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The *Journal of Managerial Issues* seeks to publish the highest quality empirical, theoretical, and methodological papers in business research. The overriding criterion for publication of a manuscript in the JMI is the knowledge readers will gain about the theory of organizations and business practice. The JMI is intended to foster research from a variety of business school and related disciplines. As such, the JMI is open to and encourages a wide range of emerging methods, conceptual approaches, and substantive problem areas within the domain of business behavior.

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Value Heterogeneity: An Overlooked and Important Antecedent of TMT Conflict and Effectiveness

Allen C. Amason, Jun Liu, Pingping Fu

Demographic heterogeneity and conflict have both been shown to influence the effectiveness of top management team (TMT) decision-making. While evidence of positive and negative effects exists, evidence linking heterogeneity and conflict together also exists, making it difficult to reach any conclusion about the relationships between conflicts and outcomes. Drawing upon action theory (Parsons, 1937; Parsons and Shils, 1951), this paper argues that value heterogeneity is an overlooked determinant of how demographic heterogeneity affects conflict and how heterogeneity and conflict together influence the effectiveness of TMT decision-making. Results support the hypotheses and make meaningful additions to the conflict literature.

When Replacing an Audit Committee Member, Does Financial Expertise Matter to Investors?

Arnold Schneider

This research addresses whether audit committee financial expertise matters when making investing decisions. While prior studies have examined the effects of audit committee financial expertise on the stock market, this study makes a contribution by investigating how audit committee financial expertise affects individual investors’ decisions. The study uses an experimental approach involving a 2x2 between subjects design. Results indicate that investing decisions are affected by whether a company’s audit committee has a member with financial expertise. Additionally, some evidence indicated that replacing a nonfinancial audit committee member with a financial expert appears to send a positive signal to investors. Conversely, replacing a financial expert with a nonfinancial audit committee member sends a negative signal. Finally, there is no evidence that investors view the loss of a financial expert on the audit committee as different from not having had a financial expert to begin with.

Spirituality, Psychological Capital, and Employee Performance: An Empirical Examination

Corey Fox, Brian D. Webster, and Wm. Camron Casper

Spirituality and psychological capital have received increasing amounts of attention by management scholars in the past decade. Responding to calls by scholars in both literatures to explore the impact spirituality has in organizations and to examine the antecedents of psychological capital, the current study
explores the links between individual spirituality, psychological capital, and employee performance. One hundred and fifteen employee-supervisor dyads were surveyed and the data collected was analyzed using path analysis. Results revealed a statistically significant relationship between spirituality and psychological capital. Further, the results also suggest that spirituality has an indirect relationship with performance, which is carried through psychological capital. The paper concludes with a discussion of the theoretical and practical implications of the research as well as areas for future research.

**Essential Components of Leadership Development Programs** ........................................214
Spencer Holt, Ashley Hall, and Ann Gilley

Leadership development programs (LDPs), although common in the workplace, remain largely untested in terms of components and effectiveness. This study involved 273 employees in the sales division of a large pharmaceutical company, and identified the components necessary in effective leadership development programs. Respondents identified the skills and behaviors associated with successful leaders and those needing continuous development. Results suggest that LDPs must build leaders’ skills in motivating and communicating with others, while enhancing behaviors that include treating employees as unique and encouraging teamwork and collaboration. The behavioral components proved the most surprising result and lend the greatest contribution to theory and practice.

**Servant Leadership Theory: Opportunities for Additional Theoretical Integration** ..............................................................................................................230
Scott G. Heyler and John A. Martin

Leadership in organizations is a critical concept that has been studied often in the organizational behavior field. However, leadership’s impact at the organization level of analysis has not been explored to the same degree. Servant leadership theory, which posits that the leader is first a servant, focused on others and their development (Greenleaf, 1977), can be effectively utilized at the organizational level of analysis. This article examines servant leadership theory and opportunities to integrate this theory with other management theories. In all, six organizational theories are reviewed. First, a description of each theory is given, then the interaction between the theory and servant leadership is discussed, and finally propositions about the applicability and benefits of servant leadership are given.

**The Mediating Effect of Embeddedness on the Relationship between Internal Employability and Career Satisfaction** ....................................................244
K. Övgü Çağmaz-Ölsoğlu and James P. Burton

To date, the link between perceptions of employability and career satisfaction has been demonstrated theoretically more than empirically. To address this concern, this study examines employee perceptions of internal employability...
and how these perceptions relate to career satisfaction. In addition, this study investigates the mediating role of embeddedness on the relationship between employability and career satisfaction. The results of the study indicate that internal employability is positively related to career satisfaction. In addition, the results indicate that embeddedness fully mediates the relationship between perceived internal employability and career satisfaction.

The Use of Twitter Profiles to Assess Personality and Hireability

Peter A. Rosen, Shelby J. Solomon, Benjamin D. McLarty, Candace A. Esken, and Erik C. Taylor

The use of social media screening in the hiring process is becoming a common method by HR practitioners, but has yet to be thoroughly studied by academics. The authors of this study used 152 active Twitter users, and examined the validity and reliability of rater based personality and hireability assessments that solely use Twitter profiles. Additionally, the authors of the study extend socioanalytic theory to encompass the construct of narcissism and operate in the cyber context of social media. Six qualified raters conducted other-rated personality and hireability assessments using Twitter profiles, and the results demonstrated sufficient inter-rater reliability and internal consistency. Results showed that all correlations between self-reported and other-rated personality were statistically significant and ranged from 0.19 for conscientiousness to 0.54 for openness. The three other-rated personality traits that significantly correlated with hireability were conscientiousness, agreeableness, and emotional stability, indicating that these traits determined whether the HR professionals used in this study found the candidates worthy of further consideration.
Value Heterogeneity:  
An Overlooked and Important Antecedent of TMT  
Conflict and Effectiveness¹

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As researchers seek to better understand top management team (TMT) decision-making processes, they have often focused on the effects of intra-group conflict. Much of this research has been informed by Jehn’s (1995, 1997) work, showing that conflict manifests itself either as task-oriented or relationship-oriented disagreement. Task disagreements involve the actual contents, methods, or outcomes of a task. These disagreements are typically seen as helpful in decision-making because they help to identify new and different alternatives as well as hidden or flawed assumptions (Liu and Maitlis, 2014). Relationship disagreements involve interpersonal issues, like differing preferences or agendas. These disagreements are typically seen as harmful in decision-making as they lead to anger, avoidance, and lingering resentment.

Applying this distinction, researchers have studied the effects of task and relationship conflict on various decision outcomes such as quality, consensus, and team and firm performance (Amason, 1996; Amason and Mooney, 2008; Barsade et al., 2000; ¹ This work was supported by a grant from the Chinese National Natural Science Foundation (project code: 71372160).
Bendersky and Hays, 2012; Ensley and Pearce, 2001; Knight et al., 1999; Mooney and Sonnenfeld, 2001; Pitcher and Smith, 2001; Simons et al., 1999). While specific findings differ across the variety of studies, one general conclusion has emerged: TMTs, which embrace task conflict and avoid relationship conflict, tend to perform better. Indeed, several authors have made this point directly and so made the use of conflict a key antecedent of TMT effectiveness (Amason and Sapienza, 1997; Eisenhardt et al., 1997; Jehn et al., 1999; Menz, 2012).

While intuitively appealing, this conclusion oversimplifies the reality, and other research has shown the issue is much more complicated. For example, a meta-analysis of 30 studies of task and relationship conflict by De Dreu and Weingart found “no evidence whatsoever that task conflict and relationship conflict are differentially correlated with team performance...” (De Dreu and Weingart, 2003: 745). A more recent meta-analysis of 116 studies, showed that both forms of conflict are generally negatively related to performance but that, among TMTs, task conflict may at times be positively related to performance (de Wit et al., 2012; Jehn and Bendersky, 2003). These authors suggest a contingency relationship in which task conflict may be functional and distinct from the dysfunctions of relationship conflict, but only under certain conditions.

At the root of the problem is the co-occurrence of task and relationship conflict (Choi and Cho, 2011; De Dreu and Weingart, 2003; de Wit et al., 2012; Jehn et al., 2013; Mooney et al., 2007; Simons and Peterson, 2000). Because task and relationship conflict are so highly correlated, their effects are easily confounded, making it difficult to determine the precise size and nature of each (Pearson et al., 2002). Further, task and relationship conflict may each contribute to conditions that trigger the other (Korsgaard et al., 2008). The dysfunctional effects of relationship conflict may then be an unintended by-product of task conflict (Amason and Sapienza, 1997; Choi and Cho, 2011) meaning that the one is directly problematic, while the other is only indirectly so.

The study seeks to address this complexity and contribute to the conflict literature by unraveling these confounded effects. Applying the contingency approach suggested by de Wit et al. (2012), the study examines how two TMT characteristics, demographic heterogeneity and value similarity, affect the relationship between task and relationship conflict, as well as between these two types of conflict and various outcomes. The findings build on and extend previous work showing that task and relationship conflict are intertwined in complex ways but, under the right conditions, can be separated such that task conflict can yield beneficial results.

**THEORY AND HYPOTHESES**

Conflict arises when individuals or groups have incompatible or opposing goals and interests (Korsgaard et al., 2008; Wall and Callister, 1995). Within TMTs, conflicts tend to occur around either substantive, issue-related matters or interpersonal styles and preferences (Amason and Schweiger, 1994). While both types of conflict may be common, the effects of each are thought to be different. Relationship conflict is viewed overwhelmingly as a negative. These conflicts are by their very nature, personal and emotional, triggering anxiety, hostility, and resentment (Amason and Schweiger, 1994; Jehn, 1997; Jehn and Bendersky, 2003). Task conflict, on the other hand, need not be necessarily negative and may actually be positive. The contesting of ideas and the scrutiny of assumptions and logic associated with task conflict have been linked to things
like innovation, greater understanding, and the consideration of multiple alternatives (Amason, 1996; De Dreu and West, 2001; Olson et al., 2007).

Unfortunately, the evidence has been mixed, and task conflict has often been shown to have neutral and even negative effects on performance (De Dreu and Weingart, 2003), leaving scholars to wonder whether teams benefit from any conflict at all. For example, De Dreu concludes that, if conflict has any positive outcomes, they occur “only under an exceedingly limited set of circumstances” (De Dreu, 2008: 6). Otherwise, the mounting body of evidence is that relationship conflict produces strong, negative outcomes, while task conflict produces outcomes that are less strong, but sometimes negative and sometimes positive.

Interestingly, one of the limited circumstances in which task conflict has shown some benefit is in TMTs. As noted by de Wit and colleagues “the association between task conflict and performance was distinctly more positive among studies of top management teams…” (de Wit et al., 2012: 373). They also found that the average correlation between task and relationship conflict was substantially lower for TMTs than it was for other types of work groups. This is significant as both de Wit et al. (2012) and De Dreu and Weingart (2003) found the effects of task conflict became increasingly positive, as the correlation between task conflict and relationship conflict declines. In assessing their findings, de Wit et al. offer “an alternative explanation for why task conflicts in top management teams are more positively related to group performance is that members of top management teams are better able to prevent task conflict from turning into relationship conflict” (2012: 373). This explanation is very similar to the conclusions of Eisenhardt et al. (1997) that, to be successful, TMTs must encourage task-related conflict but also prevent task-related conflict from disintegrating into interpersonal, relationship-oriented conflict.

Conflict: Antecedents and Co-Occurrence

For TMTs then, task conflicts may have some benefits; however, even in TMTs, those benefits are likely to be overshadowed by the negative effects of relationship conflict, if relationship conflict happens to occur. Thus, TMT outcomes are best served if there is some level of task conflict but little or no relationship conflict. The problem, of course, is that the two are highly correlated. So, to shed light on the specifics of that interrelationship Choi and Cho (2011) employed student samples to examine six common models of how relationship and task conflict might interrelate in teams that interact over multiple episodes. What emerged was a picture that was more nuanced and complex than heretofore explained. Significantly, no direct relationship between task conflict in one period and relationship conflict in the next exists. Instead, the data showed that relationship conflict seemed to trigger task conflict. This is contrary to the view that task conflict is simply misinterpreted as personal attacks and so countered with more personal attacks (Curseu et al., 2012; Jehn et al., 2013). Rather, it seems that relationship conflict triggers subsequent task disagreement. As to why that happens, the findings showed that relationship conflict leads to negative affect within the group and that negative affect intensifies both subsequent task and relationship conflict (Liu and Maitlis, 2014). Moreover, when this sequence of effects is stronger, the initial correlation between task and relationship conflict gets stronger. And the strength of that association is related to intragroup trust. At this point, with relationship conflict high, greater negative affect is all but assured. And with greater negative affect, greater task and
relationship conflict is likely to follow, setting up a downward spiral, whereby disagreement, whether task or relationship, becomes wholly dysfunctional.

Simons and Peterson (2000) showed that the correlation between task and relationship conflicts was highest when trust among team members was low. On the other hand, high levels of trust tended to mitigate the correlation between task and relationship conflict. Based on the same idea, De Dreu and Weingart (2003) found that the effects of task conflict on outcomes were most negative when the correlation between task and relationship conflict was high. When that correlation was low, the effects of task conflict were much less negative. Trust then seems to facilitate a decoupling of task and relationship conflicts (Curseu et al., 2012), such that when trust is high, the effects of task and relationship conflicts become distinct and increasingly dissimilar.

While De Dreu and Weingart’s (2003) findings are straightforward, the interpretation of those findings is open to some discussion. It is true that they offered no evidence that task and relationship conflict relate differently to outcomes or that task conflict is functional in any way. But that does not preclude the possibility that task conflict is distinct from relationship conflict and that task conflict can be functional. For instance, it may be that task conflict is somewhat functional and that relationship conflict is highly dysfunctional (Jehn, 1995). Yet, because the two frequently occur together, the dysfunctional effects of relationship conflict negate the functional effects of task conflict. Amason and Sapienza (1997) argued this, suggesting that task-related conflict often triggers relationship conflict. Once ignited, relationship conflict poisons the well, rendering all subsequent disagreements counter-productive. If true, this could explain the pattern observed by De Dreu and Weingart (2003). Moreover, it would focus attention on the key challenge of exploiting task conflict, while minimizing the seemingly inevitable emergence of relationship conflict.

Edmondson (1996) found that psychological safety contributed to conditions where task conflict was functional. Jehn (1997) and Amason and Sapienza (1997) both reported that norms of open expression were important for task conflict to have positive effects. Finally, Schwenk (1990) showed that programmed interaction could depersonalize disagreement, allowing task conflict to occur without triggering anger and friction. Thus, there are instances when task conflict can occur without relationship conflict. When they occur separately, their distinct effects can be observed and the positive effects of task conflict can emerge.

The strong correlation between task and relationship conflict could be masking the positive effects of task conflict, which would explain the findings of De Dreu and Weingart (2003). The high correlation between task and relationship conflicts reinforces the belief that when task conflict occurs, it often triggers relationship conflict. Because the negative effects of relationship conflict are so disruptive, they quickly overwhelm any positive effects of task conflict, making it seem that both task and relationship conflicts yield the same dysfunctional effects. To avoid this problem, the two types of conflict must be decoupled such that task conflict can occur without triggering relationship conflict. To explore how that can happen, this study considers demographic heterogeneity and value heterogeneity as two key antecedents of conflict.

**Demographic Heterogeneity**

Among the antecedents of conflict, one frequently examined is the demographic heterogeneity of the team. Demographic heterogeneity refers to the compositional
diversity of the team along demographic dimensions like age, race, gender, work experience, educational background, and tenure in a position or firm. Demographic heterogeneity has been a key construct in TMT research as the characteristics of a team are related to its capabilities (Hambrick and Mason, 1984). Heterogeneity, in particular, has been related to the breadth of team capability, as teams whose members have different backgrounds and perspectives are thought to represent a broader range of understanding and to have greater capacity for simultaneous processing of multiple issues.

Like conflict, demographic heterogeneity has been related to both functional and dysfunctional outcomes. For example, evidence shows that TMT heterogeneity relates positively to team and firm performance (Certo et al., 2006; Zimmerman, 2008). This reflects a logical connection between the information processing demands of TMT decision-making and the breadth and diversity of resources available to a team (Haleblian and Finkelstein, 1993). While many studies of TMT heterogeneity are available and while those studies have employed a range of variables, such as age, gender, tenure, education, and functional affiliation, the basic argument has followed a consistent path. TMT heterogeneity provides a team with a broader base of experience and capability, greater opportunity for specialization, and more capacity for the simultaneous processing of complex information (Wei and Wu, 2013). As a result, heterogeneous teams can process more information and process that information more thoroughly, and consequently make decisions that are typically stronger, more creative, and more comprehensive, than homogeneous teams (Bantel and Jackson, 1989; Hambrick et al., 1996).

Because of these findings, TMT heterogeneity has been linked to strategic innovation and product development (Bantel and Jackson, 1989; Boeker, 1997; Hambrick et al., 1996), to increased stock price (Barsade et al., 2000) and successful international expansion (Barkema and Shvyrkov, 2007; Carpenter and Fredrickson, 2001). TMT heterogeneity has also been shown to relate positively to new venture valuation (Amason et al., 2006; Beckman et al., 2007; Hmieleski and Ensley, 2007) and negatively to bankruptcy (Greening and Johnson, 1996).

Other arguments, however, suggest that TMT heterogeneity may hinder performance (Ancona and Caldwell, 1992; O’Reilly et al., 1989; O’Reilly et al., 1993). The explanation for dysfunctional effects tends to draw from theory related to process efficiency, communication, and group attachment. Evidence shows that demographic heterogeneity can inhibit interpersonal connection (Amason et al., 2006), stand in the way of informal communication (Smith et al., 1991), and slow the development of trusting relationships. Indeed, as Hambrick et al. explain, “In some instances, heterogeneity may engender outright distrust and acrimony, as widely dissimilar group members may have different vocabularies, paradigms and even objectives” (1996: 663). As a result, the overall picture of the relationship between TMT heterogeneity and TMT performance remains unclear (Michie et al., 2002).

What is clear is that demographic heterogeneity provides at least some of the raw material for conflict. By analogy, demographic heterogeneity can be viewed as potential energy. It represents experiential and educational breadth providing expertise across different topics and capability across different disciplines; however, turning that potential into actionable decisions requires a process that often involves conflict. As noted, demographic heterogeneity contributes to decisions that are more innovative and
comprehensive (Elenkov et al., 2005; Tihanyi et al., 2000; Wiersema and Bantel, 1992). And research shows that it is through contrasting different perspectives and opinions that teams are able to uncover weak assumptions, identify novel solutions, and spark creativity (Gebert et al., 2006; Schweiger et al., 1986). This sort of process, involving dissent, debate, and the airing of contrasting ideas and experiences, is fundamental to task conflict (Amason, 1996; Jehn, 1997). Demographic heterogeneity then contributes to task conflict, as basic differences in perspective and approach are necessary, if not sufficient, for genuine task-related disagreements to emerge.

But demographic heterogeneity may also be related to relationship conflict. Just as differences in perspective and opinion may spark issue-related disagreements, they might also contribute to disagreements that are personal and relational in nature. Specifically, demographic heterogeneity can inhibit efficient information exchange and present an obstacle to consensus and cohesion (Hambrick et al., 1996; Jackson, 1992). Heterogeneity impedes informal communication and inhibits interpersonal connection and attachment. As a result, it can lead to misunderstanding, distrust, and suspicion. Indeed, because of the contrasting effects attributed to demographic heterogeneity, Hambrick et al. (1996) described it as a “double-edged sword.”

Some researchers have sought to understand these inconsistent effects by examining various types of heterogeneity, such as visible, work-related, and belief structure heterogeneity (Pelled et al., 1999). Others have studied how specific combinations of heterogeneity might create schisms or fault lines along which a team might crack when under pressure (Lau and Murnighan, 2005). This work provides depth to the understanding of the effects of demographic heterogeneity; however, it does not alter the basic view that demographic heterogeneity, in all of its forms, is an antecedent to both task and relationship conflict. Indeed, across a number of studies, the relationships between various dimensions of demographic heterogeneity and task and relationship conflict have been shown to be consistently positive (Curseu and Schruijer, 2010; Jehn et al., 1999; Li and Hambrick, 2005; Wall and Callister, 1995).

To return to the analogy, increasing heterogeneity increases the potential for both task and relationship conflicts. Such conflicts may or may not actually occur, depending upon other factors; however, more demographic heterogeneity makes conflict of all types more likely, while less demographic heterogeneity makes conflict of all types less likely. All else being equal then, increased demographic heterogeneity should be associated with increased task and relationship conflict.

Value Heterogeneity

Value heterogeneity refers to the extent to which TMT members hold dissimilar values. A value is “a conception, explicit or implicit, distinctive of an individual or characteristic of a group, of the desirable, which influences the selection from available modes, means, and ends of action” (Kluckhohn, 1951: 395). Researchers studying values have done so from multiple perspectives. For example, Quinn (1988) developed a competing values framework based on four types of organizational cultures (human relations, open systems, internal processes, and rational goals), and Kalliath et al. (1999) examined work values such as internal processes, open systems, rational goals, and human relations. More recently, Ling et al. (2007) studied the personal values of CEOs, focusing on “collectivism and novelty,” because these values “play crucial roles in individuals’ behaviors” and “are especially relevant to the process of new venture
management” (Ling et al., 2007: 676). The study focuses on values of TMT members that influence “the selection from available modes, means, and ends of action” (Kluckhohn, 1951: 395).

Values are especially important to TMT processes as they are a major influence on organizational culture (Collins and Porras, 1995; Schein, 1992) and are “the criteria used to make decisions, set priorities and develop strategies” (Hultman and Gellerman, 2002: 80). TMT members face situations with ambiguity and high stakes. These powerful teams often consist of individuals who are very different in terms of background, experience, and interests. As such, “discord, contention, debate, disagreement, - in short, conflicts are inevitable” (Eisenhardt et al., 1997: 43). Success often depends on a teams’ ability to “recognize, confront, and constructively manage the range of conflict that is inherent” (Raben and Spencer, 1998: 171). For such teams to work effectively, some shared vocabulary and mutual understanding must exist. This sort of basic commonality is likely to evolve out of shared values (Beyerlein et al., 2003).

Value heterogeneity reduces collaboration and can be considered a hindrance for conflict management (Fitzpatrick, 2007). When members hold different basic values, cooperation is less likely. “Basic values” means fundamental orientations such as self-transcendence or self-enhancement. According to Schwartz (1994), self-enhancement refers to values that emphasize the pursuit of one’s own success and happiness whereas self-transcendence refers to values that emphasize the success and happiness of others. The literature shows that these two basic values relate to CEO charisma (Sosik, 2005) and to CEO assessments of others in the organization (e.g., Agle et al., 1999). For example, Fu et al. (2010) found that a CEO’s values moderate the effects of his/her transformational leadership behaviors on followers’ commitment to the organization. Followers reported lower levels of commitment when their CEOs engaged in transformational behavior but were perceived to hold self-enhancing values.

The idea that value heterogeneity can negatively affect team effectiveness by reducing relationship conflict is consistent with existing literature; however, no study to date has linked values to task and relationship conflict directly. Indeed, Fitzpatrick states “most people are unaware of their deeply held beliefs and values” (Fitzpatrick, 2007: 281). Thus, it may be that teams with heterogeneous values are ripe for relationship conflict, without ever knowing it. Such teams may be staffed by well-intentioned individuals, who disagree genuinely on task-related issues, but who, being unaware of their dissimilar values, too easily misinterpret disagreements and misunderstand one another’s intentions and so stumble, accidentally, into increasingly heated, relationship conflict. Perkins (2003) suggested that the conditions that enable collaboration can also promote productive conflict. It seems reasonable then that the absence of those conditions could contribute to the rise of unproductive conflict. Thus, when sharing basic, fundamental values, TMT members are likely to feel safe, to trust, to communicate more openly, and to be less sensitive to disagreement.

**Action Theory and the Antecedents of Conflict**

Action theory (Parsons, 1937; Parsons and Shils, 1951) remains one of the more comprehensive general theories of social action. The theory deals directly with values and explains how values interact with information to guide behavior. As such, it provides a solid framework to systematically explain the relationship among demographic composition, values, and conflict. According to Parsons and Shils (1951), social actions
consist of purpose, situation, actor(s), and the orientation of the actor to the situation. Whenever an actor is forced to choose among various means objects, whenever he is forced to choose among various goal objects, whenever he is forced to choose which need-disposition he will gratify, or how much he will gratify a need-disposition—whenever he is forced to make any choice whatever—his value orientations may commit him to certain norms that will guide him in his choices” (Parsons and Shils, 1951: 59). In other words, even in certain and clear-cut circumstances, individual values have some impact on decision-making. In ambiguous and high-stakes settings, that impact becomes even more pronounced.

To better explain the mechanisms, Parsons and Shils (1951) describe a hierarchy of three interrelated systems: personality, social, and cultural. Personality systems are the processes underlying individual actions within individual actors. For example, prioritizing of the various goals or norms involved in a single action of a single actor will be affected and constrained by the other goals and norms of that actor. Social systems involve multiple interactions between two or more individual actors. In a social system, the goals or norms an actor pursues or accepts will be affected by those pursued or accepted by others. Cultural systems include the array of values, norms, and symbols that guide the choices made by actors and that limit the types of interactions that might occur among actors within or between organizations. Personality systems are embedded in larger social systems and social systems are embedded in larger cultural systems. Yet, values are a basic input at each level, affecting individuals, interactions among individuals, and the organizational framework within which individuals interact.

The assertion is that TMTs with low value heterogeneity and high demographic heterogeneity will experience higher levels of task conflict but lower levels of relationship conflict; however, when value heterogeneity is high, high levels of demographic heterogeneity will lead to higher levels of relationship conflict. Thus, the effects of demographic heterogeneity on conflict are moderated by value heterogeneity (see Figure I).

Drawing from action theory, the study anticipates that the values of the TMT members will affect how they disagree and how they interpret and respond to disagreements. To have a common understanding of an issue or problem or to have a shared perspective on the issue itself, the actors must share some consistency in their “normative orientation” (Parsons and Shils, 1951). Without this consistency, misunderstanding is all but inevitable as the individuals will interpret the same information, issues, and comments differently and, consequently, respond to them in ways that are inconsistent with the expectations of others.

This process parallels the descriptions of Korsgaard et al. (2008) who explain how differences, behaviors, and sense-making form the sequence of factors that leads to conflict. Basic differences predispose individuals to incompatibility and disagreement. Basic differences though offer merely the potential for disagreement. Actual disagreement involves actual behavior. Values affect both the individual behaviors and the way in which those behaviors are received and interpreted. Sense-making involves the interpretation of the behavior, along with the assigning of meaning to it and the determination of the response. This sense-making parallels what Parsons and Shils (1951) called “ways of orienting” which affect how individuals understand one another in particular situations and how they perceive and respond in social systems.
Demographic heterogeneity
- Gender
- Education
- Professional background
- Age
- Organizational tenure
- TMT tenure

Value heterogeneity

Task conflict

Relationship conflict

TMT decision

H1

H2

H3

H4

Figure 1
Conceptual Model of the Study
Inconsistencies in the ways of orienting can lead to different interpretations of the same information, leading individuals to act differently in response to the same events and to respond to one another in ways that are inconsistent with expectations. TMT members with different values are likely to respond differently even when faced with similar circumstances. Moreover, their interpretations of one another’s actions are likely to be different, as those interpretations are affected by their individual values. Different interpretations will lead to misunderstanding and to responses based on that misunderstanding. As a result, the responses are likely to be inconsistent with the expectations of the original actor.

Incongruent values can thus cause natural, task-related disagreements to be misunderstood as something else. Given the misunderstanding and inconsistency in the values of the parties, the response to the task disagreement is likely to seem out of character and disproportionate to the intent of the disagreement. That response will then trigger a reciprocal response, which is also likely to be misinterpreted and perceived as out of character. The cycle is then self-reinforcing and self-amplifying, with even benign task-related disagreements either escalating into acrimonious conflict or leading to avoidance and withdrawal (Amason and Sapienza, 1997). This downward spiral was first observed by Brehmer, who described how misinterpretation in a disagreement can cause “purely cognitive disagreement to turn into full-scale emotional conflict” (1976: 986). Action theory provides a framework for understanding how simple differences of perspective can lead to personal and intense relationship conflict.

Adding this insight to the other pieces of the model can offer the following explanation. Demographic differences provide the fuel for disagreement. In the presence of high value heterogeneity, those differences will likely lead to both task conflict and relationship conflicts. This is so because the differences are likely to trigger disagreement, which is likely to be misinterpreted and misunderstood, initiating a cycle of overreaction and amplification, leading to full-blown anger, resentment, and personal conflict. On the other hand, when value heterogeneity is low, the opposite should be true. Differences may still lead to disagreements, but those disagreements are likely to be better received and better understood as task-oriented and will therefore be less likely to trigger relationship conflict.

But another effect is also likely. When TMT members share similar values, the sense of psychological safety within the team should be greater. Drawing again from action theory, value similarity should reduce the risks inherent in social interactions. With congruent values, team members will share common orientations and likely find common ground more readily. They will also react to one another in ways consistent with their own values and expectations. The result should be a setting that is generally more familiar and comfortable. As defined by Edmondson, psychological safety is characterized by “interpersonal trust and mutual respect in which people are comfortable being themselves” (1996: 354). That sort of environment should be a by-product of value similarity and should lead to increased capacity for learning and trust. Going forward, as disagreements prove to be non-threatening, team members should become comfortable with task conflict. Value similarity then sets a foundation where team members can engage in task conflict productively, leveraging their unique and different perspectives to greater effect.

Of course, when demographic heterogeneity is low, conflict is less likely altogether, as there are fewer differences in perspective and opinion. Research shows that
demographic homogeneity often leads to quick consensus and streamlined communication (Amason et al., 2006; Pelled, 1996; Zenger and Lawrence, 1989). Tsui and O’Reilly explain that demographic similarity is often “associated with attitudinal and value similarity...” (1989: 420). As a result, when demographic heterogeneity is low, the study expects to see little effect from value differences. Taking these arguments together offers the following hypotheses:

**Hypothesis 1 (H1):** The relationship between demographic heterogeneity and relationship conflict will be moderated by value heterogeneity such that the relationship between demographic heterogeneity and relationship conflict will be more positive as value heterogeneity increases.

**Hypothesis 2 (H2):** The relationship between demographic heterogeneity and task conflict will be moderated by value heterogeneity such that the relationship between demographic heterogeneity and task conflict will be more negative as value heterogeneity increases.

Research has shown that task conflict can promote comprehensiveness (Amason and Mooney, 2008) and help to bring hidden flaws and objections to the surface (Coiser and Schwenk, 1990). Contrary to De Dreu and Weingart (2003), the model reflects the belief that higher task conflict will result in decisions that are generally better (Amason and Schweiger, 1994), that promote consensus (Ensley and Pearce, 2001), and that leave team members more satisfied (Jehn, 1995). These beneficial effects can emerge only if relationship conflict is avoided; however, avoiding relationship conflict, especially once disagreements have arisen, is difficult. This is consistent with the findings of Mooney et al. (2007), who find that the link between demographic heterogeneity and relationship conflict is partially mediated by task conflict. Task conflict can only manifest benefits if the mutation of task conflict into relationship conflict can be prevented. This leads to the final set of hypotheses.

**Hypothesis 3 (H3):** Relationship conflict will be negatively related to decision-making effectiveness.

**Hypothesis 4 (H4):** When relationship conflict is low, the relationship between task conflict and decision-making effectiveness will be positive.

**METHOD**

**Sample**

A large survey of both TMT and non-executive employees was conducted across multiple subsidiaries of a large state-owned corporation in China. The corporation is one of the three major mobile telecommunications service providers in China with a total of 365 subsidiaries spread throughout the country. Each subsidiary is an autonomously managed profit center, competing with other providers in a service area. Thus, the TMTs of each subsidiary have strategic-level responsibilities and performance pressures. The actual size of the subsidiaries varies depending upon the population and economy of the region. Each subsidiary also has its own TMT and administrative
structure. The size of these TMTs varies from a minimum of three to a maximum of eight; however, most of the subsidiaries consist of five members: a CEO, two VPs, a chief engineer, and a CFO.

This study was supported by the corporate office and the corporate HR department assisted in the distribution of the surveys. Before distribution, the researchers prepared 200 survey packages, each with 13 questionnaires, one for the CEO, four for other TMT members, and eight for other non-executive employees. These non-executive employees provided input on TMT effectiveness. A specific identification number was assigned to each package. The survey asked the corporate HR staff to randomly select 200 out of the 365 subsidiaries and to distribute the packages via the company’s internal mail system. An HR staff member from each subsidiary was assigned to collect the completed questionnaires.

With each questionnaire, a cover letter was provided, explaining the purpose of the survey and promising confidentiality. The researchers provided a return envelope and asked that completed questionnaires be returned either to corporate HR or directly to the research team via the national post. A total of 1,667 individuals responded, including 135 CEOs, 483 TMT members from 142 of the subsidiaries, and 1,049 employees from 148 of the subsidiaries. Response rates for the subgroups, CEOs, TMT members, and employees were 68 percent, 60 percent, and 66 percent, respectively.

To have a usable, TMT-level observation, the researchers had to match the data from the different sources. They set a minimum standard of a response from the CEO, along with responses from at least two TMT members and at least three non-executive employees. Using these strict criteria, the researchers had complete response sets from 123 of the 200 subsidiaries sampled, a response rate of 61.5 percent. The final sample included 123 CEOs, 442 TMT members (3.6 per TMT), and 894 non-executive employees (7.3 per subsidiary). The analysis includes data from 1,459 respondents from 123 different subsidiaries.

Among the 123 CEOs, 92 (75 percent) were male, 50 percent held a bachelor’s degree or above. The average age among the CEOs was 41 with 29 being the youngest and 56 the oldest. Among the TMT members, 72% were male, 74 percent held college degrees at the level of bachelor’s degree or above; the average age was 36.5 years. Finally, among the non-executive employees, 54 percent were male, 60 percent held bachelor’s degrees or above, and the average age was 29.6 years.

Measures

Values and value heterogeneity were measured with 21 items from the Schwartz Value Survey (SVs) (Schwartz, 1994). The complete SVS instrument contains 57 statements; 46 can be adapted to measure an individual’s value system. An earlier study, with an indigenous sample, used these same 46 items for validation purposes and examined how Chinese CEOs’ values affect leadership effectiveness (Fu et al., 2010). In that paper, Fu and colleagues (2010) used two of the four general value dimensions, from which 21 items were adapted. This study used those same 21 items. All 565 of the TMT members, including the CEOs, provided their own value ratings.

To assess value heterogeneity, the researchers calculated the standard deviation (s.d.), within the TMT (including the CEO), of each particular statement. They then summed the s.d. values across the multiple value statements. They obtained the final value heterogeneity score by dividing the summed s.d. by the number of TMT members.
The researchers considered a host of other techniques such as the sum of the algebraic difference ($D^1$), the sum of absolute differences ($|D|$), the Euclidean distance ($D$), and the correlation between profiles ($Q$) (O'Reilly et al., 1993; Edwards, 1991; Kristof, 1996). The researchers computed each of these various indices and found that all produced skewed distributions. The present study used OLS regression to test the hypotheses and so chose the summed standard deviation as the best option since the summed standard deviation score was normally distributed and suitable for regression analyses.

Age was measured as a continuous variable and age heterogeneity was obtained by evaluating the s.d. of team members’ ages. TMT tenure was measured using a six-point scale. The scale contained six equal intervals from minimum zero to “greater than 15 years.” The researchers treated scores obtained via the scale as interval-level data and calculated the s.d. to represent heterogeneity of TMT tenure. Educational, professional, and gender heterogeneity was calculated using Blau’s index (1977), which was suitable for capturing the distinctiveness of categorical variables.

The researchers used Jehn’s (1995) eight-item scale to measure task and relationship conflicts. All TMT members, including the CEOs, provided ratings. The Cronbach’s alphas were 0.88 and 0.81, respectively, for task and relationship conflicts.

TMT decision effectiveness was evaluated by the non-executive employees, who responded to two items adopted from Jehn et al. (1999). The first was “How effectively does the TMT make its decisions?” The second was “How effectively does the top management team carry out its decisions?” The response scale ranged from 1 (very effectively) to 6 (very ineffectively). The Pearson correlation between the two items was 0.81. The coefficient alpha for the scale, calculated with the Spearman and Brown formula (Hulin et al., 2001), was 0.89.

In this study, task and relationship conflicts and TMT decision effectiveness were team-level variables; however, the measures were taken at the individual level. To obtain team-level scores, the researchers assessed the suitability of aggregating the individual-level measures by evaluating the interclass correlation coefficient ICC$_{1}$ and ICC$_{2}$, and the within-group, interrater reliability measure, $R_{wg}$. They first conducted ANOVA on the individual scores to determine whether the between-team variances were significant. The researchers then computed ICC$_{1}$ and ICC$_{2}$ and compared the results to the conventional cutoffs of 0.05 (for ICC$_{1}$) and 0.50 (for ICC$_{2}$) (James, 1982). Additionally, they calculated the $R_{wg}$ for each team and compared the result to the common cutoff of 0.70 (George, 1990; James, 1988). The results are presented in Table 1 and suggest that aggregation at the team level is justified.
Table 1

Results for Justifying Aggregation of Individual Measurements to the Team/Firm Level

<table>
<thead>
<tr>
<th></th>
<th>Variance analysis across team/firm (ANOVA test)</th>
<th>ICC[1]</th>
<th>ICC[2]</th>
<th>Average</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Percentage of total firms above 0.70</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Task conflict</td>
<td>Significant</td>
<td>0.32</td>
<td>0.68</td>
<td>0.81</td>
<td>0.70</td>
<td>1.00</td>
<td>100%</td>
</tr>
<tr>
<td>2. Relationship conflict</td>
<td>Significant</td>
<td>0.35</td>
<td>0.71</td>
<td>0.82</td>
<td>0.68</td>
<td>1.00</td>
<td>98%</td>
</tr>
<tr>
<td>3. TMT effectiveness</td>
<td>Significant</td>
<td>0.34</td>
<td>0.77</td>
<td>0.88</td>
<td>0.74</td>
<td>1.00</td>
<td>100%</td>
</tr>
</tbody>
</table>

*a “significant” means that “between-team/firm variance” is significantly greater than “within-team/firm variance”

Table 2

Means, Standard Deviations, and Correlations Among Variables

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>S.D.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Team size</td>
<td>5.03</td>
<td>1.07</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Gender heterogeneity</td>
<td>0.25</td>
<td>0.21</td>
<td>-0.09</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Educational heterogeneity</td>
<td>0.40</td>
<td>0.21</td>
<td>0.07</td>
<td>0.17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Professional heterogeneity</td>
<td>0.50</td>
<td>0.20</td>
<td>0.08</td>
<td>0.33**</td>
<td>0.21*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Age heterogeneity</td>
<td>5.44</td>
<td>2.87</td>
<td>0.02</td>
<td>0.18*</td>
<td>0.29**</td>
<td>0.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Org. tenure heterogeneity</td>
<td>0.91</td>
<td>0.55</td>
<td>0.27**</td>
<td>-0.05</td>
<td>0.10</td>
<td>-0.12</td>
<td>0.05</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Team member value heterogeneity</td>
<td>3.31</td>
<td>1.07</td>
<td>-0.33**</td>
<td>0.04</td>
<td>-0.18*</td>
<td>-0.01</td>
<td>0.04</td>
<td>-0.02</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Task conflict</td>
<td>4.01</td>
<td>0.79</td>
<td>0.18*</td>
<td>-0.02</td>
<td>0.13</td>
<td>0.03</td>
<td>0.04</td>
<td>0.23*</td>
<td>0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Relationship conflict</td>
<td>2.51</td>
<td>0.93</td>
<td>0.03</td>
<td>0.07</td>
<td>0.02</td>
<td>-0.03</td>
<td>0.21*</td>
<td>0.00</td>
<td>0.08</td>
<td>0.35**</td>
<td></td>
</tr>
<tr>
<td>10. TMT decision effectiveness</td>
<td>4.06</td>
<td>0.58</td>
<td>-0.04</td>
<td>-0.13</td>
<td>-0.10</td>
<td>-0.07</td>
<td>-0.17</td>
<td>-0.05</td>
<td>-0.01</td>
<td>-0.16</td>
<td>-0.33**</td>
</tr>
</tbody>
</table>

*p < 0.05; ** p < 0.01. N = 123
RESULTS

Table 2 provides the means, standard deviations, and correlations for the variables. While preliminary, these results provide information that is generally consistent with the expectations. They also suggest that these measures yielded patterns that are consistent with what had been observed previously. For example, task and relationship conflicts were positively correlated \((r = 0.35, p < 0.01)\). Relationship conflict was negatively correlated with decision effectiveness \((r = -0.33, p < 0.01)\) and task conflict was unrelated to decision effectiveness. These relationships are consistent with those observed by De Dreu and Weingart (2003).

As expected, the dimensions of TMT heterogeneity were positively correlated; professional heterogeneity and age heterogeneity were both correlated positively with gender and education heterogeneity. This pattern is consistent with other studies (Amason et al., 2006; Wei et al., 2005). Tenure heterogeneity was positively related to task conflict \((r = 0.23, p < 0.05)\) while age heterogeneity was positively related to relationship conflict \((r = 0.21, p < 0.05)\). None of the other dimensions of heterogeneity was related to either form of conflict, however. Finally, value heterogeneity was negatively related to team size \((r = -0.33, p < 0.01)\) and to educational heterogeneity \((r = -0.18, p < 0.05)\) but unrelated to any other dimensions of heterogeneity.

To test the hypotheses, the researchers used hierarchical regression accounting first for the effects of the control variables and main effects, and then testing the hypothesized interactions. Hypothesis 1 stated that the relationship between demographic heterogeneity (DH) and relationship conflict (RC) would be moderated by value heterogeneity such that the relationship between DH and RC would be more positive as value heterogeneity increased. As illustrated in Table 3, a model regressing relationship conflict on TMT size, the demographic heterogeneity variables, and value heterogeneity was not significant. Adding the interaction terms, which combined value heterogeneity with the different dimensions of demographic heterogeneity, increased the \(R^2\) by 0.10 \((p < 0.05)\), however. Two of the specific interaction terms were significant. Professional heterogeneity and organizational tenure heterogeneity both interacted with value heterogeneity, yielding strong effects on relationship conflict \((\beta = 0.41\) and \(0.30, p < 0.01)\).

The researchers plotted graphs to illustrate the nature of the relationships (see Figures II and III). In both cases, the findings are consistent with the theory. Relationship conflict is highest when both demographic heterogeneity and value heterogeneity are high and the relationship between heterogeneity and relationship conflict becomes more positive as value heterogeneity increases. Therefore, Hypothesis 1 was supported.
### Table 3
Interactional Effects of Demographic Heterogeneity and Value Heterogeneity on TMT Conflicts

<table>
<thead>
<tr>
<th>Step 1: Controls and direct effects</th>
<th>Relationship conflict</th>
<th>Task conflict</th>
</tr>
</thead>
<tbody>
<tr>
<td>TMT size</td>
<td>0.07</td>
<td>0.14</td>
</tr>
<tr>
<td>Gender heterogeneity</td>
<td>0.06</td>
<td>-0.04</td>
</tr>
<tr>
<td>Educational heterogeneity</td>
<td>-0.02</td>
<td>0.12</td>
</tr>
<tr>
<td>Professional heterogeneity</td>
<td>-0.06</td>
<td>0.03</td>
</tr>
<tr>
<td>Age heterogeneity</td>
<td>0.20*</td>
<td>0.00</td>
</tr>
<tr>
<td>Org. tenure heterogeneity</td>
<td>-0.03</td>
<td>0.18</td>
</tr>
<tr>
<td>Team member value heterogeneity</td>
<td>0.09</td>
<td>0.08</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.06</td>
<td>0.08</td>
</tr>
<tr>
<td>$F$</td>
<td>1.02</td>
<td>1.50</td>
</tr>
</tbody>
</table>

| Step 2: Interactions                                                  |                       |              |
| Gender heterogeneity $\times$ Value heterogeneity                     | -0.03                 | -0.07        |
| Educational heterogeneity $\times$ Value heterogeneity                | -0.05                 | -0.09        |
| Professional heterogeneity $\times$ Value heterogeneity               | 0.41**                | 0.14         |
| Age heterogeneity $\times$ Value heterogeneity                        | -0.17                 | -0.26*       |
| Org. tenure heterogeneity $\times$ Value heterogeneity               | 0.30**                | 0.18         |
| $R^2$                                                                 | 0.16                  | 0.18*        |
| $F$                                                                   | 1.71                  | 2.00         |
| $\Delta R^2$                                                          | 0.10*                 | 0.10*        |
| $\Delta F$                                                           | 2.57                  | 2.56         |

*p < 0.05; **p < 0.01.
Figure II
Interaction between Professional Heterogeneity and Value Heterogeneity on Relationship Conflict

Figure III
Interaction Between Organizational Tenure Heterogeneity and Value Heterogeneity on Relationship Conflict
Hypothesis 2 stated that the relationship between demographic heterogeneity (DH) and task conflict (TC) would be moderated by value heterogeneity such that the relationship between DH and TC would be more negative as value heterogeneity increases. Table 3 again provides the results. As before, the model with the control and main effects was not significant, while the interaction terms again provided a significant contribution ($\Delta R^2 = 0.10, p < 0.05$). Moreover, the interaction of age heterogeneity with value heterogeneity was significant ($\beta = -0.26, p < 0.05$). This relationship is depicted graphically in Figure IV and suggests that TC increases as age heterogeneity increases and value heterogeneity decreases. So, Hypothesis 2 was also supported.

**Figure IV**

*Interaction between Age Heterogeneity and Value Heterogeneity on Task Conflict*

Hypothesis 3 stated that relationship conflict would be negatively related to decision-making effectiveness and the data confirm this ($\beta = -0.30, p < 0.01$). Finally, Hypothesis 4 stated that when relationship conflict is low, the relationship between task conflict and decision-making effectiveness would be positive. This relationship contradicts the conclusions of De Dreu and Weingart (2003) and is the crux of the model. As expected, the data provide strong support for the interaction effect ($\beta = -0.25, p < 0.01$) and offer strong evidence of the effect described by the model. To illustrate, the researchers plotted Figure V; when relationship conflict is low, the relationship between task conflict and decision effectiveness is positive; however, when relationship conflict is high, task conflict has the opposite effect and is related negatively to decision-making effectiveness. Hypothesis 4 was therefore supported.
Finally, the researchers assessed the full model by testing all the relationships simultaneously with structural equation modeling (SEM). Mathieu et al.’s (1992) procedure for testing interactions in SEM was used, following Cortina et al.’s (2001) review of available procedures. Specifically, single-indicator latent variables (including the control, main effect, and interaction variables) were used in the model. Measurement errors were evaluated as functions of reliabilities and observed variances.

The results suggest that the model fits the data well ($\chi^2 = 47.89$, $df = 29$, CFI = 0.95, GFI = 0.96, RMSEA = 0.07), supporting the contention that decision-making effectiveness is a function of demographic and value heterogeneity, affecting task and relationship conflict. The data confirm the expectations that value heterogeneity is a key moderator of the relationships between demographic heterogeneity and task and relationship conflict. As anticipated, value similarity decouples the relationship between task and relationship conflict. As a result, teams where the members share similar values seem to be able to engage in functional task conflict without having that task conflict trigger relationship conflict.

**DISCUSSION**

This study was undertaken to resolve a dilemma. Specifically, task conflict should contribute positively to overall TMT decision-making effectiveness. Many have argued this point and offered empirical support for it (Amason, 1996; Coiser and Schwenk, 1990; Eisenhardt et al., 1997; Jehn, 1995; Jehn et al., 1999; Mooney et al., 2007). Yet, there remains doubt and mixed signals overall. In a meta-analysis, De Dreu and Weingart (2003) concluded that there is no convincing reason to believe that task conflict
has any positive effects at all. Moreover, what evidence they do find suggests that task conflict behaves just like relationship conflict, which is known to be dysfunctional and destructive.

The problem then is twofold. First, these mixed results call into question much of what is believed to be known about conflict. Is conflict truly multidimensional and, if so, what value is there in distinguishing between task and relationship conflict? Second, the distinction between task and relationship conflict is embedded deeply in the literature on TMT decision processes. In the research on programmed interaction routines (Cosier and Schwenk, 1990; Schweiger et al., 1986) and other work on the antecedents and effects of conflict in strategic decision-making (Amason and Sapienza, 1997; Knight et al., 1999; Li and Li, 2009), the distinction between functional task-oriented conflict and dysfunctional relationship-oriented conflict is well established. Indeed, some have argued that learning to manage these two forms of conflict is a key driver of TMT effectiveness (Eisenhardt et al., 1997; Ward et al., 2007). Should all of this work be viewed as somehow flawed? If so, what implication does that have for team functioning and the practices that evolved to leverage and manage conflict?

To tease out a solution, the researchers built a model with common antecedents to conflict, reflecting the material and social inputs to the decision-making process. Demographic heterogeneity is a commonly studied characteristic of every team. Teams consist of individuals and the demographic composition of those individuals is a key feature of each team (Hambrick and Mason, 1984). Basic differences among the individuals, in education, age, professional background, tenure, gender, etc., can all be viewed as the potential for disagreement (Korsgaard et al., 2008). Concurrent with that potential are the values of the team members. As action theory illustrates, values are inextricably linked to two key processes in team decision-making, the orientation of individuals to the issues and the perceptions and reactions of the individuals to one another (Parsons and Shils, 1951). When values are similar, these key processes should operate similarly. Conversely, when values are dissimilar, breakdowns of both will occur. These breakdowns are the root of the problem.

The researchers believe that differences of opinion are common in TMTs and that, as demographic heterogeneity increases, such differences are increasingly likely; however, not all differences will lead to conflict; they are merely the potential for conflict. Conflict occurs when differences are brought to the surface, as the members interact in an effort to promote their positions or to change the positions of others. This point is key because social interaction and an exchange of meaning and information must be present for conflict to occur. Action theory speaks directly to such exchanges and to the effect of values on them.

The values of the TMT members affect first how they express their disagreements. Because of differences in values, the same idea might be expressed differently by different individuals. The same benign difference might yield a reasoned and rational argument from one but an emotional and angry objection from another. When values are consistent, their effects on the disagreement are consistent across team members, but, when values are inconsistent, the result is a different expression, leading to disagreements that can be miscommunicated. Values also affect the interpretation of these expressed disagreements. Here, again, two individuals could hear the same point of disagreement but, because of their different values, interpret the meaning differently. When values are similar, little or no misunderstanding occurs, but when values are
dissimilar, misunderstanding is all but unavoidable. Thus, as depicted by Korsgaard et al. (2008), intragroup conflict is a multi-level process, beginning with individual differences but progressing through dyadic and ultimately team-level actions and reactions. As action theory explains, at each level, values affect how those actions and reactions are formed and interpreted. Where values are consistent, disagreements can be expressed and understood accurately, leading to responses that are proportionate and equally well understood, creating a cycle of learning in which disagreement is seen as well-intentioned and non-threatening (Edmondson, 1996). When values are inconsistent, however, there is misunderstanding and misinterpretation creates a cycle of amplification in which benign disagreements escalate and become personalized to the point where outright anger and resentment emerge (Brehmer, 1976).

This explanation was supported by the findings. It is also consistent with the findings of others (De Dreu and Weingart, 2003; Mooney et al., 2007; Curseu and Schruijer, 2010). Task conflict appears to contribute to relationship conflict, hence the strong correlation between the two; however, the strength of the relationship varies. Across the studies cited by De Dreu and Weingart (2003), the correlations ranged from a high of 0.84 to a low of 0.18. Thus, in some instances, task and relationship conflict are virtually indistinguishable and in other instances they are largely distinct. Curseu and Schruijer (2010) show that task conflict can have a positive effect on team performance, especially when combined with high levels of trust. When trust was high, task conflict and relationship conflict were less highly correlated. Alternatively, the highest levels of relationship conflict and also the worst performance occurred when trust was low and task conflict was high.

What this all suggests is that the relationship between task conflict and performance is contingent upon other factors. Task conflict will often trigger or devolve into relationship conflict, unless there is some preexisting foundation of familiarity and comfort among the members of the team. Drawing on action theory, the researchers argue that value similarity provides that foundation. If values are heterogeneous, task conflict will likely trigger relationship conflict, leading to poor outcomes. These data support this; when values were dissimilar, demographic differences led to greater relationship conflict. In cases such as these, the correlation between task conflict and performance would be negative; however, it would be a mistake to conclude that task conflict is dysfunctional. Rather, task conflict simply catalyzes a sequence of events that leads to relationship conflict.

When values are similar, however, the effects of task conflict are very different. With high value similarity, the propensity for misinterpretation and misunderstanding is low, leading to a lower propensity for relationship conflict. As a result, task conflict can have its desired effects and strengthen the quality and understanding of a decision. This is illustrated in Figure V; high task conflict is negatively related to TMT effectiveness when relationship conflict is high but is positively related to effectiveness when relationship conflict is low.

Limitations

The study is not without limitations. Perhaps the most significant of these is that the study sample was drawn from a single organization, which might limit the generalizability of the finding; however, it is a large corporation, and all the TMTs were from independent companies, with members from different demographic backgrounds,
although they are from the same industry. At the same time, the issues addressed in the study are not especially firm specific. Indeed, the effects of conflict on TMT decision processes have been widely studied and little evidence has emerged of firm-level effects. Even if the sample is limited, it is likely not biased in any way that affects the conclusion about conflict. Moreover, focusing on teams from just one corporation minimizes the effect of industry specific differences in values and norms. On a related note, some may criticize the use of the term TMT in relation to these teams. As these were all subsidiaries of a single organization, some might disagree that these teams were truly at the top of the organization. Here, too, while the sample may limit the ability to generalize, it does not compromise any essential element of the research question. These teams consisted of the top-level managers for their subsidiaries, with profit and loss responsibility and accountability. They had responsibility for capital allocation, for competitive positioning, and for unit level profit and loss. They were very much “top” management teams in this context. That they were not the only top management team within the same corporation should not be an issue.

Some may question the effects of national culture on the current findings and whether a completely Chinese sample is appropriate to the question, given that the issue that is the focus of this work arose in studies that were not conducted in China. While this question is a fair one, given the common belief that conflict is more disruptive in collectivist cultures (Harris and Nibler, 1998), research by Tjosvold and colleagues has shown that Chinese managers are willing to express conflicting views and to engage in open discussion (Tjosvold et al., 2010). Moreover, other research shows that the effective management of conflict, as opposed to the avoidance of conflict, can be functional in making Chinese TMTs more effective (Chen et al., 2005). Finally, all of these measures have been used previously in Chinese samples and have been shown to have validity in capturing the constructs as generally defined and understood. Given this, the sample is appropriate and the findings do speak to the issue effectively.

Finally, the researchers make no claim to represent all the various facets and dimensions of values and value heterogeneity. Quite the contrary, due to so many values and so many measures of values, the researchers chose to focus on a single distinction, likely to influence the way TMT members relate to one another, and that has been shown to influence managerial behaviors in Chinese executives (Fu et al., 2010). While the researchers are confident in the findings as they relate to these two values, others may yield different effects.

Conclusion

Limitations notwithstanding, this study makes a genuine contribution and moves the discourse on conflict in TMTs forward. Task and relationship conflict are distinct and yet both are key antecedents to TMT effectiveness; however, the process of managing them so that the benefits of the one are realized while the hazards of the other are not, is more complex than heretofore imagined and involves characteristics fundamental to the team members themselves. Basic value differences seem to be at the root of the dilemma and so seem to be key to the solution. While the implications of that to practice are unclear, it is still important that researchers understand why task and relationship conflicts are so closely interconnected and how that interconnection affects decision processes and outcomes.
References


Parsons, T. 1937. The Structure of Social Action: A Study in Social Theory with Special Reference to a Group of Recent European Writers. New York: McGraw-Hill.


When Replacing an Audit Committee Member, Does Financial Expertise Matter to Investors?¹

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Boards of directors of large corporations typically have an audit committee whose responsibility is to monitor the company’s financial reporting process. Many companies have audit committees that include at least one member who has financial expertise, but this is not always the case. The purpose of this research is to ascertain whether audit committee financial expertise matters when making investing decisions.

It is widely believed that financial expertise on audit committees enhances the effectiveness of audit committees in carrying out their financial monitoring duties (Davidson et al., 2004; Defond et al., 2005). These duties include oversight of the internal audit function, evaluating alternative accounting methods, and resolving disputes between company management and the external auditors. Researchers have found that audit committees with financial expertise have a lower incidence of internal control problems (Krishnan, 2005), a lower likelihood of asset misappropriation (Mustafa and Youssef, 2010), and a negative association with aggressive earnings management (Bedard et al., 2004). Also, shareholders are more likely to vote for auditor ratification when the company’s audit committee has financial expertise (Hermanson et al., 2009).

For publicly traded companies, the Securities and Exchange Commission (SEC) now requires that audit committees appoint at least one financial expert or disclose that they do not have a financial expert. These experts can be either accounting or non-accounting financial experts (SEC, 2003). “The former have specific accounting expertise (i.e., experience as CPA, CFO, CAO, controller, or auditor), while the latter are financial experts with more general experience in analyzing financial statements or as CEOs” (Krishnan and Lee, 2009: 242). A survey undertaken in 2015 jointly by the Center for Audit Quality and Audit Analytics indicates that all S&P 500 companies have at least one financial expert on their audit committees (Center for Audit Quality, 2016).

¹ The author gratefully acknowledges the research assistance and comments provided by Jordan Samet.
Since investors rely on companies’ financial statements in making their investing decisions, and the quality of these financial statements are affected by the capabilities of audit committees that oversee the financial reporting, audit committees with financial expertise should be viewed as enhancing the financial statement reliability. Reliable financial statements should lead to investors’ increased trust of the company’s financial information. This should reduce the investors’ perceived risks of investing in the company and therefore result in a greater likelihood of deciding to invest in the company. Hence, investors would be expected to favor audit committees that have financial expertise.

While some studies have examined the effects of audit committee financial expertise on the stock market, this is the first study to investigate how audit committee financial expertise affects individual investors in a controlled experimental setting. It is important to consider individual investors, and not just institutional investors such as banks, insurance companies, and pension funds. Both individual and institutional investors are of concern to the SEC. Also, individual investors’ decision-making strategies are important to know for development of theoretical models pertaining to investment markets (Daniel et al., 1998).

Individual investors may pay more or less attention to audit committee characteristics, including financial expertise, than do institutional investors. This is because of different decision-making processes between individual and institutional investors. In institutional investment settings, a board of directors along with an investment committee within the board typically oversees the consultant, advisor, or investment team that is managing the portfolio (Carlson, 2016). Individuals do not have to worry about decisions by committee, so they are able to think and act for the long-term with no short-term pressure from a committee and may be willing to take more risks than would a committee. Therefore, financial reporting concerns, including oversight by a financially literate audit committee, might be different for individual investors than for institutional investors. Hence, findings from research about audit committee financial expertise conducted in the stock market, which is dominated by institutional investors, cannot necessarily be generalized to individual investing decisions.

This study uses an experimental methodology to investigate the effects of audit committee financial expertise on investing decisions. Using an experimental approach allows one to control the information available to investors. The study can control for potentially confounding factors such as concurrent information disclosure, firm-specific characteristics, and self selection, which are problematic in archival studies.

PRIOR STUDIES AND HYPOTHESES DEVELOPMENT

Several studies have examined the relationship between audit committee financial expertise and financial reporting quality. Krishnan and Visvanathan (2008) show that accounting financial expertise is positively correlated with various measures of accounting conservatism, but this is not true for non-accounting financial expertise or nonfinancial expertise. Likewise, Dhaliwal et al. (2010) demonstrate that audit committee accounting expertise is positively associated with accruals quality. Furthermore, Badolato et al. (2014) find that audit committees with both financial expertise and high relative status are associated with lower levels of earnings
management (accounting irregularities and abnormal accruals). A study by Liu et al. (2014) reveals that managers are less likely to engage in expectations management to avoid negative earnings surprises when the audit committee includes an accounting expert. In contrast to these studies, Sun et al. (2014) find no evidence of an association between audit committee financial expertise and real earnings management.

Research has been sparse on how audit committee financial expertise impacts the stock market. Two archival studies focus on stock market effects of appointing financial experts to audit committees. Davidson et al. (2004) find that the stock market reacts positively to the appointment of financial experts to the audit committee. Defond et al. (2005) confirm this finding for accounting financial experts, but there was no market reaction for non-accounting financial experts appointed to audit committees. In contrast to audit committee appointments, Singhvi et al. (2013) examine the stock market reaction to audit committee director departures. Results of this archival study indicate a significant adverse market reaction to the departure of accounting experts, but not for departures of other types of financial experts or non-expert directors.

Whereas the above studies have addressed investment decisions in stock market contexts, the current study tests four hypotheses in settings involving individual decision-making. The first three hypotheses below follow from the argument that audit committee members with financial expertise should be able to provide better monitoring of the company’s financial reporting process. In turn, investors will likely value companies with audit committees having financial expertise more highly than ones with audit committees having no financial expertise. These arguments are supported by the stock market research reported earlier. Since those studies tend to find effects only when the financial experts have accounting expertise, this study will operationalize the financial expert as a CPA firm audit partner. The first hypothesis deals with the existence of financial expertise on the audit committee, while the second and third involve audit committee replacements. The first three hypotheses are stated as follows:

**H1:** When making investing decisions, investors will react more positively to companies with audit committees having a financial expert than to companies not having a financial expert.

**H2:** When making investing decisions, investors will react positively when a nonfinancial audit committee member is replaced with a financial expert (when no other member of the audit committee has financial expertise, either before or after the replacement).

**H3:** When making investing decisions, investors will react negatively when a financial expert is replaced with a nonfinancial audit committee member (when no other member of the audit committee has financial expertise, either before or after the replacement).

The fourth hypothesis involves a situation where the audit committee currently has no financial expert. Since there is no reason to expect investors to react differently whether or not there was a financial expert prior to the replacement, this hypothesis is non-directional and is stated as follows:
H4: When making investing decisions, investors will neither react positively nor negatively when a financial expert is replaced with a nonfinancial audit committee member than when there is no financial expert on the audit committee both before and after the replacement.

PARTICIPANTS

Participants for this study were obtained from websites of CPA firms located in a large city in the eastern portion of the United States as well as from websites of The Institute of Internal Auditors chapters located throughout the United States. These accountants/auditors represent individuals who are generally knowledgeable about the nature and roles of audit committees. Questionnaires were sent to 98 people who, from email correspondence, indicated a willingness to participate and perhaps also distribute questionnaires to colleagues. A total of 263 questionnaires were sent and responses were received from 94 individuals employed in at least 37 different organizations (nine respondents did not reveal their organizational affiliations). If all of the questionnaires sent had been distributed, the resulting response rate would be 35.7 percent.

The average age of the participants is 43.5 years, 60.6 percent are male, and 47.9 percent have masters degrees. The participants average 19.8 years of full-time work experience and 91.4 percent list accounting/finance as the job category describing their most recent full-time position. The vast majority have experience with investing – 79.8 percent indicate that they have previously purchased or sold stock relating to a personal investment. Hence, it would seem that these participants are appropriate for this study. Demographic data by group appear in Table 1.

<table>
<thead>
<tr>
<th></th>
<th>FF</th>
<th>NN</th>
<th>FN</th>
<th>NF</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample size</td>
<td>25</td>
<td>22</td>
<td>22</td>
<td>25</td>
<td>94</td>
</tr>
<tr>
<td>Average age in years</td>
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<td>48</td>
<td>40</td>
<td>46</td>
<td>43.5</td>
</tr>
<tr>
<td>Percent male</td>
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<td>77%</td>
<td>41%</td>
<td>72%</td>
<td>60.6%</td>
</tr>
<tr>
<td>Percent with masters degrees</td>
<td>44%</td>
<td>41%</td>
<td>59%</td>
<td>48%</td>
<td>47.9%</td>
</tr>
<tr>
<td>Years of work experience</td>
<td>16</td>
<td>24</td>
<td>18</td>
<td>22</td>
<td>19.8</td>
</tr>
<tr>
<td>Percent listing Accounting/Finance as most recent full-time position</td>
<td>100%</td>
<td>95%</td>
<td>67%</td>
<td>100%</td>
<td>91.4%</td>
</tr>
<tr>
<td>Percent with investing experience</td>
<td>72%</td>
<td>95%</td>
<td>64%</td>
<td>88%</td>
<td>79.8%</td>
</tr>
</tbody>
</table>

TASK

Participants were given a case scenario involving an investing decision pertaining to a hypothetical company. The case provided background information about the company, financial information, and stock price data for the past year. The case also stated that the company’s financial statements were audited and that a clean (i.e., unqualified) opinion had been issued.
The participants were assigned to one of four groups, each of which described the same hypothetical company scenario except for information about a replacement of an audit committee member. A 2 x 2 between subjects design is used to manipulate two independent variables each at two levels – whether or not the audit committee had a financial expert before the replacement and whether or not the audit committee has a financial expert after the replacement. The financial expert was described as an audit partner with a Big Four CPA firm.

Two dependent variables were elicited from the participants. The first is an assessment about the level of risk associated with investing in the common stock of the company. This assessment was done on a ten-point scale ranging from no risk to very high risk. The second dependent variable is an allocation of $10,000 between investing in the common stock of the company versus investing in a relatively risk-free money market account. Afterwards, the participants were instructed to rate the importance of various factors in making their investing decisions. Finally, the questionnaire ended with demographics and manipulation checks. The questionnaire was pre-tested with one accounting instructor and one accounting doctoral student.

Four different questionnaire versions were created by varying the information about the audit committee member replacement. In the Financial to Financial (FF) version, participants were informed that an audit committee member with financial expertise was replaced by another member who also had financial expertise. The Nonfinancial to Nonfinancial (NN) version stated that a member without financial expertise was replaced by another member also without financial expertise. The Financial to Nonfinancial (FN) version involved the replacement of a member having financial expertise by a member without financial expertise. Finally, the Nonfinancial to Financial (NF) version indicated that a member without financial expertise was replaced by a member having financial expertise. All four versions communicated that no other member of the audit committee has financial expertise, either before or after the replacement. Each participant received only one of the four questionnaire versions. Sample sizes for each of the four groups are shown in Table 2.

<table>
<thead>
<tr>
<th>Group [sample size]</th>
<th>Mean Risk Assessment</th>
<th>Mean Investment Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial to Financial (FF) [25]</td>
<td>5.64</td>
<td>$4646</td>
</tr>
<tr>
<td>Nonfinancial to Nonfinancial (NN) [22]</td>
<td>7.24</td>
<td>$3909</td>
</tr>
<tr>
<td>Financial to Nonfinancial (FN) [22]</td>
<td>6.65</td>
<td>$3159</td>
</tr>
<tr>
<td>Nonfinancial to Financial (NF) [25]</td>
<td>6.12</td>
<td>$4800</td>
</tr>
<tr>
<td>Combined Groups [sample size]</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FF and NF [50]</td>
<td>5.88</td>
<td>$4724</td>
</tr>
<tr>
<td>FN and NN [44]</td>
<td>6.95</td>
<td>$3534</td>
</tr>
</tbody>
</table>

Note: For Risk Assessment, the rating scale ranged from 1 = “not risky at all” to 10 = “very risky.”
RESULTS

As a manipulation check, participants were asked at the end of the experiment to recall the case scenario information about the replacement of the audit committee member. Only three participants failed to correctly recall the information. When removing these participants from the data set, the results remain essentially the same as for the full data set. Therefore, the data analyses will be reported using the full data set.

For all four respondent groups, the mean responses to the two dependent variables are reported in Table 2. The overall mean risk assessment (1 = not risky at all; 10 = very risky) is 6.36, with a range of 5.64 for the FF group to 7.24 for the NN group. The overall mean investment amount is $4161, with a range of $3159 for the FN group to $4800 for the NF group. A MANOVA indicated significant differences across the four groups (Wilks’ Lambda = 0.048). Also, ANOVAs yielded significant differences across the four groups for the risk assessment variable (p = 0.027), but not for the investment amount variable (p = 0.310). ANCOVAs were also performed with participants’ age and years of work experience as covariates. The results from these ANCOVAs indicated significance for the risk assessment variable (p = 0.004) and marginal significance for the investment amount variable (p = 0.096).

H1 tests whether investing decisions are affected by an audit committee having a member with financial expertise. To test this, responses from the combined FF and NF groups are compared to responses from the combined FN and NN groups. Response means and significance levels for all hypotheses tests are shown in Table 3. The two combined groups that ended up with a financial expert after the replacement, FF and NF, had a lower mean risk assessment (5.88) and higher mean investment amount ($4724) than the two combined groups that ended up with a nonfinancial expert after the replacement, FN and NN (6.95 mean risk assessment and $3534 mean investment amount). These results are in the expected directions and one-tail contrast tests indicate that both differences are statistically significant (p = 0.004 for risk assessment; p = 0.043 for investment amount). Hence, there is evidence to conclude that the existence of financial expertise on audit committees matters to investors and, therefore, H1 is strongly supported.

There is also some evidence that investors perceive an audit committee with no financial expertise before and after a member replacement (NN) more negatively than an audit committee with financial expertise before and after a member replacement (FF). The mean risk assessment is higher for the NN group (7.24 vs. 5.64) and this difference is statistically significant (p = 0.002, one-tail). While the mean amount invested is lower for the NN group ($3909 vs. $4646), this difference is not statistically significant (p = 0.225, one-tail).
Table 3
Results of Hypotheses Testing

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean Risk Assessment</th>
<th>Mean Investment Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FF &amp; NF combined</td>
<td>5.88</td>
<td>$4724</td>
</tr>
<tr>
<td>FN &amp; NN combined</td>
<td>6.95</td>
<td>$3534</td>
</tr>
<tr>
<td>Significance levels for contrasts</td>
<td>0.004*</td>
<td>0.043*</td>
</tr>
<tr>
<td>NN</td>
<td>7.24</td>
<td>$3909</td>
</tr>
<tr>
<td>FF</td>
<td>5.64</td>
<td>$4646</td>
</tr>
<tr>
<td>Significance levels for contrasts</td>
<td>0.002*</td>
<td>0.225</td>
</tr>
</tbody>
</table>

H2 tests whether replacing a nonfinancial audit committee member with a financial expert sends a positive signal to investors. This is investigated by comparing the responses from the NF group to those from the NN group. Both of these groups replaced a nonfinancial audit committee member, but whereas the NN group remained without a financial expert, the NF group added a financial expert. There is some evidence showing that replacing a nonfinancial audit committee member with a financial expert does send a positive signal to investors. Consistent with H2, the NF group has a statistically significant lower mean risk assessment than the NN group (6.12 vs. 7.24; p = 0.021, one-tail). In addition, the NF group has a higher mean investment amount than the NN group ($4800 vs. $3909). While this is in the expected direction, the difference is not statistically significant (p = 0.179, one-tail). Thus, H2 is only partially supported.
H3 tests whether replacing a financial expert with a nonfinancial audit committee member sends a negative signal to investors. This is done by comparing responses from the FN group to those from the FF group. Both of these groups replaced a financial expert, but whereas the FF group remained with financial expertise, the FN group lost its financial expert. The difference between the FN and FF groups for mean risk assessment (6.65 vs. 5.64) is in the expected direction and statistically significant (p = 0.035, one-tail). Also, the difference between mean investment amounts ($3159 vs. $4646) is in the expected direction and is marginally statistically significant (p = 0.065, one-tail). So, there is evidence to conclude that replacing a financial expert with a nonfinancial audit committee member rather than another financial expert sends a negative signal to investors. Hence, H3 is supported.

H4 tests whether having no financial expert before and after an audit committee replacement is perceived differently than replacing a financial expert with a nonfinancial audit committee member. To address this, responses from the NN and FN groups are compared. Both of these groups end up with no financial expertise, but the latter group lost its financial expert. Results indicate that not having a financial expert before and after an audit committee replacement is perceived as no better or worse than replacing a financial expert with a nonfinancial audit committee member – the NN group has a non-statistically significant higher mean risk assessment than the FN group (7.24 vs. 6.65; p = 0.306, two-tail) and a non-statistically significant higher mean investment amount ($3909 vs. $3159; p = 0.451, two-tail). So, there is no evidence to conclude that investors perceive the loss of a financial expert as different from not having had a financial expert to begin with. Therefore, H4 is not supported.

After the participants gave responses to the two dependent variables, they rated the importance of eight factors in making their investing decisions (1 = no importance; 10 = very important), as shown in Table 4. The most important factor was "financial data" with a rating of 9.12 and the least important was "standard industrial classification," having a rating of 3.97. The "departure of an audit committee member," with a rating of 5.10, was ranked next to last (and below the mean scale value of 5.5), indicating that the departure in and of itself is not viewed as a concern. What appears to matter is "whether the audit committee has a financial expert," as this factor was ranked third with a rating of 7.46 (and above the mean scale value of 5.5). This corroborates the current study’s findings of support for H1, H2, and H3. Additional corroboration is provided by responses to two questions appearing at the end of the questionnaire where participants rated, on a ten-point scale (1 = very low quality and 10 = very high quality), audit committees with and without at least one financial expert. There was a significant difference (p = 0.000) between the rating for an audit committee that includes at least one financial expert (mean rating of 7.76) and the rating of an audit committee that has no financial expert (mean rating of 2.66).
CONCLUSION

The current study addresses whether audit committee financial expertise has an impact on investing decisions. Findings show that investing decisions, as operationalized by risk assessments and amounts invested, are affected by knowledge that a company’s audit committee includes a member with financial expertise. Additionally, there is some evidence showing that replacing a nonfinancial audit committee member with a financial expert appears to send a positive signal to investors. Conversely, replacing a financial expert with a nonfinancial audit committee member sends a negative signal to investors. Finally, there is no evidence that investors view the loss of a financial expert on the audit committee as different from not having had a financial expert to begin with.

The main implication of this study is that financial expertise on audit committees is important to investors. Therefore, companies should try to ensure that their audit committees contain at least one member with financial expertise. When the only financial expert departs from the audit committee, every effort should be made to replace this member with someone else who has financial expertise. A caveat, though, is that this experiment involved audit committee replacement, rather than the presence or absence, of financial experts. Implications of this study’s results in relation to SEC disclosure requirements may be limited since the required disclosures pertain only to whether or not a financial expert is present on the audit committee. Future research can examine scenarios that involve “no replacement” settings.

The usual limitations inherent in experimental studies are applicable to this research study as well. First, investors often obtain more information about a potential investment than appeared in this study’s questionnaire. Second, the results pertaining to the context of the investment scenario in this study cannot necessarily be generalized to other types of investment scenarios. Further studies should investigate the impact of audit committee expertise with investment scenarios having different characteristics about the company, historical stock market returns, etc. Another limitation is that economic incentives such as suffering financial losses from poor investing decisions were

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<tr>
<td>Financial data</td>
<td>9.12</td>
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<tr>
<td>Auditor’s opinion on financial statements</td>
<td>7.69</td>
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<tr>
<td>Whether the audit committee has a financial expert</td>
<td>7.46</td>
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<td>Departure of an audit committee member</td>
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<td>Standard industrial classification</td>
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Rating scale: 1 = no importance; 10 = very important
not present in this study’s experiment. The participants did not have any personal funds at risk in this study. Future studies can go beyond examining participants’ intentions by using experimental settings where monetary gains or losses would depend on outcomes of the investment decisions. Finally, the contribution of this study may be limited due to fairly small group sample sizes which range from 22 to 25 participants.

It should also be noted that this study was not conducted in a controlled laboratory environment. The questionnaires were paper-based and participants completed them in their workplaces, homes, or elsewhere not under the researcher’s supervision. Thus, it is possible that the reliability of manipulations could have been compromised if participants would have gone back through the questionnaire when answering the manipulation check question.

Future studies can also investigate whether this study’s findings would hold for audit committee financial experts having non-accounting financial expertise, because in the current study financial expertise was operationalized by a description of an accounting expert. Also, the audit committee described in the current study had no other members with financial expertise. Future research should address whether the current study’s findings would hold when there are other audit committee members who are financial experts. Another interesting area for future research is to examine what type of information investors seek out about audit committee members and whether this includes financial expertise.

References


Spirituality, Psychological Capital and Employee Performance: An Empirical Examination

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Spirituality has increased in global popularity amongst the general public and has started to permeate the boundary of traditional organizations (Karakas, 2010). Indeed, the interest in spirituality has contributed to the increasing level of academic research on the topic (e.g., Afşar and Rehman, 2015; Milliman et al., 2017; Roof, 2015; Tzouramani and Karakas, 2016). Due to its increasing popularity, management scholars have shown interest in how the spirituality of an organization’s employees might affect organizational outcomes, and more specifically, aspects of organizational and employee performance (Garcia-Zamor, 2003; Giacalone and Jurkiewicz, 2003). Unfortunately, the mechanisms through which employee spirituality impacts employee performance are still relatively vague and not well articulated. Instead, research focusing on employee spirituality has examined its impact across a wide range of organizational phenomena such as change (Dehler and Welsh, 1994), leadership (Phipps, 2012; Reave, 2005), and engagement (Devi, 2016; Roof, 2015). Despite the growing interest in the consequences of spirituality, it is still unclear how one critical driver of organizational performance, individual employee performance, is impacted by the employee’s spirituality.
According to a Pew Research Report, the number of Americans who report experiencing a deep sense of spirituality at least once per week had increased to 59% as of 2014 (Masci and Lipka, 2016). When individuals come to work, they inevitably bring their experiences, personalities, and beliefs with them into the workplace. These experiences outside of work have an effect on how an individual acts and performs while at work (Edwards and Rothbard, 2000). As a result, it is argued that organizations need to better understand how spirituality impacts action and performance in the workplace. Researchers have recognized this and have called for more theoretical and empirical exploration into the employee spirituality and performance link (Giacalone et al., 2005; Tepper, 2003). This study answers the call in the extant literature and highlights the important role employee spirituality plays in the workplace.

Psychological capital (PsyCap) has also received an increasing amount of attention in the management literature over the past decade (Newman et al., 2014; Youssef-Morgan, 2014). PsyCap is a higher order construct consisting of hope, optimism, self-efficacy, and resiliency (Luthans and Youssef, 2004). PsyCap has consistently been shown to have a positive impact on a variety of employee attitudes and performance outcomes in work settings (Avey et al., 2011; Luthans et al., 2007), as well as a negative relationship with counterproductive work behaviors (Mills et al., 2013). However, as much is known about the consequences of PsyCap, existing work has highlighted the relative scarcity of research dedicated to understanding what elements create a foundation for an individual’s level of PsyCap (Avey, 2014; Newman et al., 2014).

Answering calls from scholars in the spirituality and PsyCap domains, the authors integrate both literatures and suggest that spirituality is an individual difference variable to consider with respect to how it may impact PsyCap. Aside from an intuitive connection between spirituality and PsyCap, personality and cognition research suggests a relationship may be present. By integrating these related literatures, two primary contributions are made to the management literature. First, the findings contribute to the spirituality literature by showing spirituality is important for organizations and has an indirect connection to employee performance. Second, the findings contribute to the PsyCap literature by showing spirituality is associated with employee PsyCap.

LITERATURE REVIEW

Spirituality

Spirituality plays an important part in a majority of people’s lives around the world. As important as spirituality is to a vast amount of the earth’s population, no consensus on what is meant by spirituality exists (Dent et al., 2005). Most definitions however, include three interrelated ideas (Karakas, 2010; Liu and Robertson, 2011; Mitroff and Denton, 1999). First, spirituality is about self-awareness and the search for meaning and purpose in life. This aspect, widely referred to in the existing literature as transcendence (Giacalone and Jurkiewicz, 2003), has also been called self-discovery (Delaney, 2005). For the purposes of this study, self-discovery is adopted so that the definition of spirituality used in this study aligns with the empirical measurement of the construct. Spirituality’s second component is relationships. These relationships occur between humans and a higher power; humans and other humans; and humans and other living things. Finally, spirituality is an awareness of a higher power, as well as the general feeling of holism. This includes recognition that each person is part of a larger ecosystem which includes

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nature, the earth and the entire universe. This dimension has been called many things including eco-spirituality (Rican and Jansová, 2005), environmental well-being (Gomez and Fisher, 2003), and eco-awareness (Delaney, 2005). For the purposes of this study, eco-awareness is adopted to maintain consistency between the measurement of the construct and its conceptual definition. Taking these three general dimensions into account, the authors define spirituality as a deeply personal experience of self-discovery, connection to a higher power and other living things, and an awareness of one’s presence in the living universe as they search for meaning and purpose in life.

While spirituality has been used synonymously with religiosity, the authors along with existing research in the spirituality domain consider them separate concepts (e.g., Garcia-Zamor, 2003; Mitroff and Denton, 1999). The concept of spirituality represents a more holistic and personal view of one’s self and their connection to the environment. Alternatively, religion represents institutionalized beliefs which are bounded by doctrine, tenets, dogma, scripture, structure, authority, and group-level worship (Zinnbauer et al., 1999). The authors have chosen to focus on spirituality in this present study.

The research linking spirituality to employee performance has been slowed by several limitations. First, the research is sparse and has largely been commentary or theoretical in nature rather than empirical. The majority of these contributions are also over a decade old. Second, the existing empirical research tends to come from non-Western cultures where spirituality is viewed differently than in the United States, thus it is difficult to know if the relationships translate to U.S.-based working populations.

With respect to the theoretical nature of the literature, Ahmad and Omar (2015) argue spirituality in the workplace influences organizational citizenship behavior through its effect on employee work engagement. Tischler and colleagues (2002) have theorized spirituality may help to reduce stress and enhance creativity – both of which have been associated with improved work performance. Tepper (2003) has suggested that spirituality works through various mediating psychological mechanisms such as gratefulness, sensitivity to others’ needs, and tolerance for inequity, to impact citizenship behaviors. In a review of the spirituality and performance literature, Karakas (2010) explores the various mechanisms by which spirituality might impact performance, but does not actually explore studies in which spirituality has been empirically linked to performance. Many additional studies also argue for a link between spirituality and performance (e.g., Ashmos and Duchon, 2000; Garcia-Zamor, 2003; Giacalone and Jurkiewicz, 2003). These studies together suggest an association, albeit indirect, between employee spirituality and an employee’s performance at work.

Several, more recent, empirical studies appear to confirm the notion that an indirect association exists. For example, Kazemipour and colleagues (2012) found that workplace spirituality amongst nurses enhances extra-role performance through its effect on affective commitment, while Petchsawanga and Duchon (2012) found that spirituality improves work outcomes through meditation. Meditation helps to develop concentration, which reduces stress, and assists individuals in achieving insight and wisdom, which are all beneficial for problem solving. Finally, Osman-Gani and colleagues (2013) found that spirituality was positively related to employee performance, however they did not empirically establish the mechanisms through which spirituality impacts performance. It is of importance to note that each of the empirical studies described here uses a non-Western sample. Kazemipour and colleagues (2012) use a
sample of Iranian nurses, Petchsawanga and Duchon (2012) collected a sample from Thailand, and Osman-Gani and colleagues (2013) collected a sample from Malaysia.

Taken altogether, these studies seem to indicate that there is a link between spirituality and employee performance. However, this relationship is complex and likely not direct. Rather, spirituality seems to influence more proximal drivers of behavior, which in turn impact performance. In the existing research, the mediating mechanisms tend to be attitudinal such as engagement and affective commitment. Although spirituality may indeed drive attitudinal responses, the empirical research has yet to look at how spirituality might influence proximal cognitive variables which have been suggested in the conceptual literature – cognitive variables which may be responsible for driving behavior at work. It cannot be understated that invariably, when individuals are at work, they bring their individual characteristics, differences, and self-perceptions into the workplace, including their spirituality.

Psychological Capital (PsyCap)

In addition to spirituality, PsyCap has received much attention in the management literature in the past decade (Youssef-Morgan, 2014). PsyCap is a distinct, cognitive characteristic which is malleable and developable over time. PsyCap encompasses four components—self-efficacy, hope, optimism, and resilience (Luthans and Youssef, 2004). Self-efficacy is an individual’s confidence in one’s ability to complete a specified task (Bandura, 1982). Self-efficacious individuals set high goals for themselves, thrive on challenges, are highly self-motivated, invest effort towards their goals, and persevere (Luthans and Youssef, 2004). Hope is conceptualized as the cognitive ability to set realistic, yet challenging, goals and then develop paths and control behavior to attain such goals (Snyder, 2000). Optimism is the expectation of positive and desirable future outcomes (Seligman, 1998). Optimistic individuals attribute positive outcomes to personal abilities (Luthans and Youssef, 2004). Finally, resilience is the ability to come back from adversity or failure or, to push forward in the face of difficulty (Luthans et al., 2007). Together, these four elements represent PsyCap, which has been shown to have a positive impact on workplace attitudes and employee performance (Avey et al., 2011).

More specifically, the existing research has consistently found that PsyCap is a predictor of both job performance (Abbas et al., 2014; Avey et al., 2011; Bouckenooghe et al., 2015; Gooty et al., 2009) and extra-role performance like citizenship behaviors (Avey et al., 2010; Gooty et al., 2009). As well established as the PsyCap and performance relationship appears to be, there is much less work on which mechanisms create a foundation for PsyCap. Research in this area (see Newman et al., 2014 for a review) has focused on situational factors such as stressful work environments, leadership styles such as transformational leadership, or identity elements such as gender and ethnicity. Few studies have sought to understand how elements of an individual’s inner self might impact a person’s level of PsyCap.

THEORY

From a theoretical perspective, cognition and personality theories each suggest that a relationship between individual spirituality and PsyCap should exist. First, it is argued that spirituality and PsyCap are linked through a cognitive process as described in Cognitive Mediation Theory (Lazarus, 1991). In this process, cognitive knowledge and
appraisal, in this case PsyCap, mediates the relationship between elements of an individual’s personal being, as represented by spirituality, and an individual’s actions or behavior that result in performance outcomes. According to Lazarus (1991: 820), cognitive knowledge “consists of situational and generalized beliefs about how things work,” and appraisal “consists of an evaluation of the personal significance of what is happening in an encounter with the environment.”

Prior research has employed cognitive mediation arguments to describe aspects of personality affecting outcomes in work settings (e.g., Gellatly, 1996). Specifically in regards to PsyCap, Avey (2014) has suggested that PsyCap may be a cognitive appraisal mediator between more trait-like individual differences and individual responses. Across two studies, he found that individual differences were strong predictors of the variability in individual PsyCap. Avey and colleagues (2008) also suggest that the elements of PsyCap can represent employee psychological beliefs, expectancies and appraisals, which act as a source of attitude and behavior in organizations.

Second, research has suggested that spirituality is an individual difference variable (MacDonald, 2000; Piedmont, 1999). Individual differences may form the basis for how individuals think and act (Cantor, 1990). Research examining personality, cognition, and behavior in organizations have found that individual differences can influence a number of job performance characteristics (e.g., Barrick and Mount, 1991; Organ, 1994).

Hypotheses

Integrating the theoretical insights from cognitive mediation and personality theories, it is suggested that a relationship between spirituality and PsyCap exists. Indeed, individuals who are more spiritual engage in more coping strategies such as meditation and self-reflection (Karakas, 2010). These cognitive strategies have been found to provide individuals with greater clarity when diagnosing and solving problems, as well as enhanced concentration ability, which can result in a greater sense of peace and happiness (Petchsawanga and Duchon, 2012). An ability to more clearly diagnose and solve problems is critical in helping to achieve goals and understand what type of behavior is needed to achieve goals, thus providing a foundation for the development of pathways necessary for the PsyCap facet of hope. Furthermore, a sense of transcendence is the beginning of a search process for finding the best pathways to achieving wholeness and peace with what one is aspiring to be in life (Pargament, 1997).

Spirituality is also important for individuals trying to build resiliency. For instance, Lavine and colleagues (2014) suggest that spirituality is a great source for developing resiliency because it can renew vitality under stressful work conditions or difficult challenges. They also suggest that a feeling of connectedness and relationships with others is important for having the belief that one can overcome failures. Perhaps this is due in part because when people have others who believe in them, count on them, and want them to succeed, they tend to work harder so as to not let themselves and those other individuals down.

Spirituality has also been shown to play a part in peoples’ optimistic beliefs about themselves. Salsman and colleagues (2005) have found evidence that more spiritual individuals appear to have a more favorable outlook on their lives and their future. Van Cappellen and colleagues (2016) argue that spirituality creates more positive emotional states, which in turn can impact well-being and feelings of optimism. Spiritual
individuals are also thought to take comfort in knowing that a higher power is present in their life which serves as a beacon or guide, thus reducing the stress of uncertainty and improving one’s outlook for positive life developments (Carlson et al., 1988). Expectations for positive life developments form the basis for individual optimism. Thus, individuals higher in spirituality should also be higher in optimism.

Lastly, spirituality should also affect individual levels of self-efficacy. Duffy and Blustein (2005) found that spiritual individuals were more confident in their ability to make career decisions as a result of believing their spiritual beliefs provided more self-resources to cope with potential career obstacles. Similarly, Ferguson’s (1980) meta-analysis of meditation and internal locus of control revealed the average effect size for engaging in spiritual meditation techniques were near twice that of secular meditation techniques on affecting levels of internal locus of control. More recently, research by Jun and Lee (2016) have found that spirituality and self-efficacy were positively related in a sample of nurses transitioning into the workforce. They argue that spirituality serves as a foundation for enhancing self-efficacy because it acts as a reflective tool which helps people transform their prior experiences and knowledge into competence when they are faced with difficult situations. Finally, Godwin and colleagues (2016) have theorized that spirituality can impact self-efficacy through its effect on self-leadership activities like self-talk and mental imagery.

Combining these differing insights, it is suggested that spirituality acts as a foundation for the necessary elements of PsyCap. More formally:

**Hypothesis 1: Spirituality will be positively related to PsyCap.**

Simply believing in a higher power, feeling connected to others and the environment, and experiencing transcendence through life experiences, does not necessarily mean that one will perform better in the workplace. Thus, in addition to Hypothesis 1, it is also theorized that spirituality will impact employee performance indirectly through a mediating relationship. More specifically, PsyCap will serve as a cognitive mediator between spirituality and employee performance. The PsyCap literature is robust with respect to its relationship with various employee performance metrics. For instance, several studies have found a positive relationship between PsyCap and task performance as well as a positive relationship between PsyCap and extra-role performance (citizenship behaviors) (e.g., Avey et al., 2011; Gooty et al., 2009). More recent examinations of the PsyCap and performance relationship have revealed similar, strong positive associations (e.g., Rabenu et al., 2016).

PsyCap is expected to impact performance in a number of ways. For instance, it has been suggested that PsyCap helps individuals feel more confident and stimulates positive thinking (Abbas et al., 2014) and that it helps to reduce stress, as well as improves mental strength needed to cope with job demands (Baron et al., 2016). Furthermore, Bouckenooghe and colleagues (2015) argue that PsyCap helps individuals develop positive thoughts and energy which can be focused at job-related tasks, while Gooty and colleagues (2009) suggest that PsyCap drives individuals to achieve work-related goals and persevere in the face of challenges. Gooty and colleagues (2009) also suggest that PsyCap may impact citizenship behaviors as PsyCap is related to positive cognitive evaluations of the workplace and organization.
With respect to a mediation relationship between spirituality and performance, while there has been research which finds spirituality is directly related to employee performance (Osman-Gani et al., 2013), the vast majority of the spirituality and performance literature has recognized the indirect nature of the relationship. Indeed, as litigated in the literature review, the theoretical and empirical work has suggested that spirituality influences a number of intervening variables, which in turn impact employee performance at work (e.g., Kazemipour et al., 2012; Petchsawanga and Duchon, 2012; Tepper, 2003; Tischler et al., 2002). In line with previous studies, spirituality should impact performance but that effect will be carried through PsyCap. Thus, it is hypothesized:

_Hypothesis 2: PsyCap will mediate the relationship between spirituality and employee performance._

**METHOD**

**Sample and Procedure**

Participants were recruited by undergraduate students at four Midwestern universities to participate in the study. The students recruited one or two working adults to participate as a focal employee in an online survey in exchange for extra course credit. The focal employee then asked their immediate supervisor to complete a supervisor survey. Obtaining participants responses from two different sources has been used in other studies to mitigate concerns of same source bias (e.g., Grant and Mayer, 2009).

A total of 236 focal employees and 133 supervisors completed the survey. After matching focal employee and supervisor responses, as well as applying listwise deletion (all study variables had to be fully answered), the total sample consisted of 115 usable focal employee-supervisor dyads. The focal employee sample was 44% female and an average age of 37.30 years. The supervisor sample was 39% female with an average tenure at the current organization of 11.29 years. The supervisor reported the focal employee had been under his or her direct supervision for an average of 3.78 years. Approximately 95% of the focal employees and supervisors were employed full-time (greater than 35 hours per week).

**Measures**

**Spirituality.** Spirituality was rated by the focal employee with 22 items developed by Delaney (2005). Participants indicated their agreement to the items on a five-point Likert scale (1 = strongly disagree; 5 = strongly agree). This scale consists of three dimensions: self-discovery, relationships, and eco-awareness. An example item from the self-discovery dimension is “I find meaning in my life experiences.” An example item from the relationships dimension is “I value maintaining and nurturing my relationships with others.” Example items from the eco-awareness dimension are “I live in harmony with nature” and “I believe there is a connection between all things that I cannot see but can sense.” Cronbach’s alpha (α) for spirituality scores was 0.94. This measure of spirituality encompasses the three facets presented in the definition.

**Psychological Capital.** PsyCap was measured by the focal employee using the 24-item PsyCap measure developed by Luthans and colleagues (2007). Participants
indicated the extent to which they agreed with the items on a seven-point Likert scale (1 = strongly disagree; 5 = strongly agree). This scale consists of the four components of PsyCap: hope, efficacy, resilience, and optimism. An example hope item is “There are lots of ways around any problem.” An example item for the efficacy dimension is “I feel confident helping to set targets/goals in my work area.” An example resilience item is “I feel I can handle many things at a time at this job.” An example item from the optimism dimension is “I always look at the bright side of things regarding my job.” Cronbach’s alpha (α) for PsyCap scores was 0.90.

**Employee Performance.** Employee performance was examined with three measures: task performance, organizational citizenship behavior – individual (OCB-I), and organizational citizenship behavior – organization (OCB-O). Task performance represents the effectiveness of an employee to perform their stated job duties and contribute to the organization’s technical core (Borman and Motowidlo, 1993). Organizational citizenship behaviors are behaviors performed by an employee that are not formally a part of the employee’s job duties, but contribute indirectly to the functioning and performance of the organization (Organ, 1997).

**Task Performance.** Task performance was rated by the supervisor using four items developed by Williams and Anderson (1991). Supervisors indicated their agreement regarding the items on a five-point Likert scale (1 = strongly disagree; 5 = strongly agree). An example item is “He/she fulfills responsibilities specified in his/her job description.” Cronbach’s alpha (α) for task performance scores was 0.70.

**Organizational Citizenship Behavior - Individual.** Organizational citizenship behavior - individual (OCB-I) was assessed by the supervisor using eight items developed by Lee and Allen (2002). This scale consists of OCBs directed toward other individuals. Supervisors were asked to indicate their agreement regarding the items on a five-point Likert scale (1 = strongly disagree; 5 = strongly agree). An example item from the scale is “Helps others who have been absent.” Cronbach’s alpha (α) for OCB-I scores was 0.89.

**Organizational Citizenship Behavior - Organization.** Organizational citizenship behavior - organization (OCB-O) was assessed by the supervisor using eight items developed by Lee and Allen (2002). This scale consists of OCBs directed toward the organization. Supervisors were asked to indicate their agreement regarding the items on a five-point Likert scale (1 = strongly disagree; 5 = strongly agree). An example item from the scale is “This employee offers ideas to improve the functioning of the organization.” Cronbach’s alpha (α) for OCB-O scores was 0.89.

**Control Variables**

Isolating the unique impact of spirituality on employee performance was important. Thus, two theoretical constructs, which may operate in a similar manner as spirituality, were identified: moral identity and agreeableness. Those who strongly identify with the high moral concepts of society may behave in a similar manner to those who identify as highly spiritual. Further, the agreeableness facet of personality is the most similar facet of personality to spirituality and thus may share some theoretical overlap with respect to relationships, particularly in terms of being sympathetic and kind to others. Additionally, since relationship and organizational tenure may impact supervisor ratings of performance (Wayne et al., 2002), they were also included as controls.
**Moral Identity.** The moral identity of the focal employee was measured using the ten-item scale developed by Aquino and Reed (2002). The focal employee was asked to visualize in their mind, the kind of person that would possess the following characteristics: caring, compassionate, fair, friendly, generous, helpful, hardworking, honest, and kind. After they had a clear image of what this person would look like, they responded to items on a five-point Likert scale (1 = strongly disagree; 5 = strongly agree). An example item is “Being someone who has these characteristics is an important part of who I am.” Cronbach’s alpha (α) for moral identity scores was 0.77.

**Agreeableness.** Agreeableness was measured by the focal employee using eight items from the measure of the Big Five personality traits (Goldberg, 1992; Saucier, 1994). Focal employees indicated the extent to which they believe they possess the characteristics on a five-point Likert scale (1 = strongly disagree; 5 = strongly agree). Example characteristics are “Cooperative” and “Sympathetic.” Cronbach’s alpha (α) for agreeableness scores was 0.82.

In addition to controlling for constructs similar in nature to spirituality, a variety of demographic information including the relationship tenure between the supervisor and focal employee, organizational tenure of the focal employee, sex, race, and age of the employee were also included.

**Relationship Tenure.** The length of time the focal employee was under the direct supervision of the supervisor was included as this may influence ratings administered by the supervisor. The average relationship tenure was 3.78 years (SD = 4.71).

**Organizational Tenure.** Supervisor ratings of task performance, OCB-I, and OCB-O may be influenced by the number of years the focal employee has worked for the organization. The average organizational tenure was 5.37 years (SD = 6.45).

**Focal Employee Demographics.** The sex, race, and age of the focal employee was included. Sex was coded such that 1 = male and 2 = female. The focal employee selected from six race options: African American, Asian, Hispanic, Native American, White/Caucasian, and Other. Lastly, employees selected their age closest to one year increments.

**Analysis of the Measurement Model**

The distinctiveness of the constructs used in the study (spirituality, PsyCap, task performance, OCB-I, OCB-O, moral identity, and agreeableness) were examined with a confirmatory factor analysis (CFA) using maximum-likelihood estimation. Three empirically equivalent parcels were created to measure spirituality, OCB-I, OCB-O, moral identity, and agreeableness to maintain a desired indicator-to-sample size ratio (Bagozzi and Edwards, 1998; Little et al., 2002). Four theoretically-derived parcels were used to measure PsyCap; one parcel each for hope, efficacy, resilience, and optimism.

The seven-factor measurement model was an acceptable fit to the data ($\chi^2 = 333.53$, $df = 231$, $ns$, RMSEA = 0.06, CFI = 0.95, TLI = 0.94, SRMR = 0.06). The seven-factor measurement model suggested a better fit over a six-factor measurement model which allowed spirituality and PsyCap items to load on the same factor ($\Delta \chi^2 = 84.74$, $\Delta df = 6$, $p < 0.05$, $\Delta$RMSEA = 0.02, $\Delta$CFI = -0.05, $\Delta$TLI = -0.05, $\Delta$SRMR = 0.01). The seven-factor measurement model suggested a better fit over a six-factor measurement model in which the spirituality and moral identity items were allowed to load on the same factor ($\Delta \chi^2 = 132.33$, $\Delta df = 6$, $p < 0.05$, $\Delta$RMSEA = 0.03, $\Delta$CFI = -0.07, $\Delta$TLI = -0.08, $\Delta$SRMR
Last, the seven-factor measurement model suggested a better fit over a five-factor measurement model in which OCB-I, OCB-O, and task performance were allowed to load onto one factor ($\Delta \chi^2 = 233.08$, $\Delta df = 11$, $p < 0.05$, $\Delta RMSEA = 0.05$, $\Delta CFI = -0.12$, $\Delta TLI = -0.14$, $\Delta SRMR = 0.01$).

RESULTS

Three path analyses, one for each dependent variable of task performance, OCB-I, and OCB-O, were used to test the hypotheses. Current practices in mediation analyses were followed (Hayes, 2009) by directly estimating the indirect effect of spirituality on task performance, OCB-I, and OCB-O through PsyCap. Point estimates of the indirect effects, direct effects, and the 95% confidence intervals around the effects were attained using a bootstrapping method of 5,000 bootstrap samples (cf., Preacher and Hayes, 2004; Williams and MacKinnon, 2008).

Table 1 provides the means, standard deviations, and bivariate correlations of the study variables. Table 2 presents the unstandardized results of the path analyses involving task performance, OCB-I, and OCB-O, respectively. Consistent with Hypothesis 1, spirituality was positively and significantly related to PsyCap ($\beta = 0.46$, $p < 0.05$). Depicted in Table 2, spirituality explained 37% of the variance in PsyCap. Further, the model explained 13% of the variance for task performance, 11% of the variance for OCB-I, and 20% of the variance for OCB-O.

To assess Hypothesis 2, the significance of the full path model was tested. Point estimates of the direct effect of spirituality on task performance, OCB-I, and OCB-O and the indirect effect of spirituality on task performance, OCB-I, and OCB-O through PsyCap were produced. The direct effect of spirituality on task performance (Model 1) was not statistically significant ($\beta = 0.01$, $p = ns$). However, the indirect effect of spirituality on task performance through PsyCap showed 95% bootstrapped lower and upper confidence intervals (0.04, 0.32) that do not contain zero. Therefore, PsyCap mediates the effect of spirituality on task performance.

The direct effect of spirituality on OCB-I (Model 2) was not statistically significant ($\beta = 0.06$, $p = ns$). However, the indirect effect of spirituality on OCB-I through PsyCap showed 95% bootstrapped lower and upper confidence intervals (0.01, 0.28) that do not contain zero. Therefore, PsyCap mediates the effect of spirituality onto OCB-I. The direct effect of spirituality on OCB-O (Model 3) was not statistically significant ($\beta = -0.10$, $p = ns$). However, the indirect effect of spirituality on OCB-O through PsyCap showed 95% bootstrapped lower and upper confidence intervals (0.06, 0.37) that do not contain zero. Therefore, the results indicate that PsyCap mediates the effect of spirituality onto OCB-O. Taken together, results from the three path analyses provide support for Hypothesis 2. Visually, Figure I presents the diagram of the path results.

Since all the measures were of a cross-sectional nature, which makes it difficult to make claims regarding causality, alternative model specifications were run to provide empirical support for the proposed temporal sequence. Specifically, spirituality did not mediate the relationship between PsyCap and task performance, OCB-I, or OCB-O.
<table>
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<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
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<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
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<tbody>
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</tr>
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<tr>
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<tr>
<td>5. OCB-O</td>
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<td>0.51*</td>
<td>0.66*</td>
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<td>0.14</td>
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<td>0.51*</td>
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<td>0.66*</td>
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<tr>
<td>10. Sex of Focal Emp.</td>
<td>--</td>
<td>--</td>
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<td>-0.19*</td>
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<td>0.01</td>
<td>0.13</td>
<td>0.37*</td>
<td>0.47*</td>
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</tr>
</tbody>
</table>

Note: N = 115; OCB-I = Organizational Citizenship Behavior-Individual; OCB-O = Organizational Citizenship Behavior-Organization

Sex (1 = male, 2 = female)

*p < 0.05
### Table 2
Path Model Results

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th></th>
<th>Model 2</th>
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<th>Model 3</th>
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<td>$R^2$</td>
<td>B</td>
<td>SE</td>
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<td></td>
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<td>0.37*</td>
</tr>
<tr>
<td>Constant</td>
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<td>0.39</td>
<td></td>
<td>2.41*</td>
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<td>0.46*</td>
<td>0.07</td>
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<td>-0.09</td>
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<td>0.24</td>
<td>0.14</td>
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<tr>
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<td>0.06</td>
<td>0.12</td>
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<tr>
<td>Moral Identity</td>
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<td>-0.03</td>
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<td>Agreeableness</td>
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<tr>
<td>Relationship Tenure</td>
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<td>0.01</td>
<td></td>
</tr>
<tr>
<td>Organizational Tenure</td>
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<td>0.09</td>
<td></td>
<td>0.19</td>
<td>0.11</td>
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<tr>
<td>Race</td>
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<td>0.06</td>
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<tr>
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<td></td>
<td>0.00</td>
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<tr>
<td>Bootstrap indirect effect</td>
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<td>0.11</td>
<td>0.07</td>
<td>0.18</td>
<td>0.07</td>
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<tr>
<td>95% Bootstrap (LCI, UCI)</td>
<td>[0.04, 0.32]</td>
<td>[0.01, 0.28]</td>
<td>[0.06, 0.37]</td>
<td>[0.06, 0.37]</td>
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<td></td>
</tr>
</tbody>
</table>

(Note: N = 115, *p<0.05)
DISCUSSION

The results of the current research have implications for both theory and practice. In terms of implications for theory, this study makes two important contributions to the extant literature. First, although theory has suggested spirituality might impact employee performance through more proximal psychological variables (Tepper, 2003), the results empirically show that there indeed appears to be a relationship, albeit indirectly. The findings of the current research are in line with existing research which has suggested that spirituality is linked to a number of performance domains such as creativity (Tischler et al., 2002), concentration and clarity (Petchsawanga and Duchon, 2012), engagement (Ahmad and Omar, 2015), and commitment (Kazemipour et al., 2012), which are necessary to perform at high levels in an organization.

However, the findings here highlight that spirituality operates through various mediums to impact performance at work. The present study was among the first to investigate how spirituality influences malleable individual psychological variables which are more proximal in nature and may be better predictors of performance. The research findings show that spirituality indeed appears to be positively associated with PsyCap. Results also suggest task performance and citizenship behaviors are subsequently affected in a positive way. Since spirituality has been argued to be engrained within the individual, spirituality appears to provide a backdrop for how individuals think about, feel, and perceive themselves and their work environment. This finding is important because it improves understanding of how broadly spirituality operates in terms of influencing cognition and, indirectly, behavior that is associated with improved employee performance.
A second contribution of the present research is to the PsyCap literature. Research on PsyCap tends to conceive of PsyCap as an antecedent variable. In some respect, the current study does as well. However, the current research also conceptualizes PsyCap as an outcome variable in which spirituality is an important antecedent. This is an important finding since PsyCap has been linked to numerous positive organizational outcomes such as employee performance and job satisfaction (Luthans et al., 2007), commitment and psychological well-being (Avey et al., 2011), as well as problem solving and innovation (Luthans et al., 2011).

Prior research has recognized that little is known about how or why individuals attain or sustain certain levels of PsyCap (Avey, 2014). Spirituality is often associated with a greater sense of self-awareness as well as having a clear and quiet mind (Karakas, 2010). Greater clarity as employees face an increasingly complex work environment may help with problem solving and goal attainment (Petchsawanga and Duchon, 2012). Spirituality can also result in greater levels of confidence, which can help improve one’s outlook on life and feeling of self-worth (Carlson et al., 1988; Salsman et al., 2005). Spirituality has also been shown to renew vitality, which can be important in stressful work environments, which can detract from PsyCap (Lavine et al., 2014). As a result of these factors, spirituality may be an important foundational element of PsyCap. Having a better understanding of what contributes to PsyCap can not only help organizations and managers find the right people to hire but also how to support them once hired.

From a practical perspective, the authors believe the results of this study can be important for managers as they look to improve their organizations. For instance, organizations may want to encourage spirituality-building activities and reap the benefits of better performing workers. The suggestion is not for organizations to turn into full-fledged spiritual workplaces, but to accept and encourage employees to engage in activities that enhance spirituality such as meditation, prayer, or self-reflection, and to provide employees with resources in their wellness programs at work to improve their spirituality. Organizations may also consider encouraging employees to pursue spiritual activities outside of work. Finally, organizations may draw on this study’s results to inform their human resources practices. Questionnaires can be developed which take into account a person’s level of spirituality – higher scores may be predictive of an individual that will perform better at work.

Limitations

The results of the present research should be interpreted in light of the limitations of this study. First, all variables were measured using survey instruments, thus common method variance may be of a concern. Attempts were made to reduce same source biases by using multiple source field data (Podsakoff et al., 2006). Second, all measures were cross-sectional in nature, prohibiting any definitive statements about causality. While it is not possible to definitively make such claims, the literature supports the hypothesized relationships presented. Furthermore, alternative model specifications provided empirical support for the proposed temporal sequence. Third, although time was taken to identify similar constructs to control for in the model, religiosity was not accounted for. While this needs to be taken into account when interpreting the results, it is important to note that the limited existing empirical analyses examining spirituality and performance also do not include religiosity as an explanatory variable (e.g., Kazemipour et al., 2012; Petchsawanga and Duchon, 2012).
Finally, the measure of spirituality takes a snapshot of an employee’s spirituality at a moment in time. It has been suggested that spirituality is a process or a journey of coming into one’s beliefs, relationships, connections, and transcendence (e.g., Lapierre, 1994). This discrepancy between empirical measurement of the construct and the theoretical supposition is fully acknowledged, and the authors would be remiss to not mention it as a limitation of the present study.

Future Research

As a result of the present research, there are numerous areas of potential research to explore. First, the limitations of the present research represent one avenue of future inquiry. Future research may seek to collect multi-source, multi-method, time-series data to enhance the external validity of the findings and the temporal arrangement of the constructs. Researchers could also expand data collection beyond a domestic sample to include international participants.

An additional avenue of future research may consider a more expansive model which explores the multi-faceted nature of spirituality. A higher order spirituality construct is used in this study, future research may wish to break out the different facets (self-discovery, eco-awareness, and relationships) of spirituality and assess the impact that each facet has on variables such as PsyCap. Perhaps each facet of spirituality has a differential impact on attitudes, cognitions, and behaviors. Finally, future research may also explore other intervening and moderating variables that impact the relationship between spirituality and work outcomes. A natural starting point might be to look at other positive organizational behavior constructs similar to PsyCap such as core self-evaluations or self-esteem. Research focusing on these ideas can provide a better understanding of how spirituality influences important work outcomes.

CONCLUSION

The present study examined the relationship between spirituality and various types of employee performance. Results from path analyses indicate that spirituality is indeed related to employee performance, however the effect is fully carried through the medium of PsyCap. Thus, this study provides some evidence of the utility of spirituality as it relates to employee performance in organizations. Future research should continue to uncover the mechanisms by which spirituality impacts organizations today.

References


SPIRITUALITY AND PSYCHOLOGICAL CAPITAL


Mediation of Affective Organizational Commitment.” *Journal of Nursing Scholarship* 44(3):302-310.


Leaders today face a growing variety of demands due to fluctuating organizational environments and the varying role expectations of those in leadership throughout the organization (Holmberg et al., 2016). Competent, effective leaders are often lacking in organizations (Rothwell, 2010), with disastrous results. Poor leadership has been identified as a primary reason for failures of organizations large and small, including notables such as Bear Sterns and Enron (Reeves et al., 2012). Competition for highly talented leaders, recent high profile organizational failures, chaotic economic swings, and rapidly changing technology and demographics are a few of the motivators that highlight the need to develop employees in-house to become effective leaders (Gusain, 2017; Higgs and Rowland, 2010). The inadequate leadership skills of employees is recognized by many firms, some of which have responded by implementing formal training to develop their employees’ competencies and enhance their performance (Day et al., 2014; Avolio et al., 2010).
Although leadership is increasingly seen as a source of competitive advantage or a component of strategy, many organizations lack employees who are fully equipped to assume leadership positions (Day, 2001; Reichard and Johnson, 2011). Leadership development programs have increased in popularity, however, the difficulty in developing employees with the right skills and abilities that are needed to rise to positions of leadership within organizations is also understood (Cadrain, 2005; Ortega et al., 2013). When related work experiences are combined with formal development opportunities, many senior leaders acknowledge that an individual’s leadership capabilities can be further developed; yet, managers posit that the lack of a formal leadership development process stunts the development of new leaders (“Survey Says: Leadership,” 2004). Although there exists a perception that formal leadership development programs (LDPs) are lacking, the number of such programs has actually increased in recent years (Hernez-Broome and Hughes, 2004; Sorenson, 2016). While LDPs have historically been aimed at developing specific skills (Mumford et al., 2007; Tonidandel et al., 2012), Holmberg et al. (2016: 155) suggest that they should focus on “broader capacities” in response to the need for managerial roles to be more flexible.

The quickly changing work environment in the field of healthcare, combined with the increasing focus on globalization, have highlighted the need to develop leaders who are effective and dynamic (Fisher, 2010). Consequently, this descriptive quantitative case study was designed to investigate the skills and behaviors that are necessary components of effective LDPs, specifically for sales employees in a pharmaceutical company. The findings of this study will aid organizations in the creation and implementation of effective LDPs, which will help prepare leaders who can successfully navigate the complex and changing work environment of a global organization. In this study, the terms manager and leader are used synonymously, similar to actual practice in sales leadership (Fisher, 2010; Goldberg and Ramos, 2006).

This study contributes to theory and practice in substantial ways. Theoretically, this research provides evidence of the components of effective LDPs, and reveals the importance of developing specific managerial skills and behaviors. In addition, suggestions to enhance LDP curriculum are offered, while future research is proposed to expand similar and related studies.

Organizational Challenges

Many organizations face the challenge of properly cultivating the next generation of leaders, especially for success in the marketplace of tomorrow. Given the surge of retirements among senior management-level executives, companies have a critical need to properly prepare less experienced managers for essential leadership positions within their firms (McClenney, 2001). Businesses must continually modify their LDPs in response to the ever-changing global economy (Peterson et al., 2003).

Research suggests that leaders at all levels influence the performance of an organization, thus, companies need to consider the effectiveness of leadership at various levels of the firm (Peterson et al., 2003). For example, Chaimongkonrojna and Steane (2015) studied leadership development targeted at middle managers, who must balance the needs of multiple stakeholders as they lead front-line staff while simultaneously maintaining smooth organizational operations (McGurk, 2009; Yukl, 2006). In addition, Nichols and Cottrell (2014) considered the traits subordinates want in their leaders and found that some traits were consistently desired (such as trustworthiness), yet the desire
for other traits varied based on the person’s level of leadership within the organization. In response to this finding, Nichols and Cottrell (2014: 727) suggested that “leadership training may focus on personality in addition to knowledge, skills, and abilities.”

THEORETICAL FOUNDATION

The impact of leadership on the success or failure of an organization has influenced the increasing number of LDPs offered by firms. Unfortunately, many companies fail to reap the full benefits of such programs (Hernez-Broome and Hughes, 2004). In response to the mounting pressure to maximize shareholder returns and compete in a global economy, many senior-level executives have recognized the urgent need to train their employees for leadership roles in the future. However, cultivating the next generation of leaders can be an overwhelming task in light of the challenges inherent with continual growth and change (Smith and Bledsoe, 2006).

Previous research suggests that leadership development involves recognizing the individual needs of each learner, current and desired skill levels, experience, personality, and the change in behaviors necessary for success (Day et al., 2009; deVries, 2012; Lord and Hall, 2005). As such, a one-size-fits-all program is insufficient to develop effective leaders who can successfully navigate the constantly changing global economy.

Leadership is a complex phenomenon that includes the interaction between the social environment of organizations and their leaders (Galli and Muller-Stewens, 2012). Effective organizations provide personalized training and development experiences that aid emerging leaders in translating the organization’s vision, mission, and strategic plan into actions. These emerging leaders will be better prepared to successfully execute the demands required of them in future leadership positions (McCauley et al., 1998). The importance of LDPs is not limited to organizational executives. Employees at all levels desire additional training focused on improving leadership skills (Center for Creative Leadership, 2003). With both employees and executives desiring development efforts targeted at tomorrow’s challenges, the need is pressing to refine and enhance LDPs.

Effective leadership development remains elusive, despite having been studied in depth (Day et al., 2014). Unfortunately, organizations devote little time to evaluating the success of LDPs or whether their programs actually meet the needs of individuals and their organizations (Collins and Holton, 2004). All too often it is assumed that leadership programs will improve both the firm and the individual (Zhang, 1999). Gilley et al. (2008) contend that organizations must continually evaluate the impacts of their training programs in order to successfully implement the transformational changes that are necessary to succeed in a competitive, global marketplace. Recent studies on ROI suggest an overall positive return on LDP investments (Avolio et al., 2010). After their review of 25 years of research on leadership development, Day et al. commented, “Leadership is something that all organizations care about. But what most interests them is not which leadership theory or model is ‘right’ (which may never be settled definitively), but how to develop leaders and leadership as effectively and efficiently as possible.” (2014: 79)

Leadership Development Programs

Effective LDPs incorporate a variety of experiences and knowledge acquired over time (Hernez-Broome and Hughes, 2004). Three key factors are instrumental in an
LPD, according to Lynham (2000). First is the impact on a person’s view of leadership that results from his or her childhood and adolescent development. The second factor is the impact of formal education on how people learn and their perspectives on training. According to McKim and Velez (2017), leadership development should be linked to specific learning experiences. Third, on-the-job experiences are critical, especially those that improve the leader’s knowledge, highlight leadership styles, and reflect the differences between leadership and management (Kotter, 1990).

McCall (1998) also identified three factors to consider in the development of LDPs. First, development occurs through challenging experiences. Second, experiences that are a function of both organizational values and business strategy are the most important. Third, challenging opportunities should be extended to the individuals who are most likely to learn from them. “Developing leadership ultimately boils down to what a person does with his or her opportunities and abilities” (McCall, 1998: 121). Consequently, organizations that provide opportunities for growth to their employees will be better able to identify those with an aptitude for leadership.

A list of best practices for LDPs was developed by The Hay Group (2005), whose researchers investigated the most admired companies in the world and identified common themes among their LDPs. The following common traits emerged:

- Development efforts are linked to the organization’s mission, strategy, and corporate values.
- Development is not a stand-alone concept. Instead, it is incorporated with other business functions, including the recruitment and selection process, promotions, and organizational succession planning.
- Through experiential learning, leaders have the chance to practice implementing desired behaviors in assignments or experiences that are connected to their jobs.
- Achieving business results is the focus. The connection between certain behaviors and the ability to achieve business results is clear.
- Self-assessment opportunities and feedback from multiple sources (e.g., co-workers, supervisors, etc.) help identify an individual's strengths and areas for development.
- Developmental plans are tailored to the individual, who helps create them.
- The process includes one-on-one coaching, which fosters continuous learning and development opportunities specifically targeted for that employee.

LDPs should be seen as a journey that ties experiences and theory to application in the future. Hernez-Broome and Hughes noted that “An array of developmental experiences must be designed and implemented that are meaningfully integrated with one another.” (2004: 28) Since the learning process is different for individuals, LDPs should be tailored to individuals, their strengths, and need for development (Hall et al., 2014). According to The Hay Group, an LDP’s purpose is to “develop talent, organize people to become more effective, and motivate them to perform at their best. The focus is on making change happen and helping people and organizations reach their potential” (2005: 12).

LDPs that are tied to desired organizational outcomes, goals, and objectives give participants clarity, purpose, and the sense of being invested in by the company.
(Sheppard et al., 2013). Research also suggests that involvement in LDPs positively influences the professional and personal lives of participants (Purdy, 2016).

**LDP Curriculum.** Skills and behaviors are frequently the focus of development programs, thus, it is appropriate to differentiate the terms. A *skill* is the ability to do something well, such as coach, evaluate, communicate, motivate, or manage change (Gilley et al., 2008). A *behavior* is one’s manner of acting, such as treating employees consistently, encouraging growth and development, promoting teamwork and collaboration, soliciting feedback and involving others in decision-making, or being ethical (Miner, 2003).

Leadership literature offers insight into the critical skills and behaviors necessary for effective LPDs, including communicating appropriately, giving individualized attention to employees, motivating others, empowering/involving others, promoting teamwork and collaboration, treating others fairly, supporting employee growth and development, and coaching (McAlearney, 2008; Muller and Turner, 2010; Seemiller and Murray, 2013).

**Training**

As Baby Boomers reach retirement age, it is critical that organizations effectively train new leaders to advance into leadership roles vacated by their retirees. Previous research has noted that training is a key element in LPDs (Fulmer and Goldsmith, 2001). In response to LDPs becoming more commonplace, organizations must ensure that their programs are effective in producing desired outcomes (Purdy, 2016). To do so, firms must enhance the developmental readiness of their employees to ensure that their programs cultivate and accelerate leaders’ skills and abilities (Avolio and Hannah, 2008). This study adds to the literature that investigates LDPs and contributes by identifying the essential elements to be addressed by LDPs prior to individuals assuming leadership roles.

**METHODOLOGY**

A descriptive quantitative approach was used for this study in order to better understand the skills and behaviors that are critical for leaders to possess and how these impact the creation of effective LDPs. The sample utilized in this study consisted of employees from a global pharmaceutical company with nearly 11,000 employees in the United States. The organization offers learning and growth opportunities, yet seeks to develop an LDP that is more effective in preparing leaders to succeed in a constantly changing marketplace.

Data were gathered from three organizational levels, including district sales managers, regional managers, and sales specialists. Such a stratification sample allows for each group to be viewed independently, in addition to identifying commonalities among the groups, and increases the study’s depth and insight (Babbie, 2004).

Factor analysis and step-wise regressions were utilized to isolate variables perceived as critical to leader effectiveness and, consequently, for inclusion in organizational leadership development programs.
Research Questions

This study was guided by the following research questions:

1. From the perspective of district managers, how effective are their direct managers in displaying effective skills, behaviors, and practices in leadership?
2. From the perspective of district managers, which leader skills, behaviors, and practices are most critical to the success of managers?
3. From the perspective of sales representatives, how effective are their direct managers in displaying effective skills, behaviors, and practices in leadership?
4. From the perspective of sales representatives, which leader skills, behaviors, and practices are most critical to the success of managers?

Survey Instrument

This study utilized the Gilley and Gilley Managerial Practices Survey (GGMPS), a previously validated instrument (Gilley et al., 2008). The GGMPS employs a five-point Likert-type scale, with frequency options ranging from never (1) to always (5). Respondents rated “My Manager” and indicated the frequency with which their direct managers effectively exhibited specific skills, abilities, and practices.

Skills included the ability to coach others, evaluate, reward, communicate, motivate, and implement change. Behaviors included treating employees fairly and consistently, creating a hostile work environment, encouraging teamwork and collaboration, treating employees as unique, encouraging growth and development, and involving employees in decision-making. Organizational practices included placing qualified personnel in management positions, holding managers accountable for securing results, selecting the best performers, remediation for managers who had made mistakes, and treatment of poor or ineffective managers. Specific questions by skill, behavior, and practice are in Table 1. Demographic questions were asked in another part of the survey.

Sample Population

The population of this research study included district sales managers, regional sales managers, and sales representatives in the western United States who worked for a global pharmaceutical firm. The surveyed area included eight regions, each with seven or eight districts. Approximately eight to 13 sales specialists are assigned to each district. The potential population included 40 district managers, eight regional sales managers, and 442 sales representatives.

RESULTS

Data collection occurred over a four-week period. The survey was distributed via email, and participants received subsequent email invitation reminders after two weeks, and then one week later. One additional email was sent to regional managers to encourage their participation. Ultimately, 273 out of 490 possible participants completed the survey, for a response rate of 56%; 1.6% of responses were from regional sales managers, 11.7% from district managers, and 86.7% from sales representatives.
Responses from 23 individuals who reported less than one year of tenure with the organization were excluded from the data analysis to ensure that respondents had sufficient organizational experience and insight into the company.

**Demographics**

Responses revealed diversity in organizational tenure. Nearly 30% of respondents indicated they had 1-5 years of experience with the company, while 22% had 4-6 years. Approximately one-fourth of the respondents (25.1%) had been with the organization for 7-10 years, and 8.5% had 11-14 years of experience with the company. Slightly more than 5% of respondents had been with the company for 15 or more years, and 0.5% of the respondents did not report their organizational tenure. When asked how long they had been employed in their current position, almost 10% of respondents reported less than one year (9.7%), while 19.4% indicated 1-3 years. Over one-third (35.5%) had been in their position for 4-6 years, while 23.7% had been in their role for 7-10 years. Only 5.4% of the sample had worked in their position for 11-14 years, and 5.8% reported more than 15 years. Less than 1% of respondents (0.5%) did not report their length of employment in their current role.

With regard to gender, the distribution slightly favored females (57.7%), although 1% of respondents did not indicate their gender. Of managers who completed the survey, the majority (75.2%) were male. Only 1.2% of respondents were under the age of 25, 37.2% were 26-35, and 41.7% were 36-45 years of age. Respondents aged 46-55 made up 15% of the sample, 4.5% were 56-65, and 0.4% failed to report their age.

**Statistical Analysis**

The reliability and dimensionality of the measurement items were tested by analyzing their internal consistency (Cronbach’s alpha) and performing a factor analysis. Cronbach’s alphas for skills, behaviors, and practices were 0.897, 0.883, and 0.402, respectively. Consequently, the CA’s are reliable for skills and behaviors (Gliem and Gliem, 2003). These findings are consistent with previous research that used the same instrument and yielded a Cronbach’s alpha of 0.860 (Gilley et al., 2010). The low score for practices may be due to the small number of items in that construct; consequently, practices were removed from analysis. Descriptive statistics are in Table 1.

Factor analysis tested for uni-dimensionality. The highest two values of factor loading results for perceived individual and organizational managerial effectiveness were calculated. The two highest skills were “motivates” (0.887) and “communicates” (0.803), while the two highest behaviors were “treats employees as unique” (0.835) and “supports growth and development” (0.817). The factor loadings (standardized regression weights) of each item, except for question 3, are all above 0.30 and thus considered significant (Kline, 1998).

Eigenvalues, which represent the amount of each factor’s contribution to the total variance of the model, were 8.91 for skills, and 1.042 for behaviors. Skills contribute 82% of the total variance, while behaviors are 9.5%. Kaiser (1960) specified that only factors with eigenvalues greater than 1.0 should be retained.
### Table 1

#### Variables and Descriptive Statistics

<table>
<thead>
<tr>
<th>Descriptive Statistics</th>
<th>Question #</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Skills</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Possesses appropriate skills</td>
<td>M1</td>
<td>4.18</td>
<td>0.7817</td>
</tr>
<tr>
<td>Coaches</td>
<td>4</td>
<td>4.32</td>
<td>0.8434</td>
</tr>
<tr>
<td>Evaluates</td>
<td>6</td>
<td>3.91</td>
<td>0.8225</td>
</tr>
<tr>
<td>Rewards/recognizes</td>
<td>8</td>
<td>3.72</td>
<td>1.0624</td>
</tr>
<tr>
<td>Communicates</td>
<td>10</td>
<td>3.98</td>
<td>0.9096</td>
</tr>
<tr>
<td>Implements change</td>
<td>11</td>
<td>3.96</td>
<td>0.8682</td>
</tr>
<tr>
<td>Motivates others</td>
<td>12</td>
<td>3.70</td>
<td>1.0737</td>
</tr>
<tr>
<td>Is ineffective</td>
<td>13</td>
<td>2.28</td>
<td>1.1867</td>
</tr>
<tr>
<td><strong>Behaviors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treats employees fairly</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creates a hostile environment</td>
<td>5</td>
<td>1.81</td>
<td>1.0584</td>
</tr>
<tr>
<td>Supports employee growth and development</td>
<td>14</td>
<td>4.18</td>
<td>0.8318</td>
</tr>
<tr>
<td>Involves employees in decision-making</td>
<td>15</td>
<td>4.01</td>
<td>1.0256</td>
</tr>
<tr>
<td>Treats employees as unique</td>
<td>16</td>
<td>4.01</td>
<td>0.9943</td>
</tr>
<tr>
<td>Encourages teamwork</td>
<td>17</td>
<td>4.31</td>
<td>0.8497</td>
</tr>
<tr>
<td><strong>Practices</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qualified managers hired</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor managers fired</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Managers trained</td>
<td>3</td>
<td>1.97</td>
<td>0.8434</td>
</tr>
<tr>
<td>New managers chosen from best performers</td>
<td>7</td>
<td>3.92</td>
<td>0.9084</td>
</tr>
<tr>
<td>Managers held accountable</td>
<td>9</td>
<td>4.37</td>
<td>0.7725</td>
</tr>
<tr>
<td>Unskilled managers hired</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor managers promoted</td>
<td>-</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Item scores were averaged and stepwise regression (Kline, 1998) was performed individually for each of the three populations (sales representatives, district managers, and regional managers) and on the combined total for the survey. The dependent variable is the first item (M1) of the survey questionnaire. Factor values are the average of the categorized results from the survey. The average of the first item comprises the dependent variable and thus was excluded from the average. Factors were automatically removed when $p$-values were greater than or equal to 0.10 (Kline, 1998). Regional managers were excluded and were not included independently due to the lack of sufficient response and to reduce multi-collinearity (Belsley et al., 1980).
Regression results are in Table 2. The adjusted $R$-squared values for combined respondents, sales representatives, and district managers is 0.611, 0.658, and 0.346 respectively. The sales representatives' model had the highest adjusted $R^2$ and best explains the variance in $M_1$. The small population of responding district managers and low adjusted $R^2$ led to the exclusion of this population from analysis.

CONCLUSIONS

This study revealed that certain skills and behaviors are perceived as most influential to the success of direct leaders by sales employees in a large global firm. Consequently, this quantitative case study identified several key elements that are necessary to create an LDP that is effective for the host firm. Results revealed that the skills most important in the development of future leaders are the ability to “motivate others” and “communicate appropriately.” Critical behaviors to be developed in leaders include “treating employees as unique individuals” and “encouraging teamwork and collaboration.” See Figure 1.

The changing environment of pharmaceutical sales has led to the expansion of geographic territories, resulting in an increase in the ratio of employees-to-manager. Each district manager provided oversight for 8-13 sales representatives. Consequently, the importance of motivating on-site or off-site employees and communicating appropriately has grown. These findings are consistent with previous research on communications and motivation (Denning, 2005; Luecke, 2003) and, thus, are not surprising.
The behavioral aspects of leadership in need of development represent a more unique result of this study due to the historical focus of training on traits. Treating employees as unique individuals is necessary in a large, global company that can often seem impersonal. This finding is consistent with previous literature that suggests the importance of focusing on the individual for personal development (Lord and Hall, 2005; Russon and Reinelt, 2004) while building self-awareness (Higgs and Rowland, 2010). Further, greater managerial spans of control and geographic distribution pose barriers to encouraging teamwork and collaboration. Leaders capable of this behavior do witness an increase in useable ideas and viable solutions generated by employees, and make a greater impact on the organization's long-term goals (Montes et al., 2005; Stock, 2006). Participants in this study reported that current or future leaders should be able to successfully foster teamwork and collaboration within the districts and regions of the organization. This behavior needs development through an academic learning lens, as well as a learning environment based on experience (Fedor et al., 2003).

The findings of the study exemplify the difficulty of creating an effective LDP. Although skill in motivating others and communicating effectively have been widely discussed, it may seem that the two most important behaviors (treating individuals as unique, encouraging teamwork) are contradictory; however, the findings align with previous research that suggests that LDPs must be responsive and able to meet employees' unique needs. Leaders are responsible for inspiring a workforce comprised of complex employees who need to be developed individually yet thrive in a sense of community (Haag et al., 2006).
Components of an Effective Leadership Development Program

Leadership effectiveness tends to be elusive, which prompts organizations to better understand the behaviors that are necessary to develop in their leaders. The findings of this study have practical implications for business and industry, and include a model for LDPs (Figure 1).

Curriculum. This study suggests that promoting teamwork and collaboration and treating employees as unique individuals, in addition to mastery of motivation and communication techniques, are essential elements in an LDP. Additionally, organizations are encouraged to further investigate the critical behaviors necessary for each level of leadership to ensure that their LDPs effectively meet organizational demands of leadership.

Time. Consistent with the literature, it is suggested that an LDP span a minimum of two years (Collins and Holton, 2004; Hernez-Broome and Hughes, 2004). Doing so may also address issues of turnover at varying leadership levels.

Delivery. The curriculum designed for LDPs should include a mixture of classroom-based and online learning in addition to practical experiences. Best practices for the development of LDPs should be incorporated as well (Hay Group, 2005). Since regional managers, district managers, and sales representatives in the host firm have varying job functions, these differences impacted their perspectives of the company, its leadership, and the external environment. Although the themes that emerged in this study might be consistent across hierarchical levels, their delivery and content, along with experiences, should be tailored to each organizational level.

Firms may investigate linking the LDP with an educational institution that will enable participants to earn a master’s degree or certificate in leadership upon completion. Another benefit of such a partnership is that consistency in the LDP can be maintained, even with changes in senior leadership. A long-term partnership allows the curriculum to be modified over time in response to the changing demands of the competitive environment.

LIMITATIONS

The use of only one pharmaceutical company to collect data limits the generalizability of results to other firms and industries. In addition, the survey asked respondents to provide data that is perceptual and subjective, which invites questions of bias. Individuals may perceive situations differently as they filter information and experiences through their own unique lenses.

This study’s focus on sales leadership within the targeted organization further limits the findings, as only individuals who work in the sales department were included in the study. Since the organization allowed surveys of the western United States only, the size and location of the study were also limited. Particularly detrimental was the fact that only eight regional managers work in the identified area, and given their low response rate, the study was not able to form conclusions or recommendations based on that group; however, their responses were included in the results from the overall sample.
RECOMMENDATIONS FOR FUTURE RESEARCH

Future research is needed to investigate whether training on the skills and behaviors identified in this study should be the same for both district and regional managers. This study’s findings suggest that the training should be different. When analyzed separately, sales representatives and district managers identified different constructs as important. This lends credence to tailoring the LDP program toward different levels of organizational leadership.

Additional studies should investigate whether the respondent’s region or district impacts ratings on the behaviors necessary for leaders. Such an inquiry could assist in ascertaining whether the training is needed for all leaders or if it is specific to certain districts or regions. Finally, future research that is focused on assisting organizations in developing effective LDPs should consider the following questions:

1. Which skills, behaviors, and organizational practices should be components of LDPs in other organizations? In other industries?
2. Are the behavioral requirements of effective managers different at various organizational levels?
3. How should organizations deliver LDPs? What mix of instructional techniques (e.g., online learning, class-based learning, job-based experience, mentoring) is appropriate?

SUMMARY

Developing effective leaders is a multifaceted effort. However, when organizations research the unique skills and behaviors necessary for success in their environments, solutions exist to assist them in developing effective leaders through LDPs. No one-size-fits-all approach to leadership development exists. Individuals have varying views of their leaders and their effectiveness, their organizations, and the external environment. Understanding these numerous perspectives and recognizing the training and development needs of leaders constitute an essential element in the process of providing LDPs that are impactful and able to meet the needs of the organization, as well as the individual learner.

This study revealed that individuals in the subject global pharmaceutical company valued specific manager/leader skills and behaviors. Motivating others, communicating appropriately, treating subordinates as unique individuals, and encouraging teamwork and collaboration among employees were perceived as most important. Other organizations may benefit by clearly identifying which leader skills and behaviors are foundational for their long-term success, and incorporate related training and development into their LDPs.

References


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COMPONENTS OF LEADERSHIP


Servant Leadership Theory: Opportunities for Additional Theoretical Integration

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The term servant can evoke strong feelings, both negative and positive. Whereas there are negative connotations associated with the term, such as being passive or indecisive (van Dierendonck, 2011), the concept of serving others is generally an optimistic and positive one. In organizations, the idea of a servant is normally applied to the employee. Servants in an organization take care of high-powered CEOs and other important people. Indeed, although many associate the idea of service with this viewpoint, servant leadership theory “inverts the pyramid” of the organization such that organizational leaders are serving the other members of the organization. Over the past several decades, the concept of servant leadership has emerged as a dynamic form of leadership associated with a positive impact on organizations. According to Liden et al. (2014), global trends such as the increasing size of the service sector as well as increased competition to the point that managers need to utilize leadership approaches that develop employees to their full potential, makes it imperative to move away from autocratic leadership styles and toward leadership styles that are “more personal, individualized, and cooperative” (Liden et al., 2014: 1447).

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2 Opinions, conclusions and recommendations expressed or implied within are solely those of the authors and do not necessarily represent the views of the U.S. Air Force Academy, USAF, the DoD, or any other government agency.
Recently, empirical research has shown the benefits of servant leadership in various contexts such as nurse managers (Neubert et al., 2016), organizational learning (Choudhary et al., 2013), and lower follower withdrawal in terms of turnover intentions and increased follower helping behavior (Hunter et al., 2013). Also, practical examples abound of servant leadership. For example, TDIndustries, ranked 44th in Fortune Magazine’s 2017 Best Places to Work For (Fortune, 2017), has embraced servant leadership principles for several decades. Not only do supervisors provide suggestions to subordinates on areas for improvement, subordinates provide feedback to supervisors on areas where they can improve. Indeed, one question on all evaluations states, “How am I doing as a Servant-Leader?” (Sipe and Frick, 2009: 169). Former AlliedSignal CEO Larry Bossidy suggested that leaders will not remember quarterly performance results once one retires; rather, “What you’ll remember is how many people you developed. How many people you helped have a better career because of your interest and your dedication to their development” (Hunter, 2004: 50). As a final example, Southwest Airlines regularly appears on Fortune’s Best Companies to Work For. According to Ruschman (2002), Southwest is successful because they are employee-driven and they do things such as have their leaders spend one day in Southwest’s flight operations each quarter – during these days, Southwest’s leaders perform tasks such as working in flight reservations or loading baggage (Ruschman, 2002).

The term “servant leadership” was first created by Robert Greenleaf in the early 1970’s, and his thoughts and a definition of the theory were published later in the decade (Greenleaf, 1977). Servant leadership has been described as an altruistic calling due to “a leader’s deep-rooted desire to make a positive difference in others’ lives” (Barbuto and Wheeler, 2006: 318). The servant leader is one who chooses first to serve and then as an outpouring of that desire comes an aspiration to lead others (Greenleaf, 1977). Servant leadership theory is different from other leadership theories, such as transformational leadership. For example, servant leadership “focuses on a desire to serve and preparing others to serve as well, whereas transformational leadership emphasizes a desire to lead and inspiring followers to perform well” (van Dierendonck et al., 2014: 546), The servant leader sees subordinates, or followers, as the main reason for being in the position and wants to do everything in his/her power to ensure they grow (Luthans and Avolio, 2003), are developed and that they eventually become servant leaders themselves. Greenleaf states that the best test of whether a person is a servant leader is, “Do those served grow as persons? Do they, while being served, become healthier, wiser, freer, more autonomous, more likely themselves to become servants?” (Greenleaf, 1977: 13-14).

Recently, servant leadership has gained significant traction in the literature. Some reasons include that servant leadership “describes a comprehensive approach to leading” (Liden et al., 2015: 255), it explains additional variance beyond other leadership theories such as transformational leadership and leader-member exchange (Liden et al., 2015), and because it helps explain individual (e.g., van Dierendonck et al., 2014), group (e.g., Schaubroeck et al., 2011), and organizational (Peterson et al., 2012) outcomes. Further, because servant leadership suggests that one avoid their self-interest (O’Reilly et al., 2014), it is viewed as an antidote to unethical behavior. Although the theory of servant leadership is well established in the literature, the authors think there are opportunities to test it in different theoretical environments by integrating it with other theories. Thus, their primary research question is, “How can servant leadership
theory be strengthened through additional theoretical integration? Additional integration with other management theories offers the opportunity for scholars to test the boundary conditions of not only servant leadership theory, but other theories as well. Thus, the purpose of this paper is to examine the theory of servant leadership as it relates to several different management theories. In some cases, servant leadership fits well into the theoretical framework (e.g., stewardship theory), whereas in other cases, servant leadership may serve as an antidote to some of the theories’ main tenets or assumptions (e.g., agency theory). The authors will examine several of these cases to determine how the concepts of servant leadership can be utilized to best facilitate additional studies. One benefit of doing so, for example, could help scholars and practitioners understand how to increase organizational performance. In summary, good leadership is critical to the success of organizations. Servant leadership is a leadership style that can have a significant positive impact on organizational outcomes. However, there has been little discussion that the authors have found in the literature regarding how the servant leader can help organizations succeed when juxtaposed with the challenges described by the management theories that are covered in this article.

SERVANT LEADERSHIP

Before the authors begin to examine how servant leadership theory fits with other management theories, it is important to understand the main characteristics of the servant leader. One of the first characteristics that Greenleaf (1977) describes in a servant leader is listening. Epictetus famously said, “We have two ears and one mouth so that we can listen twice as much as we speak” (Epictetus). Often times leaders are so intent on communicating their vision to others and “getting the message out” that they fail to listen to those with whom they work to understand what their needs, challenges, and abilities are. Greenleaf (1977) contends that only a natural servant will respond to a problem by listening first, and Spears (1995) suggests that listening helps leaders understand the will of their followers.

Imagination and acceptance are two other important qualities a servant leader exhibits. Imagination allows the leader to connect their ideas with the follower’s own experience (George, 2000) and thereby drives the follower to become more involved and committed to the effort. Servant leaders are also known to always be accepting and empathetic towards those in their sphere of influence. They accept a person for who they are and yet they still refuse to accept a level of effort that is not equal to a subordinate’s capabilities, in part because servant leaders aim to foster an environment of trust (Ferch, 2005). This balance of accountability and care is unique to the servant leader (Greenleaf, 1977).

Foresight is another ability that is required of the servant leader. The ability to look at the current situation and effectively envision possible future outcomes is an area where leaders need to be effective. However, the servant leader has a responsibility to those they lead and owes it to them to ensure they are adequately prepared to meet future challenges (Greenleaf, 1977). The servant leader must be focused on the current situation while at the same time seeing the present as a piece of the larger environmental context that the organization is a part of. Thus, the better the leader is at putting all of the pieces of the puzzle together, the more successful the leader and the organization will be.
The ability to persuade others to their point of view is another important ability that a servant leader must possess. The servant leader is focused on showing subordinates the rightness of their way of thinking and convincing, rather than coercing them, to that way of thinking. The ability to persuade requires patience, persistence, and confidence that the leader’s way is the best approach to a given situation (Greenleaf, 1977). When a servant leader is able to persuade their subordinates to their way of thinking, the changes that are made are much more likely to be enduring since subordinates will accept it as their own (Greenleaf, 1977).

The ability to conceptualize is a final characteristic servant leaders are thought to possess. One must be able to see a vision for the future and then be able to share that vision with others in a way that they can understand and become excited about (Greenleaf, 1977). Big changes come from big ideas and servant leaders need to be able to develop these ideas and then communicate them effectively to their subordinates. If the idea is enduring enough, it will inspire followers to get behind it and maximize their efforts in order to achieve it.

Although Greenleaf (1977) suggested ten characteristics of servant leaders, researchers have identified as many as 44 characteristics of servant leadership; recently, research (see van Dierendonck, 2011, for a review) suggested these overlapping characteristics can be (imperfectly) boiled down to six of the most important characteristics of servant-leader behavior. These include empowering and developing people, humility, authenticity, interpersonal acceptance, providing direction, and stewardship (van Dierendonck, 2011).

The description given above provides a general understanding of who a servant leader is and what qualities they need to possess in order to successfully lead their organization. Whereas recent comparisons of servant leadership theory to other leadership theories exist, the authors are not aware of studies that examine the opportunities and challenges to integrate servant leadership with other management (non-leadership specific) theories. Next, the authors examine several well-known management theories and examine how servant leadership theory can be integrated into those theories. The information in Table 1 provides an overview of the theories the authors discuss and how they interact with the concept of servant leadership.

**Agency Theory**

As organizations transition from entrepreneur-owned firms, where owners reap all the rewards from their efforts, to modern corporations, where shareholders (principals) need to hire professional manager/CEOs (agents) to run the organization’s day-to-day operations and such agents only share a portion of the principal’s profits, an agency problem is created (Jensen and Meckling, 1976). Agency theory is, “... concerned with two problems that can occur in agency relationships. The first is the agency problem that arises when (a) the desires or goals of the principal and agent conflict, and (b) it is difficult or expensive for the principal to verify what the agent is actually doing. The second is the problem of risk sharing that arises when the principal and agent have different attitudes toward risk.” (Eisenhardt, 1989: 58). When organizations are faced with this issue, they must develop ways to monitor the agent and ensure that their actions are in line with the principals’ (shareholders and others) desires.
<table>
<thead>
<tr>
<th>Theory</th>
<th>Key Assumption(s)</th>
<th>Servant Leadership Application</th>
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<tr>
<td>Agency Theory</td>
<td>Principals delegate responsibility to agents and monitoring/incentive mechanisms must be put in place to prevent the agent from pursuing their self-interest</td>
<td>Servant Leaders are the anti-thesis of agency theory. They are other-focused and will not place their self-interest above that of the principle – thus, monitoring costs will be lower</td>
</tr>
<tr>
<td>Stewardship Theory</td>
<td>Agents can be other-focused as stewards for their companies and make decisions that are in the best interest of the organization rather than in their own self-interest</td>
<td>Servant leaders are similar to stewards and will work towards the best interests of all in their organizations</td>
</tr>
<tr>
<td>Upper Echelons Theory</td>
<td>Organizational outcomes are a reflection of the values and cognitive basis of powerful actors in the organization</td>
<td>Servant leaders who become members of an organization’s dominant coalition can have a significant positive impact on performance</td>
</tr>
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<td>Institutional Theory</td>
<td>Firms behave based on external pressures from the environment and other firms in their industry</td>
<td>Servant leaders will be less likely to give in to institutional pressures because their focus is on others and not the external environment</td>
</tr>
<tr>
<td>Transaction Cost Theory</td>
<td>Firms make decisions with a focus on reducing transaction costs</td>
<td>Servant leaders who are placed in charge of relational teams can help reduce transaction costs by focusing on team members and increasing their commitment</td>
</tr>
<tr>
<td>Resource-Based Theory</td>
<td>Firms obtain sustained competitive advantages by implementing strategies that exploit their strengths while neutralizing threats and weaknesses</td>
<td>Servant leaders are a strength to an organization that can be turned into a sustained competitive advantage. Servant leaders can also help reduce external threats and reduce weaknesses</td>
</tr>
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</table>
The servant leader can significantly reduce the agency problem in organizations. This is because the servant leader is much more concerned with others’ well-being than their own. Servant leaders have humility and put the needs of others first (Greenleaf, 1977). Authenticity is also a servant leader characteristic – servant leaders do what is promised and are honest (Russell and Stone, 2002). Also, servant leaders exhibit the characteristic of stewardship. This is the most important characteristic as it relates to agency theory because servant leaders put the organization’s needs before their own needs and self-interest (Block, 1993; Spears, 1995). As a result, servant leader agents will desire to know what the principal wants and are likely to ensure their organization will strive to achieve those goals. This is not to suggest that servant leaders do not have personal financial goals and aspirations, but rather they will be more aligned with principals compared to self-serving leaders.

The servant leader can also combat the problems of agency as it relates to subordinates. As mentioned above, servant leaders are focused on the well-being of their subordinates (Luthans and Avolio, 2003). Thus, subordinates who work for servant leaders are much more likely to feel as though their individual needs are being met and that the organization cares about their well-being. This allows them to focus on their jobs and on achieving organizational goals, rather than worrying about how to take care of themselves. Servant leaders also have an ability to persuade others to their point of view. Thus, servant leaders will be able to convince subordinates that their way (and by extension, the organization’s goals) is the best for all involved and be able to get the subordinates moving in the right direction towards achieving organizational goals.

Another main attribute of servant leaders is their desire to inspire others to become servant leaders. In effect, the behaviors of servant leaders are contagious and will eventually spread throughout an organization and improve it over a period of time. As more servant leaders are developed within the organization, the benefits of their efforts will be felt in every area. Employees will be more satisfied in their roles and also more likely to perform organizational citizenship behaviors towards the organization and their leaders as a result of their desire for reciprocity (Vidyarthi et al., 2010).

Servant leadership serves as an effective way to reduce the agency problem within an organization. This, in turn, helps the organization reduce its costs because the entire organization is in alignment with shareholder desires. One of the main assumptions of agency theory is that organizations need to develop governance mechanisms that reduce the problem of agency (Eisenhardt, 1989). These mechanisms, which focus on monitoring and incentive mechanisms (Walsh and Seward, 1990) can be expensive to organizations; however, if a servant leader is present, they might be able to reduce or eliminate the need for some of these mechanisms, beyond what is legally required, and therefore it can be beneficial to organizational performance and importantly, shareholder returns. As a result, the authors predict:

Proposition 1 – Organizations that employ servant leader CEOs will incur fewer corporate governance costs, which will result in higher organizational performance.

Stewardship Theory

A steward is an individual “...whose behavior is ordered such that pro-organizational, collectivistic behaviors have higher utility than individualistic, self-serving behaviors” (Davis et al., 1997: 24). The steward (e.g., CEO) and the principal
(e.g., shareholders) might have different goals at times, but the steward will place a higher value on cooperation than their self-interest in those situations. The main goal of any steward, according to stewardship theory, is to focus on whatever is in the best interest of the organization and not be directly concerned about his/her own self-interest (Davis et al., 1997).

There are many parallels between the concepts of servant leadership and stewardship theory. Both are outward focused and interested in the needs and goals of others. “The steward realizes the trade-off between personal needs and organizational objectives and believes that by working toward organizational, collective ends, personal needs are met” (Davis et al., 1997: 25). The servant leader sees the situation in a similar fashion. They feel fulfilled when they are able to serve others and help them achieve their desired goals (Barbuto and Wheeler, 2006). Servant leaders will deem themselves successful when they have assisted and inspired others to improve, to the point of retreating “into the background when a task has been successfully accomplished” (van Dierendonck, 2011: 1233).

Instead of boards of directors having to focus on developing structures that monitor and control their organizations, they can instead focus on empowering employees and facilitating their development (Davis et al., 1997) when a steward or servant leader is in charge. Some research suggests that when CEOs have duality as CEO and board chair, this will result in a higher return to shareholders (Donaldson and Davis, 1991). Thus, CEOs who are viewed as stewards of their organizations and allowed a great deal of autonomy in leading them will be more likely to create a higher return on investment. This will also be the case when the CEO is not given high levels of contingent-based performance compensation (i.e., stock options and stock ownership). Therefore, in contrast to agency theory, stewards are able to focus on organizational goals and drive higher performance because of their commitment to the organization over oneself.

Servant leaders function in much the same way. Their focus is also other-centered and they spend their time trying to develop others and serve them in whatever way makes them more effective (van Dierendonck et al., 2014). When a leader is a servant first, the organization does not have to be concerned with monitoring self-serving behaviors of that leader to ensure they are working towards organizational goals. Their focus on others ensures that they are looking out for subordinates who can directly affect the organization and its success. Thus, servant leaders appear to be a near-perfect match for the notion of steward in particular, and this apparent alignment will lead to better firm performance. Accordingly, the authors suggest:

Proposition 2 – Organizations that employ CEOs who are both servant leaders and stewards will experience an increase in organizational performance.

Upper Echelons Theory

Hambrick and Mason (1984) describe the importance of the values and beliefs of the members of an organization’s dominant coalition (i.e., top management team) in its performance outcomes. Although upper echelons theory focuses on easily observable demographic characteristics that are compared with firm performance data, the authors have described a separate set of servant leadership characteristics, which, if applied to members of an organization’s dominant coalition, might also yield a positive relationship with firm performance.
Hambrick and Mason (1984: 196) assert that, “…the cognitive bases, values, and perceptions of upper level managers are not convenient to measure or even amenable to direct measurement.” However, Russell and Stone (2002) developed a model and Liden and colleagues (2008) empirically tested a model of servant leader characteristics, which closely parallel the cognitive values described in Greenleaf’s (1977) original article. Russell and Stone (2002) describe nine functional attributes of a servant leader that are measurable, including vision, honesty, integrity, trust, service, modeling, pioneering, appreciation of others, and empowerment. Recently, Liden et al. (2008) tested nine similar factors and found seven of them to be predictive of servant leadership. They are emotional healing, creating value for community, conceptual skills, empowering, helping subordinates grow and succeed, putting subordinates first, and behaving ethically.

Whereas Hambrick and Mason (1984) used observable characteristics in order to predict what upper echelon teams will do, the promising insights gained from recent research (Liden et al., 2008; Russell and Stone, 2002) suggests researchers will be able to base predictions on the actual values of the dominant coalition members instead of easily observable characteristics (e.g., age, functional background, education, socioeconomic upbringing) (Hambrick and Mason, 1984). This will give researchers a more accurate prediction of behavior, because the cognitive values are much closer to an individual or group’s decision-making process. For instance, a person’s level of integrity should be a better predictor of their decisions than their age or education level.

When one or more servant leaders serve together in an organization’s dominant coalition, it is likely that the organization will be positively impacted. Liden et al. propose that, “…servant leadership, aggregated to the group-level also relates to key individual outcomes. In essence, the authors contend that the pervasiveness with which leaders engage in servant leader behaviors across followers in their work groups influences each individual in that work group to be more committed to the organization, to perform at higher levels, and to be more active in serving the community in which the organization is located.” (2008: 164) Accordingly, it stands to reason that when the dominant coalition of an organization includes servant leaders, this will lead to increased organizational performance from a large portion of the organization’s employees.

Because of its ability to spread from superior to subordinate, servant leadership has the ability to significantly impact the culture and performance of an organization as well. As Russell and Stone (2002) propose in their model of servant leadership, those qualities (e.g., vision, honesty) will lead directly to improved organizational culture and then to increased employee attitudes and performance. Further, a study of 815 employees and 123 immediate supervisors found that servant leadership positively influences organizational citizenship behavior (OCB) (Walumbwa et al., 2010). Higher levels of OCBs can lead to higher organizational performance. If the dominant coalition described in upper echelons theory is comprised of servant leaders, there is a distinct possibility that the organization will be positively changed by their presence and impact. Thus, the authors offer:

**Proposition 3 – When an organization’s top management team is populated by a majority of servant leaders, organizational performance will increase.**
Institutional Theory

There are two opposing ways in which servant leadership and institutional theory may interact. On the one hand, servant leaders are not as focused on the external environment as other leaders. They tend to focus more on their subordinates by emphasizing both collaboration and creativity among their employees (Hunter et al., 2013). As a result, they may be less influenced by their industry competitors and less susceptible to the isomorphic pressures described by institutional theory (e.g., DiMaggio and Powell, 1983). On the other hand, a servant leader-led organization may be so influential as to drive isomorphic tendencies within its industry. If the servant leader’s organization is successful, other companies in the industry are likely to follow their lead and pattern themselves after the original organization based on a desire for legitimacy or due to mimetic pressure as described in the institutional theory literature. The authors will look at both aspects and speculate about their possible implications.

Meyer and Rowan (1977) describe institutional theory as, “…organizations are driven to incorporate the practices and procedures defined by prevailing rationalized concepts of organizational work and institutionalized in society. Organizations that do so increase their legitimacy and their survival prospects, independent of the immediate efficacy of the acquired practices and procedures.” In other words, organizations feel pressure to become like other organizations in their industry either to gain legitimacy or because they do not have any original ideas on how to organize.

It is proposed that servant leaders do not succumb to this pressure because of the nature of their leadership style. Two of the mechanisms of institutional isomorphic change proposed by DiMaggio and Powell (1983) are coercive and mimetic pressure. Coercive pressure comes from outside organizations and attempts to force organizations to become more like others in its industry. Servant leaders are less likely to be impacted by these pressures because their focus is on others in the organization – such as on relationship formation with employees, employee empowerment, and assisting in employee growth (Ehrhart, 2004), rather than on their competitors or others in their industry. The servant leader’s main goal is to improve the well-being of their subordinates, customers, and community. They are not swayed by pressure to conform to industry norms solely so the organization can be deemed legitimate or to acquiesce to external pressure. Their foundational underpinnings allow them to stand against this pressure.

An example of this is the case of Chick-fil-A restaurants being closed on Sundays. The trend in the fast food industry is to be open seven days a week and sometimes twenty-four hours a day. However, S. Truett Cathy, as a servant leader, has followed his values and kept the company’s franchises closed on Sundays. Traditional wisdom suggests that they are giving up substantial income, but they continue to fight against the isomorphic trend and have had success doing so.

Mimetic pressure for isomorphism is said to come when organizations are uncertain or when goals are unclear (DiMaggio and Powell, 1983). A servant leader’s organization is unlikely to find itself in such a position because of their foresight, wisdom, and persuasive mapping. The wisdom described by Searle and Barbuto (2011) is such that the leader can pick up cues from the environment and recognize the implications of their actions before they are taken. This ability allows the servant leader to avoid mimetic pressures to imitate others. Therefore, the authors suggest:
Proposition 4a – Servant leader-led organizations are less likely to be impacted by isomorphic pressures from their industries.

In the same way that servant leaders can resist the temptations of isomorphism, they also drive others in their industry to become isomorphic in their direction. Assuming that a servant leader meets the requirements laid out by Greenleaf (1977), the organizational characteristics that emerge are likely to gain attention. This attention will lead to public endorsement and that will drive other organizations to adapt to be more like the subject organization. One study showed that organizations become more legitimate when they are strategically isomorphic (Deephouse, 1996). As a result, an organization that is approved of by the public is more likely to be mimicked so that other organizations in its industry can reap the benefits of legitimacy. The authors predict:

Proposition 4b – Servant leader-led organizations are more likely to be imitated by other organizations in their industry as a result of mimetic isomorphic pressure.

Transaction Cost Theory

Williamson (1981) describes the transaction cost approach as an economic way of examining an organization where transaction costs are the friction in an organization’s engine that leadership makes every effort to reduce. Williamson (1981) discusses the transaction costs associated with managing employees, which can be minimized by organizing employees in a way that is most effective for all involved. Servant leaders can play a positive role in these cases.

Williamson’s (1981) relational team is characterized by a “clan” mentality and the human assets are firm specific. In these teams, it is critical for the organization to provide high levels of indoctrination to ensure the team members understand the goals of the organization and are committed to its success (Williamson, 1981). These types of teams and employees are best led by a servant leader who is committed to their growth and development. Williamson (1981) discusses how difficult these teams are to lead and manage, but the characteristics of servant leadership make it an excellent match. The servant leader can persuade team members to go along with their ideas (Laub, 1999) and share a compelling vision of the future. Servant leaders can also overcome employees’ concerns about being exploited by being committed to their growth and development and focusing on their needs. Indeed, research suggests that servant leaders form bonds with their followers because of the time they invest in quality interactions (Ehrhart, 2004). When an organization puts a servant leader in charge of a relational team, it will reduce transaction costs and improve organizational performance. Therefore, the authors suggest:

Proposition 5 – When organizations are run by servant leaders, organizational transaction costs will be reduced due to the leaders’ focus on the well-being of employees.

Resource-Based Theory

Even though the concept of servant leadership has garnered significant attention in the management field, the servant leader in the corporate world is still somewhat
unique. From a resource-based theory perspective, a servant leader is a resource that can provide a sustained competitive advantage because they are valuable, rare, imperfectly imitable, and do not have a direct substitute (Barney, 1991). The servant leader brings inspiration to an organization and this makes them valuable. As discussed, servant leaders are not yet common in the corporate world; hence, they are rare. The concept of a servant leader is counter to the bottom-line focus of many organizations and so it will be difficult for other firms to imitate what a servant leader-led organization does. Also, because servant leaders are not commodities – they gain their firm-specific understanding by immersing themselves in the daily operations of the firm – they are imperfectly imitable. Finally, a servant leader cannot be replaced by another type of leader such as a transactional or transformational leader because their focus will be different. This makes them non-substitutable. In summary, servant leaders possess the four characteristics that Barney (1991) suggests can help firms achieve a sustainable competitive advantage.

Greenleaf (1977) describes the business manager in a servant leader-led organization’s response to the question, what are you in business for? His response is, “I am in the business of growing people – people who are stronger, healthier, more autonomous, more self-reliant, more competent. Incidentally, we also make and sell at a profit things that people want to buy so we can pay for all this…we are distinguished…because the best young people want to work for us…and they never want to leave.” (Greenleaf, 1977: 146-147) This type of organization will thus possess a resource-based strategic advantage and will be successful as a result. Accordingly, the authors predict:

Proposition 6 – Servant leaders are a valuable, rare, imperfectly imitable, and non-substitutable resource that an organization can use to achieve a competitive advantage.

CONCLUSION

The concept of servant leadership began as an ideal described by Robert Greenleaf more than three decades ago. Since that time, the construct has been evaluated, tested empirically, and defined more robustly. In this article, the authors have offered several propositions regarding how the concept of servant leadership can be applied to some of the most well-known management theories and often times have a significant impact on organizational performance. Future research can take these ideas and apply them to find out if the evidence suggests they are true. The servant leader may have the ability to affect organizations in a significant manner that improves individual, group, and organizational performance, and also makes those associated with the organization better than they were before. If that is the case it could revolutionize the way organizations are managed in the future.
References


The Mediating Effect of Embeddedness on the Relationship between Internal Employability and Career Satisfaction

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Organizations have downsized, restructured, delayered, and outsourced and are increasingly characterized by instability, insecurity, and uncertainty (Sverke et al., 2002). In this context, it is crucial to be able to find a job, retain a job, and obtain a new job if required. Employability has therefore come to be regarded as an essential factor for employees to remain competitive both within and outside the organization (Wittekind et al., 2010). Career satisfaction has also become critically important because objective indicators of career success such as hierarchical advancement have begun to disappear (Heslin, 2005). Even though employability has become a popular concept in career studies due to the changing career landscapes, it should be noted that it is unclear how employability results in career outcomes such as career satisfaction. This study therefore intends to fill this gap in the literature by examining the role that employee attachment plays in the relationship between employability and career satisfaction. Specifically, the study focuses on the concept of embeddedness or the totality of forces including fit, links, and sacrifice that bind employees to their current organization (Mitchell et al., 2001). This concept has helped scholars understand how in spite of pressures or opportunities to be mobile there are powerful forces that also can motivate employees to stay and contribute in their organizations. This study proposes that perceptions of internal employability are likely to directly influence an employee’s embeddedness which can then influence career satisfaction. The proposed model is shown in Figure I.
Employability

Employability represents the capability of an individual to find and maintain employment (Fugate et al., 2004; Rothwell and Arnold, 2007). Employability can be conceptualized as both objective and subjective/perceived (Berntson and Marklund, 2007; Rothwell and Arnold, 2007). Typical examples of objective employability are human capital (e.g., education, job-related knowledge, skills, and experiences—see Forrier and Sels, 2003; Fugate et al., 2004) and social capital (e.g., network size and network strength—see Fugate et al., 2004). On the other hand, perceived employability can be defined as a subjective evaluation of being employable (Rothwell and Arnold, 2007). Considering the fact that the same reality might lead to different perceptions among different people, individuals with the same levels of objective employability might differ in their own perceptions of employability (Vanhercke et al., 2014). Since the perception of reality affects attitudes, behaviors, and thoughts rather than the reality itself (Lazarus and Folkman, 1984), perceived employability therefore becomes critical (Rothwell and Arnold, 2007) and is the focus of this study.

Most authors (e.g., Forrier and Sels, 2003; Thijsen et al., 2008; Van Der Heijde and Van Der Heijden, 2006) agree that employability can be considered as both internal and external. Internal employability represents an individual’s perceived capability to maintain employment in the current organization, while external employability represents an individual’s perceived capability to find employment outside the current organization (Rothwell and Arnold, 2007). Supporting the idea of internal and external employability, Fugate and his colleagues (2004; Fugate and Kinicki, 2008) state that employability facilitates perceiving career opportunities both within and between organizations. Previous studies have shown that perceived employability is positively related to overall health (Berntson and Marklund, 2007), work engagement (De Cuyper et al., 2008), and life satisfaction (De Cuyper et al., 2008; De Cuyper et al., 2011). However, it should be noted that these studies tended to focus on perceived external employability. Several scholars (e.g., De Cuyper and De Witte, 2011; Rothwell and Arnold, 2007) argue that there is a need for examining perceived internal employability and its consequences. Thus, the present study focuses on perceived internal employability.
The Relationship between Internal Employability and Career Satisfaction

Employability is viewed as a fundamental condition of career success or satisfaction in the contemporary work environment that is characterized by instability, insecurity, and uncertainty (Forrier and Sels, 2003; Fugate et al., 2004; Rothwell and Arnold, 2007). To date, however, there is little empirical evidence documenting the relationship between perceived employability and career success. The only study investigating this link (De Vos et al., 2011) established a positive relationship between perceived employability and subjective career success. However, this study focused only on perceived external employability.

Perceived internal employability reflects an individual’s perceived control over his or her career (Vanhercke et al., 2014). Perceived control represents the beliefs that an individual has the means to obtain desired outcomes and to avoid the undesirable ones (e.g., Veld et al., 2016). Based on the perceived control perspective, individuals with high perceived internal employability have more perceived control which should make them more satisfied with their careers. Therefore, it is expected that perceived internal employability will be positively related to career satisfaction. Perceived internal employability reflects the perceived transfer of skills, knowledge, and experience across jobs within the current organization. Thus, individuals with high perceived internal employability might be confident that they are in demand in their organizations which could increase feelings of self-worth and career satisfaction (Waters et al., 2014).

H1: Perceived internal employability will be positively related to career satisfaction.

The Role of Embeddedness

Given the focus of this study is on employee perceptions of employability within their current organization, it could inform theory and practice by examining how perceptions of internal employability relate to employee attachment. While there are a number of employee attachment constructs one could explore (e.g., job satisfaction, organizational commitment, etc.), the focus of this study is on an attachment construct, embeddedness (Mitchell et al., 2001), that has been crucial in advancing understanding of employee retention over the past decade (Zhang et al., 2012). In fact, meta-analytical evidence (Jiang et al., 2012) demonstrates that embeddedness predicts employee intention to leave and actual turnover over and above commitment and satisfaction.

Mitchell et al. (2001) argue that embeddedness represents the combined forces that influence a person’s decision to remain in an organization. The key components of embeddedness are the fit, links, and sacrifice that bind the employee to the organization. Fit represents the employee’s perceptions that his/her values, skills, and beliefs match the organization or community. For example, if employees believe their values match the culture of the organization or their community, they will have high levels of fit in the organization or community. Links represent the number of connections an employee has in the organization or community. For example, if employees have a large number of family and friends in the community in which they live or are on numerous committees and teams at their organization, then they would likely have high levels of fit in the community or organization. Finally, sacrifice represents what the employee believes he/she would give up if he/she left the organization or community. If employees have excellent benefits or responsibilities at work or have access to cheap housing, good
weather, or an easy commute that would be difficult to match at a different organization or community, then they would likely have high levels of sacrifice. Similar to a spider’s web, it is the combined forces of fit, links, and sacrifice that keep individuals from leaving their organizations (Yao et al., 2004). Given the focus on organizational-relevant variables for this study (i.e., internal employability), the proposed research focuses on the on-the-job components of embeddedness.

Although embeddedness is similar to other attachment constructs such as organizational commitment and job satisfaction, there are significant differences. For example, Crossley et al. (2007) argue that although embeddedness is similar to other attachment constructs in that they all deal with the employee’s connection to the organization, commitment and satisfaction are distinct in that they incorporate specific affective, calculative, and normative motives for being connected to the organization, while embeddedness does not. Embeddedness, instead, focuses on an employee’s overall, general attachment to an organization. In fact, the employee may not even want to be embedded in the particular organization. Crossley et al. state, “embeddedness represents a general attachment construct that assesses the extent to which people feel attached, regardless of why they feel that way, how much they like it, or whether they chose to be so attached” (2007: 1032). Past research has consistently found that embeddedness is conceptually and empirically distinct from satisfaction and commitment and, in fact, predicts turnover over and above job satisfaction and organization commitment (e.g., Jiang et al., 2012; Lee et al. 2004).

The majority of research in embeddedness has examined the direct effects of embeddedness on a variety of behaviors. For example, beyond its effect on intentions to leave and turnover, embeddedness has been shown to predict job search behavior (Murphy et al., 2013), performance and OCBs (Lee et al., 2004), as well as counterproductive work behaviors (Holtom et al., 2012). However, to date, the role embeddedness plays in the relationship between perceived employability and career satisfaction has not been examined. This examination is important because perceptions of employability are likely to influence embeddedness.

If employees perceive a high level of internal employability, they are more likely to perceive job possibilities in their organizations based on the perceived ability to transfer their work-related knowledge, skills, and experiences across jobs. If the employee perceives job possibilities within the organization, this likely increases their embeddedness. For example, if employees perceive they are employable within their current organization, this may increase their feelings of fit with the organization (e.g., my skills are valued here, etc.), increase the number of links they have within the company (e.g., I work with a lot of different individuals or have the potential to work with many individuals if I stay here, etc.), and may cause them to feel they would be sacrificing a lot if they left the organization (e.g., I might not find these opportunities at another company, etc.).

Consistent with this view, social bonding theory (Hirschi, 1969) argues that when employees perceive a meaningful bond with an organization, such as would be the case when they perceive themselves as internally employable in their organizations, they are motivated to maintain that bond (in this case, increase their embeddedness). Since these highly internally employable individuals believe there are multiple career paths for them to explore in their current organization, their bond with the organization is likely to strengthen which makes it unlikely they will seek employment elsewhere. In addition,
highly employable individuals have a tendency to be highly adaptable (Fugate et al., 2004). These individuals are proactive and action-oriented where they seek out opportunities to grow their social networks (Fugate et al., 2004) and will alter their work environment or even their own cognitions to maximize or optimize their situation (Crant, 2000), especially since they do not plan to leave their current organization. These actions are likely to increase perceptions of fit, links, and sacrifice (i.e., increase their job embeddedness). For example, by growing one’s social networks within an organization, this person is also building stronger links that facilitate their connection to the organization. In addition, one’s perceptions of fit is likely to be strong since any “misfit” issues that might have occurred in the past would have been addressed by the employee behaviorally (proactively modifying their work environment to fit their needs) or cognitively (modifying one’s own cognitions to find a match between the organization and one’s own needs).

It is also expected that embeddedness is positively related to career satisfaction. Feldman and Ng (2007) argued that it is likely a strong relationship exists between embeddedness and subjective career success, such as satisfaction with one’s career. Highly embedded individuals are likely to perceive a high degree of fit with their organization, have many connections that have developed at the organization, and would have significant perks, including pay and benefits that together will increase one’s perception that they have been successful in their career. In fact, Stump (2014) recently found that embeddedness was indeed positively related to subjective career success. Therefore, individuals who perceive they have high levels of internal employability will have higher levels of embeddedness which then directly increases career satisfaction.

\[ H2: \text{Embeddedness will mediate the relationship between perceived internal employability and career satisfaction.} \]

**METHODS**

The study’s sample consisted of working professionals who had registered with Amazon’s Mechanical Turk which has been shown to be a viable method of collecting data from a diverse sample of working employees (Behrend et al., 2011). Participants were paid $0.50 to complete an on-line survey. To identify careless responders (e.g., Meade and Craig, 2012), an instructed response item was included (e.g., “When you get to this question, please answer ‘Disagree’”). All individuals (n = 11) who answered the instructed response item incorrectly were removed from the study. The final sample consisted of 184 working professionals.

The participants in this study averaged 34.36 (SD = 12.69) years of age, 15.44 (SD = 12.05) years of work experience, and 5.04 (SD = 5.37) years with their current organization. In addition, 59.9% of the respondents were female, 52.4% had an undergraduate degree or higher, 25.1% worked in the business or science industries, 10.7% worked in sales, and 4.8% worked in healthcare. Approximately 74% of the respondents indicated they were Caucasian, while 13.9% indicated they were African-American, 7.0% Asian, and 3.7% Latino/Hispanic. Finally, 51.3% of the respondents worked in a public company, 38.0% in a private company, and 10.2% in a not-for-profit organization.
Measures

*Perceived Internal Employability.* Four items (1 = *strongly disagree*; 7 = *strongly agree*) from Rothwell and Arnold (2007) were used to measure employee perceptions of internal employability (e.g., “Even if there was downsizing in my organization, I am confident that I would be retained”). The items were averaged to form a composite measure of perceived internal employability \((M = 4.92, SD = 1.26, \alpha = 0.81)\).

*Embeddedness.* Participants’ embeddedness in the organization was measured with nine items (1 = *strongly disagree*; 7 = *strongly agree*) from Felps et al. (2009) designed to capture the employee’s level of fit, links, and sacrifice in the organization. Sample items include “I feel like I am a good match for my organization,” “I work closely with my coworkers,” and “I would sacrifice a lot if I left my job.” Consistent with the approach used by Felps et al. (2009) as well as Mitchell and his colleagues (2001), a composite measure of embeddedness in the organization was formed by averaging the sub-components of fit, links, and sacrifice into an overall measure of embeddedness in the organization \((M = 4.98, SD = 1.23, \alpha = 0.91)\).

*Career Satisfaction.* A five-item scale (Greenhaus et al., 1990) was used to measure the degree to which employees felt satisfied with their career (1 = *strongly disagree*; 7 = *strongly agree*). Sample items include, “I am satisfied with the success I have achieved in my career” and “I am satisfied with the progress I have made toward meeting my overall career goals.” The items were averaged to form career satisfaction \((M = 4.62, SD = 1.48, \alpha = 0.93)\).

RESULTS

All means, standard deviations, and correlations are reported in Table 1. Since all variables were measured at the same time, proactive steps were taken to reduce concerns over common method variance (Podsakoff et al., 2012). Specifically, data were collected from a very diverse population and careless responders were removed. In addition, a seven-item measure of anxiety (House and Rizzo, 1972) was included in the study to use as a marker variable (Williams et al., 2010) to test for common method effects. Theoretically, anxiety should not be strongly related to any of the constructs measured in this study. The results of the six-step marker variable analysis outlined by Williams et al. (2010) demonstrates that the relationships between the variables in this study are not significantly biased by common method effects.

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Internal Employability</td>
<td>4.92</td>
<td>1.26</td>
<td>(0.81)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Embeddedness</td>
<td>4.98</td>
<td>1.23</td>
<td>0.76***</td>
<td>(0.91)</td>
<td></td>
</tr>
<tr>
<td>3. Career Satisfaction</td>
<td>4.62</td>
<td>1.48</td>
<td>0.60***</td>
<td>0.70***</td>
<td>(0.93)</td>
</tr>
</tbody>
</table>

*a***p < 0.001 (two-tailed)

*b Numbers in parentheses are coefficient alpha.*
A confirmatory factor analysis was conducted to access model fit. A three-factor model ($\chi^2 = 134.96$, CFI = 0.95, TLI = 0.94, RMSEA = 0.10, SRMR = 0.06) with embeddedness, internal employability, and career satisfaction loading separately fit the data well. In addition, this three-factor model fit the data better than a one-factor model ($\chi^2 = 376.20$, CFI = 0.81, TLI = 0.77, RMSEA = 0.18, SRMR = 0.10) or a two-factor model where embeddedness and internal employability were forced into one factor ($\chi^2 = 172.79$, CFI = 0.93, TLI = 0.91, RMSEA = 0.11, SRMR = 0.06).

Hypothesis 1 proposed a direct link between perceptions of internal employability and career satisfaction, while Hypothesis 2 indicated that embeddedness would mediate the relationship between internal employability and career satisfaction. To test these relationships, the PROCESS macro developed by Hayes (2013) was used. This macro allows researchers to test for the direct as well as the indirect (i.e., mediating) effects by examining 95% bias-corrected confidence intervals created by running 5,000 bootstrapping estimates. This bootstrapping approach to testing mediation has been shown to be superior to other forms of mediation testing (e.g., Shrout and Bolger, 2002). The results of these analyses are shown in Table 2 and indicate a significant direct effect between perceived internal employability and embeddedness, as well as embeddedness and career satisfaction. In addition, a significant indirect effect, indicating mediation was found. Specifically, the results of the analyses demonstrate that embeddedness acts as a partial mediator to the relationship between perceived internal employability and career satisfaction as the direct effect between these variables is only marginally significant ($p < 0.10$) in the presence of embeddedness (Hypotheses 1 and 2 are supported).

### Table 2

<table>
<thead>
<tr>
<th>Embeddedness</th>
<th>Career Satisfaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Employability</td>
<td>0.74***</td>
</tr>
<tr>
<td>Embeddedness</td>
<td>-</td>
</tr>
<tr>
<td>Total $R^2$</td>
<td>0.58***</td>
</tr>
</tbody>
</table>

**Indirect Effect (i.e., Mediation) of Internal Employability through Embeddedness**

<table>
<thead>
<tr>
<th></th>
<th>95% Bias-Corrected Confidence Interval$^b$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect Effect</td>
<td>-</td>
</tr>
<tr>
<td>95% Bias-Corrected Confidence Interval$^b$</td>
<td>(0.35, 0.70)</td>
</tr>
</tbody>
</table>

$^a$ Direct effects are unstandardized coefficient estimates from the final regression equations.

$^b$ Indirect effects were tested for significance using 95% bias-corrected confidence intervals from 5,000 bootstrap estimates.
DISCUSSION

The aim of this study was to examine the relationships between perceived internal employability, embeddedness, and career satisfaction. This study differs from previous studies in two ways. First, whereas previous studies tended to focus upon perceived external employability, this study concentrated on perceived internal employability. Second, past research was extended by incorporating the role of embeddedness in this relationship.

Results demonstrate that perceived internal employability is positively related to career satisfaction. This supports past research which has found a relationship between external employability and career satisfaction or subjective career success. This study reveals that perceived internal employability may also contribute to the subjective career success of employees. This indicates that perceptions of employability, whether internal or external can lead to subjective career success.

In addition, the mediator role of embeddedness on the relationship between perceived internal employability and career satisfaction was investigated. The results show that embeddedness acts as a partial mediator to the relationship between perceived internal employability and career satisfaction. Employee perceptions of being internally employable appear to be positively related to embeddedness, which then is positively related with feeling satisfied regarding one’s career. To date, this is the first study linking perceptions of internal employability and embeddedness. In addition, this study answers the call of Feldman and Ng (2007) that argued that more research was needed examining the relationship between embeddedness and subjective career success. Future research needs to continue to examine other potential antecedents to and outcomes of embeddedness.

Implications for Practice

This study has important practical implications. Mitchell and his colleagues (e.g., Lee et al., 2004; Mitchell et al., 2001) demonstrated embeddedness is critical for important organizational outcomes such as employee retention and performance. Embeddedness may be even more critical for organizations given the current state of the economy where unemployment is low, employees change jobs often, and the best employees expect more from their organization. For example, career development opportunities are a crucial factor in Millennials remaining at their organizations (Stahl, 2016). In addition, almost ninety percent of employers in a recent survey indicate that improving employee retention will be a focus in the coming year with organizations increasingly offering more internal mobility opportunities in an effort to retain their best employees (Schawbel, 2016).

Given that the results of this study indicate that increased perceptions of internal employability not only may lead to increased perceptions of career satisfaction, but it can also lead to increased embeddedness, organizations should take steps to increase employee perceptions of being employable within their current organization. For example, organizations should be engaged in career development activities such as providing challenging job assignments, providing performance feedback, increasing autonomy, and offering job rotation which may increase perceptions of internal employability (e.g., Nelissen et al., 2017; Van Harten et al., 2016). Organizations may also attempt to support their employees via mentoring, coaching or training activities.
Embeddedness, Employability, and Satisfaction

(e.g., Chambel et al., 2015; Martini and Cavenago, 2017) which could increase perceptions of internal employability. By increasing employee perceptions of internal employability, organizations may not only be further embedding their top employees in the organization which this study demonstrates can lead to increased feelings of career satisfaction, but also may be indirectly leading to lower turnover, lower aggression, and higher performance and OCBs (e.g., Holtom et al., 2012; Lee et al., 2004; Mitchell et al., 2001).

Limitations

The results of this study should be viewed in light of its limitations. First, the independent and dependent variables were collected at the same time. Therefore, common method variance could be a problem in this sample (Podsakoff et al., 2012). However, several precautions were taken to minimize this concern. Data were collected from a diverse sample across many industries, careless responders in the surveys were identified, and post-hoc statistical tests were conducted that demonstrated common method variance was not significantly affecting the relationships between the variables in this study. Nonetheless, future research should attempt to replicate the results reported in this study over a longer time period.

In addition, the reported relationships between the variables reported in this study cannot be classified as causal since all of the data were collected at the same time. Although the results of this study suggest that perceptions of internal employability can lead to increased embeddedness which can then predict career satisfaction, it is possible that the sequencing could be altered. For example, it is possible that being embedded may lead someone to feel more internally employable. Future research should address this question with longitudinal studies that allow a stronger inference about causation to be made.

Finally, the focus of this study was on overall on-the-job embeddedness, rather than the sub-dimension level of fit, links, and sacrifice. In this study, a composite measure of embeddedness was used that equally weighted fit, links, and sacrifice. However, it is conceivable that fit, links, and sacrifice do not equally influence reactions to perceptions of employability. Please note that the composite approach was used because this is the dominant approach in research on embeddedness. In fact, very few studies on embeddedness examine fit, links, and sacrifice independently (Jiang et al., 2012). Future research examining the role that embeddedness plays in reactions to perceived employability should consider testing these relationships at the fit, links, and sacrifice level. In addition, future research should examine the role that off-the-job embeddedness plays in these relationships.

Conclusion

In this study, the importance of internal employability to subjective career success was demonstrated. In addition, past research in this area was extended by incorporating the role of employee attachment (i.e., embeddedness) in psychological reactions to employability. Future research should continue to look at the processes through which perceptions of employability affect a variety of important organizational and employee outcomes.
References


The Use of Twitter Profiles to Assess Personality and Hireability

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Social media (SM) screening can provide organizations with a “treasure trove of information that potential employers will not find on an application or learn about in an interview” (Saylin and Horrocks, 2013). More often than not, this information is used

1 A previous version of this manuscript was presented at the 2014 Academy of Management Annual Conference, Philadelphia, PA.
to eliminate a candidate, but now more than ever; it can also bolster the chances of his or her hire. Since organizations are looking to keep hiring costs to a minimum, hiring the right candidate the first time is of utmost importance. The Society for Human Resources Management conducted a survey in 2008 and found 26% of organizations used social media screening to assess person-organization fit (SHRM, 2008). A more recent study conducted by Reppler (2011) found that 91% of all organizations surveyed practice social media screening, with 76% using Facebook and 53% using Twitter to glean information about job candidates. Twitter and Facebook are used more commonly than LinkedIn, because they contain information that would give a glimpse into the personal life of the candidate, while the latter is akin to an online resume.

In a 2012 Career Builder.com study, 2000 hiring managers and HR personnel were polled and 37% admitted to conducting social media screening. While 34% of those surveyed indicated that candidates had been eliminated after the screening, 29% said they hired candidates based on their social media information. Nearly 60% of those indicated that they could get a good feel for the candidate’s personality by viewing their social media sites; while 55% indicated that the information was a good indicator of the professionalism of the candidate (Grasz, 2012). To date, most academic studies have focused on the use of the social media website Facebook in the screening process, as there are over 1.11 billion registered users, and copious amounts of information about each user (e.g., Van Iddekinge et al., 2013; Schwartz et al., 2013; Kluemper et al., 2012; Back et al., 2010; Karl et al., 2010; Kluemper and Rosen, 2009).

Fewer studies have focused on Twitter as an indication of personality and for use in the screening process. Twitter is a microblogging website where users can post short messages for others to see with a maximum limit of 140 characters. These messages, or tweets, are available for viewing by anyone who is following a Twitter account, and can be seen by those who perform key-word searches on the topics that are being discussed (Twitter.com, 2014). For studies that have already been conducted using Twitter, initial evidence suggests that one’s profile can be an indication of one’s personality (Golbeck et al., 2011; Qui et al., 2012; Sumner et al., 2012). However, to the knowledge of the authors, no research has explored the link between personality and hireability using Twitter profiles, which is the aim of this current research effort. Considering the wide usage of Twitter by both potential employees and HR professionals (Career Builder.com, 2012; Reppler, 2011; Statistic Brain, 2014), it is important for researchers and practitioners to outline the methods in addition to estimating the reliability and validity of Twitter-based screening methods. While less media-rich than Facebook, and with limitations on what content and how much content can be posted, Twitter still provides insight into one’s personality by the content of the 140-character tweets, pictures, and videos.

There are several important methodological contributions to research in the field of human resources and cyberpsychology within this manuscript. First, the authors make a broad methodological contribution by describing how Twitter profiles can be used to make reliable personality and hireability assessments. Second, this is unique from past research in that there were two sets of multiple raters to assess both personality and hireability; machine learning was not a factor in determining the results of the study. Thus, the current research design mimics what would be found in organizations and adds a level of ecological validity (Schmucker, 2001). Third, inter-rater agreement and reliability for all six personality traits and hireability were consistent with past studies.
that used SM technologies other than Twitter, demonstrating the reliability of using Twitter to predict personality and hireability. Fourth, raters were asked to provide statements regarding which aspects of the profiles were influential in their ratings of subjects, so that the researchers could better understand how assessments were made. Prior research on social media screening and hiring may have used rater assessments, but did not investigate why raters made their assessments in the manner that they did. This study sheds light on the reasons behind the assessments in a way that has not been seen with prior research. Furthermore, this study contributes to theory by introducing narcissism to Hogan’s (1996) socioanalytic framework. Additionally, the authors expand socioanalytic theory beyond the typical context of face-to-face interactions into the context SM and cyberpsychology (Barrick et al., 2002).

That is, this is the first study to use raters to assess both the personality and hireability of subjects using Twitter profiles. This study differs methodologically from past research as it makes use of two sets of multiple raters to assess both personality and hireability mimicking what would be found in organizations (i.e., machine learning or text analysis software was not a factor in determining the results). Inter-rater reliability and agreement for all six personality traits and hireability were consistent with past studies that used SM technologies other than Twitter, supporting the validity of using Twitter to assess personality and hireability. Hence, this research helps to establish that Twitter is another form of SM that can be a useful alternative for assessing these organizationally relevant constructs. A further contribution of this work is an insight into how raters develop their assessments. The raters were asked to provide statements regarding which aspects of the profiles were influential in their ratings of subjects, so that the researchers could better understand how assessments were made. Knowing what aspects of the Twitter profile led to the value judgments about the subject could be beneficial in two ways: for hiring organizations looking to implement social media screening using Twitter, and for job candidates who can make themselves look attractive to hiring organizations.

LITERATURE REVIEW

Twitter is among the three largest U.S. SM sites with over 974 million registered accounts, and 313 monthly active users, who tweet on average 58 million times per day (Twitter.com, 2017; Statistic Brain, 2014). Surveys like the ones conducted by SHRM, Career Builder.com, and Reppler (2011) mention Twitter as one of the major SM sites that employers use to screen employees. Twitter is one of the top 12 most visited websites on the planet as tracked by Alexa, The Web Information Company (2014), making it the #2 ranked social media website in the world. Hiring organizations can potentially use this site to determine one’s level of creativity, the strength of one’s communication skills, an understanding of one’s professional qualifications and whether one has adequate organizational fit (Reppler, 2011).

Past SM research studies have indicated that these websites can give hiring organizations a glimpse into a candidate’s personality (Schwartz et al., 2013; Back et al., 2010; Kluemper et al., 2012; Kluemper and Rosen, 2009), which is often an important indicator of future job performance (Barrick and Mount, 1991). Given the depth of information that can be found on Twitter, including tweets, pictures, videos, favorite tweets, retweets (reposting of another’s tweet), lists, and public personal conversations,
it is credible to expect that HR practitioners might use Twitter to assess personality and potential hireability.

In the contemporary work on socioanalytic theory, Hogan and colleagues state that neither work nor personality occur in a vacuum (Hogan and Holland, 2003; Hogan and Shelton, 1998). That is, people work in organizations that are made up of collections of individuals, who are prone to assess the personality and behaviors of each other. According to socioanalytic theory, people who possess different personality traits are motivated to engage in different behavioral tactics to appropriate their value within the organization (Barrick et al., 2002; Hogan and Holland, 2003). Therefore, the effects of personality on performance is mediated by an individual’s behavior, such that certain personality traits are tied to behaviors which help an individual either get along or get ahead in an organization. Moreover, both getting along and getting ahead behaviors relate positively to an individual’s job performance, because each type of behavior describes an individual’s propensity to engage in either task or contextual performance (Motowidlo and Kell, 2013). That is, an individual who is predisposed to engage in getting ahead behaviors is likely to attempt to get ahead through offering higher levels of task performance to the organization. Conversely, an individual who is predisposed to engage in “getting along” behaviors is likely to engage in increased levels of contextual performance. Due to the fact that individuals often work in groups and teams, contextual performance such as OCBs and “backing up” behaviors often translate to profit generating task performance in a group setting (Morgeson et al., 2005).

Furthermore, Hogan and Shelton (1998) argue that there are two major components to one’s personality: (1) personality from the outside or reputation, and (2) personality from the inside or identity. A fundamental concept of socioanalytic theory is that an individual’s identity gives rise to a specific set of observable behavioral patterns (Barrick et al., 2002; Hogan and Holland, 2003; Hogan and Shelton, 1998). Observers then assess such patterns of behavior and over time the observer’s accounts of an individual serve to define the individual’s reputation. Thus, Hogan and Shelton suggest that reputation is built on one’s action over a period of time, so, “reputations are a valid way of forecasting people’s future behavior” (1998: 131). Specifically, an individual’s reputation can be defined in terms of trait personalities and subsequently be used to predict both getting along and getting ahead behaviors. Moreover, an individual’s performance is transmitted through their behavior, such that assessments of an individual’s reputation can be used to indirectly predict performance (Hogan and Shelton, 1998; Motowidlo and Kell, 2013). Thus, organizations have an incentive to identify and hire those candidates who possess personality traits that relate positively to performance.

Applying socioanalytic theory (Hogan, 1996, 2007) to the present study, self-reported personality, in the form of the Big Five personality traits plus narcissism, will be used to assess identity. The tweets themselves provide evidence for behaviors, actions, and thoughts that can be assessed by qualified raters, to create an other-rated personality, and as such, will be a proxy for reputation. In this way, it can be determined whether identity and reputation are meaningfully similar, and whether reputation influences how hireable a candidate is deemed.
Personal Characteristics

Similar to past studies of socioanalytic theory, the Big Five personality traits were used as measures of personality in this study (e.g., Barrick et al., 2002). Additionally, a measure of narcissism was included as a measure of personality, because narcissism has been demonstrated to negatively correlate with organizationally relevant outcomes such as other-rated contextual and task performance (e.g., Judge et al., 2006). Extroversion measures how outgoing one is, and those who score high on the extroversion scale are often considered “sociable, gregarious, assertive, talkative, and active” (Barrick and Mount, 1991: 3). These individuals tend to be optimistic, enthusiastic, and have a can-do attitude. Agreeableness is associated with likeability and friendliness. This personality trait is associated with being “courteous, flexible, trusting, good-natured, forgiving, cooperative, soft-hearted and tolerant” (Barrick and Mount, 1991: 4). Conscientiousness “reflects dependability; that is, being careful, thorough, responsible, organized, and planful” (Barrick and Mount, 1991: 4). Commonly associated with traits such as “being imaginative, cultured, curious, original, broad-minded, intelligent, and artistically sensitive,” openness to experience helps distinguish creative from more conventional people (Barrick and Mount, 1991: 5). Neuroticism is a trait commonly linked to feelings of “anxiety, worry, insecurity, depression,” among others (Barrick and Mount, 1991: 4). Narcissistic individuals tend to have a “grandiose view of one’s self-importance; entitlement, expecting special favors without reciprocal responsibilities; and a lack of empathy” (Raskin and Hall, 1979: 45). Hireability is the “suitability of a job candidate and probable interview outcome” (Stevens and Kristof, 1995: 592).

Hypotheses

According to socioanalytic theory, a focal individual’s personality is manifested within their observable behaviors (Hogan and Holland, 2003; Hogan and Shelton, 1998). Therefore, if scholars and practitioners are to accept the premise of socioanalytic theory, then a trained set of personality raters should be able to deduce the personality of the focal individual through observing their relatively objective behaviors. Hence, due to the relative degree of objectivity involved in this process the authors of the present study expected that the ratings of personality will be consistent across raters. Moreover, this logic could be extended to discuss the raters of hireability, as they too are making judgments regarding an individual’s level of hireability based on a set of relatively objective behaviors. Therefore, ratings of hireability should also be consistent across raters.

Establishing inter-rater reliability and agreement also played an additional role in this study, as establishing reliability of measurement was necessary to demonstrate that the study was of a valid research design (Pedhazur and Schmelkin, 2013). Furr and Funder (2007) identify rater consensus as a primary concern with judge-rated behavioral observation. Inter-rater reliability and agreement of all six personality traits being studied (A) extroversion, (B) agreeableness, (C) conscientiousness, (D) openness, (E) neuroticism, and (F) narcissism, needs to be present in this study or personality assessments would be fully dependent on the rater performing the assessments. Similar to what is required of personality raters, the hireability raters needed to be consistent across raters for the use of Twitter to be validated in this study.
Hypotheses 1a-1g: There will be significant agreement across raters in assessing: (A) Extraversion, (B) Agreeableness, (C) Conscientiousness, (D) Openness, (E) Neuroticism, (F) Narcissism, and (G) Hireability.

Based on the rich variety of information found on Twitter, the authors of this study propose that it will be useful as a mechanism to assess personality. Kluemper and Rosen (2009), and Kluemper et al., (2012) found initial support in a set of similar studies using Facebook profiles. Moreover, the notion that an individual's personality can be predicted based on information regarding an individual's behaviors via Twitter is theoretically consistent with socioanalytic theory (Hogan and Holland, 2003; Hogan and Shelton, 1998). Stated otherwise, it should be possible for raters to assess a focal individual's personality based on information provided by the focal individual's Twitter profile. Moreover, this should be true because one's outward behaviors (e.g., what they post on Twitter) are a reflection of their personality, and trained personality raters can deduce a focal individual's personality based on their behaviors. This logic leads to the study's second set of hypotheses:

Hypotheses 2a-2f: There will be significant agreement between other-ratings and self-ratings of: (A) Extraversion, (B) Agreeableness, (C) Conscientiousness, (D) Openness, (E) Neuroticism, and (F) Narcissism.

This study's final set of hypotheses examines the relationship between other-rated personality and hireability. It is the authors' belief that assessing this relationship will lead to further insight on what personality traits most impact hireability. According to past meta-analytic results, the personality traits of conscientiousness and extraversion were found to be significant positive predictors of both "getting along" and "getting ahead" behaviors, while neuroticism had a significant negative relationship with both "getting along" and "getting ahead" behaviors (Hogan and Holland, 2003). Moreover, agreeableness is a strong predictor of "getting along" behaviors and openness is a predictor of "getting ahead" behavior. Hence, the findings of this meta-analysis indicate that individuals with high trait levels of extraversion, agreeableness, conscientiousness, openness, and low trait levels of neuroticism are more likely to offer high levels of performance and be positively evaluated by others. Furthermore, researchers have demonstrated that when raters are asked to judge an individual's personality based on their resume and assess the individual's level of hireability, then the same pattern of relationships holds true (Burns et al., 2014). Such that extraversion, agreeableness, conscientiousness, and openness have positive relationships with hireability, and neuroticism has a negative relationship with hireability.

In addition to the predictions based on the Big Five personality traits, one may also expect that narcissism will negatively impact the hireability rating of a job candidate. This prediction is made in accordance with the Judge et al. (2006) study that found narcissism to be negatively correlated with other-rated desirable traits (e.g., leadership, task performance, and contextual performance). Additionally, narcissism is understood to undermine social exchange relationships, as the narcissists are primarily interested in serving themselves and less likely to reciprocate social exchanges (O'Boyle et al., 2012; Raskin and Hall, 1979). Stated otherwise, narcissists are less likely to be team players and reciprocate favors to those who go out of their way to help them.
Hence, if one senses that a potential candidate may not be a team player then they will see this as a mark against their hireability.

In the end, the authors found a large body of literature that offers theoretical and empirical support for the notion that people have more positive views of certain personality traits than they do of other personality traits (e.g., Burns et al., 2014; O’Boyle et al., 2012). Specifically, the authors of the current study suggest that people most positively view the personality traits of extraversion, conscientiousness, openness, and agreeableness, and people negatively view the personality traits of neuroticism and narcissism. Thus, the authors hypothesize that these positive and negative views that people hold toward certain personality traits will be manifested in the hireability assessment of the focal individual. Hence, the authors offer Hypotheses 3a-3f:

Hypotheses 3a-3f: Other-rated: (A) Extraversion, (B) Agreeableness, (C) Conscientiousness, (D) Openness, will positively correlate with hireability, additionally (E) Neuroticism and (F) Narcissism will negatively correlate with hireability.

METHOD

Participants

This study was conducted at a small private university in the midwestern United States. Undergraduate students were invited by the research team via email to voluntarily participate. The email indicated it would be a survey of personality and SM use. Both users and non-users of SM sites were encouraged to participate. An incentive of $250 was offered to those who completed the survey, with five randomly drawn winners each receiving $50. The online survey consisted of 62 questions, including: (1) what is your gender? (2) which of these ten popular U.S. social media sites do you have accounts on? (3) 50 questions assessing Big Five personality traits, (4) nine items addressing narcissism, (5) a final question that asked for the subject’s Twitter handle.

The online survey was open for a total of one week during the fall 2013 semester, and 567 surveys were completed. The directions indicated that it was designed to determine the personalities of those using various SM websites, and to determine the personality differences between users and non-users of SM sites. Of the 567 completed surveys, 397 subjects (70%) were female, and the average number of SM sites used out of the ten presented was 4.38 sites. 152 subjects were selected for the final sample which included those that had verified Twitter accounts, and which were public (accessible by anyone), and that had tweeted 200 or more times. The cut-off value of 200 was deemed necessary in order to demonstrate that the individuals were regular users of Twitter. The 200 tweet minimum was also used so that the raters could have enough information to adequately assess personality and hireability, with more tweets being preferred to less tweets. While not all the tweets could be viewed in the period of time allotted for each profile, a general idea about the user could be assessed by skimming the tweets.

Measures

Self- and other-rated personality traits – Subjects completed the International Personality Item Pool (Goldberg et al., 2006) to assess the Big Five personality traits.
The 50-item scale contains ten items for each of five dimensions (extroversion, agreeableness, conscientiousness, openness, and neuroticism). Subjects answered questions such as “I feel comfortable around people” (extroversion), “I have a good word for everyone” (agreeableness), “I am always prepared” (conscientiousness), “I believe in the importance of art” (openness), and “I often feel blue” (neuroticism) using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Narcissism was assessed by having subjects complete the nine-item narcissism subscale of the short dark triad (SD3) with statements like “People see me as a natural leader” (Jones and Paulhus, 2014). The personality raters then completed the same set of 59 items and were instructed to answer each item as if they were the subject to ensure consistency between subjects and raters. In other words, the personality raters used the scales to assess the Twitter profiles of the student participants.

Hireability ratings – This commonly used organizational practice to assess a job candidate’s attractiveness was measured using three items drawn from Stevens and Kirstof (1995). Questions included “How highly do you regard this applicant?”, “How likely would you be to offer this person a job?”, and “How attractive is this applicant as a potential employee?” The items were rated on a five-point scale, with 1 representing low and 5 representing high. Raters were instructed to not base hireability assessments on any particular job or organization, but as a general measure of how likely they would be to employ the subject based on their Twitter profile.

Raters

Three qualified raters were used to assess personality, and separately three qualified raters were used to assess the hireability of the 152 subjects. The three raters recruited to assess personality were first-year Ph.D. students at a large public southeastern U.S. university who completed a seminar in organizational behavior in which personality traits were extensively covered. These raters were active users of SM sites and familiar with how personality traits were typically assessed. The personality raters appear as authors on this study. To limit any bias they might have when conducting the assessments, they did not learn the purpose of the study until after the assessments were completed.

The personality raters were given written instructions saying that the study was to determine whether the process of reviewing one’s Twitter profile could be used to assess personality. In addition to the instructions, each rater was asked to watch a six-minute video (see Rosen, 2013) to demonstrate the structure of a Twitter profile and the various aspects of the profile that could be used to make personality assessments, including: whether or not the subject had a profile picture and/or header picture, the header information supplied by the subject, the number of tweets, the number of people the subject was following, the number of people that were following the subject, the subject’s favorite tweets, the lists the subject were on, the pictures and videos uploaded by the subject, the conversations the subject engaged in, and most importantly the content of the subject’s tweets and retweets. Raters were asked not to communicate with each other about the project until the assessments were complete to ensure rater independence.

The personality raters were given a schedule of when they were to assess the tweets, their job taking place over a two-week period, to ensure that all three raters were seeing almost identical information for each subject. To minimize rater fatigue, they were asked to conduct their assessments for no more than one hour at a time, and for no more than
two hours a day, once in the morning and once in the evening. Because of the two-week schedule that the raters were asked to adhere to, with the names of the subjects to be assessed on the particular day and instructions of one hour of assessment taking place in the morning and one hour taking place in the afternoon, the raters were essentially viewing the same information. The raters answered the same online survey as the subjects in the study, so raters were instructed to review the survey prior to making the first assessment, in order to be familiar with the questions they themselves would complete. Raters reviewed the subject’s Twitter profile for five minutes, at which point they then assessed the subject’s personality based on their impressions by answering the online survey.

The three raters recruited to assess the hireability of each subject all worked in the field of human resources and had experience in the recruiting/hiring of candidates. The hireability raters all held business degrees and were active users of SM sites. They represented three different industries: energy, information systems, and transportation. These raters were given written instructions and asked to consider the hireability of the subjects with no particular job category or organization in mind. The use of a general job assessment is consistent with past SM-hireability studies (e.g., Burns et al., 2014), and allows for more generalizable findings that are less likely to be moderated by context (see for a review, Judge and Zapata, 2015). This more general assessment of hireability was done using the same aspects of the Twitter profile that the personality raters used. Therefore, the hireability raters were also instructed to watch the video produced by the lead author. The complete purpose of the study was not presented to the hireability raters, and they did not know of the existence of the personality raters. For each subject in the study, the hireability raters visited their Twitter profile and were asked to skim it for three minutes. After that time, the raters answered three questions from Stevens and Kirstof (1995) to assess hireability. The hireability raters had a schedule that coincided with the personality raters to try to ensure that all raters were seeing the same basic information when making their assessments.

RESULTS

In order to assess inter-rater reliability for the raters’ assessments of personality and hireability, average measures intraclass correlation coefficients (ICC(2)s) were used. The two-way mixed model was selected as the same three raters rated all 152 subjects; the consistency measure was used over the absolute agreement measure, as the mean value was of more importance than any individual rater’s assessment (McGraw and Wong, 1996). In a similar study in which raters used Facebook profiles to make personality and hireability assessments, Kluemper et al. (2012) argued for the use of ICC(2) threshold values of 0.50 for other-rated personality traits, and reported ICC(2) values ranging from a low 0.47 for extroversion to a high of 0.67 for agreeableness. In the present study the authors also assessed inter-rater agreement for the raters’ assessments of personality and hireability. To measure inter-rater agreement, the RWG(j) statistic was used (James et al., 1984; LeBreton and Senter, 2008). Moreover, the commonly accepted threshold for the RWG(j) statistic is 0.70 to demonstrate strong levels of inter-rater agreement (LeBreton and Senter, 2008). Additionally, after identifying that the data on average displayed a level of moderate skewness (0.47), the RWG(j) statistic was corrected for skewness as recommended by LeBreton and Senter (2008).
For the six personality variables examined in this study, all ICC(2) values were greater than 0.50, with a low of 0.53 for neuroticism and a high of 0.79 for extroversion. Additionally, the six personality raters demonstrated high levels of inter-rater agreement, all RWG(j) values were greater than 0.70, with a high of 0.93 for both extraversion and conscientiousness and a low of 0.85 for openness. Thus, both of these agreement and reliability statistics are deemed acceptable for three raters using an unstructured method of personality assessment as shown in Table 1. H1a-f, which stated that there would be acceptable levels of inter-rater agreement and reliability among the three personality raters for the six personality traits using Twitter profiles as the means to assess personality, was supported. H1g examined whether or not acceptable levels of inter-rater agreement and reliability would be reached for the hireability construct, again with ICC(2) and RWG(j) thresholds of 0.50 and 0.70 respectively as the targets. In the Kluemper et al. (2012) study, an ICC value of 0.64 was found using the three raters. In this study, the RWG(j) and ICC(2) values for hireability across raters were 0.93 and 0.69 respectively (see Table 1), providing support for H1g.

Table 1
Descriptive Statistics for Self- and Other-Rated Study Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>Alpha</th>
<th>ICC(2)</th>
<th>RWG(j)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extroversion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other-Rated</td>
<td>3.44</td>
<td>0.67</td>
<td>0.93</td>
<td>0.79</td>
<td>0.93</td>
</tr>
<tr>
<td>Self-Rated</td>
<td>3.60</td>
<td>0.72</td>
<td>0.90</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agreeableness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other-Rated</td>
<td>3.63</td>
<td>0.56</td>
<td>0.93</td>
<td>0.68</td>
<td>0.91</td>
</tr>
<tr>
<td>Self-Rated</td>
<td>3.79</td>
<td>0.53</td>
<td>0.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conscientiousness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other-Rated</td>
<td>3.42</td>
<td>0.54</td>
<td>0.93</td>
<td>0.58</td>
<td>0.93</td>
</tr>
<tr>
<td>Self-Rated</td>
<td>3.65</td>
<td>0.59</td>
<td>0.84</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Openness</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other-Rated</td>
<td>3.31</td>
<td>0.57</td>
<td>0.91</td>
<td>0.70</td>
<td>0.85</td>
</tr>
<tr>
<td>Self-Rated</td>
<td>3.68</td>
<td>0.68</td>
<td>0.84</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neuroticism</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other-Rated</td>
<td>2.60</td>
<td>0.44</td>
<td>0.90</td>
<td>0.53</td>
<td>0.89</td>
</tr>
<tr>
<td>Self-Rated</td>
<td>2.56</td>
<td>0.74</td>
<td>0.88</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Narcissism</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other-Rated</td>
<td>3.04</td>
<td>0.48</td>
<td>0.88</td>
<td>0.64</td>
<td>0.92</td>
</tr>
<tr>
<td>Self-Rated</td>
<td>3.16</td>
<td>0.57</td>
<td>0.74</td>
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</tr>
<tr>
<td>Hireability</td>
<td>3.39</td>
<td>0.71</td>
<td>0.96</td>
<td>0.69</td>
<td>0.93</td>
</tr>
</tbody>
</table>

ICC(2) = Intraclass correlation coefficient two-way random effects model, average measure reliability is reported.

RWG(j) = Inter-rater agreement indices using the moderate skew model, median agreement values are reported.
### Table 2
Inter correlations between Study Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) hireability</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) other-rated extroversion</td>
<td>0.09</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) other-rated agreeableness</td>
<td>0.59**</td>
<td>0.10</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) other-rated conscientiousness</td>
<td>0.59**</td>
<td>-0.05</td>
<td>0.59*</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) other-rated openness to experience</td>
<td>-0.12</td>
<td>-0.18*</td>
<td>0.00</td>
<td>0.10</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) other-rated neuroticism</td>
<td>-0.46**</td>
<td>-0.51**</td>
<td>-0.49**</td>
<td>-0.38**</td>
<td>0.21*</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7) other-rated narcissism</td>
<td>0.05</td>
<td>0.81**</td>
<td>-0.04</td>
<td>-0.07</td>
<td>-0.25*</td>
<td>0.46**</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8) self-reported extroversion</td>
<td>-0.03</td>
<td>0.34**</td>
<td>0.06</td>
<td>-0.06</td>
<td>0.13</td>
<td>-0.11</td>
<td>0.31**</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9) self-reported agreeableness</td>
<td>0.23**</td>
<td>0.01</td>
<td>0.27**</td>
<td>0.17*</td>
<td>0.09</td>
<td>-0.14</td>
<td>-0.08</td>
<td>0.05</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10) self-reported conscientiousness</td>
<td>0.12</td>
<td>0.11</td>
<td>0.20*</td>
<td>0.19*</td>
<td>0.00</td>
<td>0.17*</td>
<td>0.02</td>
<td>0.11</td>
<td>0.18*</td>
<td>--</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11) self-reported openness to experience</td>
<td>-0.19*</td>
<td>0.24**</td>
<td>-0.11</td>
<td>-0.03</td>
<td>0.54**</td>
<td>0.21**</td>
<td>0.25**</td>
<td>0.12</td>
<td>0.02</td>
<td>-0.20*</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12) self-reported neuroticism</td>
<td>-0.20*</td>
<td>-0.18*</td>
<td>-0.28**</td>
<td>-0.11</td>
<td>0.07</td>
<td>0.34**</td>
<td>-0.17*</td>
<td>-0.38**</td>
<td>-0.35**</td>
<td>-0.25**</td>
<td>0.10</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>13) self-reported narcissism</td>
<td>0.04</td>
<td>0.30**</td>
<td>0.07</td>
<td>0.03</td>
<td>0.08</td>
<td>-0.13</td>
<td>0.30**</td>
<td>0.63**</td>
<td>-0.09</td>
<td>0.19*</td>
<td>0.05</td>
<td>-0.30**</td>
<td>--</td>
</tr>
</tbody>
</table>

Significance Levels: p < 0.05*; p < 0.01**
H2a-2f examined whether raters can predict one’s personality from a view of his/her Twitter profile. Table 2 shows the intercorrelations among study variables and shows that for all six personality variables, self- and other-rated personality were significantly correlated, with a low value of 0.19 for conscientiousness to a high value of 0.54 for openness to experience as shown in Table 2.

H3a-3f examined whether other-rated personality traits and hireability were related. The authors hypothesized that other-rated extroversion, agreeableness, conscientiousness, and openness to experience would positively correlate and that other-rated neuroticism and narcissism would negatively correlate with hireability. Three of the six hypotheses were supported with other-rated agreeableness and conscientiousness correlating positively to hireability and other-rated neuroticism correlating negatively to hireability.

### Table 3
Summary of Hypotheses and Results

<table>
<thead>
<tr>
<th>Inter-rater Reliability Trait</th>
<th>ICC value</th>
<th>Rwg(j) value</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1a Extroversion (EXT)</td>
<td>0.79</td>
<td>0.93</td>
<td>Supported</td>
</tr>
<tr>
<td>H1b Agreeableness (AGR)</td>
<td>0.68</td>
<td>0.91</td>
<td>Supported</td>
</tr>
<tr>
<td>H1c Conscientiousness (CON)</td>
<td>0.58</td>
<td>0.93</td>
<td>Supported</td>
</tr>
<tr>
<td>H1d Openness to Experience (OPEN)</td>
<td>0.70</td>
<td>0.85</td>
<td>Supported</td>
</tr>
<tr>
<td>H1e Neuroticism (NEURO)</td>
<td>0.53</td>
<td>0.89</td>
<td>Supported</td>
</tr>
<tr>
<td>H1f Narcissism (NAR)</td>
<td>0.64</td>
<td>0.92</td>
<td>Supported</td>
</tr>
<tr>
<td>H1g Hireability</td>
<td>0.69</td>
<td>0.93</td>
<td>Supported</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Relationship</th>
<th>Correlation</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>H2a Self-rated EXT → Other-rated EXT</td>
<td>0.34**</td>
<td>Supported</td>
</tr>
<tr>
<td>H2b Self-rated AGR → Other-rated AGR</td>
<td>0.27**</td>
<td>Supported</td>
</tr>
<tr>
<td>H2c Self-rated CON → Other-rated CON</td>
<td>0.19*</td>
<td>Supported</td>
</tr>
<tr>
<td>H2d Self-rated OPEN → Other-rated OPEN</td>
<td>0.54**</td>
<td>Supported</td>
</tr>
<tr>
<td>H2e Self-rated NEURO → Other-rated NEURO</td>
<td>0.34**</td>
<td>Supported</td>
</tr>
<tr>
<td>H2f Self-rated NAR → Other-rated NAR</td>
<td>0.30**</td>
<td>Supported</td>
</tr>
<tr>
<td>H3a Other-rated EXT → Hireability</td>
<td>0.09</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H3b Other-rated AGR → Hireability</td>
<td>0.59**</td>
<td>Supported</td>
</tr>
<tr>
<td>H3c Other-rated CON → Hireability</td>
<td>0.59**</td>
<td>Supported</td>
</tr>
<tr>
<td>H3d Other-rated OPEN → Hireability</td>
<td>-0.12</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H3e Other-rated NEURO → Hireability</td>
<td>-0.46**</td>
<td>Supported</td>
</tr>
<tr>
<td>H3f Other-rated NAR → Hireability</td>
<td>0.05</td>
<td>Not Supported</td>
</tr>
</tbody>
</table>

Significance Levels:
p < 0.05 *
p < 0.01 **
In the end, sixteen of the nineteen hypotheses were supported as shown in Table 3. Hence, the results demonstrated inter-rater reliability and agreement between the three raters on the six personality traits and hireability. Additionally, the results were able to show support for the ability of other-raters to predict self-rated personality traits. Finally, the results of this study illustrate that other-rated personality traits (agreeableness, conscientiousness, and neuroticism) significantly relate to hireability.

**DISCUSSION**

What insights can hiring organizations gain about you from your Twitter profile? This study was an attempt to discover whether one could use Twitter to accurately predict personality, and how these assessments may impact a candidate’s hireability. Using the framework of Hogan’s (1996) socioanalytic theory, it was argued that self-reported personality is akin to one’s identity and reputation is similar to other-rated personality. In the present study, correlating self-reported and other-rated personality demonstrated the link between identity and reputation, and the impact of one’s reputation on hireability was examined. This is important because surveys of practitioners show that SM sites like Twitter and Facebook are being used extensively in the screening process. For example, a Reppler (2011) study showed that 91% of the 300 HR professionals surveyed use social media sites for this purpose.

Using a sample of 152 subjects, it was found that personality can be accurately predicted solely using Twitter profiles. Three personality raters came to general agreement about the subjects’ profiles and accurately predicted the Big Five personality traits and narcissism from information gathered from Twitter. Unlike prior studies that used machine learning to draw conclusions from processed tweets (e.g., Golbeck et al., 2011; Qui et al., 2012; Sumner et al., 2012), this study used trained raters to draw its conclusions. This is more representative of what one would find in hiring organizations. HR staff rarely have access to the computerized tools used in past studies, and would, in practice, make their assessments about the suitability of job candidates. Unlike other studies, the raters in this study also used all available information on each subjects’ profile, including pictures and videos, in addition to the tweets, to come to their conclusions. Using all available information gives HR personnel a deeper understanding of each candidate being assessed.

Raters were asked to provide the researchers with a brief description of the criteria they used to evaluate the subjects. Personality raters indicated that a subject who was high in extroversion, for example, would have a high number of followers, group pictures, and conversations that were directed at many different people. A highly agreeable subject was one that positively interacted with others, sent congratulatory or friendly tweets, and showed empathy to others. Those who were highly conscientious were involved in numerous activities, put work ahead of social activities, showed self-discipline, and followed professional Twitter accounts such as companies and/or news organizations. Someone who was high in openness had a customized background, interesting header and profile photos, discussed travel and arts, followed wisdom-sharing accounts, and had photos of interesting activities and travel destinations. Those high in neuroticism posted critical comments about themselves, and frequently talked about their bad mood, negative feelings towards life in general, and discussed high levels of stress and mental anguish. Narcissistic individuals made self-absorbed comments that
involved bragging and self-promotion, had pictures that focused solely on themselves, followed a large number of celebrities, and often one-upped their followers in conversations.

Hireability raters all indicated that they looked at the profile picture and header picture for signs of professionalism. This and the level of activity and responsibility one tweeted about pointed to how dutiful the subject was. Mood of the tweets was important to these raters, and revealed how unstable the subject was. Profanity was universally mentioned as a negative to hireability and lowered the rating for those subjects that used it frequently in their tweets. Such subjects were found to be described as appearing abrasive. Not surprisingly then, the other-rated personality traits that significantly correlated with hireability were conscientiousness, neuroticism, and agreeableness.

In summary, this study provides several important methodological contributions. First, this is one of the only studies to use qualified raters to assess both the personality and hireability of subjects using Twitter profiles. Second, this study differs from past research in that there were two sets of multiple raters to assess both personality and hireability; machine learning was not a factor in determining the results of the study (mimicking what would be found in organizations). Third, inter-rater agreement and reliability for all six personality traits and hireability were consistent with past studies that used SM technologies other than Twitter, demonstrating the reliability of using Twitter to predict personality and hireability. Fourth, raters were asked to provide statements regarding which aspects of the profiles were influential in their ratings of subjects, so that the researchers could better understand how assessments were made. Additionally, this research makes a theoretical contribution to socioanalytic theory by introducing the construct of narcissism to Hogan’s (1996) framework and testing the relationship between narcissism and hireability.

There are some limitations to the present study. While providing support for the impact of Twitter on personality prediction and hireability ratings, it is not the opinion of the authors that Twitter should be used in isolation, but rather that it can be used to supplement traditional screening methods. Knowledge, skills and abilities are still important factors in the hiring process, and should be assessed in other manners. This study also asked the hireability raters to provide a general assessment of the subjects and not to think of any particular job or organization when providing their ratings. While this practice may add a degree of generalizability to the study, in practice, hiring managers would know what positions candidates had applied for, so they could use Twitter as a supplement to see if the candidate demonstrates person-organization and/or person-job fit.

All subjects in this study were degree seeking college-aged students, so there could be different results should this study be applied to different age groups or those with different education levels. Another limitation of this study was the authors’ reliance on public Twitter accounts, which may lead to range restriction as one may expect that those who are more extraverted, narcissistic, or open are more likely to have a public account. However, this limitation reflects the same natural limitation that HR practitioners would experience in applying this selection technique, because HR practitioners also cannot access private Twitter accounts. Finally, it is important to note that hiring solely on the basis of SM profiles can also lead to adverse impact, as suggested by Kluemper et al. (2012) and Van Iddekinge et al. (2013) and should not be done. Not all subjects in this study had Twitter accounts (62% did), and not all of the accounts were
public or had enough tweets to make accurate assessments, so about 27% of the original sample was used to draw the conclusions in this study.

In conclusion, this study found valuable support for the method of using Twitter profiles to assess personality and hireability. The results show acceptable levels of both inter-rater agreement and reliability when others assess a focal individual’s personality and hireability by viewing that focal individual’s Twitter profile. Moreover, self-reported and other-rated personality was highly correlated with one another. Finally, the authors found that other-rated conscientiousness, agreeableness, and neuroticism (in the negative direction) were highly correlated with other rated hireability.

References


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