interesting to study. Some individuals, such as those high in self-monitoring, may be more flexible to change than others because of heightened sensitivity to contextual cues regarding the content in the regulatory focus domain. There may also be differences in the ability to shift strategically on the basis of the responsiveness to cues. That is, given a similar sensitivity to cues, one person may be more likely to change than another as a result of cognitive flexibility.

Furthermore, temporal effects on CRF as an emergent state likely show variance across phases of team development (Marks, Mathieu, & Zaccaro, 2001). As collective regulatory structures emerge from recurrent interactions between team members, teams coalesce around a common motivational framework (Morgeson & Hofmann, 1999). In a study using a longitudinal design to include temporal effects, however, the effects of individual regulatory focus on these interactions, and thereby team processes, could be studied to identify how and why the collective construct settles on one or the other facet. A longitudinal design would also allow researchers to study whether teams with a diverse composition of individual regulatory focus may be able to switch behavioral strategies readily in response to environmental stimuli.

Individual Differences

Although we did not cover them in this review, a series of meta-analyses of individual differences scrutinized the nomological network of each form of regulatory focus (Gorman et al., 2012; Lanaj et al., 2012). Although personality and attitudes are well studied, there appears to be an opportunity for research in areas that affect relationships within organizations, such as attachment theory (Bowlby, 1969). Dispositional regulatory focus develops at an early age similar to attachment style, so there may be a relationship between the two constructs, with counter- and overdependence relating positively to prevention focus and interdependence relating positively to promotion focus. Both counterdependent and overdependent attachment styles are characterized by acting to prevent psychological harm to the actor, which closely aligns with the conceptualization of prevention focus.

Conclusion

Throughout this review, we evaluated RFT, a burgeoning research topic that has emerged over the past 15 years to influence a broad area of individual, collective, and organizational research. Nested within a motivational hierarchy, RFT provides a basis for evaluating the self-regulation of goal-directed action. In addition to the individual work outcomes reviewed elsewhere (Gorman et al., 2012; Lanaj et al., 2012), regulatory focus influences crucial HR functions, entrepreneurial success, team processes, and strategic and firm-level outcomes. Furthermore, research on regulatory fit, multilevel regulatory focus processes, and temporal aspects of regulatory focus stands to influence further development of the theory itself. As researchers become more interested in RFT, we are excited to see how our understanding of multilevel, goal-directed motivation progresses over the next 15 years.

References

- Arazy, O., & Gellatly, I. R. 2012. Corporate wikis: The effects of owners' motivation and behavior on group members' engagement. *Journal of Management Information Systems*, 29(3): 87-116.
- Baron, R. A. 2006. Opportunity recognition as pattern recognition: How entrepreneurs "connect the dots" to identify new business opportunities. *Academy of Management Perspectives*, 20(1): 104-119.
- Baron, R. A. 2012. Entrepreneurship: An evidence-based guide. Cheltenham, England: Elgar.
- Baron, R. A., Franklin, R. J., & Hmieleski, K. M. in press. Why entrepreneurs often experience low, not high, levels of stress: The joint effects of selection and psychological capital. *Journal of Management*. doi:10.1177/0149206313495411

Baron, R. A., Hmieleski, K. M., & Henry, R. A. 2012. Entrepreneurs' dispositional positive affect: The potential benefits—and potential costs—of being "up." *Journal of Business Venturing*, 27: 310-324.

Barringer, B. R. 2009. Preparing effective business plans. Upper Saddle River, NJ: Pearson.

Beersma, B., Homan, A. C., Van Kleef, G. A., & De Dreu, C. K. 2013. Outcome interdependence shapes the effects of prevention focus on team processes and performance. *Organizational Behavior and Human Decision Processes*, 121: 194-203.

Benjamin, L., & Flynn, F. J. 2006. Leadership style and regulatory mode: Value from fit? Organizational Behavior and Human Decision Processes, 100: 216-230.

Bowlby, J. 1969. Attachment: Attachment and loss Volume 1. New York: Basic Books.

- BrainyQuote. n.d. Warren Buffet Quotes. http://www.brainyquote.com/quotes/quotes/w/warrenbuff149691.html. Accessed March 16, 2015.
- Brockner, J., & Higgins, E. T. 2001. Regulatory focus theory: Implications for the study of emotions at work. Organizational Behavior and Human Decision Processes, 86: 35-66.

- Brockner, J., Higgins, E. T., & Low, M. B. 2004. Regulatory focus theory and the entrepreneurial process. *Journal of Business Venturing*, 19: 203-220.
- Brown, M. E., Treviño, L. K., & Harrison, D. A. 2005. Ethical leadership: A social learning perspective for construct development and testing. Organizational Behavior and Human Decision Processes, 97: 117-134.
- Bullard, O., & Manchanda, R. V. 2013. Do sustainable products make us prevention focused? *Marketing Letters*, 24: 177-189.
- Burt, R. S., Kilduff, M., & Tasselli, S. 2013. Social network analysis: Foundations and frontiers on advantage. Annual Review of Psychology, 64: 527-547.
- Cardon, M. S., Wincent, J., Singh, J., & Drnovsek, M. 2009. The nature and experience of entrepreneurial passion. Academy of Management Review, 34: 511-532.
- Carver, C. S., & Scheier, M. F. 1998. On the self-regulation of behavior. New York: Cambridge University Press.
- Chen, G., & Kanfer, R. 2006. Toward a systems theory of motivated behavior in work teams. *Research in Organizational Behavior*, 27: 223-267.
- Chung, C. M., & Tsai, Q. 2009. The effects of regulatory focus and tie strength on word-of-mouth behaviour. Asia Pacific Journal of Marketing and Logistics, 21: 329-341.
- Coan, J. A., & Allen, J. J. 2003. Frontal EEG asymmetry and the behavioral activation and inhibition systems. *Psychophysiology*, 40: 106-114.
- 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.
- Cycyota, C. S., & Harrison, D. A. 2006. What (not) to expect when surveying executives: A meta-analysis of top manager response rates and techniques over time. Organizational Research Methods, 9: 133-160.
- De Cremer, D., Mayer, D. M., van Dijke, M., Schouten, B. C., & Bardes, M. 2009. When does self-sacrificial leadership motivate prosocial behavior? It depends on followers' prevention focus. *Journal of Applied Psychology*, 94: 887-899.
- Devers, C. E., Cannella, A. A., Reilly, G. P., & Yoder, M. E. 2007. Executive compensation: A multidisciplinary review of recent developments. *Journal of Management*, 33: 1016-1072.
- Dimotakis, N., Davison, R. B., & Hollenbeck, J. 2012. Team structure and regulatory focus: The impact of regulatory fit on team dynamic. *Journal of Applied Psychology*, 97: 421-434.
- Felin, T., & Foss, N. J. 2005. Strategic organization: A field in search of micro-foundations. *Strategic Organization*, 3: 441-455.
- Finkelstein, S., Hambrick, D., & Cannella, A. A. 2009. Strategic leadership: Theory and research on executives, top management teams, and boards. New York: Oxford University Press.
- Fitzsimmons, J. R., & Douglas, E. J. 2011. Interaction between feasibility and desirability in the formation of entrepreneurial intentions. *Journal of Business Venturing*, 26: 431-440.
- 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.
- Frese, M., & Gielnik, M. M. 2014. The psychology of entrepreneurship. Annual Review of Organizational Psychology and Organizational Behavior, 1: 413-438.
- Friedman, R. S., & Förster, J. 2001. The effects of promotion and prevention cues on creativity. *Journal of Personality and Social Psychology*, 81: 1001-1013.
- Gamache, D., McNamara, G., Mannor, M., & Johnson, R. in press. Motivated to acquire? The impact of CEO regulatory focus on firm acquisitions. *Academy of Management Journal*. doi:10.5465/amj.2013.0377
- George, J. M. 2000. Emotions and leadership: The role of emotional intelligence. Human Relations, 53: 1027-1055.
- Gorman, C. A., Meriac, J. P., Overstreet, B. L., Apodaca, S., McIntyre, A. L., Park, P., & Godbey, J. N. 2012. A meta-analysis of the regulatory focus nomological network: Work-related antecedents and consequences. *Journal of Vocational Behavior*, 80: 160-172.
- Hambrick, D. C., & Mason, P. A. 1984. Upper echelons: The organization as a reflection of its top managers. Academy of Management Review, 9: 193-206.
- Hamstra, M. R., Van Yperen, N. W., Wisse, B., & Sassenberg, K. 2011. Transformational-transactional leadership styles and followers' regulatory focus. *Journal of Personnel Psychology*, 10(4): 182-186.
- Hamstra, M. R., Van Yperen, N. W., Wisse, B., & Sassenberg, K. 2014. On the perceived effectiveness of transformational–transactional leadership: The role of encouraged strategies and followers' regulatory focus. *European Journal of Social Psychology*, 44: 643-656.
- Higgins, E. T. 1997. Beyond pleasure and pain. American Psychologist, 52: 1280-1300.

- Higgins, E. T. 1998. Promotion and prevention: Regulatory focus as a motivational principle. In M. P. Zanna (Ed.), Advances in experimental social psychology (vol. 30): 1-46. New York: Academic Press.
- Higgins, E. T. 2000. Making a good decision: Value from fit. American Psychologist, 55: 1217-1230.
- Higgins, E. T. 2006. Value from hedonic experience and engagement. Psychological Review, 113: 439-460.
- 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.
- Hill, A. D., White, M. A., & Wallace, J. C. 2014. Unobtrusive measurement of psychological constructs in organizational research. Organizational Psychology Review, 4: 147-173.
- Hillman, A. J., & Dalziel, T. 2003. Boards of directors and firm performance: Integrating agency and resource dependence perspectives. Academy of Management Review, 28: 383-396.
- Hmieleski, K. M., & Baron, R. A. 2008. Regulatory focus and new venture performance: A study of entrepreneurial opportunity exploitation under conditions of risk versus uncertainty. *Strategic Entrepreneurship Journal*, 2: 285-299.
- Hmieleski, K. M., & Baron, R. A. 2009. Entrepreneurs' optimism and new venture performance: A social cognitive perspective. Academy of Management Journal, 52: 473-488.
- Holler, M., Hoelzl, E., Kirchler, E., Leder, S., & Mannetti, L. 2008. Framing of information on the use of public finances, regulatory fit of recipients and tax compliance. *Journal of Economic Psychology*, 29: 597-611.
- 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.
- Janis, I. L. 1972. Victims of groupthink: A psychological study of foreign-policy decisions and fiascoes. Oxford, England: Houghton Mifflin.
- Jaskiewicz, P., & Luchak, A. A. 2013. Explaining performance differences between family firms with family and nonfamily CEOs: It's the nature of the tie to the family that counts! *Entrepreneurship Theory and Practice*, 37: 1361-1367.
- Jensen, M. C., & Meckling, W. H. 1976. Theory of the firm: Managerial behavior, agency costs and ownership structure. Journal of Financial Economics, 3: 305-360.
- Johnson, P. D., & Wallace, J. C. 2011. Increasing individual and team performance in an organizational setting through the situational adaptation of regulatory focus. *Consulting Psychology Journal: Practice and Research*, 63: 190-201.
- Johnson, R. E., & Steinman, L. 2009. Use of implicit measures for organizational research: An empirical example. Canadian Journal of Behavioural Science, 41: 202-212.
- Johnson, S. G., Schnatterly, K., & Hill, A. D. 2013. Board composition beyond independence: Social capital, human capital, and demographics. *Journal of Management*, 39: 232-262.
- Kammerlander, N., Burger, D., Fust, A., & Fueglistaller, U. in press. Exploration and exploitation in established small and medium-sized enterprises: The effect of CEOs' regulatory focus. *Journal of Business Venturing*. doi:10.1016/j.jbusvent.2014.09.004
- Kark, R., & Van Dijk, D. 2007. Motivation to lead, motivation to follow: The role of the self-regulatory focus in leadership processes. Academy of Management Review, 32: 500-528.
- Keller, J., Hurst, M., & Uskul, A. 2008. Prevention-focused self-regulation and aggressiveness. Journal of Research in Personality, 42: 800-820.
- Ketchen, D. J., Snow, C. C., & Hoover, V. L. 2004. Research on competitive dynamics: Recent accomplishments and future challenges. *Journal of Management*, 30: 779-804.
- Kristof-Brown, A. L., Zimmerman, R. D., & Johnson, E. C. 2005. Consequences of individuals' fit at work: A metaanalysis of person-job, person-organization, person-group, and person-supervisor fit. *Personnel Psychology*, 58: 281-342.
- Kröper, M., Fay, D., Lindberg, T., & Meinel, C. 2011. Interrelations between motivation, creativity and emotions in design thinking processes—An empirical study based on regulatory focus theory. In T. Taura & Y. Nagai (Eds.), *Design creativity*: 97-104. New York: Springer.
- Kuenzi, M., & Schminke, M. 2009. Assembling fragments into a lens: A review, critique, and proposed research agenda for the organizational work climate literature. *Journal of Management*, 35: 634-717.
- Kuhn, K. M. 2015. Selecting the good vs. rejecting the bad: Regulatory focus effects on staffing decision making. *Human Resource Management*, 54: 131-150.
- Lanaj, K., Chang, C., & Johnson, R. E. 2012. Regulatory focus and work-related outcomes: A review and metaanalysis. *Psychological Bulletin*, 138: 998-1034.

- Lee, A., & Aaker, J. 2004. Bringing the frame into focus: The influence of regulatory fit on processing fluency and persuasion. *Journal of Personality and Social Psychology*, 86: 205-218.
- Levine, J. M., Higgins, E. T., & Choi, H. 2000. Development of strategic norms in groups. Organizational Behavior and Human Decision Processes, 82: 88-101.
- Li, A., Evans, J., Christian, M. S., Gilliand, S. W., Kausel, E. E., & Stein, J. H. 2011. The effects of managerial regulatory fit priming on reactions to explanations. *Organizational Behavior and Human Decision Processes*, 115: 268-282.
- Lippman, S. A., & Rumelt, R. P. 2003a. A bargaining perspective on resource advantage. *Strategic Management Journal*, 24: 1069-1086.
- Lippman, S. A., & Rumelt, R. P. 2003b. The payments perspective: Micro-foundations of resource analysis. Strategic Management Journal, 24: 903-927.
- Locke, E. A., & Latham, G. P. 1990. *A theory of goal setting and task performance*. Englewood Cliffs, NJ: Prentice Hall.
- 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.
- Lockwood, P., Sadler, P., Fyman, K., & Tuck, S. 2004. To do or not to do: Using positive and negative role models to harness motivation. *Social Cognition*, 22: 422-450.
- March, J. G. 1991. Exploration and exploitation in organizational learning. Organization Science, 2: 71-87.
- Marks, M. A., Mathieu, J. E., & Zaccaro, S. J. 2001. A temporally based framework and taxonomy of team processes. Academy of Management Review, 26: 356-376.
- Mayer, J. D., & Salovey, P. 1995. Emotional intelligence and the construction and regulation of feelings. Applied and Preventive Psychology, 4: 197-208.
- McMullen, J., & Shepherd, D. 2002. Regulatory focus and entrepreneurial intention: Action bias in the recognition and evaluation of opportunities. Paper presented at the Babson-Kauffman Entrepreneurship Research Conference, Boulder, CO.
- McMullen, J. S., Shepherd, D. A., & Patzelt, H. 2009. Managerial (in)attention to competitive threats. *Journal of Management Studies*, 46: 157-181.
- Morgeson, F. P., & Hofmann, D. A. 1999. The structure and function of collective constructs: Implications for multilevel research and theory development. Academy of Management Review, 24: 249-265.
- Nambisan, S., & Baron, R. A. 2013. Entrepreneurship in innovation ecosystems: Entrepreneurs' self-regulatory processes and their implications for new venture success. *Entrepreneurship Theory and Practice*, 37: 1071-1097.
- Neubert, M. J., Kacmar, K. M., Carlson, D. S., Chonko, L. B., & Roberts, J. A. 2008. Regulatory focus as a mediator of the influence of initiating structure and servant leadership on employee behavior. *Journal of Applied Psychology*, 93: 1220-1233.
- O'Leary-Kelly, A. M., Martocchio, J. J., & Frink, D. D. 1994. A review of the influence of group goals on group performance. Academy of Management Journal, 37: 1285-1301.
- Pennington, G. L., & Roese, N. J. 2003. Regulatory focus and temporal distance. Journal of Experimental Social Psychology, 39: 563-576.
- Pollack, J. M., Forster, W. R., Johnson, P. D., Coy, A., & Molden, D. C. 2015. Promotion-and prevention-focused networking and its consequences for entrepreneurial success. *Social Psychological and Personality Science*, 6: 3-12.
- Preston-Werner, T. 2008. How I turned down \$300,000 from Microsoft to go full-time on GitHub. http://tom .preston-werner.com/2008/10/18/how-i-turned-down-300k.html. Accessed March 16, 2015.
- Rhee, E. Y., & Fiss, P. C. 2014. Framing controversial actions: Regulatory focus, source credibility, and stock market reaction to poison pill adoption. Academy of Management Journal, 57: 1734-1758.
- Rietzschel, E. F. 2011. Collective regulatory focus predicts specific aspects of team innovation. Group Processes & Intergroup Relations, 14: 337-345.
- Righetti, F., Finkenauer, C., & Rusbult, C. 2011. The benefits of interpersonal regulatory fit for individual goal pursuit. *Journal of Personality and Social Psychology*, 101: 720-736.
- Sacramento, C. A., Fay, D., & West, M. A. 2013. Workplace duties or opportunities? Challenge stressors, regulatory focus, and creativity. Organizational Behavior and Human Decision Processes, 121: 141-157.
- 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*: 489-503. New York: Psychology Press.

- Scholer, A., Zou, X., Fujita, K., Stroessner, S., & Higgins, E. 2010. When risk seeking becomes a motivational necessity. *Journal of Personality and Social Psychology*, 99: 215-231.
- 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.
- 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.
- Shane, S. 2012. Reflections on the 2010 AMR decade award: Delivering on the promise of entrepreneurship as a field of research. Academy of Management Review, 37: 10-20.
- Shin, Y., Kim, M. S., Choi, J. N., Kim, M., & Oh, W. K. in press. Does leader-follower regulatory fit matter? The role of regulatory fit in followers' organizational citizenship behavior. *Journal of Management*. doi:10.1177/0149206314546867
- Sirmon, D. G., Hitt, M. A., & Ireland, R. D. 2007. Managing firm resources in dynamic environments to create value: Looking inside the black box. *Academy of Management Review*, 32: 273-292.
- Spanjol, J., Tam, L., Qualls, W. J., & Bohlmann, J. D. 2011. New product team decision making: Regulatory focus effects on number, type, and timing decisions. *Journal of Product Innovation Management*, 28: 623-640.
- Sparrowe, R. T., & Liden, R. C. 1997. Process and structure in leader-member exchange. Academy of Management Review, 22: 522-552.
- Stam, D., van Knippenberg, D., & Wisse, B. 2010. Focusing on followers: The role of regulatory focus and possible selves in visionary leadership. *The Leadership Quarterly*, 21: 457-468.
- Stam, D., van Knippenberg, D., Wisse, B., & Nederveen, P. A. 2014. Motivation in words: Promotion and prevention-oriented leadership during uncertainty. Manuscript submitted for publication.
- Tang, J., Kacmar, K. M., & Busenitz, L. 2012. Entrepreneurial alertness in the pursuit of new opportunities. *Journal of Business Venturing*, 27: 77-94.
- Taylor-Bianco, A., & Schermerhorn, J., Jr. 2006. Self-regulation, strategic leadership and paradox in organizational change. Journal of Organizational Change Management, 19: 457-470.
- Tumasjan, A., & Braun, R. 2012. In the eye of the beholder: How regulatory focus and self-efficacy interact in influencing opportunity recognition. *Journal of Business Venturing*, 27: 622-636.
- Van Dijk, D., & Kluger, A. N. 2004. Feedback sign effect on motivation: Is it moderated by regulatory focus? *Applied Psychology*, 53: 113-135.
- Van Dijk, D., & Kluger, A. N. 2011. Task type as a moderator of positive/negative feedback effects on motivation and performance: A regulatory focus perspective. *Journal of Organizational Behavior*, 32: 1084-1105.
- Venus, M., Stam, D., & van Knippenberg, D. 2013. Leader emotion as a catalyst of effective leader communication of visions, value-laden messages, and goals. *Organizational Behavior and Human Decision Processes*, 122: 53-68.
- Vohs, K. D., & Baumeister, R. F. 2011. Handbook of self-regulation: Research, theory, and applications (2nd ed.). New York: Guilford Press.
- Vroom, V. H. 1964. Work and motivation. New York: Wiley.
- Wallace, J. C., Butts, M. M., Johnson, P. D., Stevens, F. G., & Smith, M. B. in press. A multilevel model of employee innovation: Understanding the effects of regulatory focus, thriving, and employee involvement climate. *Journal of Management*. doi:10.1177/0149206313506462
- Wallace, J. C., & Chen, G. 2006. A multilevel integration of personality, climate, self-regulation, and performance. *Personnel Psychology*, 59: 529-557.
- 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.
- Wallace, J. C., Little, L. M., Hill, A. D., & Ridge, J. W. 2010. CEO regulatory foci, environmental dynamism, and small firm performance. *Journal of Small Business Management*, 48: 580-604.
- Wallace, J. C., Little, L. M., & Shull, A. 2008. The moderating effects of task complexity on the relationship between regulatory foci and safety and production performance. *Journal of Occupational Health Psychology*, 13: 95-104.
- Weber, L., & Mayer, K. J. 2011. Designing effective contracts: Exploring the influence of framing and expectations. Academy of Management Review, 36: 53-75.
- Wowak, A. J., & Hambrick, D. C. 2010. A model of person-pay interaction: How executives vary in responses to compensation arrangements. *Strategic Management Journal*, 31: 803-821.

- Yen, C., Chao, S., & Lin, C. 2011. Field testing of regulatory focus theory. *Journal of Applied Social Psychology*, 41: 1565-1581.
- Yoon, Y., Sarial-Abi, G., & Gürhan-Canli, Z. 2012. Effect of regulatory focus on selective information processing. Journal of Consumer Research, 39: 93-110.
- 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.
- Zhao, H., & Seibert, S. E. 2006. The Big Five personality dimensions and entrepreneurial status: A meta-analytical review. *Journal of Applied Psychology*, 91: 259-271.
- Zhao, H., Seibert, S. E., & Lumpkin, G. T. 2010. The relationship of personality to entrepreneurial intentions and performance: A meta-analytic review. *Journal of Management*, 36: 381-404.