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LINKING SHARED AUTHENTIC LEADERSHIP TO FIRM PERFORMANCE: A STUDY OF NEW VENTURE TOP MANAGEMENT TEAMS

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ABSTRACT

The present study examined the relationship between the shared authentic leadership behavior of new venture top management teams (TMTs) and the performance of their firms. Consistent with predictions, findings from a national (United States) random sample of new ventures demonstrated that positive team affective tone mediated the indirect relationship between new venture TMTs’ shared authentic leadership behavior and firm performance. These findings suggest that collective emotions may play an important role in entrepreneurship research since authentic behavior of upper echelon leaders was shown to exert its influence on firm performance indirectly through TMTs’ positive affective tone. Implications of these findings are discussed.

INTRODUCTION

“There can be no happiness if the things we believe in are different from the things we do.”

--Freya Madeline Stark

Despite the wisdom that intuitively rings true in the above statement, until recently, little scientific attention has been directed to the relationship between authentic behaviors that are grounded in one’s moral values and the types of affective outcomes that they produce. Even less consideration has been given to how such behaviors may extend beyond individuals – that is, to team- or organizational-levels of analysis. As such, the linkages between authentic behavior, emotions, and performance is a particularly interesting topic for investigation within the context of entrepreneurship, because the act of creating and growing a new venture is typically viewed as an agentic undertaking (i.e., one in which human agency is expressed by following an intrinsically desired path) by an individual, or in most cases, a team of founders (McMullen, Bagby, & Palich, 2008). In fact, research evidence has demonstrated that entrepreneurs often launch new businesses for intrinsic reasons that have little to do with amassing great personal wealth. Rather, their motives are grounded in eudemonic principles—such as creating an objectively good and virtuous life that fosters human flourishing (Cooper & Artz, 1995). This stream of literature leads us to ask the following: Does the creation of new ventures through actions that are driven by virtuous and moral principles lead to a positive affective experience for new venture TMT members and to high performance for their firms?

The primary aim of the present study is to address this theoretically and practically important question. Toward this end, we integrate work from the emerging field of positive organizational...
behavior (e.g., Avolio & Luthans, 2006; Walumbwa et al., 2008) with recent evidence concerning the importance of emotions in the entrepreneurial process (e.g., Baron, 2008; Cardon et al., 2009; Foo, 2010; Foo, Uy, & Baron, 2009) to test a set of theoretically derived hypotheses. In so doing, Affective Events Theory (AET: Weiss & Cropanzano, 1996) is applied as a framework for combining these complementary literatures.

According to AET, work events can impact teams positively or negatively, shaping the intensity and form of their emotional responses to job demands—and, thus, influencing their overall functioning and performance (Weiss & Cropanzano, 1996). As such, AET suggests that emotions are an important mediating mechanism through which events within organizations (e.g., leadership activities) ultimately influence the performance of work teams (Pirola-Merlo, Härtel, Mann, & Hirst, 2002). The current study adopts this framework by conceptualizing the positive team affective tone of new venture TMTs (i.e., the degree to which positive emotional reactions are consistently experienced within a team; see George, 1990) as an intervening mechanism linking their level of shared authentic leadership behavior to the performance of their firms. In regard to shared leadership, we are referring to “a dynamic, interactive influence process among individuals in groups for which the objective is to lead one another to the achievement of group or organizational goals or both” (Pearce & Conger, 2003, p. 1). By extension, shared authentic leadership behavior is likewise defined as an ongoing, mutual influence process among individuals in a team context, but refers specifically to the development of team members’ positive psychological capabilities through self-awareness, relational transparency, internalized moral perspective, and balanced processing (Avolio & Gardner, 2005; Walumbwa et al., 2008).

The current study is designed to make several contributions. First, even though emotions are known to have important implications for individual entrepreneurs (for a review, see Baron, 2008), little attention has been given to how emotions may impact the collective functioning of new venture TMTs. This focus on individual entrepreneurs is in direct contrast both with our everyday experiences of navigating emotionally laden work environments and with the emerging recognition that affective reactions play a vital role in work-related social judgments (Brief & Weiss, 2002). Further, this individualistic view poses an important gap in the entrepreneurship literature considering that, as Ling and colleagues (2008, p. 559) have noted, without a “functioning community at the top, an organization cannot effectively develop and exploit new knowledge.” This reality is especially salient within new ventures because TMTs charged with leading their nascent firms have little margin for error, possessing few slack resources (George, 2005), operating without norms or procedures to guide their actions (Baker et al., 2003), and frequently teetering on the edge of financial disaster (Headd, 2001). To this end, we believe that incorporating collective affect into the entrepreneurship literature will offer unique insights regarding how and why new venture TMTs create and foster high performing firms.

Second, few existing studies have considered how specific types of leadership behaviors displayed by entrepreneurs impact the performance of their firms (for exceptions, see Ensley, Hmieleski, & Pearce, 2006; Ensley, Pearce, & Hmieleski, 2006; Hmieleski & Ensley, 2007). Further, mirroring the need (often noted in general leadership literature) to determine the intervening mechanisms through which leadership impacts outcomes need, (Avolio et al., 2009), research on new ventures has failed to consider mediating mechanisms through which the leadership behavior of entrepreneurs ultimately influences firm performance. Recognizing that the relationship between leadership behavior and firm performance is indirect (e.g., Baum & Locke, 2004), we examined whether TMTs’ positive affective tone served as such a mediator. We focus on shared authentic leadership because most new venture TMTs must lead their firms in a context characterized by complexity and uncertainty—situations in which the effects of authentic
leadership and emotions are likely to be particularly clear and meaningful (Forgas & George, 2001; Walumbwa et al., 2010). In so doing, we respond to Avolio et al.’s (2009) challenge that researchers should go beyond investigating leadership’s main effects and to examine the generative processes by which leadership behavior exerts its effect on firm performance.

Third, our study makes unique contributions in terms of both examining authentic leadership at the TMT-level and linking this type of leadership behavior to firm performance. Whereas Avolio and Gardner (2005, p. 333) view “authentic leadership as operating at multiple levels of analysis, including the individual, dyad, group and organizational levels,” empirical research has yet to go beyond the individual- or appointed leader-level of analysis. Consequently, although authentic leadership behavior is not entirely new to the entrepreneurship literature (see, e.g., Jensen & Luthans, 2006a, 2006b), to our knowledge it has not yet been empirically linked to the performance of any type of firm, new or established. Further, an important extension of our research is that the new venture TMT is an appropriate unit of analysis not only for authentic leadership behavior, but also for positive affective tone. Indeed, this may be the most notable contribution because it implicitly recognizes that both authentic leadership and affect at the upper echelon level of analysis may relate significantly to competitive advantage outcomes.

THEORETICAL DEVELOPMENT AND HYPOTHESES

Linking Shared Authentic Leadership to Positive Affective Tone

The most widely cited conceptualization of authentic leadership is stated by Walumbwa and colleagues (2008, p. 94) as “...a pattern of leader behavior that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, an internalized moral perspective, balanced processing of information, and relevant transparency on the part of leaders working with followers, fostering positive self-development.” Our aforementioned description of shared authentic leadership behavior builds upon this definition by adapting it to the team-level. Following the work of Pearce and Sims (2002), who have adapted other commonly studied forms of leadership behavior (e.g., transactional, transformational, and empowering), we shift our conceptualization of authentic behavior from a vertical perspective (i.e., behavior stemming from a formally appointed leader) to a shared or distributive view of authentic leadership (among TMT members). By taking a shared view of authentic leadership, we follow a growing trend in which leadership is becoming more commonly distributed among a team’s members—and especially in high growth new ventures (Ensley et al., 2006).

Avolio et al. (2004) note that the majority of contemporary leadership theories focus on the cognitive aspects of leader-follower relationships and have largely ignored affective processes. They explain that authentic leaders (p. 806) “…act in accordance with deep personal values and convictions, to build credibility and win the respect and trust of followers by encouraging diverse viewpoints and building networks of collaborative relationships with followers, and thereby lead in a manner that followers recognize as authentic.” Authentic leaders, by acting in accordance with their own core values and in a way that is visibly transparent to others, are capable of eliciting positive moral emotions and evoking a sense of eudaimonic well-being within themselves and others (Ilies et al., 2005). In this regard, positive moral emotions are grounded in universally held virtues that are in the best interest of society as a whole (Haidt, 2003). Furthermore, positive moral emotions such as elevation and pride, tend to be “high in activation” insofar as they elicit intense reactions within individuals and provide a motivational drive to act, as opposed to other positive emotions, such as satisfied or calm, which are “low in activation” and thus elicit more quiescent reactions from individuals (Tangney et al., 2007).
In addition, regulatory focus theory (RFT: Higgins, 1998) provides complementary support to the view that shared authentic leadership behavior will lead to positive but “high activation” emotions among new venture TMTs. According to RFT, individuals pursue goals in ways that maintain their personal values and beliefs, which can be grounded in either an orientation to achieve ideal goals that are based in hopes, wishes and aspirations (i.e., a promotion focus) or an orientation to achieve ought goals that are based in duties, obligations, and responsibilities (i.e., a prevention focus). When progressing toward one’s goals, individuals who regulate their behavior through a promotion focus tend to experience “high activation” emotions, such as elation, joy and delight; however, individuals who regulate their behavior through a prevention focus tend to experience “low activation” emotions, such as calmness, composure and tranquility (Idson, Liberman, & Higgins, 2000). Considering that shared authentic leadership behaviors draw upon the collective moral values of group members, such behaviors are likely to activate a desire to achieve ideal goals among these members and so elicit a promotion focus orientation—thus creating a state of high positive arousal among team members.

Therefore, we propose that shared authentic leadership behavior will be positively associated with TMT’s collective experience of positive feelings (i.e., positive TMT-affective tone; George, 1996), because authentic behavior carries with it the potential to evoke the moral values of team members by fostering self-awareness, balanced processing of information, and relevant transparency (Walumbwa et al., 2008). Such an internalized moral perspective should foster a positive emotional tenor within the TMT that focuses its attention on doing good for the organization, as well as society as a whole (Ilies et al., 2005; Walumbwa et al., 2010). Further, shared authentic leadership within a team allows members to shift leadership responsibilities to those whose virtues and character strengths (see, e.g., Peterson & Seligman, 2004) are in greatest alignment with the demands of the moment. For example, if a legal issue arises, a shared leadership perspective would allow for TMT members who may possess the character strength of “justice and fairness” to step forward and lead the team in a way that is transparent and connects the problem to moral implications with which team members are able to identify. Similarly, if an issue regarding training and development arises, other team members who possess the character strength of “wisdom and knowledge” may be encouraged to step forward and take the lead. In each case, when group members most suited to take the lead (i.e., those whose character strengths most closely align with the demands in-the-moment) do so, a heightened sense of shared positive energy among all TMT members is anticipated because individuals are energized most when engaged in activities that suite their strengths. On a related point, this energy is likely to be transmitted to other team members through (a) basic emotional contagion processes (Hatfield, Cacioppo, & Rapson, 1993), (b) conscious processes in which individual team members compare their own feelings to how others are feeling (Hsee, Hatfield, & Chemtob, 1992), and/or (c) while engaged in shared events members could respond by mimicking the emotions of other TMT members (George, 1996), thus forming a positive affective tone within the TMT. As these authentic leadership behaviors are shared over a period of time, social information processing theory (Salancik & Pfeffer, 1978) predicts that team members will create norms through which they adopt a collective belief that shared authentic leadership is an appropriate behavioral approach for addressing important issues, thereby supporting the likelihood that the TMT will experience a positive affective tone in the future. Consistent with AET and other complementary theoretical perspectives, we hypothesize that shared authentic leadership is likely to be closely linked to the level of positive affective tone experienced within new venture TMTs:

H1: Shared authentic leadership behavior within new venture TMTs will be positively related to positive affective tone within the team.
Linking Positive Affective Tone to Firm Performance

We expect TMTs’ positive affective tone will provide “the motivational force” to focus teams on their tasks (Tangney et al., 2007, p. 347) and, thereby, increase firm performance (Ashton-James & Ashkanasy, 2005). As we noted earlier, positive TMT-affective tone represents the collective experience of positive emotions (George, 1990). Whereas emotional contagion is the primary mechanism through which positive team affective tone develops, other emergence mechanisms include team members’ mutual interaction and common exposure to the same affective events (George, 1996).

A growing body of research indicates that positive emotions have beneficial effects on individuals’ motivation and behavior, including their persistence, effort, and task performance (e.g., Elfenbein, 2007; Seo et al., 2004). In a similar vein, a vast amount of literature has articulated the benefits of positive emotions on individuals’ health, prosocial behavior, creativity, negotiations and conflict resolution, and judgment and decision-making processes (Lyubomirsky et al., 2005; Steptoe et al., 2008). Further, such benefits have been directly linked to the ability of entrepreneurs to achieve high performance for their firms (Baron & Tang, 2010).

Mirroring these individual-level effects, TMTs high in positive affective tone are anticipated to enact what Fredrickson (2001, 2003) referred to as a “broaden and build” phenomenon. This is to say that team members are in many ways stimulated by their individual and collective positive emotions; and in turn, they are more likely to experience enhanced cognitive and emotional capacities and thus willingly engage in novel, varied and exploratory tasks, which over time build resources and skills within the team. Consequently, by broadening and building their capacities and resources, TMTs should be able to achieve sustained levels of high performance. Supporting these arguments are various team-level studies. In a laboratory study, Grawitch et al. (2003) found that teams induced to experience positive affective tone focused on achieving their assigned task, whereas teams in the negative affective tone condition focused more on intragroup relations. Further, George (1990) found that positive affective tone was related to group behaviors (i.e., reduces absenteeism of team members). Similarly, a field study by Losada and Heaphy (2004) suggests that high-performance teams are characterized by substantially higher positive-to-negative emotion ratios, as compared to medium- or low-performance teams. In sum, considering the great many benefits that positive emotions are likely to provide individuals and teams engaged in the entrepreneurial process, we expect that high positive affective tone experienced within new venture TMTs will translate to enhanced firm performance:

H2: The level of positive affective tone within new venture TMTs will be positively related to the performance of their firms.

The Indirect Effect of Shared Authentic Leadership on Firm Performance

Because shared authentic leadership behavior is a positive workplace feature, we anticipate that it will increase TMTs’ positive affective tone (H1). Accordingly, positive TMT-affective tone provides “the motivational force—the power and energy—to do good” (Tangney et al., 2007, p. 347) and, by extension, we expect that TMT’s positive affective tone will increase both TMT members’ agentic work behavior and the performance of their firms (H2). Taken together, our predictions convey a model in which shared authentic leadership behaviors indirectly contribute to firm performance by triggering TMTs’ positive affective experiences. Such a notion is consistent with AET (Weiss & Cropanzano, 1996) and prior empirical evidence (Dasborough, 2006; Pirola-
Merlo et al., 2002); that is, working conditions characterized as “uplifting” elicit positive emotions, with these positive affective reactions, in turn, motivating TMT members and evoking positive behaviors that are in the best interest of the organization and society as a whole (e.g., Elfenbein, 2007). As such, we therefore anticipate positive TMT-affective tone to mediate the shared authentic leadership behavior-firm performance relationship:

**Hypothesis 3:** Shared authentic leadership behavior within new venture TMTs will be indirectly (positively) related to firm performance through the positive affective tone of the team.

**METHODOLOGY**

**Data Collection Procedures**

A national (United States) stratified random sample of 2,000 new ventures was drawn from *Dun and Bradstreet’s Market Identifiers Database*. Identified firms had been in business for three years or less and had four or more employees. *Dun and Bradstreet* compiles what is considered to be the most exhaustive database of young firms founded in the United States. For example, in order to create a business credit record, the majority of new ventures file for a DUNS number with *Dun and Bradstreet*. This business credit record is then used by companies to evaluate whether or not to conduct business with one another (e.g., whether to sell, lend money, partner, or lease equipment to a company).

A personalized research packet containing a solicitation letter, along with our survey and pre-paid business reply envelope was sent to the CEOs of the sampled firms. Our survey was strictly limited to CEOs because they are most knowledgeable about issues such as TMT process and firm performance (Simsek, Veiga, Lubatkin, & Dino, 2005). In total, mailings to 484 firms were returned as non-deliverable. The number of non-deliverable mailings was anticipated, given that *Dun and Bradstreet* report 20 percent of firms in their database change address each year. We received a total of 183 completed surveys reflecting 183 distinct firms; however, two cases were removed due to incomplete data. This resulted in a firm response rate of 11.9 percent, which is in alignment with past studies using similar samples of top management (e.g., Ling, Simsek, Lubatkin, & Veiga, 2008). It is well known that data on CEOs is difficult to collect (Agle, Nagarajan, Sonnenfeld, & Srinivasan, 2006); for example, it is generally assumed that the nature of top management’s job responsibilities prohibits their participation in self-report surveys. Hambrick, Geletkanycz, and Fredrickson (1993) observed that a 10-12% response rate is typical for mailed surveys to top executives.

Following a key informant sampling procedure used by Datta, Guthrie, and Wright (2005), once responses were received from our “primary” informants (i.e., the CEOs), we mailed these respondents additional survey packets to distribute to other TMT members to act as “secondary” informants (see also Smith, Collins, & Clark, 2005). From this follow-up request, we received multiple secondary responses from 35 firms: two responses from 18 firms, three responses from 13 firms, and four responses from 4 firms. These secondary responses were used in conjunction with the CEO (primary) data to calculate interrater agreement (IRA) indices for each of the constructs measured in the study. Results suggested high levels of rating similarity, even after controlling for respondent biases. These findings demonstrate that the secondary respondents’ were making essentially the same ratings as the primary respondents (i.e., the CEOs). Further, because high interrater agreement references greater interchangeability among raters (Kozlowski & Hattrup, 1992), we can assume there is no systematic bias in the direction or magnitude of the CEOs’ responses in comparison to those of other TMT members.
Sample

A typical CEO respondent (i.e., primary informant) was the firm’s founder (66%), male (76%), with an average age of 48 years. A representative firm was two years old, with an average of 51 employees. Finally, the sample is broad in scope, with respondents’ current businesses being located in 42 different states and with primary operations in 97 different industries (as classified by 4-digit North American Industry Classification System codes). The states with the highest number of respondents were, as expected, the two most populated states (Texas: \( n = 33 \); California: \( n = 23 \)). Further, no more than 6 firms were from the same industry. Thus, our national sample is diverse and does not appear to oversample firms in any one industry or geographic location. Additionally, we compared available characteristics, including gender of the CEOs, firm age, revenue, number of employees, and firm growth for both responding and non-responding firms. In each case the results were non-significant, indicating that our sample is representative of the population from which it was drawn.

Measures

Unless otherwise noted, all measures were rated on a five-point response scale, with responses ranging from 1 (strongly disagree) to 5 (strongly agree).

Shared authentic leadership. We adapted 10 items, with permission, from the work of Avolio and Luthans (2006), who created an initial measure of vertical authentic leadership at the Gallup Leadership Institute, which was later validated and published by Walumbwa et al. (2008) and is now available through Mind Garden Incorporated (examples of the copyrighted items can be viewed on their web site). The items were modified such that a referent-shift was applied so as to capture authentic leadership behaviors stemming from the team, as opposed to from a single individual (Pearce & Sims, 2000). Cronbach’s coefficient alpha was 0.90.

Positive team affective tone. We adapted three items from the Job-Related Affective Well-being Scale (JAWS) (Van Katwyk, Fox, Spector, & Kelloway, 2000). We again modified the referent to reflect the team as a whole. The three items reflect positive high arousal emotions. Example items are “Team members feel energetic at work” and “Team members feel inspired at work.” High scores represent the degree to which positive emotional reactions are consistently experienced within the team. Cronbach’s coefficient alpha was 0.91.

Firm performance. We gauged firms’ performance using five items taken from McDougall, Covin, Robinson, and Herron (1994). Following prior research (cf. Mathieu et al., 2008), we considered firm performance as indicative of TMT performance because TMTs are responsible for the overall performance of their firms (Cohen & Bailey, 1997). In so doing, we followed the recommendations of Combs, Crook, and Shook (2005) and assessed both operational and organizational performance. Empirical evidence has demonstrated that executives’ ratings of firm performance are valid (i.e., highly correlated with relevant objective indicators) and may be used to gain insight into operational and organizational performance (Hambrick et al., 1993; Rowe & Morrow, 1999; Wall et al., 2004). Mirroring prior research (Simsek et al., 2005; Wall et al., 2004), we benchmarked the perceptual measures, in the sense that key informants assessed their firm’s performance relative to the performance of industry rivals. Example items are “The overall efficiency of our operations is improving more quickly than for our competitors” and “Our sales growth is increasing more quickly than for our competitors.” Responses were summed and
averaged, with a higher score indicating a higher level of firm performance. Cronbach’s coefficient alpha was 0.89.

**Control variables.** Data relating to four potential covariates were collected as possible control variables. *Team interdependence* is of central importance to team structure, process, and effectiveness, with both theory and empirical research supporting this assertion (Mathieu et al., 2008). Team interdependence \((\alpha = 0.75)\) was assessed using six items from Van der Vegt and Janssen (2003); responses were averaged, with a higher score indicating a higher level of team interdependence. *Team size* was assessed because larger teams may have access to more resources (e.g., funding, expertise) that could facilitate high performance (Kozlowski & Bell, 2003). Organizational level covariates included firm age and firm size. These variables were used to account for potential effects of age and size on performance (Keats & Hitt, 1988). Older firms are likely to have accumulated greater resources and larger firms are able to capitalize on advantages such as economies of scale. Data for each of these organizational level controls were acquired from Dun and Bradstreet. *Firm age* was accessed in terms of number of years for which the firm had been incorporated. *Firm size* was measured by standardizing and adding firms’ total revenue and number of employees from the most recent year. The strong correlation between firm revenue and employment totals \((r = .97)\) provided support for our approach of collapsing these variables into an overall index of firm size.

**Measurement Model**

Prior to hypothesis testing, we conducted a series of confirmatory factor analyses (CFA) to examine the distinctiveness of the focal variables employed in this study. We determined goodness of fit using the root-mean-square error of approximation (RMSEA) and the comparative fit index (CFI), and we applied commonly used threshold values \((\text{RMSEA} \geq 0.08 \text{ and } \text{CFI} \leq 0.90)\) as indicative of poor fit. The first CFA tested was a three-factor measurement model (i.e., shared authentic leadership, team affective tone, and firm performance) that allowed the latent factors to freely correlate. Results suggested this model was a good fit to the observed data, \(\chi^2 = 96.11, df = 77, \text{RMSEA} = 0.04 \text{ and } \text{CFI} = 0.99\). We then compared the three-factor model with a series of restricted models that each constrained the correlation of one pair of constructs to 1.0. Chi-square difference tests indicated that each of the alternative models with unity constraints was a significantly worse fitting model to the observed data.

We also used CFA to ascertain the likelihood of common method variance in our data. By adding a latent common methods factor to the three-factor measurement model, we could determine the potential increase in model fit when taking into account a common method factor and the variance extracted by this factor (see Dulac, Coyle-Shapiro, Henderson, & Wayne, 2008). Results showed that adding a method factor to the three substantive construct factors did improve model fit, \(\Delta \chi^2(25) = 106.05, p < 0.05\). Yet, the variance extracted by this common methods factor was only 0.20, falling well below the 0.50 threshold that is suggested to indicate the presence of a substantive factor (Fornell & Larker, 1981). Thus, although we acknowledge that common method variance may be present in our data, it is unlikely that it is a serious enough problem to prevent hypothesis testing and meaningfully impact the results.

**Statistical Procedures**

The first two hypotheses were tested using hierarchical regression techniques (Cohen, Cohen, West, & Aiken, 2003). We tested the third hypothesis using a simple indirect effects approach.
(Mathieu & Taylor, 2006), wherein positive team affective tone was specified as an intervening variable in the relationship of shared authentic leadership with firm performance. We computed the simple indirect effects model using an application provided by Preacher and Hayes (2008). Briefly, Preacher and Hayes developed an SPSS macro that facilitates estimation of indirect effects using a bootstrap approach to obtain confidence intervals. Through bootstrapped confidence intervals, we avoided power problems associated with causal step tests (e.g., the traditional Baron and Kenny method) of intervening variable effects (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002) and other non-normal sampling distribution concerns that can arise when computing product of coefficient tests (e.g., the Sobel test) for intervening variable effects (MacKinnon, Lockwood, & Williams, 2004).

RESULTS

Multiple analyses were conducted to investigate the threat of multicollinearity and for potential outliers. In terms of examining the threat of multicollinearity, the highest correlation between any pair of independent variables was 0.68 (see Table 1), no variance inflation scores were greater than 2.0, and all condition index scores were less than 3.00. Each of these statistics falls within acceptable ranges (Fox, 1997; Neter, Kutner, Nachtsheim, & Wasserman, 1996; Tabachnick & Fidell, 2001), suggesting that multicollinearity is not a major threat to the integrity of the results. We now consider results relevant to the individual hypotheses.

H1 proposes that shared authentic leadership behavior within new venture TMTs will be positively related to the degree of positive affective tone present within teams. As shown in Model 1 of Table 2, the relationship between shared authentic leadership and positive team affective tone is significant and positive ($b = 0.73, p < 0.01$). Therefore, the findings offer support for H1.

H2 proposes that the degree of positive affective tone present within new venture TMTs will be positively related to the performance of their firms. As shown in Model 4 of Table 2, the relationship between positive team affective tone and firm performance is significant and positive ($b = 0.52, p < 0.01$). Therefore, results offer support for H2.

H3 suggests that shared authentic leadership behavior within new venture TMTs will be indirectly (positively) related to firm performance through the positive affective tone of teams. Model 3 of Table 2 shows that shared authentic leadership has a significant and positive relationship with firm performance ($b = 0.47, p < 0.01$) and Model 5 of Table 2 shows that this relationship becomes non-significant ($b = 0.14, p > 0.10$) when positive team affective tone is added to the regression equation. Combined with the findings for Hypotheses 1-2, this pattern of results suggests that the relationship between shared authentic leadership and firm performance is mediated by positive team affective tone (Baron & Kenny, 1986); however, this does not represent a statistical test of the proposed indirect relationship between shared authentic leadership and firm performance (Hayes, 2009). To provide such a test, we conducted a bootstrap analysis of the indirect effects of shared authentic leadership on firm performance via positive team affective tone. As shown in Table 3, the bootstrap results were consistent with our prediction that the indirect effect of shared authentic leadership on firm performance (via positive team affective tone) is significant and positive (0.321), with a 99% confidence interval = 0.096 to 0.602. Therefore, hypothesis 3 also receives support. Overall, results provide support for our conceptual model, which accounted for approximately 22% of the variance in firm performance.

DISCUSSION
The results suggest that (1) shared authentic leadership has a positive relationship with new venture TMTs’ positive affective tone, (2) new venture TMTs’ positive affective tone has a positive relationship with firm performance, and (3) shared authentic leadership has a positive indirect relationship with firm performance, which is transmitted through the intervening role of new venture TMTs’ positive affective tone. These findings will now be discussed in terms of the important role of emotions within new venture TMTs, implications for upper echelons research and positive organizational behavior, and strategies for developing shared authentic leadership and fostering a positive team affective tone within new venture TMTs.

The Important Role of Emotions in the Entrepreneurial Process: Implications for Harnessing Positive Affective Tone within New Venture TMTs

By applying an AET framework (Weiss & Cropanzano, 1996) to the performance of new venture TMTs, we have extended recent work on the role that positive emotions play in the entrepreneurial process. It is well known that the majority of new ventures are founded by teams (Lechler, 2001) and that the process of launching and developing firms is often a highly emotional experience (Schindehutte et al., 2006). Considering these facts, it is surprising that to date there has been a relative dearth of research on the collective emotions of new venture TMTs. In response, the current study has extended the ongoing conversation of positive emotions within the entrepreneurship literate from the individual entrepreneur-level of analysis to that of the new venture TMT. The results of our investigation indicate that the level of positive affective tone displayed within new venture TMTs is positively related to firm performance. Further, these effects appear to be largely driven by the degree to which authentic leadership is exhibited and shared within new venture TMTs. This is to say that shared authentic leadership appears to provide critical ongoing events within TMTs (e.g., displays of internalized moral processing, relational transparency of actions) that foster positive emotional reactions among team members—an outcome that is predicted at the individual-level (i.e., authentic leaders evoking positive emotions from their followers) by the arguments of Ilies and colleagues (2005) and the empirical evidence of Jensen and Luthans (2006a), and supported at the TMT-level by our results (i.e., shared authentic leadership of the TMT evoking a positive affective tone within the team). High levels of positive affective tone within new venture TMTs, in turn, offers several benefits, including building and broadening the cognitive and emotional resources of the team and enhancing its ability to achieve high performance for their firms—as would be predicted by the broaden-and-build theory of positive emotions (Fredrickson, 2001, 2003) and consistent with AET (Pirola-Merlo et al., 2002; Weiss & Cropanzano, 1996). As such, our findings highlight that collective affect is indeed an important aspect of the entrepreneurial process, and one that is worthy of further theoretical and empirical consideration.

Extending Authentic Leadership to the TMT-Level of Analysis: Implications for Upper Echelons and Positive Organizational Behavior

The findings make additional contributions to both the upper echelons literature and the field of positive organizational behavior. Even though a great deal of work has considered the role of team dynamics on the functioning of TMTs (e.g., team conflict: Amason & Mooney, 1999; shared cognition: e.g., Ensley & Pearce, 2002; heterogeneity: e.g., Carpenter, 2002), surprisingly little work has empirically considered the role that emotions may play at the upper echelons of organizations (for an exception see, e.g., Barsade et al., 2000). In providing an overview of the motivation behind the majority of upper echelons research to date, Hambrick (2007, p. 334) states that “Leadership of a complex organization is a shared activity, and the collective cognitions, capabilities, and interactions of the entire TMT enter into strategic behaviors.” The findings of the
current study highlight the importance that both shared authentic leadership behavior and the emotions of TMT members may bring to bear on the strategic direction and, ultimately, the performance of firms. Further, our results add a finer-grained perspective to a literature that has, because of inherent difficulties gaining participation from top management, relied heavily upon secondary data to make assumptions about the influence of top management on firm performance (e.g., Boeker & Goodstein, 1993).

Even though a great deal of research on authentic leadership has begun to emerge within the field of positive organizational behavior (e.g., Jensen & Luthans, 2006a; 2006b; Tate, 2008; Walumbwa et al., 2008; Walumbwa et al., 2010), there is similarly a lack of empirical evidence linking authentic leadership behavior to firm performance. Further, despite the fact that authentic leadership has been theorized at multiple-levels of analysis (Avolio & Gardner, 2005), to date it has only been empirically examined from a vertical (i.e., individual-level) perspective. Thus, the results of the current study make unique contributions in terms of both extending authentic leadership behavior to the team-level and linking the construct to firm performance. Finally, our results also found support for what appears to be a fairly powerful underlying mechanism (i.e., positive affective tone) linking authentic leadership to firm performance. To this end, we have provided evidence relevant to Avolio et al.’s (2009) recent call to indentify mediating mechanism linking leadership behaviors to performance.

Developing Shared Authentic Leadership and Creating a Positive Affective Tone within New Venture TMTs: Implications for Training and Development

Considering that authentic leadership is an emerging area of research for which an empirical body of evidence is only beginning to emerge, it may be somewhat premature to discuss interventions designed to encourage the development of authentic leadership behaviors among TMTs, including teams of founding entrepreneurs (Cooper et al., 2005). With this said, a good deal of literature suggesting techniques for authentic leadership development has begun to appear (see, e.g., Avolio & Gardner, 2005; Avolio & Luthans, 2006; Gardner et al., 2005; George et al., 2007; Harvey et al., 2006; Spreitzer, 2006). We briefly touch upon a few points that may be particularly helpful for developing shared authentic leadership with new venture TMTs.

Spreitzer (2006) suggests that leadership development programs have historically been designed to identify and improve upon areas of weakness, rather than to build on individuals’ strengths. It is one of the foundational premises of the field of positive organizational behavior (and the basic research and theory on which it rests (e.g., Seligman & Csikszentmihalyi, 2000) that human flourishing results from building on areas of strength. In fact, individuals learn much more quickly, are more energized, and reach greater levels of accomplishment when working in their areas of personal strength—and, in particular, areas relating to their most deeply held moral convictions; for a review, see, e.g., Seligman, 2000). Building on this evidence, Peterson and Seligman (2004) have created a classification of twenty-four basic virtues (e.g., integrity, kindness, self-control, creativity) found to be morally valued across most major cultures. These virtues cluster together to form six distinct character strengths (i.e., wisdom and knowledge, courage, humanity, justice, temperance, and transcendence). Individuals vary, however, in the degree to which they value particular virtues and tend to rate most highly in one or two areas of character strength.

There is a natural connection between what Peterson and Seligman (2004) have called character strengths and the development of authentic leadership. Interventions designed to help leaders to recognize and build on their character strengths are likely to advance the development
of expertise in areas for which they can apply their strengths, and to do so in ways that are grounded in their virtues—thus, increase the likelihood that their behavior will stem from an internalized moral perspective and provide relational transparency (key components of authentic leadership). Further, learning how to identify and harness one’s character strengths should reciprocally enable individuals to recognize and build strength within others. Individuals possessing such self-awareness will be more likely to understand that when they are faced with work duties that draw on their areas of weakness, it will be in their best interest (and that of their team) to hand off leadership to others possessing strengths that are in greater alignment with the issue at hand—thus, leading to an enhanced propensity to mutually engage in shared authentic leadership behaviors. Such self-awareness of one’s character strengths may also help nascent entrepreneurs to identify business opportunities that are in close alignment with their moral values and enhance the likelihood that they will develop their business in a way that is authentic.

Recent literature has also suggested that authentic leaderships often emerges from key life experiences that have acted as “triggers,” helping individuals to identify what values are most important to them (Cooper et al., 2005). As George, Sims, McLean, and Mayer (2007, p. 134) suggest “The values that form the basis for authentic leadership are derived from your beliefs and convictions, but you will not know what your true values are until they are tested under pressure.” This highlight the fact that, in terms of developing authentic leadership, there may be great value in exposing nascent entrepreneurs to problem scenarios that challenge their most deeply held values and require them to lead others in developing and executing appropriate solutions. Such scenarios may be designed to include concerns about the entrepreneurial process that are specific to a wide range of moral issues, thus proving opportunities for individuals to share leadership based on whether the demands of the moment are most in alignment with their individual character strengths.

CONCLUSIONS

Aristotle is noted for arguing that “the good life” is experienced through the eudemonic principle of living virtuously by following one’s intrinsic path toward “doing what is worth doing.” Further, he proposed that hat long-term happiness cannot be achieved through the sum of one’s hedonic experiences (e.g., by becoming famous, accumulating material wealth); these, he suggests, are extrinsically driven and ultimately unsatisfying paths (see Ilies et al, 2005; Ryan & Deci, 2001). We suggest that entrepreneurship can be a vehicle for “doing what is worth doing” in life and that authentic leadership, especially when shared within teams, can be a positive and highly energizing force that enables entrepreneurs to reach the highest levels of achievement for themselves and for the firms that they establish—thus, living out the Aristotelian view of “the good life.”

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SELECTED REFERENCES
FULL REFERENCES AVAILABLE FROM CORRESPONDING AUTHOR


Table 1 - Descriptive Statistics and Variable Intercorrelations

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
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<th>3</th>
<th>4</th>
<th>5</th>
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<tr>
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<td>4. Team size</td>
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<td>2.76</td>
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<td>-.11</td>
<td>-.03</td>
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<td>5. Shared authentic leadership</td>
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<td>0.60</td>
<td>.01</td>
<td>.02</td>
<td>.40 **</td>
<td>-.09</td>
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<td>6. Positive team affective tone</td>
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<td>0.68</td>
<td>-.01</td>
<td>.05</td>
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<td>.68 **</td>
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<td>7. Firm performance</td>
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<td>0.82</td>
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<td>.43 **</td>
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n = 181; * p < 0.05; ** p < 0.01
### Table 2 - Regression Models of Positive Team Affective Tone and Firm Performance

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
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<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
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<td>.04(.12)</td>
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<td>-.01(.02)</td>
<td>-.00(.02)</td>
<td>.00(.02)</td>
<td>.00(.02)</td>
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<td>.47**(.10)</td>
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<td>.52**(.09)</td>
<td>.44**(.11)</td>
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<td><strong>F-Ratio</strong></td>
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<td>2.24</td>
<td>5.95**</td>
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<td>$R^2$</td>
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<td>Adjusted $R^2$</td>
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<td>0.12</td>
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$n = 181$; * $p < 0.05$; ** $p < 0.01$

### Table 3 - Indirect Effects of Shared Authentic Leadership (via Positive Team Affective Tone) on Firm Performance

<table>
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<tr>
<th>Variable</th>
<th>Boot Indirect Effect</th>
<th>Boot SE</th>
<th>LL 99% CI</th>
<th>UL 99% CI</th>
<th>Boot $z$</th>
<th>Boot $p$ (two-tailed)</th>
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<td>Shared Authentic Leadership</td>
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</table>

$n = 181$. Bootstrap sample size = 10,000.

LL = lower limit. CI = confidence interval. UL = upper limit.

Bias corrected and accelerated confidence intervals are reported.

Control variables = firm size, firm age, team interdependence, and team size.