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Motivated to Acquire? The Impact of CEO Regulatory Focus on Firm Acquisitions

Daniel L. Gamache
Department of Management
Eli Broad College of Business
Michigan State University
East Lansing, MI 48824
gamache@broad.msu.edu

Gerry McNamara
Department of Management
Eli Broad College of Business
Michigan State University
East Lansing, MI 48824
mcnamara@broad.msu.edu

Michael J. Mannor
University of Notre Dame
Mendoza College of Business
Notre Dame, IN 46556
mmannor@nd.edu

Russell E. Johnson
Department of Management
Eli Broad College of Business
Michigan State University
East Lansing, MI 48824
johnsonr@broad.msu.edu

ABSTRACT

Regulatory focus theory proposes that decision-making and goal pursuit occur via either a promotion focus (a sensitivity to gains and a desire for advancement and growth) or a prevention focus (a sensitivity to losses and a desire for stability and security). Recent theorizing in strategic management research suggests that there may be important firm-level outcomes influenced by the regulatory focus of top executives. We expand research on regulatory focus theory by testing whether or not CEO regulatory focus impacts the proclivity of firms to undertake acquisitions. Furthermore, regulatory focus theory suggests that the effects of people's promotion and prevention foci are magnified when their regulatory focus is congruent with salient situational characteristics, a phenomenon known as regulatory fit. As a test of this idea, we demonstrate how the effects of CEO promotion and prevention foci are differentially impacted by one such characteristic, namely incentive compensation. Our findings indicate that CEO regulatory focus impacts both the quantity and scale of acquisitions undertaken by a firm. We also find support for our arguments that these relationships are moderated by stock option pay.

Keywords:

Acquisitions; Regulatory Focus Theory; Regulatory Fit; CEO compensation; Strategic Leadership; Upper Echelons Theory

Research on strategic leadership has increasingly sought to establish an understanding of how the psychological attributes of chief executive officers (CEOs) impact firm strategic decisions (e.g., Hayward & Hambrick, 1997; Hiller & Hambrick, 2005). Hambrick and Mason (1984) emphasized the importance of the psychological attributes of executive leaders and suggested the use of background characteristics of executives to serve as indicators of underlying these attributes. More recently, in response to calls to go beyond the use of demographic characteristics as proxies for measuring underlying executive psychological attributes (Carpenter, Geletkanycz, & Sanders, 2004; Priem, Lyon, & Dess, 1999), researchers have sought to assess psychological attributes more directly. Such examinations have included CEO attributes such as narcissism (Chatterjee & Hambrick, 2007), affectivity (e.g., Delgado-Garcia & De La Fuente-Sabate, 2010), personality (Resick, Whitman, Weingarden, & Hiller, 2009), and charisma (Agle, Nargarajan, Sonnenfeld, & Srivivasan, 2006). Results from this research suggest that CEO attributes have a profound impact on firm action and performance. This line of research holds significant potential for studying how and why CEOs engage in specific strategic actions, sometimes in spite of clear evidence that the course of action may have limited benefits to the firm. For example, many CEOs continue to pursue acquisitions in spite of evidence that indicates that acquisitions frequently result in negative returns (King, Dalton, Daily, & Covin, 2004). In this study we assess the impact of a relatively under-examined but potentially strategically important individual attribute – CEO regulatory focus – on the firm's acquisition behavior as well as the degree to which CEO incentive compensation moderates the influence of CEO regulatory focus.

According to regulatory focus theory (Higgins, 1997, 1998), any goal can be attained through the use of different strategic means. The theory accounts for individual differences in

how people view their goals and why specific motivational and strategic tendencies are adopted as they try to achieve them (Brockner, Higgins, & Low, 2004). Specifically, people can pursue their goals via a promotion or a prevention focus. A promotion focus is associated with a preference for an eagerness strategy, which is concerned with "advancement, aspiration, and accomplishment (more generally, the presence or absence of positive outcomes)" (Higgins & Spiegel, 2004: 172). This strategic means is focused on moving towards ideal states by ensuring "hits" (Crowe & Higgins, 1997). In contrast, a prevention focus is associated with a preference for a vigilance strategy, which is concerned with "protection, safety, and responsibility (more generally, the presence or absence of negative outcomes)" (Higgins & Spiegel, 2004: 172). This strategic means is focused on avoiding errors and mismatches to desired states by ensuring "correct rejections" (Crowe & Higgins, 1997). It is critical to consider differences in people's differential preferences for strategic means because promotion and prevention foci have unique effects on behavior (Higgins & Spiegel, 2004; Lanaj, Chang, & Johnson, 2012).

Regulatory focus directly relates to key dimensions of strategic decision making. This includes the salience of the goals decision makers focus on, such as aggressive, achievement-oriented goals or defensive, security-oriented goals (Johnson, Chang, & Yang, 2010; Lanaj et al., 2012). Regulatory focus also influences the salience of different types of information for decision makers as well as the types of information used to make and justify decisions (Higgins & Spiegel, 2004). Finally, regulatory focus influences the structure of decision making evidenced and impacts structural attributes such as the degree of comprehensiveness of decision processes (Crowe & Higgins, 1997). In short, at its heart, regulatory focus involves and influences the strategic preferences of decision makers. As such, we believe that promotion and prevention foci are key attributes of executives to examine.

Since regulatory focus influences how individuals view their goals and the strategic means they use to attain them (Scholer & Higgins, 2008), it is an attribute that is likely to influence how they evaluate strategic options for the firm and what courses of action they choose to pursue. It is therefore likely that CEO regulatory focus will shape a wide range of strategic decisions, such as resource allocations, conformity to industry norms, breadth and speed of new product development, and decisions about the scale and scope of the firm. Specifically, we investigate how CEO promotion and prevention foci influence the firm's acquisition behavior. We focus on acquisitions as a relevant dependent variable because the consequences of regulatory focus map directly on to issues at the core of acquisitions. Acquisitions involve the opportunity to boldly grow and advance a firm as well as the potential for big returns, two decision criteria related to a promotion focus. However, they also involve significant uncertainty, potential for major losses, and require careful diligence, all of which are criteria that map onto a prevention focus.

Based on regulatory focus theory we hypothesize that CEO promotion focus will be associated with both a higher quantity and scale of acquisitions because a promotion focus involves a strategic preference to acquire, a propensity to search for and positively evaluate potential opportunities, and an eagerness to exploit the opportunities they find. In contrast, we suspect that CEO prevention focus is associated with a lower quantity and scale of acquisitions because prevention focus is characterized by a concern for security and responsibility and increased diligence in evaluating a potential acquisition. Regulatory focus theory also posits that the effects of regulatory focus are accentuated when people's promotion and prevention foci are congruent with salient situational characteristics, a phenomenon Higgins (2000) labels regulatory fit. In organizational settings, compensation is one such characteristic (Brockner & Higgins,

2001), thus stock option pay is hypothesized to moderate our focal regulatory focus–acquisition relationships. We empirically test our hypotheses using a longitudinal empirical analysis of 481 firms across a wide range of industries.

By empirically examining how CEO regulatory focus relates to firm acquisition behavior, our study makes several contributions to existing theory and research. First, we expand research on regulatory focus theory by testing whether or not CEO regulatory focus impacts the proclivity of firms to undertake major strategic actions. Our study expands existing theory and research on the impact of leader regulatory focus, for which empirical work to date has primarily focused on non-executive leaders and individual outcomes as opposed to firm outcomes (e.g., Kark & Van Dijk, 2007; Neubert, Kacmar, Carlson, Chonko, & Roberts, 2008).

Relatedly, we expand research on executive leadership by demonstrating the importance of regulatory focus as a psychological attribute that impacts firm strategic decisions. The psychology literature has identified personal characteristics that relate to an individual's personality (e.g., the Big Five personality dimensions), self-concept (e.g., core self-evaluation, hubris, narcissism), and motivational attributes (e.g., regulatory focus). Each of these has been identified as valid constructs that can have independent effects on behavior. Further, this literature suggests that motivational attributes have the most direct and powerful influence on behavior (e.g., Barrick, Stewart, & Piotrowski, 2002; Lanaj et al., 2012). Thus, regulatory focus, a key motivational characteristic, has the potential to be a powerful driver of firm action. Prior research in strategy examining the link between CEO attributes and acquisition behavior (e.g., Hayward & Hambrick, 1997, Chatterjee & Hambrick, 2007) has focused primarily on the influence of self-concept characteristics. While these are important attributes, they are very different from regulatory focus and, thus, offer only a partial understanding of the role of

executive attributes on acquisition behavior. Given its unique attributes, it is appropriate and valuable to go beyond the self-concept category of characteristics and examine the influence of regulatory focus, a key motivational attribute. Additionally, regulatory focus is distinct from self-concept variables like self-esteem and core self-evaluation (Johnson et al., 2010; Lanaj et al., 2013) and is likely to be a more proximal driver of firm action than self-concept variables since it has direct as opposed to indirect effects on behavior (e.g., Ferris, Johnson, Rosen, Djurdjevic, Chang, & Tan, 2013).

A third contribution of our work is to test the notion of regulatory fit (Higgins, 2000) by demonstrating how the effects of promotion and prevention foci are differentially impacted by incentive compensation. In doing so we answer calls for research to empirically establish how the alignment of executive compensation to individual differences of the CEO can improve firm-level outcomes (Hambrick, 2007; Wowak & Hambrick, 2010). Most research on executive compensation has focused on how executive compensation must be aligned with organizational and environmental factors (e.g., Balkin & Gomez-Mejia, 1990; Henderson & Fredrickson, 2001). However, little research has examined the importance of the match between CEO individual differences and compensation design (Hambrick, 2007). Our study addresses this issue by testing how one key attribute – CEO regulatory focus – interacts with stock option pay to influence acquisition activity.

Fourth, our paper contributes to research on firm acquisitions by investigating whether or not a key motivation-based individual difference predisposes CEOs to champion acquisitions in spite of the evidence indicating that acquisitions often result in negative returns (King et al., 2004). Prior research has examined the role of top executives on acquisition activity and performance, but the bulk of this research has focused on examining how executive self-interest

leads to acquisitions (Haleblian, Devers, McNamara, Carpenter & Davidson, 2009), often in relation to maximizing compensation (Agrawal & Walking, 1994; Sanders & Hambrick, 2007). There has been limited research that directly examines how the characteristics of top managers influence acquisition behavior. Exploring how the CEO's psychological attributes, such as regulatory focus, impact the firm's propensity to acquire can improve our understanding of when and why acquisitions occur.

THEORY AND HYPOTHESES

Regulatory Focus Theory

Regulatory focus theory is a theory of self-regulation, which encompasses all of the processes and motivations involved with regulating affect, cognition, and behavior in pursuit of goals (Carver & Scheier, 1998; Johnson, Chang, & Lord, 2006). Regulatory focus theory (Higgins, 1997, 1998) posits that goals can be attained via a promotion focus or a prevention focus. A promotion focus sensitizes people to the presence and absence of positive stimuli (i.e., gains and non-gains) and directs their attention toward opportunities for accomplishment and growth. Promotion focus is associated with a preference for eagerness-related strategic means that aim to "insure hits and insure against errors of omission (i.e., a loss of accomplishment)" (Crowe & Higgins, 1997: 120). A promotion focus therefore involves acting in ways that attempt to maximize gains and minimize non-gains. People with a strong promotion focus initiate action sooner in response to opportunities for gains, they value the speed and quantity of accomplishment, and they tolerate experimentation and risk if it means potentially moving closer to ideal states (Higgins & Spiegel, 2004).

A prevention focus sensitizes people to the presence and absence of negative stimuli (i.e., losses and non-losses) and the importance of safety, responsibility, and security. Given these

concerns, prevention focus is associated with a conservative approach that seeks to reduce vulnerability and uncertainty via vigilance strategic means that "insure correct rejections and insure against errors of commission (i.e. making a mistake)" (Crowe & Higgins, 1997: 120). Rather than maximizing gains and minimizing non-gains, a prevention focus is geared toward minimizing losses and maximizing non-losses. Thus, people with a strong prevention focus take the time for careful and systematic decision making, they emphasize accuracy and quality over quantity, and they create a sense of security by adhering to rules and conventional routines (Higgins & Spiegel, 2004).

Importantly, although both promotion and prevention foci help people attain their goals, they do so via unique affective, cognitive, and behavioral processes (Lanaj et al., 2012). For example, physicians exhibit effective job performance by developing innovative ideas for patient care (promotion focus) and by following health and safety protocols (prevention focus), which are unique approaches. Thus, promotion and prevention foci represent independent strategic means rather than opposite ends of a single continuum (Förster, Higgins & Bianco, 2003). One reason for their independence is because the approach and avoidance tendencies that underlie these strategic means are themselves regulated by independent systems (Elliot & Thrash, 2010; Gray, 1990; Johnson, Chang, Meyer, Lanaj, & Way, 2013). In support of this view, the meta-analytic estimate of the relationship between promotion and prevention foci reported by Lanaj and colleagues (2012) was small ($\rho = .11$). It is therefore possible for people to be high on both promotion and prevention foci, just one focus, or neither focus.

Not only are people's levels of promotion and prevention foci independent, but these levels are jointly shaped by internal and external influences. As Brockner and Higgins (2001: 40) noted: "Whether people adopt more of a promotion focus or prevention focus is a function of

situational and dispositional factors." Preferences for eagerness and vigilant strategies stem in part from biological dispositions that give rise to approach and avoidance tendencies (Elliot & Thrash, 2010; Lanaj et al., 2012). These preferences also develop in early childhood when nurturance and security needs are particularly salient (Higgins, 1997). As Higgins (1997: 1282) noted: "Children learn from interactions with their caretakers to regulate themselves in relation to promotion-focus ideals or in relation to prevention-focus oughts." In support of this idea, empirical evidence indicates there is some consistency in people's promotion and prevention foci over time (e.g., Gomez, Borges, & Pechmann, 2013; Higgins, Friedman, Harlow, Idson, Ayduk, & Taylor, 2001). However, preferences for eagerness and vigilant strategies are also shaped by cues within the immediate environment (Förster, Higgins, & Idson, 1998; Higgins, 2000). In organizational settings, for example, situational factors like values and norms, past performance, and interpersonal interactions (e.g., CEO–board relations) may influence the emergence of promotion and prevention foci (Brockner & Higgins, 2001; Johnson et al., 2010; Wallace & Chen, 2006). It is therefore possible for strategic preferences to change over time, in accordance with varying circumstances. The joint influence of dispositional and situational sources give rise to context-specific regulatory foci that are somewhat stable within a specific domain (e.g., work-specific regulatory foci; Lanaj et al., 2012). Thus, regulatory focus is more malleable than dispositional traits and individual differences (e.g., narcissism and core self-evaluations) yet more stable than transient states (e.g., positive and negative moods).

Individual Differences in Regulatory Focus vis-à-vis Other Traits

Given that we examined CEO regulatory focus, it raises the question of how regulatory focus differs from other individual differences that have been studied in strategy research, such as personality traits (e.g., the Big 5) and self-evaluations (e.g., core self-evaluation, narcissism).

Regulatory focus differs from oft-studied personality and self-evaluative traits in three key respects. First, regulatory focus is a motivation-based characteristic because it reflects preferences for strategic action (e.g., eagerness and vigilant strategies) and the mechanisms that underlie such action (e.g., a focus on accomplishment and gains/ non-gains versus a focus on security and losses/ non-losses). Regulatory focus therefore differs from other personality and self-concept variables because it references actions as opposed to beliefs or evaluations involving the self. Second, regulatory focus primarily impacts goal striving, whereas other traits impact goal setting by shaping the difficulty and content of goals (Lanaj et al., 2012). Third, because regulatory focus impacts goal striving, it tends to be more proximal to behavior than other traits. The eagerness and vigilant strategies that underlie promotion and prevention foci directly shape people's behavior in pursuit of their goals (Scholer & Higgins, 2008). In contrast, personality traits like conscientiousness and extraversion do not have direct effects on behavior; rather, their effects are mediated by motivational processes (Barrick et al., 2002; Hoyle, 2010; Lanaj et al., 2012). In sum, regulatory focus differs from other personality and self-evaluative traits in that it references strategic action, impacts goal striving, and is more proximal to behavior.

CEO Regulatory Focus

The fact that peoples' regulatory focus impacts their preferences for strategic action, such as their willingness to explore and level of vigilance, suggests it is likely to have important implications for strategy research. Interestingly, the role of regulatory focus for impacting strategic outcomes has been the subject of some theorizing but very little empirical work. In one of the first articles that addressed this topic, Brockner et al. (2004) explored how leader regulatory focus impacts entrepreneurship. These authors proposed that different elements of the entrepreneurial process would benefit more from different regulatory foci. They argued, a strong

promotion focus helps people to better lead the entrepreneurial endeavor when generating new ideas and acquiring resources. In contrast, a strong prevention focus helps leaders avoid making sunk cost errors and be more effective in screening ideas by conducting effective due diligence (Brockner et al., 2004). In other theorizing, Wowak and Hambrick (2010) suggested that an executive's regulatory focus is an important factor that shapes how they respond to differing compensation arrangements. They argued that because promotion and prevention foci involve different levels of risk tolerance, the impact of stock option-based pay depends on the strength of the executive's regulatory focus. More recently, Das and Kumar (2011) proposed that regulatory focus impacts the alliance development process. These authors suggested that a promotion focus leads to a weaker sensitivity to partner opportunistic behaviors, increased speed in negotiations, and quicker willingness to commit to a longer-term relationship. A prevention focus, meanwhile, leads to increased care in assessing strategic fit, decreased willingness to share information with the alliance partner, and a proactive attitude in dealing with inter-partner conflict (Das & Kumar, 2011). We build on and extend these theoretical arguments by linking regulatory focus to acquisition actions and then empirically testing these arguments.

To our knowledge the only empirical studies examining CEO regulatory focus relied on survey data to examine the influence of CEO promotion and prevention foci on entrepreneurial business performance (Hmieleski & Baron, 2008; Wallace, Little, Hill & Ridge, 2010). Findings from these studies suggest that promotion and prevention foci are positively and negatively related, respectively, to firm performance, and that these relations were moderated by environmental dynamism. The negative relation of prevention focus with firm performance runs counter to the arguments of others (e.g., Kark & Van Dijk, 2007; Neubert et al., 2008) who suggest that both foci contribute to successful leadership. We extend this research by looking at

more proximal organizational actions to contribute to both our understanding of the role of CEO regulatory focus in strategic decisions in general but also to our understanding of why firms engage in acquisitions.

CEO Regulatory Focus and the Pursuit of Acquisitions

We expect that CEO promotion focus will be positively related to the firm's pursuit of acquisitions for three primary reasons: a higher motivation to acquire, a greater propensity to search for and positively evaluate potential opportunities, and a tendency to focus on the need to exploit opportunities. First, CEOs with a strong promotion focus are likely to have a higher motivation to acquire. Promotion focus entails a concern for accomplishments and aspirations, and motivation driven by growth and advancement needs (Brockner et al., 2004; Higgins, 1997). As a result, CEOs with a strong promotion focus may have higher aspirations for where they would like to take the firm, such as desires for increased firm size and market power. These issues may be especially important to a CEO with a high promotion focus because of the importance they place on rewards and accomplishments (Lanaj et al., 2012). A promotion focus is also associated with a focus on quantity of output (Brockner et al., 2004) suggesting that the number of acquisitions will be important to CEOs with a high promotion focus.

Second, CEO promotion focus also involves an increased likelihood that the CEO will search for potential acquisition opportunities and evaluate those opportunities more favorably. Promotion focus is associated with an exploratory orientation (Friedman & Förster, 2001) suggesting that CEOs with a strong promotion focus are likely to explore a wider range of possible acquisitions. People with a strong promotion focus tend to view situations in terms of opportunities (Higgins, 1997). For example, Tumasjan and Braun (2012) found that promotion focus in entrepreneurs was positively associated with opportunity recognition. CEO promotion

focus is also likely to be associated with more positive evaluations of the opportunities presented. A promotion focus leads to an attitude where potential gains carry a higher salience than possible losses (Brockner et al., 2004; Higgins, 1997). Further, a promotion focus sensitizes people to the positive features of a situation (Lanaj et al., 2012). When CEOs are considering an acquisition, a strong promotion focus will direct their attention to the positive implications of such a strategic move. As such, they are likely to pay greater attention to evidence suggesting that a potential acquisition will carry dividends (and unclear or ambiguous information will be interpreted in a more positive light). These CEOs are likely to approach a potential acquisition by "focusing on potential synergies, optimistic forecasts, and market assessments that point to future success" (Wowak & Hambrick, 2010: 814). They will view the situation based on what can be gained, see the positives of the potential deal and use this information when making acquisition decisions.

Third, in addition to biasing people's sensemaking in favor of perceiving opportunities, a strong promotion focus also leads to a greater motivation to exploit perceived gains (Crowe & Higgins, 1997). Thus, it affects perception as well as action. Accordingly, CEOs with a strong promotion focus are likely to perceive the need to seize available opportunities. Research on regulatory focus theory has demonstrated that promotion focus is associated with efforts to ensure hits and to avoid errors of omission (Crowe & Higgins, 1997). When considering an acquisition, this means CEO promotion focus will be associated with a lower concern for making poor acquisitions and a greater concern for not missing out on good acquisitions. A promotion focus pushes CEOs to make the acquisition in order to gain the possible benefits and to avoid missing out on a valuable opportunity. This eagerness means CEOs with a strong promotion focus are inclined toward a quantity of outputs (Förster et al., 2003), again suggesting that they

may lead the firm to engage in greater acquisition activity. Taken together, regulatory focus theory suggests the following:

Hypothesis 1: CEO promotion focus will be positively associated with the a) number of acquisitions and b) value of acquisitions undertaken by the firm.

Similarly there are strong reasons to expect that CEO prevention focus will be associated with the tendency for CEOs to engage in less acquisition activity. In particular, CEOs with a strong prevention focus are motivated by concerns of security and duty, act carefully to avoid making mistakes, and are expected to be more sensitive to negative information in evaluating potential acquisitions. First, people with a strong prevention focus are motivated by "ought" states, are highly concerned with issues of duty and obligation, and have high security needs (Higgins, 1997). Acquisitions are high variance strategic actions that frequently result in negative returns for the acquiring firm (King et al., 2004; Pablo, Sitkin, & Jemison, 1996). This potential for large negative returns is likely to weigh heavily on CEOs who have a strong prevention focus, suggesting they are likely to be drawn to the security found in safer strategic actions (e.g., incremental product extensions). That is not to say a high prevention focus CEO will never engage in acquisitions, only that a high prevention focus CEO will likely only support acquisitions for which there are significant potential benefits due to market power, efficiency, and resource redeployment gains (Haleblian et al., 2009) coupled with a low probability of negative outcomes.

Related to this concern for loss associated with a prevention focus is vigilance against making mistakes (Förster et al., 1998; Lanaj et al., 2012). This is seen in careful and systematic decision-making characterized by a high level of due diligence (Brockner et al., 2004; Wallace et al., 2010). A prevention focus also deters people from committing errors of commission (Crowe & Higgins, 1997). When considering an acquisition, this means a CEO with a high prevention

focus will be more concerned with the possibility of making a bad acquisition than with missing out on a potentially valuable acquisition. Wowak and Hambrick (2010) suggest that CEOs with a strong prevention focus are likely to be especially concerned with issues of integration difficulties and lack of relevant expertise. These concerns and others, are likely to motivate high prevention focus CEOs to avoid acquisitions that include highly uncertain returns.

Research on regulatory focus has also demonstrated that prevention focus "involves a heightened sensitivity to negative information" (Lanaj et al., 2012: 1004). As such, as they go through the due diligence process prior to an acquisition, CEOs with a prevention focus are likely to be more attentive to why the acquisition could go wrong than on why the acquisition is likely to be successful. While CEOs with a strong prevention focus may still consider a variety of acquisitions, they are more likely to reject a large number of them as a result of this heightened sensitivity to negative information. Further, Förster et al. (1998) demonstrated that vigilance owing to a prevention focus increased as individuals approached completion of a task, and Higgins and colleagues (2001) found that a strong prevention focus led to fewer sunk-cost errors. These findings suggest that a strong prevention focus will cause CEOs to become more vigilant as they get close to initiating a formal acquisition offer and to exhibit a greater willingness to walk away from a potential deal even if they have invested substantial time and resources evaluating potential acquisition targets up to that point, ultimately resulting in fewer acquisitions. As such, we hypothesize:

> *Hypothesis 2: CEO prevention focus will be negatively associated with the a) number of acquisitions and b) value of acquisitions undertaken by the firm.*

Moderating Influence of Stock Options

A person's regulatory focus does not operate in a vacuum. Rather, the effects of promotion and prevention foci are bounded by the situation, such that effects are accentuated

when situational characteristics are congruent with a person's foci, a phenomenon called regulatory fit (Higgins, 2000). In organizational contexts, variables like company culture, performance feedback, and compensation are key situational characteristics (Brockner & Higgins, 2001). For corporate executives, incentive compensation is a core situational characteristic that has been shown to be a powerful driver of strategic action and risk taking (Sanders & Hambrick, 2007; Devers, McNamara, Wiseman, & Arrfelt, 2008). In line with this perspective, we expect that stock option pay will moderate relations between CEO regulatory focus and firm acquisition activity. Research has demonstrated that the propensity of CEOs to engage in acquisitions is influenced by the nature of their compensation (Haleblian et al., 2009). In particular, stock options granted to the CEO serve as a powerful motivating factor increasing the frequency of acquisition behavior (Datta, Iskander-Datta, & Raman, 2001; Sanders, 2001; Sanders & Hambrick, 2007). A stock option is "an option granted to an employee by an employer giving the employee the right to purchase a share of the firm's stock within a specified period of time, for a fixed price" (Devers, Wiseman, & Holmes, 2007: 193). Stock options are a valuable compensation tool because they provide an upside potential with a limit on downside wealth risk, as opposed to stock ownership which has significant downside risk (Devers et al., 2007). As such, stock options are often promoted by agency theorists who argue that managers are naturally risk averse and need to be prompted to take larger risks (Sanders & Hambrick, 2007).

Very little research has examined the alignment of executive compensation and CEO attributes (Hambrick, 2007). Recent theorizing, however, suggests that executive compensation and executive characteristics, including regulatory focus, interact to influence executive behaviors and performance outcomes (Wowak & Hambrick, 2010). According to the

phenomenon of regulatory fit (Higgins, 2000; Spiegel, Grant-Pillow, & Higgins, 2004), the effects of a person's promotion or prevention focus are maximized when fit exists between the regulatory focus of the person and the environment. This fit is likely to influence how executives respond to incentive compensation. For executives with a strong promotion focus, stock option-based compensation parallels their gain-frame focus because options have a high upside potential with limited risk. Thus, option grants are a reinforcing element for high promotion focus CEOs' base inclinations. For this reason, we expect that stock option pay will amplify the impact of CEO promotion focus on the acquisition activity of the firm. In other words, strong promotion focus CEOs will be further motivated by stock option pay to take even more risks in making acquisitions. The gain-oriented nature of stock options, however, is at odds with a loss-oriented prevention focus. Option grants serve as a countervailing force on the conservative decision tendencies of prevention-oriented CEOs, incenting them to take more aggressive and bolder market actions. As such, we expect the relationship between prevention focus and firm acquisition behavior should be attenuated when compensation emphasizes gains rather than the threat of loss. As such, we hypothesize that:

Hypothesis 3: The positive relationship between CEO promotion focus and the a) number of acquisitions and b) value of acquisitions undertaken by the firm will be moderated by options granted, such that the relationship will be stronger with a higher level of options granted.

Hypothesis 4: The negative relationship between CEO prevention focus and the a) number of acquisitions and b) value of acquisitions undertaken by the firm will be moderated by options granted, such that the relationship will be weaker with a higher level of options granted.

METHODS

Sample

The study of individual CEO characteristics is a challenging endeavor. We build on

research by Kaplan (2008), Fanelli, Misangyi, and Tosi (2009), and McClelland, Liang, and Barker (2010) who used letters to the shareholders included in annual reports to capture CEO attributes, values, and cognitions. In this vein, we used letters to the shareholders to estimate the promotion and prevention foci of CEOs. While this approach is not without limitations (as we discuss in more detail later in this section), they provide a non-intrusive and consistent annual measure allowing for longitudinal analysis. To test these hypotheses, we used the One Source Global Business Information Database to identify a sample of publicly traded corporations. We started with a set of 671 firms based in industries with varying degrees of volatility. We used this database because it includes information on the names, addresses, and websites of corporations. Since our inquiry is partially based on data from corporations' annual reports, having the websites and addresses for the corporations provided an initial location from which to collect these data and a means to confirm that we were collecting annual report data for the correct firm. In addition to the firm's websites, we collected letters from online aggregators of company annual reports, including Mergent, Buckmaster, and SEC online interfaces. We next searched for letters in Compact Disclosure as well as specific searches of ABI/Inform and Google. Finally, for annual reports that we were unable to collect in any other way, we contacted organizations directly though their investor relations group. In total we collected a total of 3493 letters for 533 firms. We then collected financial data for these firms from Compustat, executive compensation data from Execucomp, and firm acquisition actions from the SDC database over the 1997-2006 period.[1] In the end, we had data on 512 firms from 73 six digit NAICS industries. We lag our independent and control variables one year so that are used to predict the dependent variable in

[1] We used mean-replacement on our executive compensation and executive age variables due to the more limited coverage of Execucomp relative to Compustat data. For Hypotheses 3 and 4 where we use stock options granted as a moderator variable we conducted supplemental analysis with a limited sample without using mean replacement on compensation variables. These results for the interaction terms were consistent with those presented.

the following year. As a result of this lag structure, we have a total of 3250 observations in our primary analysis, or an average of 6.3 years of data per firm.

Dependent Variables

Acquisition Activity. To capture firm acquisition activity we use two dependent variables that have been used in prior acquisition research: number of acquisitions (e.g., Sanders, 2001) and acquisition value (e.g., Sanders & Hambrick, 2007). Both variables capture distinct and important parts of the firm's acquisition behavior. A CEO can significantly change the firm's resource allocation and strategic position through either one large acquisition or multiple small acquisitions. Using both number of acquisitions and value of acquisitions as our dependent variables allows us to capture both of these strategies. Acquisition data was collected from the Securities Data Corporation (SDC) mergers and acquisition database. We collected information on all majority, completed acquisitions that occurred during our sample period. Consistent with prior research (e.g., Sanders & Hambrick, 2007), we annualized acquisition information by calculating the sum values for all acquisitions completed during the year. ***Number of acquisitions*** was calculated as the sum total number of acquisitions completed in a given year, as reported to the SDC. We measure ***value of acquisitions*** based on the total annual value of all majority completed acquisitions as reported in the SDC mergers and acquisitions database.[2] The total value is log transformed because it is highly skewed.

Independent Variables

CEO Regulatory Focus. Our two independent variables are CEO promotion focus and prevention focus. To capture the strength of the CEO's regulatory foci we conducted a content

[2] Because not all acquisitions report a total value we did a within-firm-year mean replacement to account for the value of acquisitions with missing data. For firms who did undertake acquisitions within a given year but for which none of those acquisitions reported a value we left the total value of acquisitions as missing. This reduced our sample size to 2522 when predicting total value of acquisitions. Our findings are robust to including only the values of reported acquisitions without the within-firm-year mean replacement.

analysis of letters to the shareholders for the fiscal years 1997-2006 in our sample of companies. Content analysis has emerged as an important tool for management scholarship for a wide variety of research questions (Duriau, Reger, & Pfarrer, 2007; Kaplan, 2008). In particular, content analysis of letters to the shareholders has been used to capture CEO cognition and attention (Eggers & Kaplan, 2009; Kaplan, 2008; Marcel, Barr, & Duhaime, 2010; Nadkarni & Barr, 2008), values (Daly, Pouder, & Kabanoff, 2004), and psychological characteristics such as commitment to the status quo (McClelland et al., 2010) and charismatic vision (Fanelli et al., 2009). Letters to the shareholders offer a particular benefit for longitudinal research in that they provide a non-intrusive and consistent annual form of communication that can be directly compared across years. This provides a stability that "cannot be captured through surveys or interviews because of the lack of availability of informants over long periods of time and the inherent risks of retrospective bias. CEOs' comments in speeches, media interviews, or conference calls with analysts are ad hoc and therefore not available in comparable forms for all firms in all time periods" (Eggers & Kaplan, 2009: 468). Analogous linguistic approaches have been used previously in order to successfully capture the strength of people's regulatory foci. For example, Johnson and colleagues (Johnson et al., 2013; Johnson, Lanaj, Tan, & Chang, 2012; Johnson & Steinman, 2009) have successfully measured promotion and prevention foci via the number of promotion- and prevention-oriented words, respectively, that participants generated using a word fragment completion task. A chief advantage of this approach is that regulatory focus typically operates outside of people's awareness and control, thus individuals may not be always able to provide accurate self-assessments of their levels of promotion and prevention foci. The use of implicit and indirect methods, such as content analyses of word usage, bypasses this problem (Uhlmann, Leavitt, Menges, Koopman, Howe, & Johnson, 2012). Even though people

may lack full awareness of their promotion and prevention foci, these foci are still capable of influencing people's language and behavior (Johnson & Steinman, 2009).

The letters to the shareholders in our study were analyzed using the Linguistic Inquiry and Word Count software (LIWC) (Pennebaker, Booth, & Francis, 2007). LIWC includes both built in dictionaries and the ability to create your own dictionaries. We developed dictionaries to tap regulatory focus via the number of promotion-oriented (e.g., gain, growth) and prevention-oriented (e.g., loss, stability) words that CEOs use in the letters. The dictionaries were developed and validated through three steps. First, we created a list of words associated with the motivations and attitudes associated with prevention and promotion foci. Included in this list were words used to capture regulatory foci via survey measures of regulatory focus (e.g., Lockwood, Jordan, & Kunda, 2002) and word fragment completion tests (Johnson et al., 2012; Johnson & Steinman, 2009). We then reduced this word list down to only those words that had the greatest theoretical alignment with prevention and promotion foci. This initial step produced final dictionaries that included 27 promotion words and 25 prevention words.

The second step involved verifying the content validity of our initial set of words. Following recommended procedures for establishing content validity (Nunnally & Bernstein, 1994), we identified 25 subject matter experts (organizational scholars who recently published papers on regulatory focus) to judge the relevance of the words and the extent to which they capture the domains of promotion and prevention foci. Specifically, these scholars were emailed the list of words (organized alphabetically) and asked to code whether each word reflected a promotion focus or a prevention focus (there was also a third response option – unclear/cannot be determined – for when raters did not believe the word could be definitively classified as either promotion or prevention). The results were favorable with respect to the content validity of the

words. No *a priori* promotion word was coded as prevention and no *a priori* prevention word was coded as promotion by any of the expert raters. Additionally, there were very few instances of a word being rated "unclear" with regards to whether it reflected the domain of promotion or prevention focus. In fact, 39 (or 75%) of the words were unanimously coded into their *a priori* category. For the remaining 13 words, each word was coded into its *a priori* category by over 75% of the respondents. The full list of words is listed in Table 1.

Insert Table 1 about here

Having established the content validity of the word list, the third and final step involved evaluating the convergent and discriminant validity of our measure. To do so, we recruited 174 undergraduate students enrolled in a management course. Participants first provided a writing sample (which was content analyzed using the LIWC software to derive implicit promotion and prevention scores) and then completed survey-based measures of regulatory focus (using Lockwood et al.'s, 2002, measure) and other personality and self-evaluative traits (Big Five personality, core self-evaluation, positive and negative affectivity). For the writing sample, participants were instructed to write at least 10 sentences in response to the following statement: "What are some of the most important issues facing you regarding your education and university classes in the next few years? How will you address those issues?" Responding to this statement required participants to be forward-looking, to discuss their current situation, and to specify action plans that they plan to implement, which parallels the type of discussion that is commonly included in letters to shareholders.

We assessed the convergent and discriminant validity of our implicit measure (LIWC) via correlation and regression analyses. First, we examined inter-correlations among the individual

difference variables. The implicit promotion score was significantly related to the promotion survey score ($r = .38$, $p < .01$), but not the prevention survey score ($r = .01$, *ns*). The implicit prevention score was related to the prevention survey score ($r = .41$, $p < .01$) but not the promotion survey score ($r = -.11$, *ns*). The magnitudes of the correlations observed between the implicit (LIWC) and explicit (survey) measures of promotion focus ($r = .38$) and prevention focus ($r = .41$) are comparable to the implicit–explicit correlations reported in a meta-analysis by Hofmann, Gawronski, Gschwendner, Le, and Schmitt (2005).

Second, we regressed the implicit scores on the survey scores of the other traits. We entered the personality, core self-evaluation, and affectivity scores in step 1, followed by the regulatory focus scores in step 2. When the promotion implicit score was regressed on the set of traits, the promotion focus survey score was the only significant predictor ($\beta = .44$, $p < .01$). Similarly, when the prevention implicit score was the dependent variable, the prevention focus survey score was the only significant predictor ($\beta = .40$, $p < .01$). Taken together, the results of our bivariate and multivariate analyses suggest that the implicit scores show convergent validity (they relate in expected ways to survey scores of regulatory focus) and discriminant validity (they are weakly related or unrelated to survey scores of other personality traits).

The results of the aforementioned steps provide confidence in the validity of our CEO regulatory focus dictionaries. The values used in our analysis for *CEO Promotion Focus* and *CEO Prevention Focus* are the percentage of words within each letter to the shareholder found in the respective dictionary. Our dictionary also captured alternative tenses of the words used. For example, our dictionary included the word "accomplish" but also captured "accomplished" and "accomplishments." Some illustrative examples from letters to the shareholders in our sample provide further clarity as to how regulatory focus can be seen in writing. For example, in

Rockwell Medical Technologies 2007 letter to the shareholder, CEO Robert L. Chioini writes:

> "….the initial public offering allows Rockwell to focus on **increasing** its market share in the **expanding** dialysis market and **improving** its profitability by implementing the following strategies: acting as an independent, single source supplier; offering a higher level of delivery and customer service; **increasing** revenue through sales of new products; and **expanding** market share in targeted market segments." (**bold added** to show words captured in our dictionary)

Clearly this represents a strong promotion focus and our dictionary would have designated it as such. Other examples can demonstrate CEO prevention focus. For example, in his 2003 letter to the shareholder Dennis R. Wrasse, CEO of Pepco Holdings, Inc. wrote:

> "We also faced special challenges, including an unprecedented energy trading **loss** at one of our affiliates, the bankruptcy of power supplier Mirant Corp., and Hurricane Isabel……. Our top priority in responding to Mirant's bankruptcy has been to create certainty around electrical supply and cost and to **protect** our customers and shareholders from attempts by Mirant to **avoid** its legal **obligations**." (**bold added** to show words captured in our dictionary)

One potential concern that has been expressed over the use of letters to the shareholders is that they may be written by public relations staff rather than by the CEO (Duriau et al, 2007). Several researchers have provided evidence that the CEO writes the letter or at very least is highly involved in outlining the report, proof reading it and changing it to their tastes (Bowman, 1984; Duriau et al., 2007). Further, the CEO faces a fiduciary duty to ensure an honest and accurate letter, and that they take personal responsibility for its contents (Kaplan, 2008). Researchers have also noted that changes in CEOs have a "dramatic impact on the style, length, and content of letters" (Eggers & Kaplan, 2009: 468).

One compelling argument that the CEO is the primary author of the letter to shareholders owes to the predictive power that these letters have been shown to have. Content from letters to the shareholders predict many important organizational outcomes such as innovation and entry into new technology markets (Kaplan, 2008; Yadav, Prabhu, & Chandy, 2007), strategic actions

and strategic changes (Barr, Stimpert, & Huff, 1992; Nadkarni & Barr, 2008; Nadkarni & Narayana, 2007), post-merger performance (Daly et al., 2004), global strategic posture (Levy, 2005), and competitive attacks and retaliation (Marcel et al., 2010). It is hard to imagine an unidentified public relations staff member writing a letter that is able to predict such important organizational phenomenon.

To further substantiate our claim that letters to the shareholders are appropriate for making conclusions about the attributes of CEOs and that the content of letters varies as a function of CEO, we analyzed the letters using hierarchical linear modeling (HLM; Raudenbush & Bryk, 2002). HLM enabled us to assess the degree to which letters to the shareholders from a single CEO resemble each other in terms of the number of promotion words, prevention words, and total words. If CEOs are the primary authors of these letters, then there should be within-person consistency in the content of the letters. To test this idea, we ran three models (one for each outcome: promotion words, prevention words, and total word count) with CEO as the level two predictor of the intercept at level one. This type of model is frequently used in HLM analysis as it provides an intraclass correlation coefficient (ICC) that partitions the proportion of variance in the outcome that is between and within groups (in this case, between and within CEOs; Raudenbush & Bryk, 2002). Our models specified the letter as the level one unit of analysis and the CEO as the level two unit of analysis. All three tests showed a significant impact of CEOs on the dependent variables ($p < .001$ for all) which suggests that considering letters as grouped by the CEO who wrote them accounts for a significant proportion of variance in the outcome variables. The ICC values indicated that these proportions of variance were quite large (.34 for promotion focus, .32 for prevention focus, and .43 for word count). These supplemental analyses demonstrate that there is consistency in the content of letters from the same CEO and that the

content of letters varied systematically across different CEOs. These findings support the use of letters to the shareholders as representative of CEO motives and cognitions, which speaks favorably regarding their validity for capturing CEO regulatory focus.

Moderator Variable

Stock Options Granted. We measured options granted based on the Black-Scholes value of individual stock options granted to the CEO (Black & Scholes, 1973) as reported in the Execucomp database in each year. This form of valuation has been widely accepted and validated in prior research (O'Connor, Priem, Coombs, & Gilley, 2006).

Control Variables

We considered a large number of potential controls that could impact a firm's acquisition activity. Beyond our use of firm fixed effects estimation, which controls for unobservable firm effects, we also included year dummy variables to control for other temporal reasons for variation in acquisitions. We control for *firm size* by taking the log of assets. Firm size could represent a firm's ability to undertake acquisitions, and has been shown to affect performance of acquisitions (Haleblian et al., 2009). Controlling for *net income* allows us to control for firm performance conditions that may encourage or inhibit CEOs from undertaking acquisitions. We also control for *CEO age* because younger CEOs may have a greater incentive to engage in acquisitions (Yim, 2013). Similarly, CEO turnover may impact the level of firm acquisition activity and the scrutiny that investors place on acquisitions (Devers, McNamara, Haleblian & Yoder, 2013). As such we include a control for *CEO turnover* with a dichotomous variable recording a 1 if there is a turnover event and 0 otherwise. To isolate the effect of the CEO's regulatory focus we also controlled for compensation elements that may also motivate acquisition taking or the type of acquisition undertaken (Haleblian et al., 2009). For example,

Devers and colleagues (2008) demonstrated that equity-based compensation can significantly influence strategic risk taking and that cash-based pay may further impact how executives perceive risks. As such, we control for the following CEO pay elements: *salary, bonuses, options held*, and *restricted stock held*.[3] We also controlled for acquisition experience because prior acquisitions may influence the quantity and size of future acquisitions. We followed prior research and took acquisition activity over the previous three years (Reuer, Tong, and Wu, 2012). For regressions predicting number of acquisitions we controlled for the total *number of prior acquisitions* in the prior three years. For regressions predicting the value of acquisitions we controlled for the total *value of prior acquisitions* over the prior three years (log transformed). [4]

Analysis

Two different analysis techniques were used to test our hypotheses. First, all predictor and control variables were standardized. We conducted a Hausman (1978) test which indicated that a fixed-effect model was the appropriate choice to test our hypotheses (χ^2=42.28, p<.01). One of our dependent variables, number of acquisitions, is a count variable. Two methods that are commonly used to analyze count data are negative binomial regression and Poisson regression. Due to overdispersion in our dependent variable which (we found in this data) negative binomial regression may appear to be a logical choice. Recent research, however, has

[3] We also conducted an additional set of analyses where we included the degree to which CEOs reference risk and uncertainty in their letters to account for the possibility that regulatory focus is simply reflecting the risk taking tendencies of the CEO. However, the measure for risk and uncertainty focus was not significant in any of our models and its inclusion did not influence the relationship between promotion and prevention and our dependent variables. In addition, to insure that our results are not being driven by a CEO's self-focus, an element of narcissism, we ran additional analyses where we included a control for all use of first person, personal pronouns. We found that the inclusion of this variable did not change the results of our hypothesized variables. In addition, we found that our hypothesized variables are weakly correlated (simple correlation less than .10) with the self-focus variable.

[4] Following the recommendations Becker (2005) and Carlson & Wu (2012) we developed a strategy for including control variables using the "When in doubt, leave them out" (Carlson & Wu, 2012: 413) philosophy. To do this we developed a larger model with several additional controls including CEO power, CEO tenure, industry dynamism, industry munificence, the proportion of outside directors on the board, firm leverage and free cash flow. The results presented in this paper are robust in the larger model. We did not include these controls in the final models presented because they were not significantly correlated with our dependent variables (Becker, 2005) and/or had no correlation with other study variables with $r \geq .10$ (Carlson & Wu, 2012).

demonstrated that negative binomial regression with panel data does not provide a true fixed-effects analysis (Allison & Waterman, 2002; Greene, 2007). As such, we used Poisson regression with fixed effects to account for this data structure.[5] The second dependent variable for theses hypotheses is value of acquisitions. Value of acquisitions is a continuous variable taking on non-negative values so it required analysis using Tobit regression (Wooldridge, 2009). Because fixed-effect Tobit models are biased, we used random-effect Tobit regression with clustering on the firm.[6]

RESULTS

Descriptive statistics and inter-correlations for the variables examined in this study are reported in Table 2. Consistent with prior research (Lanaj et al., 2012), we observed a weak correlation between promotion focus and prevention focus, supporting the contention that they are distinct constructs. Statistics for year dummy variables are not shown.

Insert Table 2 about here

Shown in Table 3 are the Poisson regression results predicting the number of acquisitions made by the firm and the Tobit regression results predicting value of acquisitions. Models 1 and 4 include the control variables only, several of which were significant as expected. The two firm level variables, firm size and net income, were positively related to both the number of acquisitions a firm makes and the value of those acquisitions. CEO change was negative and

[5] There is significant debate in the literature about how to best deal with the problems with negative binomial regression in panel data. As noted, we used Poisson regression for our primary analysis; however, we also tested our models with negative binomial regression analysis. Results under this method are consistent with the findings reported.

[6] It is possible that a CEO's attributes may lead him or her to choose to work for a firm that has a culture that matches the CEO's attributes. As a result, we are conscious of the possibility that an observed link between an attribute such as regulatory focus and firm strategic action could be an artifact of this selection process. However, this is not a concern with our analyses since we include firm fixed-effects in our primary models. As a result, any firm-specific factors that influence both the selection of the CEO and the choice to undertake acquisitions are partialed out in our analyses.

significant in regressions predicting number of acquisitions but not for predicting value of acquisitions. Options held was positively related to the number of acquisitions and value of acquisitions in all models. The control for restricted stock held was negative and significant when predicting number of acquisitions while the options granted was positive and significant when predicting value of acquisitions. Finally, prior acquisition experience was a significant predictor of both dependent variables.

Insert Table 3 about here

Models 2 and 5 include the focal predictor variables, promotion focus and prevention focus. Hypothesis 1a predicts that CEO promotion focus will be positively associated with the firm's the number of acquisitions undertaken by the firm while Hypothesis 1b predicts a positive effect for promotion on the value of acquisitions. Hypothesis 2a and 2b, meanwhile, predicts that CEO prevention focus will be negatively associated with the number of acquisitions and value of acquisitions, respectively. In support of these hypotheses, the coefficients for CEO promotion focus were both positive and significant ($p < .05$; $p < .01$) and the coefficients for CEO prevention focus were both negative and significant ($p < .05$). Firms that have a CEO with a strong promotion focus tend to engage in more and a higher total value of acquisitions while firms with a CEO with a strong prevention focus tend to engage in fewer acquisitions and a smaller value of acquisitions.

Included in Models 3 and 6 are the hypothesized interaction terms. Hypotheses 3a and 3b predict a moderating effect of stock options granted to the CEO on the relationship of promotion focus with firm acquisition activity, while Hypotheses 4a and 4b predict a moderating effect of stock options granted to the CEO on the relationship of prevention focus with firm acquisition

activity. To test Hypotheses 3a and 3b, an interaction term was created by computing the product of CEO promotion focus and options granted (main effect terms were standardized prior to computing the product). The promotion focus x options granted coefficients were not significant for either the number or value of acquisitions, failing to support Hypotheses 3a and 3b. The lack of significant findings here is important because it suggests that granting stock options to a CEO with a strong promotion focus does not further amplify their aggressiveness in acquisition activity.

To test Hypotheses 4a and 4b an interaction term was created by computing the product of CEO prevention focus and options granted. The coefficients for this interaction term were positive and significant for both the number of acquisitions ($p < .001$) and the value of acquisitions ($p < .05$). As shown in Figure 1,[7] CEO prevention focus has a negative relationship with acquisition activity only when CEOs are granted minimal stock options, whereas the relationship disappears when CEOs are granted a higher value of stock options. Stock option pay therefore appears to mitigate the conservative tendency associated with prevention focus. These findings provide strong support for Hypotheses 4a and 4b.

Insert Figure 1 about here

Supplemental Analyses

In response to the non-significant results concerning Hypothesis 3, we conducted supplemental analyses to further explore this finding. First we standardized CEO promotion focus and divided the values into two variables. *CEO low promotion focus* included the value of CEO promotion focus when CEO promotion focus is below its mean and a zero otherwise. *CEO*

[7] Figure 1 demonstrates the interaction relationship on the dependent variable Number of Acquisitions. The interaction relationship with our second dependent variable, Value of Acquisitions, is very similar.

high promotion focus included the value of CEO promotion focus when CEO promotion focus is above its mean and a zero otherwise. Secondly, we created a variable *CEO very low promotion focus* as a dichotomous variable returning a 1 if the CEO promotion focus was in the bottom 25th percentile and a zero otherwise. We also created a variable *CEO very high promotion focus* returning a 1 if the CEO promotion focus was in the top 25th percentile and a zero otherwise. We then interacted each of these new variables with our moderator variable, options granted, and ran analyses consistent with the methods described above.

Results of these analyses suggested that options granted may be influential for CEOs with a low promotion focus but not for CEOs with a high promotion focus. For regressions predicting number of acquisitions, the coefficient for the interaction between options granted and both CEO low promotion focus and the indicator variable for CEO very low promotion focus were significant ($p < .05$) while the coefficients for the interactions between options granted and both CEO high promotion focus and CEO very high promotion focus were not significant.[8]

In contrast to our argument for the benefits of regulatory fit – that is, matching compensation to reinforce the regulatory focus of executives – our supplemental findings provide some evidence that options granted and CEO promotion focus may be substitutive drivers of CEO motivation. These results would also provide some support for agency theory arguments. Agency theorists would suggest granting incentive pay, such as options, to top executives in order to increase risk taking tendencies of risk-averse managers (Eisenhardt, 1989). Our findings suggest that stock options will increase the willingness to engage in acquisitions for CEOs with a low promotion focus and CEOs with a high prevention focus. In line with agency theory, these CEOs may represent executives who are less inclined to take risks. For CEOs with a high promotion focus, however, stock options do not further increase their natural aggressiveness for

[8] Regressions predicting value of acquisitions were not significant in any of these analyses.

risk-taking. Collectively these findings seem to provide support for proponents of stock option pay, yet they suggest that some CEO attributes, such as regulatory focus, may dissipate the need for firms to use high levels of incentive compensation.

DISCUSSION

Regulatory focus is a critical individual difference that influences the strategies that people use when regulating their behavior in pursuit of important work goals (Lanaj et al., 2012). To date, empirical research on regulatory focus by management scholars has been largely limited to investigations of employee-level attitudes and behaviors (e.g., Johnson et al., 2010; Wallace & Chen, 2006). Our study makes a key contribution by examining the influence of CEO regulatory focus on firm-level strategic outcomes. Our findings demonstrate that the regulatory focus of the CEO can have a significant impact on firm strategic actions. We show that CEO regulatory focus impacts the proclivity of the firms to undertake acquisitions and also influences the magnitude of their investments into such initiatives. More specifically, we are able to show that CEO promotion focus is positively associated with the number and value of acquisitions undertaken by the firm. On the other hand, CEO prevention focus is negatively associated with the number and value of acquisitions undertaken by the firm. In doing so, our results demonstrate the significance of executive regulatory focus motivations for understanding firm strategic actions.

Our results also advance theory related to how incentive compensation structures can interact with CEO characteristics. In this case, the impact of stock option-oriented compensation schemes appears to be especially impactful on CEOs with a strong prevention focus. We find that although CEO prevention focus is negatively associated with the number of acquisitions, this relationship shifts to slightly positive in the presence of stock options. Thus, stock options attenuated the negative effects of prevention on acquisition activity, suggesting that options

served as an effective countervailing factor for high prevention focus CEOs.

The non-significance of our hypothesized interactions for stock options and CEO promotion focus is also interesting. We hypothesized that stock options would strengthen the positive relationship between CEO promotion focus and the number and value of acquisitions. We failed to find support for either of these hypotheses. Thus, our findings suggest that stock options do not drive high promotion-oriented CEOs to "swing for the fences" and lead them to take on an even greater level of acquisitions than their base motivations drive them to do. Our supplemental analyses suggest that promotion focus and options granted may be substitutive drivers of CEO motivation. Stock options appear to increase the willingness of CEOs with a low promotion focus to undertake acquisitions, but not the willingness of high promotion CEOs. Combined with the supported interactions of stock option pay and CEO prevention focus, our findings suggest that stock option pay may reduce the risk aversion tendencies of high prevention focus CEOs without further amplifying the risk taking tendencies of high promotion focus CEOs.

Our findings on the interaction between CEO regulatory foci and stock option pay serves to answer calls for empirical research establishing the importance of aligning executive compensation with CEO disposition traits to improve firm-level outcomes (Hambrick, 2007). It also answers calls for more research on the phenomenon of regulatory fit in organizational contexts (Lanaj et al., 2012). To our knowledge, ours is one of the first empirical studies to move beyond the alignment of executive compensation on organizational and environmental factors and consider individual factors. In doing so we find support for one of the propositions set forth by Wowak and Hambrick (2010) who suggested that an executive's regulatory focus would interact with stock option pay to impact risk taking. Indeed, regulatory focus is particularly relevant in this regard because promotion and prevention focus influence people's sensitivities to

financial gains and losses. Further research could build on our work by exploring the interaction of pay characteristics with other attributes of CEOs (e.g., affectivity and charisma).

The findings from this study also have important implications for research on acquisitions. Specifically we demonstrate how CEO regulatory focus, an individual-level characteristic, may impact the proclivity of CEOs to engage in acquisitions. Research findings have demonstrated that, on average, acquisitions result in negative financial returns (King et al., 2004). Despite this general knowledge, firms continue to engage in acquisitions, sometimes at a fervent pace. We find that CEOs with a strong promotion focus tend to undertake more acquisitions that are larger in total scale. On the other hand, CEOs with a strong prevention focus tend to undertake fewer acquisitions and acquisitions that are smaller in total scale. Combined with prior research demonstrating a link between CEO hubris and acquisitions (Hayward & Hambrick, 1997) our findings give further evidence to the important role of individual executive traits in impact the quantity and quality of acquisitions undertaken by a firm.

The way in which regulatory focus was measured represents another key contribution of this study. Existing measures of regulatory focus pose some problems when used in applied settings. For example, some measures involve the collection of response latency data (e.g., Higgins, Shah, & Friedman, 1997), which may be viewed by respondents as lacking face validity and therefore elicit defensive or haphazard responding (Johnson & Steinman, 2009). Social desirable responding poses another challenge for self-report survey measures of regulatory focus. For example, some prevention focus items ask respondents to report the extent to which they worry and experience anxiety, which CEOs may not be inclined to disclose. However, our unobtrusive method of content coding CEO letters to the shareholders bypasses problems regarding response biases and poor face validity. Our method is also effective for assessing

regulatory focus even when participants lack full awareness of their chronic promotion and prevention foci (Uhlmann et al., 2012), which sometimes operate outside of people's awareness and control (Johnson & Steinman, 2009). Our supplemental analysis of the convergent and discriminant validity of our approach (using writing samples and survey data from 174 undergraduates) provides further support for our method, and is consistent with research that had previously established that the strength of people's promotion and prevention foci (and their sensitivities to gains and losses) can be inferred from written content (Johnson et al., 2012; Johnson & Steinman, 2009). Together, this lends support to the validity of our approach, and joins the with other recent research (Kaplan, 2008; Fanelli et al., 2009) to support the use of this type of unobtrusive method for assessing important constructs in this domain.

Practical Implications

Our findings have important implications for CEOs and boards of directors. Executives who are able to understand their natural tendencies have an opportunity to capitalize on the positive aspects of these tendencies and avoid some of the negative elements. As such, it may be possible for CEOs to recognize their regulatory focus tendency and understand how that may drive them towards certain acquisition behavior. A CEO with a high promotion focus, for example, may be able to intentionally build in steps to comprehensively assess the risks of an acquisition in the firm's decision process. Further, they may intentionally surround themselves with more prevention minded individuals on their top management team in order to provide a balance for their more risk taking tendencies.

Boards of directors may also wish to consider CEO regulatory focus in how they choose and direct a CEO. A CEO with a strong promotion focus may need more cautious oversight to encourage more careful acquisition behavior while a CEO with a strong prevention focus may

need more encouragement and prompting to engage in risk taking behavior. Our findings suggest that the use of stock option pay may be an important tool for encouraging risk taking amongst CEOs with high prevention focus. Importantly, an advantage of considering regulatory focus vis-à-vis personality and self-concept traits is that promotion and prevention foci are somewhat malleable and can be shaped by situational variables (Brockner & Higgins, 2001). Thus, an understanding of the antecedents and consequences of CEO regulatory focus can be readily leveraged from a practical perspective, unlike stable traits like extraversion and narcissism.

Directions for Future Research and Concluding Remarks

Our findings suggest several avenues for future research. First, our findings show that CEO regulatory focus has an influence on the acquisition behavior of the firm. Future research could extend the logic to examine whether and how regulatory focus influences the performance of acquisitions. This could include the development of arguments regarding the conditions under which both high levels of promotion and prevention may lead to successful acquisitions. Alternatively, it may be that CEOs with high promotion orientations undertake acquisitions which benefit the firm in different ways than acquisitions undertaken by CEOs high in prevention. Additionally, our findings indicate that CEO regulatory focus influences the likelihood and scale of undertaking acquisitions, but future research could delve more deeply into the types of acquisitions pursued by CEOs with differing levels of promotion and prevention.

Second, while acquisitions represent an important firm action that can have important financial implications (Haleblian et al., 2009), there are many other strategic outcomes that may be influenced by CEO regulatory focus. Of particular interest to future research may be studies that engage in a broader exploration of CEO regulatory focus on different types of firm strategic

actions. As we noted earlier, it is likely that CEO regulatory focus will influence a wide range of strategic decisions. On the one hand, CEOs with a high promotion focus may be more willing to allocate resources to exploratory initiatives such as research and development, risky greenfield investments, make larger capital investments, and be quicker to expand internationally. On the other hand, CEOs with a high prevention focus may be more willing to allocate resources to exploit existing business by investing more in advertising existing products, increasing efficiency of existing businesses, leveraging existing assets, and capitalizing on opportunities within their domestic market. CEOs with high prevention focus may also be more willing to divest of under-performing business units while a high promotion focus CEO may be willing to invest more in these units believing that they still might become star performers. Finally, a CEO with a high promotion focus may be more willing to deviate from the standard industry strategic practices in order to capture high growth opportunities while a CEO with a high prevention focus may be more likely to conform to practices common and proven within their industry. Strategy research would benefit by empirical analysis the role of CEO regulatory focus on these and other strategic outcomes. Further, future research could also examine the general performance implications of regulatory focus in large corporations. For example, promotion focus may lead to enhanced innovativeness in firms and may lead to superior outcomes in firms striving to be pioneers in their markets, while prevention focus CEOs may make wiser capital investments and provide superior financial management.

More generally, the value and impact of CEO regulatory foci may depend on their fit with the situation (Higgins, 2000; Lanaj et al., 2012). As such, future research should explore other potential environmental conditions that may moderate the influence of CEO regulatory focus on firm acquisition activity and other strategic actions. In order to remain at a consistent

individual-level of analysis we chose to focus on stock options as the most obvious moderator to study initially. We believe that compensation variables are likely the most proximate and salient of fit conditions for individual CEOs (Wowak & Hambrick, 2010). Future research, however, should extend this research to include more general firm and environmental conditions. For example, the regulatory focus of other members of the top management team or board of directors may serve to reinforce or attenuate the influence of CEOs' regulatory focus on the situation (Dimotakis, Davison, & Hollenbeck, 2012). In addition, environmental conditions such as industry dynamism and munificence may represent another important set of variables that may moderate the relationship between CEO regulatory focus and strategic outcomes.

In addition, research could expand on work on individualized alignment of CEO compensation by exploring the interactive effects of other elements of executive compensation and CEO regulatory focus. Our study provides initial evidence that suggests the importance of matching CEO dispositional traits with compensation design. Studies in this area may want to consider how other dispositional traits such as CEO hubris, charisma, and personality interact with different elements of compensation. Our work shows that the theoretical arguments advanced by Wowak and Hambrick (2010) have empirical strength, and this avenue of research may hold significant promise for understanding optimal executive compensation design. Further, building on our supplemental findings, researcher on agency theory may benefit by considering how executive traits may substitute for incentive pay in aligning the interests of owners and executives.

In conclusion, our study demonstrates that CEO promotion and prevention foci impact the number and value of acquisitions undertaken by the firm. In line with the phenomenon of regulatory fit, these important individual differences are moderated by stock option pay, thus

highlighting the importance of person-pay interactions. We therefore believe that promotion and prevention foci are important individual differences to consider in organizational settings, particularly when investigating the effects of CEO attributes on firm strategic outcomes. We hope that the current study stimulates further research toward that end.

REFERENCES

Agle, B. R., Nagarajan, N. J., Sonnenfeld, J. A., & Srinivasan, D. 2006. Does CEO charisma matter? An empirical analysis of the relationships among organizational performance, environmental uncertainty, and top management team perceptions of CEO charisma. ***Academy of Management Journal*****,** 49: 161–174.

Agrawal, A., & Walkling, R. A. 1994. Executive careers and compensation surrounding takeover bids. ***The Journal of Finance*****,** 49: 985–1014.

Allison, P. D., & Waterman, R. P. 2002. Fixed–effects negative binomial regression models. ***Sociological Methodology*****,** 32: 247–265.

Balkin, D. B., & Gomez-Mejia, L. R. 1990. Matching compensation and organizational strategies. ***Strategic Management Journal*****,** 11: 153–169.

Barr, P. S., Stimpert, J. L., & Huff, A. S. 1992. Cognitive change, strategic action, and organizational renewal. ***Strategic Management Journal*****,** 13(S1): 15–36.

Barrick, M. R., Stewart, G. L., & Piotrowski, M. 2002. Personality and job performance: Test of the mediating effects of motivation among sales representatives. ***Journal of Applied Psychology,*** 87: 43-51.

Becker, T. E. 2005. Potential problems in the statistical control of variables in organizational research: A qualitative analysis with recommendations. ***Organizational Research Methods***, 8: 274-289.

Black, F., & Scholes, M. 1973. The pricing of options and corporate liabilities. ***The Journal of Political Economy*****,** 81: 637–654.

Bowman, E. H. 1984. Content analysis of annual reports for corporate strategy and risk. ***Interfaces*****,** 14: 61–71.

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.

Carlson, K. D., & Wu, J. P. 2012. The illusion of statistical control: Control variable practice in management research. ***Organizational Research Methods***, 15: 413-435.

Carpenter, M. A., Geletkanycz, M. A., & Sanders, W. G. 2004. Upper echelons research revisited: Antecedents, elements, and consequences of top management team composition. ***Journal of Management*****,** 30: 749–778.

Carver, C. S., & Scheier, M. F. 1998. ***On the self-regulation of behavior***. New York: Cambridge University Press.

Chatterjee, A., & Hambrick, D. C. 2007. It's all about me: Narcissistic chief executive officers and their effects on company strategy and performance. ***Administrative Science Quarterly,*** 52: 351-386.

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.

Daly, J. P., Pouder, R. W., & Kabanoff, B. 2004. The effects of initial differences in firms' espoused values on their postmerger performance. ***The Journal of Applied Behavioral Science***, 40: 323–343.

Das, T. K., & Kumar, R. 2011. Regulatory focus and opportunism in the alliance development process. ***Journal of Management*****,** 37: 682–708.

Datta, S., Iskandar-Datta, M., & Raman, K. 2001. Executive compensation and corporate acquisition decisions. ***The Journal of Finance*****,** 56: 2299–2336.

Delgado-García, J. B., & De La Fuente-Sabaté, J. M. 2010. How do CEO emotions matter? Impact of CEO affective traits on strategic and performance conformity in the Spanish banking industry. ***Strategic Management Journal*****,** 31: 562–574.

Devers, C., McNamara, G., Haleblian, J., & Yoder, M. E. 2013. Do they walk the talk? Gauging acquiring CEO and director confidence in the value creation potential of announced acquisitions. ***Academy of Management Journal***, 56: 1679-1702.

Devers, C. E., McNamara, G., Wiseman, R. M., & Arrfelt, M. 2008. Moving closer to the action: Examining compensation design effects on firm risk. ***Organization Science*****,** 19: 548–566.

Devers, C. E., Wiseman, R. M., & Holmes, R. M. 2007. The effects of endowment and loss aversion in managerial stock option valuation. ***Academy of Management Journal*****,** 50: 191–208.

Dimotakis, N., Davison, R. B., & Hollenbeck, J. R. 2012. Team structure and regulatory focus: The impact of regulatory fit on team dynamic. ***Journal of Applied Psychology,*** 97: 421-434.

Duriau, V. J., Reger, R. K., & Pfarrer, M. D. 2007. A content analysis of the content analysis literature in organization studies: Research themes, data sources, and methodological refinements. ***Organizational Research Methods*****,** 10: 5–34.

Eggers, J. P., & Kaplan, S. 2009. Cognition and renewal: Comparing CEO and organizational effects on incumbent adaptation to technical change. ***Organization Science*****,** 20: 461–477.

Eisenhardt K.M. 1989. Agency Theory: An Assessment and Review. ***Academy of Management Review,*** 14:57-74.

Elliot, A. J., & Thrash, T. M. 2010. Approach and avoidance temperament as basic dimensions of personality. ***Journal of Personality*****,** 78: 865–906.

Fanelli, A., Misangyi, V. F., & Tosi, H. L. 2009. In charisma we trust: The effects of CEO charismatic visions on securities analysts. ***Organization Science*****,** 20: 1011–1033.

Ferris, D. L., Johnson, R. E., Rosen, C. C., Djurdjevic, E., Chang, C.-H., & Tan, J. A. 2013. When is success not satisfying? A moderated mediation model of the relation between core self-evaluation and job satisfaction. ***Journal of Applied Psychology,*** 98: 342-353.

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

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.

Friedman, R. S., & Förster, J. 2001. The effects of promotion and prevention cues on creativity. ***Journal of Personality and Social Psychology*****,** 81: 1001-1013.

Gomez, P., Borges, A., & Pechmann, C. 2013. Avoiding poor health or approaching good health: Does it matter? The conceptualization, measurement, and consequences of health regulatory focus. ***Journal of Consumer Psychology,*** 23: 451-463.

Gray, J. A. 1990. Brain systems that mediate both emotion and cognition. ***Cognition and Emotion,*** 4: 269-288.

Greene, W. H. 2007. ***Fixed and random effects models for count data.*** Working paper, no. EC-07-16, New York University, New York, NY.

Haleblian, J., Devers, C. E., McNamara, G., Carpenter, M. A., & Davison, R. B. 2009. Taking stock of what we know about mergers and acquisitions: A review and research agenda. ***Journal of Management*****,** 35: 469–502.

Hausman, J.A. 1978. Specification tests in econometrics. ***Econometrica: Journal of the Econometric Society*****,** 46: 1251–1271.

Hambrick, D. C. 2007. Upper echelons theory: An update. ***Academy of Management Review*****,** 32: 334–343.

Hambrick, D. C., & Cannella Jr, A. A. 2004. CEOs who have COOs: Contingency analysis of an unexplored structural form. ***Strategic Management Journal*****,** 25: 959–979.

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.

Hayward, M. L. A., & Hambrick, D. C. 1997. Explaining the premiums paid for large acquisitions: Evidence of CEO hubris. ***Administrative Science Quarterly*****,** 42: 103–127.

Henderson, A. D., & Fredrickson, J. W. 2001. Top Management Team Coordination Needs and the CEO Pay Gap: A Competitive Test of Economic and Behavioral Views. ***Academy of Management Journal*****,** 44: 96–117.

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. ***Advances in Experimental Social Psychology*****,** 30: 1–46.

Higgins, E. T. 2000. Making a good decision: value from fit. ***American Psychologist*****,** 55: 1217-1230.

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.

Higgins, E. T., & Spiegel, S. 2004. Promotion and prevention strategies for self-regulation: A motivated cognition perspective. In R. F. Baumeister & K. D. Vohs (Eds.), ***Handbook of self-regulation: Research, theory, and applications:*** 171-187. New York: Guilford Press.

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

Hiller, N. J., & Hambrick, D. C. 2005. Conceptualizing executive hubris: the role of (hyper-) core self-evaluations in strategic decision-making. ***Strategic Management Journal*****,** 26: 297–319.

Hmieleski, K. M., & Baron, R. A. 2008. When does entrepreneurial self-efficacy enhance versus reduce firm performance? ***Strategic Entrepreneurship Journal*****,** 2: 57–72.

Hofmann, W., Gawronski, B., Gschwendner, T., Le, H., & Schmitt, M. 2005. A meta-analysis on the correlation between the implicit association test and explicit self-report measures. ***Personality and Social Psychology Bulletin,*** 31: 1369-1385.

Hoyle, R. H. 2010. Personality and self-regulation. In R. H. Hoyle (Ed.), ***Handbook of personality and self-regulation:*** 1-18. Malden, MA: Blackwell.

Johnson, R. E., Chang, C.H., & Lord, R. G. 2006. Moving from cognition to behavior: What the research says. ***Psychological Bulletin,*** 132: 381-415.

Johnson, R. E., Chang, C.-H., Meyer, T., Lanaj, K., & Way, J. D. 2013. Approaching success or avoiding failure? Approach and avoidance motives in the work domain. ***European Journal of Personality,*** 27: 424-441.

Johnson, R. E., Chang, C.-H., & Yang, L. 2010. Commitment and motivation at work: The relevance of employee identity and regulatory focus. ***Academy of Management Review,*** 35: 226-245.

Johnson, R. E., Lanaj, K., Tan, J. A., & Chang, C.H. 2012. Putting our trust in fairness: Justice and regulatory focus as triggers of trust and cooperation. In L. L. Neider & C. A. Schriesheim (Eds.), ***Research in Management,*** vol. 9:1-28. Hartford, CT: Information Age Publishing.

Johnson, R. E., & Steinman, L. 2009. Use of implicit measures for organizational research: An empirical example. ***Canadian Journal of Behavioural Science*****,** 41: 202.

Kaplan, S. 2008. Cognition, capabilities, and incentives: assessing firm response to the fiber-optic revolution. ***Academy of Management Journal*****,** 51: 672–695.

Kark, R., & Van Dijk, D. 2007. Motivation to lead, motivation to follow: The role of the self-regulatory focus in leadership processes. ***The Academy of Management Review*****,** 32: 500–528.

King, D. R., Dalton, D. R., Daily, C. M., & Covin, J. G. 2004. Meta-analyses of post-acquisition performance: Indications of unidentified moderators. ***Strategic Management Journal*****,** 25: 187–200.

Lanaj, K., Chang, C. H., & Johnson, R. E. 2012. Regulatory focus and work-related outcomes: A review and meta-analysis. ***Psychological Bulletin*****,** 138: 998-1034.

Levy, O. 2005. The influence of top management team attention patterns on global strategic posture of firms. ***Journal of Organizational Behavior*****,** 26: 797–819.

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

Marcel, J. J., Barr, P. S., & Duhaime, I. M. 2010. The influence of executive cognition on competitive dynamics. ***Strategic Management Journal*****,** 32: 115–138.

McClelland, P. L., Liang, X., & Barker, V. L. 2010. CEO commitment to the status quo: Replication and extension using content analysis. ***Journal of Management*****,** 36: 1251–1277.

Miles, R. E., & Snow, C.C. 1978 **Organizational Strategy, Structure, and Process**. New York: McGraw-Hill.

Nadkarni, S., & Barr, P. S. 2008. Environmental context, managerial cognition, and strategic action: an integrated view. ***Strategic Management Journal*****,** 29: 1395-1427.

Nadkarni, S., & Narayanan, V. K. 2007. Strategic schemas, strategic flexibility, and firm performance: the moderating role of industry clockspeed. ***Strategic Management Journal*****,** 28: 243-270.

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.

Nunnally, J. C., & Bernstein, I. H. 1994. ***Psychomtric theory*** (3rd ed). New York: McGraw-Hill.

O'Connor, J. P., Priem, R. L., Coombs, J. E., & Gilley, K. M. 2006. Do CEO stock options prevent or promote fraudulent financial reporting? ***Academy of Management Journal*****,** 49: 483–500.

Pablo, A. L., Sitkin, S. B., & Jemison, D. B. 1996. Acquisition decision-making processes: The central role of risk. ***Journal of Management*****,** 22: 723–746.

Pennebaker, J. W., Booth, R. J., & Francis, M. E. 2007. **LIWC2007: Linguistic inquiry and word count.** *Austin, Texas*.

Priem, R. L., Lyon, D. W., & Dess, G. G. 1999. Inherent limitations of demographic proxies in top management team heterogeneity research. ***Journal of Management*****,** 25: 935–953.

Raudenbush, S. W., Bryk, A. S., & Congdon, R. T. 2002. **Hierarchical Linear Modeling.** *Thousand Oaks: Sage*.

Resick, C. J., Whitman, D. S., Weingarden, S. M., & Hiller, N. J. 2009. The bright-side and the dark-side of CEO personality: Examining core self-evaluations, narcissism, transformational leadership, and strategic influence. ***Journal of Applied Psychology*****,** 94: 1365-1381.

Reuer, J. J., Tong, T. W., & Wu, C. W. 2012. A signaling theory of acquisition premiums: Evidence from IPO targets. ***Academy of Management Journal***, 55: 667-683.

Sanders, W. G. 2001. Behavioral responses of CEOs to stock ownership and stock option pay. ***Academy of Management Journal*****,** 44: 477–492.

Sanders, W. G., & Hambrick, D. C. 2007. Swinging for the fences: The effects of CEO stock options on company risk taking and performance. ***Academy of Management Journal*****,** 50: 1055–1078.

Scholer, A. A., & Higgins, E. T. 2008. Distinguishing levels of approach and avoidance: An analysis using regulatory focus theory. ***Handbook of Approach and Avoidance Motivation.*** New York, NY, US: Psychology Press.

Spiegel, S., Grant-Pillow, H., & Higgins, E. T. 2004. How regulatory fit enhances motivational strength during goal pursuit. ***European Journal of Social Psychology*****,** 34: 39–54.

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.

Uhlmann, E. L., Leavitt, K., Menges, J. I., Koopman, J., Howe, M. D., & Johnson, R. E. 2012. Getting explicit about the implicit: A taxonomy of implicit measures and guide for their use in organizational research. ***Organizational Research Methods,*** 15: 553-601.

Wallace, C., & Chen, G. 2006. A multilevel integration of personality, climate, self-regulation, and performance. ***Personnel Psychology***, 59: 529-557.

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.

Wooldridge, J. M. 2009. ***Introductory econometrics: A modern approach*** (4 ed.). Mason, OH: South-Western Cengage Learning.

Wowak, A. J., & Hambrick, D. C. 2010. A model of person-pay interaction: how executives vary in their responses to compensation arrangements. ***Strategic Management Journal*****,** 31: 803–821.

Yadav, M. S., Prabhu, J. C., & Chandy, R. K. 2007. Managing the future: CEO attention and innovation outcomes. ***Journal of Marketing*****,** 71: 84–101.

Yim, S. 2013. The acquisitiveness of youth: CEO age and acquisition behavior. ***Journal of Financial Economics***, 108: 250-273.

TABLE 1
Regulatory Focus Words

Promotion Words	Prevention Words
Accomplish	*Accuracy*
Achieve	*Afraid*
Aspire	*Anxious*
Aspiration	*Avoid*
Advancement	*Careful*
Attain	*Conservative*
Desire	*Defend*
Earn	*Duty*
Expand	*Escape*
Grow	*Escaping*
Gain	*Evade*
Hope	*Fail*
Hoping	*Fear*
Ideal	*Loss*
Improve	*Obligation*
Increase	*Ought*
Momentum	*Pain*
Obtain	*Prevent*
Optimistic	*Protect*
Progress	*Responsible*
Promotion	*Risk*
Promoting	*Safety*
Speed	*Security*
Swift	*Threat*
Toward	*Vigilance*
Velocity	
Wish	

TABLE 2
Descriptive Statistics and Correlations [a]

	Mean	s.d.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Number of Acquisitions (t+1)	0.67	1.32														
2. Value of Acquisitions (t+1, logged)	1.23	2.29	.80													
3. Number of Prior Acquisitions	1.84	3.09	.51	.47												
4. Value of Prior Acquisitions (logged)	2.09	2.83	.44	.48	.76											
5. CEO Promotion Focus	1.68	0.75	.01	.02	-.01	-.01										
6. CEO Prevention Focus	0.24	0.27	-.06	-.06	-.03	-.03	-.10									
7. CEO Age	54.91	5.07	.05	.02	.08	.03	-.04	.03								
8. Firm Size	5.98	2.36	.33	.40	.44	.52	-.07	-.01	.12							
9. Net Income	222.45	1283.61	.25	.25	.23	.21	.01	.03	.13	.35						
10. Salary ($M)	0.60	0.26	.21	.20	.28	.23	-.04	.08	.26	.44	.60					
11. Bonus ($M)	0.59	0.85	.17	.18	.19	.18	-.01	.02	.10	.26	.36	.45				
12. Options Held ($M)	14.32	26.94	.22	.18	.20	.10	-.01	-.01	.13	.14	.23	.23	.21			
13. Options Granted ($M)	2.60	4.18	.17	.20	.23	.16	-.02	-.04	.01	.14	.14	.21	.21	.46		
14. Restricted Stock Held ($M)	1.58	4.84	.08	.12	.10	.10	-.00	.05	.09	.17	.63	.51	.27	.18	.06	
15. CEO Change	0.05	0.22	.02	.05	.05	.06	-.02	-.01	-.11	.18	.04	-.11	-.08	-.08	.00	-.02

[a] n= 3250 (except for variable 2 and 4, where n= 2522). Correlations greater than .04 are significant at $p < .05$, and correlations greater than .05 are significant at $p < .01$

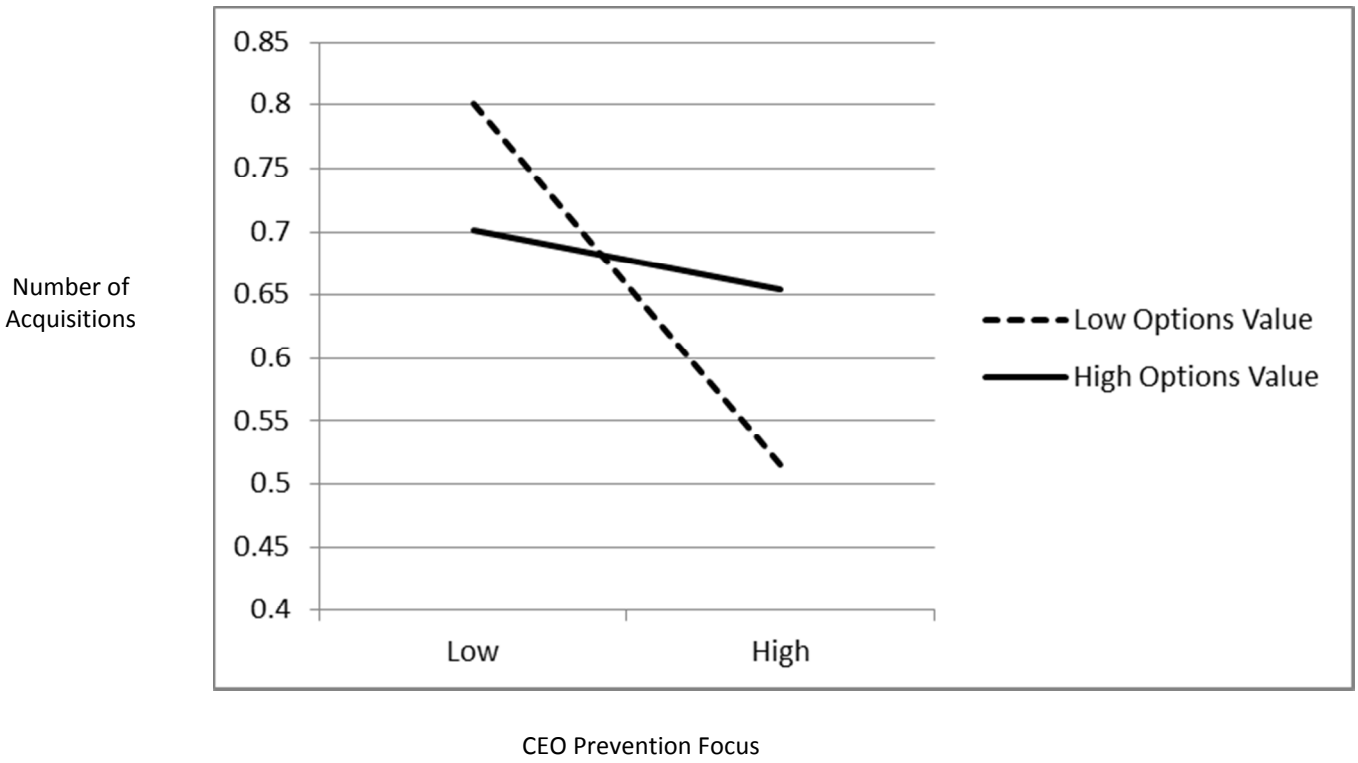
TABLE 3
Effect of CEO Regulatory Focus on Acquisition Activity

	Number of Acquisition			Value of Acquisitions		
Variables	**Model 1**	**Model 2**	**Model 3**	**Model 4**	**Model 5**	**Model 6**
Constant				-3.931***	-4.013***	-3.976***
				(.495)	(.498)	(.497)
Control Variables						
Number of Prior Acquisitions	-.047*	-.049*	-.057**			
	(.020)	(.020)	(.020)			
Value of Prior Acquisition				1.269***	1.276***	1.282***
				(.198)	(.195)	(.195)
CEO Age	-.008	-.010	-.016	-.168	-.169	-.180
	(.024)	(.024)	(.024)	(.119)	(.118)	(.118)
Firm Size	.828***	.843***	.885***	1.598***	1.610***	1.626***
	(.141)	(.142)	(.143)	(.257)	(.256)	(.256)
Net Income	.144***	.142***	.132***	.530**	.494*	.480*
	(.028)	(.028)	(.028)	(.195)	(.194)	(.195)
Salary	.026	.033	.033	-.325	-.283	-.308
	(.039)	(.039)	(.039)	(.170)	(.169)	(.170)
Bonuses	.010	.008	.009	.048	.043	.024
	(.013)	(.013)	(.013)	(.094)	(.094)	(.094)
Options Held	.043***	.045***	.051***	.248*	.254**	.242*
	(.010)	(.010)	(.010)	(.098)	(.097)	(.097)
Options Granted	-.004	-.004	.010	.260*	.248*	.343**
	(.013)	(.013)	(.014)	(.109)	(.109)	(.119)
Restricted Stock Held	-.044*	-.045*	-.033	-.113	-.096	-.080
	(.018)	(.018)	(.018)	(.167)	(.166)	(.166)
CEO Change	-.230*	-.231*	-.215*	-1.056	-1.032	-1.054
	(.104)	(.104)	(.104)	(.638)	(.636)	(.636)
Regulatory Focus Variables						
CEO Promotion Focus		.058*	.064*		.341**	.337*
		(.031)	(.032)		(.146)	(.146)
CEO Prevention Focus		-.065*	-.083*		-.355*	-.351*
		(.035)	(.036)		(.159)	(.160)
Interaction Variables						
CEO Promotion x Options Granted			-.024			.159
			(.017)			(.141)
CEO Prevention x Options Granted			.060***			.239*
			(.016)			(.143)

n = 3250 for Number of Acquisitions; n = 2522 for Value of Acquisitions. One-tailed tests for hypothesized variables, two-tailed tests for control variables. Standardized coefficients are reported. Standard errors are in parentheses. Year dummy variables included but not reported.

* p < .05
** p < .01
*** p <.001

FIGURE 1
CEO Prevention Focus by Stock Options Interaction [a]



[a] High values represent +1 standard deviation from mean; Low values represent -1 standard deviations from the mean.

Daniel L. Gamache (gamache@broad.msu.edu) is a Ph.D. candidate in management at Michigan State University's Broad College of Business. His research is centered on the role of strategic leadership in shaping firm actions with specific focus on executive characteristics, compensation, and social evaluations of the firm and its leaders.

Gerry McNamara (mcnamara@bus.msu.edu) is a professor of management at Michigan State University's Broad College of Business. He received his Ph.D. from the University of Minnesota. His research focuses how the dynamics of markets, competitive pressures, organizational characteristics, executive compensation, and top manager characteristics influence strategic decision making.

Michael J. Mannor (mikemannor@nd.edu) is an assistant professor of management at the University of Notre Dame. He received his Ph.D. from Michigan State University. His research focuses on executive leadership and managing knowledge in organizations. In his work on executives, his work largely focuses on how the complex personal characteristics of leaders influence strategic decision-making processes and outcomes.

Russell E. Johnson (johnsonr@broad.msu.edu) is an associate professor of management in the Broad College of Business at Michigan State University. He received his Ph.D. in industrial and organizational psychology from The University of Akron. His research focuses on person- (e.g., personality, motives) and situation-based (e.g., fairness, leader actions) factors that drive organizational behavior.