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THE VOICE AND VOLUME OF LEADER SELF-AWARENESS:
A QUANTITATIVE STUDY OF THE RELATIONSHIP BETWEEN LEADER
SELF-AWARENESS AND TEAM ENGAGEMENT

by

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THE VOICE AND VOLUME OF LEADER SELF-AWARENESS:
A STUDY OF LEADERSHIP AWARENESS PERCEPTIONS AND THEIR
RELATIONSHIP WITH TEAM ENGAGEMENT

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This study proposed that the level of self-awareness possessed by a leader has a direct relationship with the engagement level of the team he or she leads. A quantitative approach using the results of self-other leadership ratings and team engagement ratings were examined to explain employee engagement through perceptions of leadership awareness.

By understanding leadership through the integration of two instruments, one designed to measure seven specific demands of leadership (the L7 instrument) and another to measure employee engagement on twelve dimensions (the Q12 instrument), this study explored the relationship between leader self-awareness and the effect of that awareness on performance as understood by employee engagement.

The examination of leader self-awareness and team engagement was conducted by comparing the proximity of leadership ratings provided by leaders, their superiors, their peers, and their team to each other, and examining the relationship of the overall leadership ratings alignment to the levels of engagement expressed by team members.

The study contributes to the literature on self-other leadership ratings by using a large and diverse leader-member sample in an area of research that often lacks both, by revealing relationships among leader self-awareness, self-other agreement, and employee engagement, and by offering key questions for further research about the interactions between leader self-awareness and work attitudes and outcomes.

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Chapter 1: Introduction to the Study

Introduction to the Problem

If a tree falls in the woods and no one is around to hear it, does it make a sound? This question could well refer to leaders, the understanding of leader self-awareness and its effect on the engagement level of those being led. The metaphor more specifically asks: If leaders become more self-aware of their abilities, does this new level of leader self-awareness affect their team, and, if so, how do we know?

Leadership is a concept that has several theories, definitions, and attributes. One attribute that many consider a component of leadership is self-awareness. The focus of this study will be an attempt to answer whether self-aware leaders have a positive effect on the engagement of their followers.

This study is important because often the role of leaders is to create engagement by acting as a catalyst (Harter, 2000). This examination postulates that leaders with a high level of self-awareness can more capably fulfill their unique contribution to a team, and in turn can increase the team's level of engagement.

As noted by Ashford (1989) and Taylor and Brown (1988), self-perception is a key element of the self-regulation process. Given the nature and expectations of their role, leaders spend much of their time providing feedback to their teams. However, the feedback loop is often left incomplete, because leaders do not always receive feedback from their team or their superior through a process that increases leaders' self-awareness of their unique contribution to their team or organization (Goleman et al., 2001).

Relationships between workplace attitudes and outcomes have been demonstrated at the individual, team, and organizational levels (Judge, Thoreson, Bono, & Patton, 2001). Moreover, Judge and Watanabe (1993) have found that job satisfaction relates highly to overall life satisfaction.

Additionally an abundance of literature provides evidence of relationships between general workplace attitudes and a variety of business outcomes such as customer perceptions (Schmit & Allscheid, 1995) and individual performance outcomes (Iaffaldano & Muchinsky, 1985). Other specific outcomes influenced by employee attitudes include employee satisfaction, pride in service, customer perceptions of service, and safety (Schneider & Bowen, 1993; Schneider, 1990; Schneider, Ehrhart, Mayer, Saltz, & Niles-Jolly, 2005; Ostroff, 1992; Wiley, 1991; Zohar, 1980).

One of those workplace attitudes is described in the concept of engagement, which is founded on Kahn's (1990) description of psychological presence: When workers are fully present, they fulfill their organizational role so that their thoughts, feelings, and beliefs are available in the context of role performances.

Buckingham and Coffman (1999) described engaged people as those who choose to give more energy to their work. Completion of assignments, efficiency, and creativity are enhanced, as are accountability within the ethics and collaboration of the team. The performance benefits of engagement cause many organizations to pursue it.

Coffman & Gonzalez-Molina (2002) offered that there are three categories of engagement. First, engaged individuals work with passion and have a personal attachment to their company. They tend to drive innovation and move the organization

forward. Second, individuals who are not engaged are essentially stuck in neutral. They put in their time but lack energy or passion. Third, the actively disengaged go beyond being unhappy at work, and act out their unhappiness. For the actively disengaged, it's a tone of "misery loves company", and on a daily basis, these individuals resist against what their engaged co-workers are trying to accomplish.

In 2003, Harter et al., in an updated meta-analysis of engagement that included 13,751 business and work units, studied the relationship of employee attitudes (engagement) to safety, customer satisfaction, profit, productivity, job satisfaction, and employee retention. Their results agree with those of others who said that "there are positive and predictive relationships between employee attitudes and various important business outcomes" (Harter, Schmidt, Asplund, & Killham, 2005, p. 4).

The leader plays a role in activating the conditions most likely to encourage and support engagement within the team. It is those aspects of the team environment that the leader can act on or influence that are explained in the Gallup Q12.. (Harter & Schmidt, 2000; Buckingham & Coffman, 1999).

Sala (2003) explained the impact of leaders on their organizations with the observation that effective leaders display a more comprehensive range of their leadership styles. Leaders must be able to connect with broad groups of people because many leaders are called on to act as a liaison (Mintzberg, 1975). In this liaison role, leaders build cooperation among groups that can be a key contribution to the success of the individuals involved as well as the organization (Freshman & Rubino, 2004).

Many job attributes have been surveyed, including pay and benefits, physical environment, work-life balance, and organizational culture. The manager is often identified as the most important attribute, or as the fulcrum that leverages the other important attributes that increase job satisfaction (Harter & Schmidt, 2000; Judge et al., 1995).

Leaders act as matchmakers as they position their team members in roles that best suit their abilities (Buckingham & Coffman, 1999). When the role does not match self-identity, organization members are more likely to be disengaged and will withhold from the expectations of that role (Kahn, 1990). The lack of role-identity match is further described by the National Institute for Occupational Safety and Health, which has identified some conditions that can cause stress in the workplace. These conditions include misalignment between ability and role, lack of control within the role, unrealistic expectations of productivity, and operating outside the decision-making process (Bourey & Miller, 2001).

The culture of the team is more likely to support engagement when team members are exposed to leaders who model engagement and encourage team members to feel safe and to fully involve themselves in their roles (Kahn, 1992). Without this support, the toll that insufficient leadership takes on organizations is significant: Employees say one of the most stressful aspects of their job is their immediate boss (Rath, 2004).

Beyond the conceptual description of engagement, and the role the leader plays in generating engagement within a team, is the discussion of measuring engagement. The Q12, developed by the Gallup Organization, consists of 12 items that measure the

engagement employees experience in their workplace (Harter, Schmidt, Asplund, & Killham, 2005).

The Q12 contains two broad categories of employee survey items. “One category contains those items that capture attitudinal outcomes such as satisfaction, loyalty, pride, customer service, and retention. The other category consists of those items that reflect the more actionable issues that drive those outcomes” (Harter & Schmidt, 2000, p. 13).

It is important to note that in the wording of the Q12 items the reference to supervisor appears only one time. This demonstrates that in the concept of engagement it is realistic to consider that various people in a workplace can influence the experience and perceptions of other members. However, the leader, it appears, occupies a position that can be leveraged in establishing a culture that promotes values and behaviors that support the overall experience of engagement (Harter & Schmidt, 2000; Buckingham & Coffman, 1999).

There are signs that leadership needs continue to drive engagement. In 2002, measurement of the U.S. workforce showed that only 29% of the workforce was actively engaged, 55% was not engaged, and 16% was actively disengaged. For more perspective, each working day approximately 70% of the American workforce is not engaged; to put it another way, “for every two actively engaged people walking the halls of most organizations, there is an actively disengaged person impeding the good work done by the engaged employees” (Coffman, 2002, p. 3).

But producing engagement takes effort and energy, and the number of decisions that leaders encounter daily can be overwhelming depending on the pace, intensity, and

degree of difficulty of the challenges being faced. If leaders are to become more effective, then more definition and understanding of leadership processes need to be discovered and developed (Alimo-Metcalfe & Alban-Metcalfe, 2005; Alimo-Metcalfe, B., 1998).

In 2003, a Conference Board survey of CEOs in North America, Asia, and Europe identified leadership development and employee engagement as major concerns. That year more than 30% of CEOs selected development of potential leaders as one of their top three management issues. Engaging employees was also cited by more than 30% of CEOs as one of the factors most important to company success. (Rudis, 2003).

A rising challenge, for years to come, will be developing quality leaders capable of connecting employees and organization through goals and values. Lieberman and Grolnick (1996) said effective leadership is important to social networks because it transmits the confidence and vision needed to move others to activate on their shared goals. Yet in studies of networks and the partnerships within them, leadership is one of the least considered components (Dering, Cunningham, & Whitby, 2006; Antonioni, 2003).

These statements, which identify a lack of leadership and which predict a wider leadership gap in the future, are supported by several trends. Consider that “over a 10-year period, at least 50 percent of executives fail in their jobs” (Burke, 2004, p. 9). Other research indicates that 35% to 40% of new managers fail within the first 18 months (Fisher, A., 2005; Fisher, A., 1998). The costs associated with leadership turnover are

significant, ranging from \$150,000 to replace a manager to \$750,000 to replace someone in an executive position in just one year (McCune, 1999).

Among the reasons leadership is in such great demand is that the United States is experiencing significant leadership turnover now and more is expected. As an example, Riney (2008) estimated that over the next five years the U.S. health care industry alone will lose 40% to 50% of its current leaders to retirement, but fewer than 25% of U.S. health care organizations have succession plans to address their leadership loss.

Purpose of the Study

Because this study seeks to address leadership self-awareness and its relationship to team engagement, it will use L7 self-ratings of leadership ability from the leader, as well as ratings from the leader's team members, peers, and superior.

The combination of L7 scores provides a 360-degree reflection of perception of leadership ability, and it will be compared with the results from the Q12 ratings from each leader's team. The measures of both instruments are included to produce clarifying results, understanding, and direction to the outcomes of the study.

Using the two measures of L7 and Q12 provides a comprehensive view of the interaction between leader self-awareness and engagement. The results could be used to help generate an understanding of the context of leader self-awareness (multi-rater L7 scores alignment) and its relationship to team engagement (Q12 grand mean) through a multi-rater assessment. An increased understanding of leader perceptions could lead to a more complete picture of engagement.

Data Gathering Method

This study will address the relationship of leader self-awareness and team engagement through a quantitative design using the L7 and Q12 instruments. In the first phase of the study, the self and other ratings of 381 leaders on the L7 instrument were collected. The other categories were represented by superior, team, and peers of the leaders. Q12 scores were also gathered from the teams of these 381 leaders to measure engagement and to help provide an understanding of how L7 scores (leader self-awareness) relate to Q12 scores (engagement).

Research Question

The research question being addressed in this study is: “Is there a relationship between leader self-awareness and team engagement as measured by the L7 multi-rater and Q12 ratings?”

Hypotheses

The three hypotheses proposed are formed to explore the relationship between leader self-awareness as measured by the L7 and engagement as measured by the Q12.

Hypothesis 1: There is a positive relationship between team engagement (Q12 grand mean) and leader self-awareness, the multi-rater alignment of self-other (L7 grand means) leadership perception scores.

Hypothesis 2: The multi-rater alignment of the self-other grand means of the three items that make up the Knowing Self dimension of the L7 instrument is a greater

predictor of team engagement (Q12 grand mean) than the multi-rater alignment of overall leadership self-other (L7 grand means) perceptions.

Hypothesis 3: The multi-rater alignment of the grand means of the self-other ratings of the L7 Knowing Self dimension is a greater predictor of team engagement (Q12 grand mean) than the self-other multi-rater alignment of grand means of any other single leadership dimension measured by the L7.

Significance of the Study

There are gaps in the literature that this study intends to narrow in its contribution. Potential explanations regarding how self-awareness relates to work attitudes and performance have been hypothesized but have not been examined empirically.

In the study of self-other ratings the underlying assumption is that self-other agreement is related to positive outcomes (Atwater, Ostroff, Yammarino, & Fleenor, 1998).

This study provides an opportunity to understand more about the relevance of self-other agreement for predicting individual outcomes such as performance or effectiveness. The design used for this study however will only involve the use of aggregate levels of data that include leadership self-other ratings and ratings of team engagement.

Many researchers studying self-other agreement have suggested that self and other ratings interact in influencing outcomes. Yet Van Velsor, Taylor, and Leslie (1993) stated that the understanding of how self-other rating alignment and self-awareness remains incomplete. One problem with this perspective is that little theoretical explanation has been provided about how the two elements interact (Church, 1997; Sosik & Megerian, 1999).

There is a need to understand more about the construct of engagement as described by Kahn, Harter and others, and how engagement is operationalized through leaders' interactions with their teams. Engagement has been demonstrated to be a powerful antecedent to valued organizational outcomes (Buckingham & Coffman, 1999; Harter, Schmidt, & Hayes, 2002; Conchie, 2004).

Particularly important, is understanding more about the role that self-awareness plays in the ability of the leader to more effectively create conditions within the team that would produce engagement. The need for intentional development is also described by Yager (2002), who claimed that "the crisis of leadership is here, today, and it is very real. Nobody can show a leader the way. But that does not mean leadership development can be delegated or left to natural forces" (p. 13).

Understanding more about effective leadership and engagement will serve the leadership challenges of the future. Current conditions have created a shortage of leaders and leadership ability. "We are witnessing an alarming rate of leadership failures in industrial and social organizations" (Mathews, 2006, p. 37).

The fluctuation of engaged workers in the U.S. has been fairly level, ranging from 26% in 2000 to 30% in 2008. This is important at many levels, and economically the cost of lost productivity resulting from disengagement is conservatively estimated at \$300 billion in the United States alone (Harter & Wagner, 2008).

Another reason for this specific research is the unique features possessed by this study sample. Many samples cited in self-awareness studies are smaller or are limited in the range of roles and organizations. Examples would include samples such as 18- to 19-year-old males applying for military school, school leaders, or Naval Academy males (Atwater, Roush, & Fischthal, 1995; Fox & Dinur, 1988; Nowack, 1997; Yarrish & Kolb, 2002; Salam, Cox, & Sims, 1997).

Delimitations

Because the data for each leader was gathered at the roughly the same time, essentially within the same month, and from some of the same sources, it could be considered mono-methodic. The data might be reflective of only that point in time (Antonioni, 1996).

Another delimitation involves the specific set of characteristics that define the unit of analysis used in this study. Participants in this study consisted of individuals fulfilling a role in which they lead a team and are part of an organizational structure that allowed their leadership to be represented by a complete set of L7 ratings from their peers, team, and superior. In addition to the complete set of leadership ratings, leaders

also needed to be represented by their team ratings of engagement through the use of the Q12.

Limitations

The procedure for this level of data collection involved assessment of leadership roles in a local context and incorporated the ratings of those groups affected by leaders' actions within an organization, namely their peer group, their team, and their superior.

The anticipated benefit of allowing the raters to be selected by the leaders is that these raters might possess more details in their insight and familiarity of the leader role and expectations. However, Ostroff, Atwater, and Feinberg (2004) caution that bias might be produced from this approach to rater selection through a more positive rating with less criticism. A related limitation may also be that people need time to build trust in the 360-degree process beyond one administration.

It could also be argued that the findings are limited because the 360 degree approach may have missed some key evaluative stakeholders. (Redwood, S., 2007)

This research effort recognizes that there are other attributes of the workplace that influence engagement in addition to the efforts of the leader, or in addition to the self-awareness possessed and demonstrated by the leader. Just a few of those examples would be the role-to-job match, recognition in the form of either reward or recognition, organization influence in the form of mission/purpose, job autonomy, opportunities for growth, access to materials and equipment, customer interactions, and team relationships beyond the leader. None of these contributors to engagement were directly considered in

this study which places limitations on the ability of this effort to more fully represent all that comprises the construct of engagement.

Definition of Terms

Engagement is an “emotional and cognitive response occurring when employees are emotionally connected to others and cognitively vigilant. Employees are emotionally and cognitively engaged when they know what is expected of them, have what they need to do their work, have opportunities to feel an impact and fulfillment in their work, perceive that they are part of something significant with co-workers whom they trust, and have chances to improve and develop” (Harter, Schmidt, & Hayes, 2002, p. 269).

Q12 (Appendix A) is an instrument made up of 12 items developed to measure employee perceptions of workplace attributes demonstrated to have significant correlations to business outcomes and considered actionable by the manager at the team or work-group level.

Q12 grand mean is the equally weighted mean of the 12 items of the Q12.

L7 (Appendix B) is an instrument designed by the Gallup Organization to measure perceptions of leadership abilities across seven dimensions defined as Visioning, Maximizing Values, Challenging Experiences, Mentoring, Building a Constituency, Making Sense of Experience, and Knowing Self (Conchie, 2004).

L7 grand mean is the equally weighted mean of the 21 items that measure the seven dimensions of the L7.

Knowing Self is one of the seven dimensions of leadership measured by the L7. It consists of three items designed to measure how well leaders are aware of their abilities, strengths and weaknesses.

Leadership self-awareness is the level of direction and development of leader self-concept that results in accurate changes in effort, use of knowledge, and application of skills to optimize the goals of the leader's superior and the team (Brouwer, 1965). This is measured in the alignment of L7 self-other grand mean leadership ratings provided by leader, superior, team, and peers.

Self-ratings is a generic term that includes self-assessments, self-appraisals, and self-reports.

Other-ratings can be from any or all of the individuals in the relevant multi-rater or 360-degree range including direct reports, peers, and superior.

Multi-rater feedback involves the ratings of perceptions and opinions, gathered from multiple sources at work such as leaders, direct reports, peers, team members, colleagues, supervisors, clients, and customers. It also includes self-ratings (Church & Wacławski, 2000).

This study seeks to add to the understanding of leadership self-awareness and engagement by taking advantage of a sample of almost 400 leaders at different organizational levels and in different organizational environments, all represented by an intact set of self, peer, and superior L7 ratings, as well as corresponding team L7 and Q12 scores.

This examination also affords the opportunity to replicate and extend existing research on the nature and possible moderators of managerial self-awareness, operationalized as agreement between self and others' leadership ratings, and its link to team performance.

Chapter 2: Literature Review

Various literature was examined in order to identify research specifically related to engagement, leader self-awareness, and multi-rater feedback. Specifically the literature was reviewed to understand what constitutes self-awareness for leaders, and to describe the effect self-awareness has on the leader's ability to engage a team. One observation is that there is an ongoing search for congruence between the self-other leadership perceptions of a team leader, superior, team, and peers in anticipation of increased performance outcomes associated with team engagement.

Many efforts have been put forth to explain the positive attributes of self-awareness in leadership, but those efforts have generated many questions regarding consideration of proper framework, process, and interpretation of the conditions necessary for gaining self-awareness.

Initially, databases were searched from five major discipline areas: business, education, leadership, management, and psychology. In addition to the databases, relevant Internet-based sources were identified. Key words utilized in the search include organizational commitment, organizational citizenship behaviors, multi-rater feedback, leadership, self-awareness, engagement, leadership development, 360-degree feedback, and job satisfaction.

The aim of this examination is to identify a relationship between engagement and leadership self-awareness as indicated by the results of self-other L7 ratings and the Q12 team scores.

Job Attitudes

Because the intent of this study is to understand what relationship may exist between leader self-awareness and engagement, it will be necessary to agree upon what the construct of engagement is, and why it has value as an antecedent in order to understand more about what explains it.

According to Kahn (1990), engagement exists when people demonstrate that they are connected to others they affect within their organizational role.

Engagement has several related concepts such as employee satisfaction, job satisfaction, organizational climate, organizational commitment, and organizational citizenship behavior. What follows is a review of the definitions and features of these related job attitudes in order to understand where engagement overlaps with them and is unique from them.

The first concept to be discussed will be organizational commitment, which Porter, Steers, Mowday, and Boulian (1974) described as adoption of core organizational goals and values and expressing a desire to be a member of the organization. Meyer and Allen (1991) portrayed organizational commitment as a positive feeling of shared beliefs and values with one's entire organization.

Job satisfaction is also considered an emotional state, but in contrast with organizational commitment, it results from the evaluation of job experiences (Locke, 1970). Hanisch and Hulin (1991) noted that the target of job satisfaction is one's position or work role, whereas the target of commitment is the entire organization. Newman, Harrison, and Roth (2006) said it is reasonable to view job satisfaction and organizational

commitment as a predictor of an overall response that promotes the conditions of desired job-specific behaviors.

Schneider (1990) considered organizational climate to be a broader construct that includes the meanings attached to routines and rewards demonstrating values to the members of that organization. Moreover, that climate includes everything that occurs in organizations without any one specific focus.

Organizational citizenship behavior is a general attitude in which Borman and Motowidlo (1997) distinguished the behaviors as those that support the context that tasks are conducted in, rather than the actions associated with the task. Contextual performance would include behavior such as helping and encouraging peers, as well as supporting the organization's objectives (Organ, 1988; Van Scotter & Motowidlo, 1996).

Koys (2001) studied performance behavior using Organ's (1988) five categories of organizational citizenship behavior. Koys described the five categories:

1. Conscientiousness means that employees exceed the minimum requirements of their role.
2. Helping others is considered Altruism.
3. Civic Virtue is represented by employees "who responsibly participate in political life of the organization, and is indicated in positive attitudes and lack of complaints" (p. 103).
4. Sportsmanship involves maintaining a positive approach as opposed to complaining.

5. The last category is Courtesy, which means “treating others with respect” (p. 103).

Ostroff (1992) stated that employee satisfaction and job attitudes are important conditions to helping understand the employee behaviors and responses that can determine organizational success. The pursuit to understand both job attitudes and performance is generated by one primary question, which is simply: “How useful are job attitudes for predicting job performance?” (Newman, Harrison, & Roth, 2006, p. 305).

The assumption of the relationship among satisfaction, attitudes, and organizational performance is essentially that when employee satisfaction increases, so does the effort and intent to work toward organizational outcomes (Harter, Schmidt, & Hayes, 2002). Schneider (1990) said satisfied employees are assumed to give their services to the organization and to contribute more to valued organizational outcomes. More specifically, Schneider, Ehrhart, Mayer, Saltz, & Niles-Jolly (2005) added that behaviors associated with organizational citizenship include attendance and intent to stay with the organization.

Causality

Beyond understanding the similarities and distinctions among organizational commitment, job satisfaction (Lawler & Porter, 1967), organizational climate (Dickson, Smith, Grojean, & Ehrhart, 2001), and organizational citizenship behavior (Organ, 1988), the question of causality quickly becomes the focus in understanding their relationships to performance (Schwab & Cummings, 1970).

For several years, organizational researchers have studied job satisfaction and job performance to discover whether there is a relationship and, if so, how the nature of the relationship would look. Judge, Bono, Thoreson, and Patton (2001) concluded that overall satisfaction had a much stronger meta-analytic relationship with overall performance than previously believed.

Research has established links between elements of the work environment such as climate, perceptions, attitudes, and satisfaction to performance at the group level. Relationships between organizational unit performance and employee attitudes have been reported by a number of scholars (Schneider & Bowen, 1993; Wiley 1991). Harter, Schmidt, Asplund, and Killham (2005) also found relationships between employee engagement and performance outcomes such as safety, customer experiences, financials, and employee turnover.

At the organizational level, Kotter and Heskett (1992) showed that the perceived strength of a company's culture is positively correlated with its long-term economic performance.

The study of work group climate and performance by Gelade and Ivery (2003) suggests a relationship between work groups through measures of both employee satisfaction and work climate. Prior research points to the conclusion that work groups with favorable work climates outperform those with unfavorable climates. Ostroff's (1992) study demonstrated that teacher satisfaction, commitment, adjustment, and stress were correlated with student achievement, attendance, and drop-out rates.

Some theories explain organizational outcomes as being generated by the accumulation of interactions between employees, since organizational performance may not be simply a sum of individual performances. Ryan, Schmit, and Johnson (1996) proposed that if employees shared positive attitudes, they would be more cooperative or collaborative, which could cause an increase in productivity. Ryan et al. examined 142 branches of a large financial institution, and found relationships between shared attitudes and outcomes such as branch performance, customer satisfaction, and turnover.

Organ and Ryan (1995) noted that organizational citizenship behaviors positively influence organizational performance through an accumulation of citizenship behaviors. As employees help one another more, then margin is created for supervisors to be involved in efforts more associated with job enrichment. Through meta-analysis, Organ and Ryan demonstrated correlations of citizenship behaviors with job satisfaction, organizational commitment, and leader support.

There are specific performances indicating that the level of involvement described by organizational commitment, job satisfaction, engagement, and organizational climate can create conditions that increase the likelihood of other contributions to business outcomes. Newman, Harrison, and Roth (2006) presented the prevalent view that behaviors such as “helping coworkers, encouraging, or improving morale, and endorsing, supporting and defending organizational objectives” (p. 306) affects the involvement of the work-group behaviors that cause members to be more present in their work role. The awareness that leaders have of how they influence this contextual performance can increase the likelihood of its occurrence.

Koys (2001) added evidence that demonstrates a positive relationship between organizational citizenship behavior and job satisfaction and employee turnover, which in turn positively affect profitability and customer satisfaction. This relationship is similar to that described by Harter, Schmidt, Asplund, and Killham (2005) in reference to engagement and its influence on organizational outcomes.

The engagement analysis conducted by Harter and Schmidt (2000) revealed a range of outcomes linked to the concept of engagement. Employee engagement is demonstrated to be actionable within the workgroup (Buckingham & Coffman, 1999). According to Harter and Schmidt:

Across companies, those in the top quartile of employee engagement had on average, an 86 percent higher success rate on customer satisfaction and customer loyalty, 78 percent higher success rate on turnover, 63 percent higher success rate on productivity outcomes, and 38 percent higher success rate on profitability outcomes (p. 44).

Harter and Schmidt's study found that employee perceptions, as measured by Q12 items, relate to meaningful business outcomes, and that these relationships can be generalized across companies.

The combination of the studies mentioned demonstrates there is evidence of causality from multiple streams of research and there is a body of work that supports the stance that differences in employees' perception of their work environments relate to differences in performance.

Job Attitude and Turnover

As we follow studies of the relationship between attitude and performance, there is consistency in the observations describing the nature of this relationship. Some of the commentary refers to job attitudes likely being more related to forms of withdrawal from one's work role, such as absence and turnover, than they were to in-role performances of productivity. Ostroff (1992) pointed out that, at the organizational level, employee commitment was related to turnover intentions.

Koys (2001) proposed that turnover is decreased as a result of the quality of relationships developed through interactions occurring within job performance. Koys' proposal is supported by earlier research of Krackhardt and Porter (1986), who found evidence that workers with fewer interpersonal ties were more likely to quit.

Newman, Harrison, and Roth (2006) said that individuals within groups with high contextual performance experience strong relationships and reduce the likelihood of their turnover. Adding to the previously mentioned research regarding the relationship between workplace attitudes and absence, the Q12 items "I have a best friend at work" and "My supervisor or someone at work cares about me as a person" show correlations to employee retention (Buckingham & Coffman, 1999).

Employees with longer tenure can accumulate greater knowledge of organizational and customer goals. Replacement costs would be lower due to less hiring and training activities, and studies have shown that employee turnover does hurt organizational effectiveness. Newman, Harrison, and Roth (2006) added that withdrawal

behavior such as lateness, absenteeism, and turnover, directly impact an organization's bottom line.

Locke and Latham (1990, p. 244) said it appears that "those who are dissatisfied are more likely to quit the job, be absent, file grievances, join unions, and go on strike."

Job Attitude and Customer Satisfaction

The influence of attitudes such as employee satisfaction and loyalty could positively affect customer perceptions. A more favorable perception in turn could lead to higher level of customer satisfaction and loyalty, increasing organizational performance and profit (Koys, 2001).

Schneider, White, and Paul (1998) demonstrated that employees' perceptions of climate correlate with customers' ratings of satisfaction in bank branches. A positive employee climate decreased employees' role ambiguity, conflict, and turnover (Schneider & Bowen, 1985). The basic premise demonstrated is that when management provides a positive work experience for employees, employees are motivated to provide a positive experience for customers (Schneider, 1990; Ryan, Schmit, & Johnson, 1996).

Using Organ's (1988) categories of organizational citizenship behavior, it is possible to understand the way in which employee attitude can affect customer satisfaction. For example, Conscientious employees would exceed customer expectations. Altruistic workers would help internal and external customers. Civic virtue could improve quality and customer satisfaction through suggestions. Sportsmanship and

Courtesy would contribute to a positive employee climate that would spill over to customers (Wiley, 1991).

Job Attitude and Productivity

The relationship between shared attitudes and the productivity are based on a theoretical rationale that productivity is not simply a sum of individual performances (Guzzo, Jette, & Katzell, 1985). Productivity when viewed at the group level includes a process that includes the accumulation of shared attitudes. When shared meaning is developed due to members' interactions, and in experiencing consistent situations, then the members' response is to collectively increase the likelihood for higher levels of productivity (Ryan, Schmit, & Johnson, 1996).

Increases in productivity can mean increases in profit, as Kotter and Heskett (1992) and Koys (2001) summarized with evidence that employee satisfaction and organizational citizenship behaviors predict profitability. They found that employee satisfaction contributes to customer satisfaction, which in turn contributes to profitability.

Level of Analysis

Some research has failed to show a correlation between engagement and organizational outcomes. In these cases the shortcomings are explained by the use of incorrect levels of analysis. These shortcomings are considered to occur when trying to measure employee satisfaction, well-being, and performance at the individual level rather than at the group or organizational level. According to Ostroff (1992):

It is possible that weak results are due to the fact that individual-level measures of performance do not reflect the interactions and dependencies in the work process or the role of other productivity-related behaviors that measures of organizational effectiveness capture (p. 969).

Job Attitude and Leadership

Overall job attitude has strong utility for predicting individual effectiveness. Several scholars, such as Harnisch and Hulin (1991), have claimed that one of the most useful measures an organization can have is that of overall job satisfaction.

Ostroff (1992) stated that the findings demonstrating causality between job attitudes and business outcomes imply that organizations that desire satisfied employees can create a work environment that facilitates satisfaction.

It is a commonly assumed and studied position that leaders significantly contribute to the culture of their team and workplace. This is one way leaders can influence the perceptions and attitudes that affect performance. Argyris (1958) focused on the kinds of “social climate” that different leadership styles can create, and McGregor (1960) explored what he referred to as the “managerial climate” in which leaders create the climate for participation and control.

The results of Koys’ (2001) study suggest that leaders play a key role in implementing the HR strategies that create conditions of positive job attitudes. Dickson, Smith, Grojean, and Ehrhart (2001) added that an organizational climate is made up of

shared perceptions in which organization members can agree on how the organization formally and informally should function.

Overview of Leadership Challenges

Several shifts to the organizational landscape have occurred and require strong leadership to provide stability and success. Some examples are organizational transformations of culture caused by mergers and acquisitions, or from the challenges of knowledge management, ability of organizational learning, global strategic orientation, ethics change management, and process improvement (Macaleer & Shannon, 2003; Mayfield & Mayfield, 2006; Levasseur, 1991; Schweitzer, 2006).

Market competition generated by the leveling of economic and political resources has made partnership and relationship necessary for success. Not only are internal relationships affected, but so are the external; as Nocks (2007) said, today's leaders need to develop relationships with communities in ways they weren't expected to in the past.

The leadership structures within organizations are becoming flatter and involve a more collaborative and shared style of leadership (Hirschhorn & Gilmore, 1992; Kahn & Kram, 1994).

Technological advances are making global collaboration easier. Bourey and Miller (2001) noted that technology has brought increased ability to produce, but also brings the challenge of keeping up with rapid technological developments and growing volumes of information. Montuori (2000) said that in addition to the rate of technological

change, the workplace has become more complex from the erosion of national identities, as well as cultural barriers of language and values.

Bass, Avolio, Jung, and Berson (2003) said corporate leaders need more training and experience to develop their capability to respond to a broad range of needs and situations. Montuori (2000) and Yager (2002) agreed that the combination of so many different contributors to the makeup of an organization increases the uncertainty of the current working environment and calls for leadership capable of guiding the organizations through the increased frequency of change and challenge (Berman & Bradt, 2006; Levinson, 1994).

Speed of Decision-Making

According to Nocks (2007, p. 46), “Perhaps most challenging for executives is the rapid pace of change required for organizations to be successful.” Rousseau and McCarthy (2007) and Lord and Emrich (2001) said a key part of that leadership challenge is developing the ability to make difficult decisions that involve the right combination of speed and quality.

Experts have described these times as difficult for leaders due to the rate of change. It’s not just changes within the workplace that are generating urgency for individual performances, but also the rapid change in the world around the organization. Yager (2002) observed that the complexity of the contemporary workplace seldom enables people to learn their job well enough that they can do it intuitively.

Dotlich (2005) stated that the pace of business creates temptation for leaders to act without taking the time to stop, review the situation, and incorporate their ability into deciding the right course of action. “That’s not only a waste of an important leadership development experience, it’s actually detrimental to the development of good leaders” (p. 3).

Maher (2001) provided examples that highlight the possibility that speed of workplace decisions and reactions to change are eroding leadership and leadership development. They include: (a) overcommitment and stress; (b) the lack of opportunity to lead beyond the management of daily maintenance; (c) becoming overwhelmed by the vast amounts of daily information; (d) inability to produce optimal effectiveness of their team without micromanaging them; and (e) inability to deal effectively with difficult employees.

Whetstone (2005) called attention to the amount of decision-making for leaders in contemporary organizations, which compromises the margin necessary in order for leaders to consider the moral implications of their decisions. The ability to pause and consider ethics in their decision-making (George, Sims, McLean, & Mayer, 2007) enhances leader self-awareness and allows perspective from multiple sources to influence the leader (Antonioni, 2003). An organization committed to ethics will need to develop self-awareness as a core leadership attribute in order to resist the temptation of speed and urgency in decision-making (Johnson, 2001).

Organizational Complexity

New demands of the marketplace and workforce are forcing the development of new organizational forms. Rousseau and McCarthy (2007) considered that these new demands present problems that are varied, nebulous, and irregular, which challenges organizations and their leaders in their ability to diagnose and solve these challenges.

Nocks (2007) noticed that as the workplace evolves and is assigned more expectations from the employee, customer, and stockholder, it can become increasingly complex and political.

As part of the evolutionary response to the new and changing surroundings, the contemporary organization is shifting into a form that is less hierarchical and more decentralized. Mathews (2006) observed that vertical leadership structures are being flattened into organizational layers that rely on relationship for their performance.

Krantz (1990) proposed that while these features may make the organization more nimble and fluid and improve the organization's ability to respond, they do require that the leaders possess flexibility and range in their decisions.

Rousseau and McCarthy (2007) added that the increase in organizational complexity makes it difficult to identify linkage between leader decisions and organizational outcomes. Argyris (2004) acknowledged that managers are involved in deciding many different courses of action each day, and a key consideration is the available opportunity for awareness where the leaders can review the effects of the decisions they make to better understand the results.

In order to be considered effective, leaders need to demonstrate that they realize that conditions of leadership in the world are changing all the time, and that they

understand that new forms of leadership expression are being called for in response to these changes (Ashe Higher Education Report, 2006).

Increase in Organizational Performance Expectations

Leaders at every level of an organization face increased expectations of fiscal performance, and scrutiny of their performance is more frequent and pronounced each year. “From performance measures or bottom-line fiscal performance, executives are under tremendous pressure to excel” (Nocks, 2007, p. 46). Increases in competition have placed more pressure on the creation and sustainability of customer loyalty. Since competition has increased, the margin of error a product or service can afford and still succeed has decreased (Berg & Karlsen, 2007).

Leader development and growth can be adversely impacted by this intense emphasis of the bottom line. “When economic times become difficult, development becomes a prime target for budget cuts” (Society of Human Resource Management, 2008, p. 1).

Leadership Isolation

If there were ever any boundaries between the personal and professional roles of leaders, they have become more blurred in recent years. Leaders experience events and responsibilities that can take a personal toll (Lowman, 1993).

The demands placed on leaders can limit relationships with peers and family and can diminish the opportunity for the relational and transparent support they need to maintain perspective and balance in their leader performance (Nocks, 2007).

Abrahams (2007) observed that the relationship between leader and team can produce a tendency in followers to fail to examine the direction of the leader, which can undermine their relationship and feedback. The gap can increase when the leader, lacking the reflection from peers and followers, can behave inappropriately and create even more distance in the relationships.

The relationship and outcomes are also compromised if leaders respond only to followers who reflect the positive aspects of the leader or leadership decision. This kind of feedback is also incomplete and could fail to produce leader development or better future decisions (George & Robison, 2007).

Ethical Failures in Leadership

Schwandt (2005) and Whetstone (2005) said that leaders are a primary catalyst and a driving force for developing ethical norms in an organization. Ethics in leadership are more scrutinized than ever and are highlighted by multiple cases of prominent corporate downfalls such as Enron, Adelphia, Worldcom, Tyco, and Arthur Andersen, all involving illegal and unethical actions and behavior by leaders.

As a result of these recent failings, leadership ethics has become a focus for academics and organizational operations, as well as employees, customers, community members and stockholders (Ashe Higher Education Report, 2006). Not surprisingly, the

levels of trust in leadership have decreased over the past few years due to several examples of ethical and moral shortcomings in so many well-recognized organizations.. “In 2003, another Gallup Poll reported that only 18% of the public rated the ‘honesty and ethics’ of business executives as high or very high” (George & Robison, 2007, p. 1).

In response to this intensified scrutiny, leadership needs to be realized as a process that possesses ethics and accountability. George, Sims, McLean, and Mayer (2007) and Johnson (2001) stated that leaders need to understand and gauge how the interactions with their followers shape the culture. Additionally, Whetstone (2005) said that these examples of corporate failings emphasize the awareness that organizational cultures can be shaped by how the leader influences followers through the ethics, values, and beliefs they display.

George et al. (2007) claimed that one way to demonstrate this realization is by increasing the level of leader self-awareness necessary to produce an organization that prioritizes ethics. Freshman and Rubino (2004) added that leaders will need to earn the trust necessary in order for peers, superiors, and team to generate honest feedback that can enhance the development of the leader’s self-awareness.

English (2006) claimed that self-awareness on the part of the leader needs the opportunity to reflect and consider implications, and then it must be anchored to an acute definition of self. “It is increasingly evident that we need a new kind of business leader in the twenty-first century” (George, Sims, McLean, & Mayer, 2007, p. 130).

Workforce Trends

Recent years have encountered economic factors that have led to an expanded definition of what is considered the workplace, and who works within it. Mayfield and Mayfield (2006) listed some of the economic factors that extend the reach of the workplace to include attempts to cut costs due to stock performance, increased consumer expectations, and different work arrangements, including the use of more part-time or contingency employment.

Many women choose part-time employment because of their motivation to manage both work and family through increased flexibility of the daily schedule. In addition to women, part-time work arrangements provide a favorable opportunity for older or disabled people (Hotchkiss, 2004) to gain employment. Older people specifically are attracted to work options that would allow them to continue their income toward full retirement (English, 2006).

Cartwright and Cooper (1993) warned that mergers are another feature of organizational design challenging the abilities of many leaders. Half or more of the mergers fail to some degree over time. Yet as Melewar and Harrold (2000) pointed out, as organizations continue to strive to improve their finances, production, and innovation, they have looked to mergers as a growth strategy.

Mergers involve degrees of difficulty at a variety of levels between the two merging groups to successfully become one organization (Haunschild, Moreland, and Murrell, 1994). Individuals within the merger are faced with blending differences at the team level (Jetten et al., 2002), combining organizational cultures to create one new culture (Cartwright & Cooper, 1993), and assembling a new corporate identity together.

Bartels, Douwes, de Jong, and Pruyn (2006) suggested that in determining the success of a merger, the new organization will rely on its leaders to help their members form an identity that reflects the new environment. Additionally, Van Knippenberg et al. (2002) said that if leaders handle the merger poorly it can create fear and decrease engagement within the new organization.

Globalization

Globalization has increased competition and has introduced change for organizations. While the change brought about by globalization creates new opportunities, these changes can also cause doubt and uncertainty (Organization Development: A Strategic HR Tool, 2007).

One side effect of globalization has been the increase of immigrant labor in several organizational levels. English (2006) emphasized that diversity in the workplace is worth the time and effort it takes to build a team in which the members can trust one another, because the potential for higher performance is typically more indicative of teams that are more diverse (Goldsmith, Greenberg, Robertson, and Hu-Chan, 2003; Yager, 2002).

Hartmann and Patrickson (2000) said globalization evolves the workplace to now include virtual work arrangements. Telecommuting creates situations where leaders may be asked to lead teams with members who have never met, and what they know of them may be limited to their results without ever knowing the person producing those results (Society of Human Resource Management, 2008).

According to Goldsmith, Greenberg, Robertson, and Hu-Chan (2003), leadership is important as the focus becomes one in understanding how organization members operating in the global marketplace need to be led. It is understandable that leaders with a broader leadership style are better equipped to build teams and trust from the diverse groups they may encounter due to globalization.

Generational Differences in Leaders and Workforce

Cultures of different countries are not the only force exerting pressure for new and more effective forms of leadership. There are new values also being displayed that are the result of different combinations of generations moving into leadership and into the workforce (Organization Development: A Strategic HR Tool, 2007). The waves of different generations moving in and out of organizations will only increase the diversity of the workplace, (English, 2006). Retirement alone will create a loss of leadership at all levels. “In many older organizations, as many as 70-80 percent of leaders will leave the workforce, and take with them untold value, in instinct, experience, relationship, shortcuts and contacts” (Yager, 2002, p. 13). This presents a challenge because the pool of future leaders from current generations are considered to be very capable in technical and business arenas, but still need to develop their leadership abilities (Organization Development: A Strategic HR Tool, 2007).

Ng and Feldman (2008) presented another generational issue: the pace necessary to develop younger leaders at a rate that would meet ongoing leadership needs. English (2006) mentioned that there can be common assumptions that young leaders lack

experience and value outcomes, while older generations can be stereotyped as lacking technological aptitude or skills and valuing seniority.

Downsizing

One response to the competitive and stock-driven pressure created in the current economy has been downsizing. Many in the workforce have been laid off or know others who have lost their jobs. Ryan and Macky (1998) noted that the effects of downsizing spill out of the workplace and can affect the individual's self-esteem, well-being, health, and family relationships.

According to Riney (2008), the prevalence of downsizing provides leadership with a significant challenge in building and maintaining high-performing teams. The effects of downsizing can cause employees to be less engaged in the workplace (Hartmann & Patrickson, 2000).

Leadership Challenges

The multitude of organizational influences discussed combine to form dynamic social systems, and in order for leaders to respond appropriately they must possess an accurate assessment of themselves and their followers (Rousseau & McCarthy, 2007). Lord and Emrich (2001) said the dynamic nature in which organizations operate includes a wide range of variables to consider, and decreases the margin for trial and error.

Kombarakaran, Yang, Baker, and Fernandes (2008) stated that it is the ability of the leader in identifying the right priorities and communicating them effectively that is

the key to leveraging their direct reports' translation of corporate goals to performance. Yet as Chater (2005) described, the process of decision-making for many leaders involves tension between expectations that can be considered to oppose each other:

To be strong, to listen; to preserve proper channels of data-gathering and policy development, to have an "open door" policy; to take charge, to delegate; to be no-nonsense, to be flexible and compassionate; to be decisive, to be a team player; to run a distinctive organizational unit with its own value, to follow central directives; to make improvements, to bring healing and unity (p. 15).

Leadership Self-Awareness

"From the ancient past to contemporary times, philosophers have described great leaders in terms of their self-awareness" (Abrahams, 2007, p. 92). As was reviewed earlier, changing conditions of work, the increased demands and expectations of leadership, and generational transitions of leaders and followers all seemingly have undermined or eroded the opportunities for leaders to gain self-awareness and to increase their capability to handle the ongoing demands of taking their teams successfully into the future.

Because there are several definitions of leadership, there is not a universal agreement as to what builds an effective leader, but the attribute of self-awareness appears to be one consistent theme (Burke, 2004; Bennis & Nanus, 1985).

One of the core elements of Luthans and Avolio's (2003) Authentic Leadership model is self-awareness, which they state is a key for change in leadership development. In order to change, self-concept requires leaders to continue to grow in self-awareness, so they can change their behavior, and employ new leadership strategies (Sosik, Potosky, & Jung, 2002)..

Abrahams (2007, p. 88) described self-awareness as "an individual's ability to understand his feelings, even as they change from moment to moment." Self-awareness also involves knowing the appropriate emotional response to a situation by broadening and building the base of emotional recognition that leaders possess (Gowing, 2001; Jacobs, 2001; Macaleer & Shannon, 2003; Zuckerman, Hall, DeFrank, & Rosenthal, 1976; Mirvis, 2008). Church (1997) described this ability more specifically through his categories of low and high self-monitors of self-awareness. Low self-monitors tend to rely on their own internal image rather than incorporating feedback from external cues. High self-monitors, however incorporate these external cues and adjust their own behaviors in the workplace.

Montuori (2000) said that in order to successfully occupy any leadership position in the midst of current business conditions the leader must be "conceptually complex." Conceptually complex leaders exhibit extraordinary communication, interpersonal skills, insight into their own performance, and the ability to process large amounts of information (Harris, 1981). Other scholars have agreed that developing leaders need to acquire the ability to interpret the constant flow of information and change in order to be

more resilient and confident in the face of conflict and change (Avolio, 1999; Sosik, Potosky, & Jung, 2002; Cockerill, 1989; Schroder, 1989).

Yet while much of the value of self-awareness is recognized, many leaders strive for the more immediate measures of success such as income, position, or influence. As they seek to establish themselves as professionals early on, they miss opportunities for their own development (George, Sims, McLean, & Mayer, 2007). Conceding opportunities to gain self-awareness limits the leadership development process, and Dotlich (2005, p. 2) claimed that self-awareness is the most important contributor to leadership development. “Leaders who do not succeed tend to be people who lack self-awareness.”

Socrates wrote: “Know thyself.” And the value of those two words has been supported over many years through multiple studies and research demonstrating that self-awareness is a characteristic of effective leaders (Boyatzis & Van Oosten, 2003).

Leadership Strengths Awareness

“A leader needs to know his strengths as a carpenter knows his tools, or as a physician knows the instruments at her disposal.

What great leaders have in common is that each truly knows his or her strengths — and can call on the right strength at the right time.

This explains why there is no definitive list of characteristics that describes all leaders.” —Don Clifton (Rath & Conchie, 2008, p. 13).

George, Sims, McLean, and Mayer (2007) identified denial as possibly the greatest obstacle that can prevent a leader from becoming self-aware. According to Abrahams (2007, p.86), “Research suggests that leaders tend to overestimate their strengths and underestimate their weaknesses.”

Goleman (1995) regarded ineffective leaders as those who fail to recognize the limits of their ability. “High-performing leaders, however, are aware of their strengths and understand their weaknesses, and see themselves as continuously learning, adapting and responding to both positive and negative circumstances” (Dotlich, 2005, p. 3).

“Self-awareness brings the realization of absent or underdeveloped competencies” (Schwartzman, 2003, p. 65), and Church and Wacławski (2000) stated that self-ratings influence leader self-perceptions so that when compared with others’ observations they can gain better understanding of how others interpret the behaviors, strengths, and weaknesses of the leader. As Dering, Cunningham, and Whitby (2006) studied leadership, they discovered that feedback was valuable in producing a more realistic assessment of leaders’ strengths and weaknesses, as well as increasing self-confidence.

Conchie and Rath (2008) pointed out that the awareness leaders need to have about their own strengths and weaknesses is important for team-building. In some cases when leaders do try to add a member to their team, they can be inclined to select those who are like-minded. Kombarakaran, Yang, Baker, & Fernandes (2008) stated that as self-awareness helps leaders overcome blind spots and identify their strengths and weaknesses, they become better able to build stronger relationships, and build a culture (Abrahams, 2007), that will increase the likelihood of follower success.

Serio and Epperly (2006) and others have said that through an increased understanding of strengths and weaknesses, self-awareness provides daily opportunity for leaders to exercise self-management and improve their leadership ability (Gray, 2003; Schwartzman, 2003). As Mervyn Davies, chairman of Standard Charter Bank, concluded, as a leader you must “know yourself, know the people around you, and then get on with it” (Conchie & Rath, 2008, p. 13).

Leader Self-Awareness Outcomes

Heatherton and Baumeister (1996) said that successful leaders are knowledgeable about the resources possessed by their team and use them wisely. Leader self-awareness can minimize issues of underperformance.

Fiedler (1996) claimed that the leader’s personality, actions, and behaviors all can help produce effective conditions necessary for the success of the team. Yukl (1989) stated that leaders’ awareness of the conditions of performance determines the perception of the reasons for the resulting success or failure, and guides leaders’ response.

The relationship between leader self-awareness and outcomes such as promotion, team productivity, retention, and other performance outcomes has been well documented (Lombardo & McCall, 1983). Understanding self is an important dimension in explaining how leadership ability generates performance outcomes (Prussia et al., 1998); (Lord & Emrich, 2001) and multiple other authors have positioned the case that leadership has a positive effect on performance. Conger and Kanungo (1988) and others would describe

this effect to typically occur when leaders influence their team members through human resource practices, thereby increasing the contribution the team makes to the organization (Kouzes & Posner, 2004; Wright, Gardner, Moynihan, & Allen, 2005).

Dering, Cunningham, & Whitby (2006) described results in an academic setting that indicate a positive relationship between leader self-awareness and the ability of leaders to adjust their behavior to appropriately respond to the situations they might face within that environment. Goleman, Boyatzis and McKee (2001) referenced physiological evidence that when leaders' moods are positive it then has a positive impact on performance.

Schwartzman (2003) said leaders need feedback in order to identify developmental opportunities that would allow the leaders to learn from and become more effective in their decisions and actions. Awareness gained through self-reflection provides leaders with confidence (Kombarakaran, Yang, Baker, & Fernandes, 2008) from which they can identify the right course of action, get answers, challenge established philosophies, encourage their team to higher performance (Nocks, 2007), and help develop leadership in others (Albrecht 2005; Macaleer & Shannon, 2003).

Self-aware leaders are more capable of monitoring their behavior, and can adapt and effectively lead within a wider range of organizational conditions (Tsui & Ashford, 1994; Sosik, Potosky, & Jung, 2002). Self-awareness contributes to the leader's ability to comprehend multiple perspectives of diverse populations (Mirvis, 2008), to be more receptive to feedback, to have a better relationship with their superior and direct reports,

and to be more active in owning weaknesses (Kombarakaran, Yang, Baker, & Fernandes, 2008).

Kotter (1982) stated that leaders need to have insight regarding the demands, constraints, and desires of their role in order to meet expectations of the organization members they interact with. The right form of communication is a critical organization need that benefits from leaders who are self-aware, and Berman and West's (2008) study showed that the majority of followers indicate that their leaders do not keep them in the flow of information. Other researchers found that regardless of role, when organization members feel that their opinion counts, it improves their attachment to the organization, as well as their performance outcomes (Goldsmith & Eggers, 2004; Light, 2005).

Organizations benefit when leaders and followers are aligned in their perception of the leader's ability. Leader self-awareness affects the sustained growth of the organization, as well as its ability to produce outcomes consistent with its mission (Abrahams, 2007). Kotter (1982) said that self-aware leaders are capable of more fully investing all of their effort effectively and increasing their contribution to a successful outcome. "The important point here is that as leaders become more self-aware and understand their impact on others through their communication and behavior, they can develop a style that helps others around them grow and become more successful" (Nocks, 2007, p. 48).

Additionally the improved self-awareness causes leaders to invest in team development and to arrange the abilities of the team to increase team performance, input, and involvement (Dering, Cunningham, & Whitby, 2006).

Leader Self-Awareness and Relationship

Whether the manager or leader is forming relations internally or externally, cooperative associations are keys to the success of the individual as well as the organization (Freshman, & Rubino, 2004).

New leadership capacity is necessary to account for changes in workplace demographics and the values represented by these demographics. Epperly (2006) noted that in response to these changes, leadership is adjusting from a vertical structure to one that is more horizontal and that includes more interdependence between leader and follower.

Kombarakaran, Yang, Baker, & Fernandes (2008) linked organizational outcomes to the collaborative approach associated with self-aware leaders. Leaders who engage stakeholders through collaboration are able to impact performance by translating the mutual effort into a larger contribution to the organization's goals.

Leadership and Culture

The term "emotional style" is used to describe how a leader's emotional intelligence shapes an organizational culture. High levels of emotional intelligence build a climate defined by strong levels of trust, risk-taking, and learning (Goleman, Boyatzis, & McKee, 2001). The level of self-awareness possessed by the leader can create a culture

of openness and transparency that would encourage behaviors supporting diversity, as well as leading to individual, team, and organizational success (Argyris, 1958; Berman & West, 2008).

“Openly requesting feedback is a powerful step, as long as the executive listens willingly and responds positively to the comments of others even when they are critical of his or her conduct” (Bourey & Miller, 2001, p. 10). Snyder (1987) said the process of evaluating and using feedback communicates that leaders are integrating others’ views and incorporating those perspectives into their own leadership actions. This action creates a safe environment where leaders and followers can exchange opinions and increase performance (Sosik, Potosky, & Jung, 2002).

Lieberman and Grolnick (1997), among others, have claimed that leadership is necessary to model and inspire others toward the group vision so that group members can go on to become carriers and influencers of the vision to others (Cardno, 2007). More specifically, leader self-regulations can influence a team or group in its level of partnership (Levasseur, 1991), knowing what is expected, and meeting those expectations (Manz & Sims, 1991), leadership development (Tobey & Tunnel, 1981), responsibility (Goleman, 1998), and trust (Sosik, 2001). In order to attain an effective culture, leaders try to communicate and encourage the behaviors of the desired culture. Organizational members then respond to what leaders do and how leaders support the cultural vision (George & Robison, 2007).

As individuals gain insight to the social network they belong to and their unique contribution to it, their identity and role are further defined and reinforced (Stets &

Burke, 2003), as are the identity and role of other members of the network (Roberts, Dutton, Spreitzer, Heaphy, & Quinn, 2005).

Leadership Self-Awareness and Job Attitude

Dickson, Smith, Grojean, and Ehrhart (2001) noticed that leaders guide the tendencies and behaviors of organizational members by reward and encouragement, so they can become widely shared by organization members and internalized as personal values. Using service excellence as an outcome, Bowen and Schneider (1993) reinforced the notion that leaders are responsible for creating conditions that produce an organizational climate that guides employee behavior.

Conversely, as Kahn and Kram (1994) pointed out, when leaders act in ways that marginalize subordinates, then team members withdraw their potential contributions.

Harter, Schmidt, Killham, and Asplund (2006) added that in building a culture of engagement, attention should be given to the cultural elements represented by the items of the Q12. The leader's position allows him or her to be the point person in establishing a culture of values and behaviors supporting perceptions of engagement.

It is reasonable to anticipate that leaders who have a level of self-awareness that accurately reflects how they are seen by their superior and team will be more effective in creating conditions of engagement, with positive team attitudes, and generating valued organizational outcomes. "How we see ourselves determines generally what we react to, what we perceive, and, in broad terms, how we behave in general" (Brouwer, 1965, p.

157). The accuracy of the self-awareness enables leaders to also be more precise and effective in their own decisions and actions (Atwater & Yammarino, 1992).

“People are both products and producers of their environments” (Wood & Bandura, 1989, p. 362). Leaders’ behavior can be adjusted based on the comparative information they receive in order to align the gap between their self-perception and their actions.

When leaders increase their level of self-awareness through multiple perspectives of feedback, they are able to contribute to the culture and engagement level of their teams more purposefully and to a greater effect (Kotter & Heskett, 1992). The attitudes created through engagement affect performance, which in turn positively impacts the bottom line of the organization (Harter, Schmidt, & Hayes, 2002). In the next section we will examine how 360-degree feedback is used in order to understand its current contribution and potential to leader self-awareness and team engagement.

Multi-rater Feedback

The disparity between “how I see myself” and “how others see me” is important. Unrealistic or inaccurate self-appraisal can create failures of the disparity between “who I am and who I think I am” (Brouwer, 1965, p. 159).

Chappelow (2004) added that in the daily activity of a busy organization, leaders are facing pressure and responsibilities that are decreasing the interpersonal nature of work and causing them to miss signals from others.

Yarrish and Kolb (2002) said that 360-degree evaluation and assessment is also valued and sought as a result of the development of workplace dynamics such as an increase in individual accountability, flexible work designs, and more autonomy within organizations that are becoming more horizontal. The development of other organizational features such as matrix structures, increased role ambiguity, and unclear expectations challenge leaders to specifically know the contribution of their actions (Funderberg & Levy, 1997; Levinson, 1994; Harris, 1981).

Salam, Cox, and Sims (1997) pointed out that environments where change is occurring rapidly can cause conflicting expectations and that a more stable environment might have less range of opinion regarding what constitutes effective leadership.

Chappelow (2004) said that in many cases, the leader's superior does not interact with the leader as often as the team members do. Multiple points of feedback can reflect the leader's performance more comprehensively and with less bias (Bracken, 1994).

When a leader is observed from many angles, including the viewpoint of peers, superiors, and the team, we can develop a more accurate picture of the person's strengths and developmental needs (Fleenor, McCauley, & Brutus, 1996). Multi-rater feedback has value because every individual involved is given an opportunity to evaluate and rate the leader from the individual's own unique vantage point (Church & Wacławski, 2001).

Another way to view the value of multi-rater feedback is that what is considered effective leadership is “dependent on the eye of the beholder” (Salam, Cox, & Sims, 1997, p. 204). The context of the situation assessed is based on the values and goals of the evaluator and how that person defines leadership effectiveness (Tornow & Wiley, 1991).

Sosik, Potosky, and Jung (2002) have observed that organizations are more proactively investing in their leaders by assessing them through 360-degree feedback. As more is understood about the ability of leaders to monitor and adjust their behavior, the benefits of 360-degree feedback are gaining value.

Chappelow (2004, p. 59) defined multisource, multi-rater, or 360-degree feedback as “a method of systematically collecting opinions” about a leader’s performance from a wide range of people they interact with, including peers, team members, and superiors. Church and Wacławski (2000) said the use of multi-rater feedback is based on the approach that there is a consistent and observable behavior expressed by leaders as they interact with their superior, team, or peers.

Roberts, Dutton, Spreitzer, Heaphy, & Quinn (2005) used the term “reflected best self” to describe how others view us, and Tice and Wallace (2003) added that self-concept is formed when perception of others is identified and then the feedback of those perceptions is integrated with how we describe ourselves. “The systematic use of feedback is the single most important element in the learning process” (Schwartzman, 2003, p. 63), and 360-degree assessments can guide leaders attempting to gauge progress between singular events (Schwartzman, 2003). Baumeister and Cairns (1992) said that

feedback or cues from others are used to construct the notion of “self,” and leaders need to understand this input in order to know how to effectively modify their behavior. Conger and Toegel (2003) offered that multi-rater feedback plays a vital role in the development of “self” by increasing self-knowledge.

There is typically a gap in leadership perception between leaders and others, and many organizations attempt to use 360-degree feedback to close that gap by increasing the self-awareness of their members (Jacobs 2001). Bandura (1996) refers to “discrepancy reduction” playing a role in self-regulation. Self-regulation does not operate in isolation. The positivity and confidence of leaders need to be grounded in the perceptions of others. According to Heatherton and Baumeister’s (1996) conceptual analysis, and lack of self-monitoring can produce shortcomings in self-regulation.

Leaders who overestimate their abilities are likely to be those who will derail, so detecting a difference in perception from what leaders believe about themselves and what others observe may prevent leader derailment (Van Velsor & Leslie, 1995; Konger & Benjamin, 1999). “Results from 1,742 European managers revealed a statistically significant difference between a manager’s self-ratings and observer-ratings on the extent to which a manager displayed derailment behaviors and characteristics” (Gentry, Hannum, Ekelund, & de Jong, 2007, p. 295), and manager derailment has negative consequences for the leaders’ teams and organization (Lombardo & McCall, 1983).

Inviting feedback from their direct reports is one way that leaders can improve their self-awareness (Serio & Epperly, 2006), and Wagner (2006) pointed out that

because feedback comes from different groups and can be quantified, it produces a more complete and detailed view of performance, as well areas of developmental opportunity. Church (1997) pointed to measurement of rater agreement indicating that high-performing leaders were significantly more self-aware than average performers.

Numerous development efforts are based on the belief that self-awareness will lead to an increase in performance; however, research is necessary to justify the effort associated with multi-rater feedback and to further the understanding of the ratings in this process. Bourey and Miller (2001) considered self-awareness to be a core component of emotional intelligence and an attribute that can increase resiliency in the face of the uncertainty that new challenges and change can bring.

Leaders commonly experience tension in managing the expectation and perception of their constituencies. The multi-rater approach is effective in increasing the reception of the feedback because of the objective nature of the process (Conger & Toegel, 2003; Church & Bracken, 1997). Antonioni (1996) also included improved organizational learning and communication between leaders and their constituencies as results of the nature of the multi-rater feedback.

In many cases, as leaders ascend the organizational hierarchy they get less candid informal and formal feedback about their weaknesses. Kaplan, Drath, and Kofodimos (1987) said that the daily routine of a busy organization creates an environment in which leaders can often find themselves lacking feedback.

Lombardo and McCall (1983) studied executive derailment, and their findings revealed gaps in leader self-awareness they described as “blind spots,” which cause

leaders to miss clues or responses to their performance that causes a negative effect on their team or organizational outcomes (Van Velsor & Leslie, 1995).

Goleman, Boyatzis and McKee (2001) addressed one example of the leader self-awareness gap through a condition they refer to as “CEO disease,” where leaders have almost complete unawareness about how they are perceived by the organization.

Sala (2003) said that job level could be an indicator of the size of the self-observer difference. His research shows evidence that higher-level managers may be more unaware of how they are perceived by observers than lower level managers. Conger and Nadler (2004), among others, said this may be because higher-level managers may be overconfident in their abilities, which could cause them to be less receptive to the feedback and opinions of others, or they may have assembled a team around them that is unlikely to offer a difference of opinion (Kaplan, Drath, & Kofodimos, 1987).

The L7 instrument is designed to be used as multi-rater or 360-degree feedback to capture leader effectiveness in order to identify the gap between the current state of a leader’s ability and the perceptions of others.

There are ongoing efforts to combine the understanding gained in leader performance with opportunities for reflective judgment. This combination of awareness and outcomes can produce the leader development necessary to keep pace with increasing organizational complexity (Schwandt, 2005).

The benefits of participating in the process of self-appraisal can cause the leader to be more receptive to the results, increase self-awareness, and create a higher level of effort (Yarrish & Kolb, 2002). Church and Wacławski (2000) pointed out that there

should be some measurement of outcomes that drive the multi-rater feedback process. For example, outcomes that indicate an increase in productivity, retention, team engagement, or leadership need to be captured to give the feedback process a target.

Yammarino and Atwater (1997) concluded with the observation that self-other ratings, feedback, and the process they involve, have implications for human resources management and enhances the understanding of what leaders contribute to organizational performance.

Multi-rater Feedback Operationalized

Antonioni (1996) said that a self-assessment can identify gaps between how leaders see themselves and how others see them. This creates a positive tension designed to motivate leaders to explore areas of difference.

Of consideration for the successful implementation of multi-rater feedback is that giving and receiving feedback can be threatening for participants and recipients alike. Trust must be established in the process, and reception of multi-rater feedback, or leadership development will be limited (Bracken, 1994). More specifically, many people hesitate to give performance feedback, especially to their superiors because it can be hard for team members to rate a leader who has the power to provide reward or opportunity (Dyer, 2001).

Conger and Toegel (2003) claimed that the developmental positioning of the ratings creates a safe environment to receive feedback.

Church and Wacławski (2000) also emphasized the developmental use of 360-degree feedback based on the assumption that raters will provide more accurate ratings. When 360-degree feedback is used for appraisal, there is a tendency to favorably view behavior and reduce the effort put into the accuracy of ratings (Alimo-Metcalfe, 1998; Antonioni, 1996).

Another consideration in multi-rater feedback is the size and scope of the instruments used. A strength that the L7 and Q12 share is that they are made up of 33 total items, 12 items in the Q12, and 21 items representing the 7 leadership dimensions of the L7. Effective 360-degree programs do not require the participants to invest a substantial amount of time; however, which would otherwise burden leaders with data beyond the scope of their ability to process or act on the results (Conger & Toegel, 2003).

Tornow and Wiley (1991) acknowledged the ability of 360-degree performance evaluations to provide value in their multiple perspectives, even when the results contain conflicting data. This raises the possibility that different perspectives are not necessarily considered errors and can contain useful information (Alimo-Metcalfe, 1998).

Leader responsiveness to feedback and the way leaders examine and diagnose the differences can influence the responses of others toward them (Bracken, 1994; Alimo-Metcalfe & Alban-Metcalfe, 2005).

Ashford and Tsui (1991) described four general options that leaders will use to respond to differences in the self-other expectations: (a) changing their behavior; (b) an attempt to manage the leadership expectations that others have of them; (c) an attempt to

describe their behavior and help others know what to expect; (d) or lastly they can simply ignore the individuals or groups who provided the conflicting ratings.

Salam, Cox, and Sims (1997) said that when there are differences in self-other leader perceptions, one explanation is that the same situation can be perceived differently depending on that role's view of the situation. More specifically, Salam et al. (p. 202) said, "Different roles value different leader behaviors on the basis of what is most advantageous to the particular role."

Bracken (1994) added that while the ratings have the value of providing direction and conversation points, the process before and after the collection of scores can be a source of awareness. Alimo-Metcalfe (1998) considered a planned 360-degree feedback to provide a valuable opportunity to reflect on this valuable information and gain perspective that otherwise might be missed.

The collection of opinions can act as a catalyst to a process of self-awareness that propels itself forward, and as Chappelow (2004) concluded, in many cases it may be one of the few times, or perhaps the only time, when leaders purposefully stop and assess their effectiveness.

Patterns of Self-Awareness

Gioia and Sims (1985) said that 360-degree feedback offers a more complete assessment than the traditional performance evaluation, which uses only the perspective of the superior.

Bowles and Bowles (2000) provide analysis that indicates that individual self-ratings don't demonstrate much range. Individuals considered to be leaders receive much higher observed leadership ratings than those individuals not considered to be leaders.

Harris and Schaubroeck (1988) added that it is not uncommon for research to uncover instances where self-ratings contained inflated or inconsistent scores. Without the direction of the scores and the feedback dialogue with others, leaders will be limited in their ability to match expectations with behavior (Church & Bracken, 1997).

Several factors contribute to the ways leaders rate themselves. Ongoing self-evaluation through success, failure, and feedback, provides experiences that can influence self-other ratings (Alimo-Metcalfe, 1998).

One way to understand multi-rater scores is to consider how close the ratings are in agreement. It is not uncommon for there to be differences in self-other ratings of leader performance (Fox & Dinur, 1988; Thornton, 1980). Differences in the feedback can be due to a variety of reasons. Roberts, Dutton, Spreitzer, Heaphy, & Quinn (2005) stated that the frequency of contact between leaders and groups they interact with can cause differences in perception of leader ability. Moxley (1972) said that rater expectations are also a factor influencing perception, because different groups may have their own expectations of leader behavior and effectiveness.

Other leadership instruments, such as the Multi-Leader Questionnaire developed by Bernie Bass, attempt to measure self-awareness. There are differences in patterns of scores between the leader and other raters and what those patterns represent. Salam, Cox, & Sims (1997) went on to say the leader perspective is important since only they can best

explain the purpose and reason for their behavior. However, leaders have shown effects of leniency in self-ratings.

Yammarino and Atwater (1997) described four categories of raters, with details of their rating characteristics, and the management results they are associated with. The four categories (see Table 1.) are the Over-Estimator, In-Agreement/Good, In-Agreement/Poor, and the Under-Estimator.

Table 1

Rater Agreement Profiles

Type	Ratings	HRM Outcome
Over-Estimator	Self-Ratings Great Than Other Ratings	Very Negative
In-Agreement/Good	High Self-Ratings, Similar to High Other Ratings	Very Positive
In-Agreement/Poor	Low Self-Ratings, Similar to Low Other Ratings	Negative
Under-Estimator	Self-Ratings, Less Than Other Ratings	Mixed

Leaders in the Over-Estimators group give self-ratings that are significantly higher than scores from other raters. They are the “legends in their own minds” (Yammarino & Atwater, 1997, p. 41).

One reason for the rating disparity is that it is not uncommon for most people to feel uncomfortable giving negative feedback, and will tend to avoid it (Eichinger & Lombardo, 2004). This enables individuals to possess a skewed self-perception because as individuals tend to minimize negative feedback, they are also very receptive of positive feedback. Harris and Schaubroeck (1988) and Holzbach (1978) added that leaders with high self-esteem self-rate significantly higher than the ratings they receive from others. Fox and Dinur (1988) pointed out that there can be a positive side to the inflation of self-ratings if the bias increases expectations of success. However, there needs to be some acknowledgment of criticism or failure regarding one's performance.

The leaders represented as In-Agreement/Good are described as having high self-other scores that are in close alignment, and their teams generate very positive organizational outcomes (Church, 1997; Sosik & Megerian, 1999). A study supporting this description of the In-Agreement/Good Leader was conducted by Roush and Atwater (1992). Using the MBTI, Roush and Atwater studied the leadership of Naval Academy midshipmen. As they examined leadership styles, perception and outcomes, their findings revealed that to be considered effective, leaders must possess an awareness of those leader behaviors that were more likely to produce higher performance from their followers.

The profile of In-Agreement/Poor leaders would be those who have self-other scores that are low, but are close in alignment. Leaders in this category see themselves unfavorably but are unwilling or unable to change (Yammarino & Atwater (1997).

Yammarino and Bass (1990) indicated that leaders who disagreed with inflated self-other ratings were evaluated as being higher performers by their superiors. Some studies including leadership self-other comparisons reveal that compared to the ratings they receive from others, most effective leaders are more likely to underrate their abilities (Church, 1997; Eichinger & Lombardo 2004). Sosik and Megerian (1999) found an inverse relationship for underraters between superior ratings of their performance and the subordinate ratings of their transformational leadership. However, subordinate ratings of the leader performance and transformational leadership were positively related. Moshavi, Brown, and Dodd (2003) observed an inverse relationship between the performance of the team and the level of responsibility claimed by the leader for the team success.

The understanding that effective leaders underrate their abilities is supported by results from studies demonstrating that people regularly overestimate their performance in areas they are least capable, and underestimate areas where they have the most ability (Kaplan & Kaiser, 2003).

Multi-rater Rater Alignment and Outcomes

Multi-rater feedback has shown a positive impact of followers' feedback on leaders. Empirical research of 360-degree feedback results has focused on types of indicators of awareness (Conger & Toegel, 2003). One measure is the degree to which self-ratings become congruent with ratings from others, which then provides an indication of an increase in leader awareness of the perception of how others view them (Atwater, Roush, & Fischthal, 1995; Johnson & Ferstl, 1999; Reilly, Smither, &

Vasilopoulos, 1996; Walker & Smither, 1999). When self and other perception scores are congruent, it can be an indicator that leaders are more active in understanding their contribution to the organization through the interpretation of feedback (Bowles & Bowles, 2000). Berman and West (2008), in their study of city managers and chief administrative officers, found feedback to be positively associated with self-awareness.

The use of multi-rater feedback has many implications for training and development, one of the most important of which is the use of the feedback “to enhance self-perception accuracy and self-other agreement” (Yammarino & Atwater, 1997, p. 42).

Better leaders would likely be more capable of evaluating their own behaviors. The results of Church’s (1997) study involving 134 high-performing and 470 average-performing managers consistently demonstrated that high-performing leaders were more accurate in evaluating their own behavior and had greater alignment between their self-report and direct report ratings.

Yammarino and Atwater’s 1997 study describes the profile of In-Agreement/Good individuals who tend to develop confidence and performance with their teams. Leaders in this category of rater alignment achieve the most success. Leaders belonging to the In-Agreement/Poor category tend to make ineffective decisions.

When processing the feedback, it is important to understand how differences in scores are to be interpreted. Do differences in self-other scores necessarily indicate inaccuracy, or just a difference of opinion (Atwater, Ostroff, Yammarino & Fleenor, 1998)? The findings are mixed in demonstrating whether self-scores are accurate, and this is why sharing the results with raters as part of a developmental process is important

(Walker & Smither, 1999). Another view of multi-rater feedback that may initially seem counterintuitive is that differences in opinions are not to be considered as inherently bad, or as errors, and rather can provide useful input (Tornow & Wiley, 1991).

Not surprisingly, leaders tend to give attention to the distance between self-ratings and other ratings. Harris and Schaubroeck (1988) noticed that peer and superior ratings closely align, and usually the peer-superior ratings difference is less than the gap between the self-peer or self-superior rating. Research by Fleenor, McCauley, and Brutus (1996) indicates that self-other discrepancy could be arrogance on the part of the overraters, or modesty on the part of the underraters.

Leader Self-Awareness and Transformational Leadership

Yukl (1989) said that leaders and organization members influence each other through their behaviors. Kahn and Kram (1994) added that leaders' expectations are also shaped by perceptions of how others such as superiors, peers, and subordinates want the role of the leader to be fulfilled. Mann and Dent (1954) included that leaders at times face conflicting demands based on the differences in expectations of the organization and team. Tsui (1984) pointed out that the ability of the leader to accommodate and reconcile the multiple differences of expectation is what identifies one as an effective leader. However, Yukl (1989) cautioned that it is important to realize that expectations become misaligned when leaders are seen only as influencers, without recognizing that they too are also influenced within the organizational culture.

Leaders find awareness from the perspectives provided through their superiors, peers, and teams. They integrate these perspectives with their own in order to gauge their decision-making and take appropriate and timely action (George, Sims, McLean, & Mayer, 2007).

There is theory and evidence that shows how gains in self-awareness contribute to a capacity for transformational leadership (Huy, 1999). A study by Barling, Slater, and Kelloway (2000) found that EQ, which involves self-awareness, correlates to three components of transformational leadership: idealized influence, inspirational motivation, and individualized consideration.

Sosik and Megerian's (1999) research suggests that leaders with self-awareness demonstrate interpersonal control, and are viewed as expressing transformational leadership. Specifically, leaders rated as self-aware by subordinate and superior were also likely to be considered transformational by subordinates (Lord & Emrich, 2001). Bowles and Bowles (2000) studied leaders within nursing units and found that those who demonstrated higher levels of self-awareness were also considered to be more transformational than those seen as lacking self-awareness.

Transformational Leadership Outcomes

Transformational leadership and performance have been shown to have a positive relationship (Lowe & Kroeck, 1996). Transformational leaders build their team members by elevating their goals and helping them develop confidence (Bass, 1985). Avolio and Gibbons (1988) referenced four characteristics of transformational leaders that help their

followers reach their full potential and performance. These characteristics are charisma, inspirational motivation, intellectual stimulation, and individualized consideration, and through the behaviors associated with each characteristic, team members are developed (Conger & Kanungo, 1987; Bass, 1988).

Several studies confirm that the transformational style of leadership has been shown to positively affect performance. For example, Hater and Bass (1988) displayed ratings of transformational leadership demonstrating a positive relationship with team evaluations of leader performance. Howell and Avolio (1993) reported in their study of managers in a large Canadian financial institution that transformational leadership, not transactional leadership, predicted the unit performance of financial leaders over one year. A study conducted by Barling, Weber and Kelloway (1996) found a relationship between transformational leadership and increased follower commitment and organizational performance. Sosik, Avolio, and Kahai (1997) examined the creative output generated by teams and found transformational leadership had direct and indirect relationships with levels of performance.

In a study involving platoon leaders and sergeants, Bass, Avolio, Jung and Berson (2003) found links among transformational leadership, team cohesion, and performance. To further understand the impact of transformational leadership, Graen, Liden, and Hoel (1982) found that followers who received relational support were more likely to stay with an organization than employees whose relationship with their leader was based on the more transactional elements of work such as hours or pay.

Bass, Avolio, Jung, and Berson (2003) referenced the strength of this interpersonal bond to be necessary since transformational leadership seeks to develop followers to believe in themselves and in the purpose of the group.

Transformational leaders also display the ability to understand the current contribution of their team members and to provide the direction necessary to move them to future responsibilities (Avolio, Waldman, & Yammarino, 1991). Burns (1978) proposed that transformational leaders motivate followers to satisfy self-actualization needs by raising their followers up Maslow's hierarchy. Shamir, House, and Arthur (1993) added that transformational leaders help create alignment of values among the leader, organization, and followers.

Leader Self-Awareness and Leader Development

Not surprisingly, leadership development has drawn attention as teams experience this multitude of conditions challenging performance. Day (2001) distinguished leader development from leadership development in the understanding of the role of self-awareness in leadership. The goal of leader development is the increase of leader capability through the integration of self-awareness, self-regulation, and self-motivation. Leadership development, however, has a focus on the interaction of the leader's interactions within the social dynamic of the organization (Fiedler, 1996).

Leaders need to continue in their own development in order to help their teams maintain their ability to perform well in disruptive conditions (Berman & West, 2008).

Schwandt (2005) added that self-reflection causes leaders to review their actions, their style, and what they know. Johns and Watson (1996) studied the leadership development and current leadership ability of women graduate students in seminary. The results of their study confirmed a need for more reflection opportunities and conceptualization of their leadership experience.

Rooke and Torbert (2005) stated that the commitment to the development and gain of self-awareness will make a significant difference in determining the level of leadership attained in the effort to become a transformational leader.

Leaders develop their self-image by seeing themselves in relation to their environment. In many cases, the key to success and effectiveness may due more to self-awareness rather than ability (Brouwer, 1965).

Seven Demands of Leadership

The L7 instrument helps to directly address leader role clarity and awareness in order to complete the feedback loop for the leader that is often left open due to the pace and the busyness of the average workday. The specific design of the L7 includes items that were selected by meeting two key criteria. One is that they must directly reflect observable leader behavior; the other is that each item must be able to be improved through feedback and discussion.

The L7 instrument is made up of the dimensions of Visioning, Maximizing Values, Mentoring, Challenging Experiences, Knowledge of Self, Making Sense of Experience, and Building a Constituency (Conchie, 2004).

1. Visioning

An important feature of leadership is its potential ability to generate commitment and enthusiasm to drive the organization toward its strategic aims and objectives (Pervaiz & Rafiq, 1992). To create an effective future requires confidence and commitment, in addition to engaging others with a detailed view of what that future will be like (Collins & Porras, 1996).

Conchie (2004) described visioning as being demonstrated when leaders inspire their teams with pictures of the future. Leaders' ability to see and create the future is expanded by powerful description, providing a view of the future for their teams (Conger, 1991). Bigger goals are accomplished because the clarity of the vision activates the team to make it a reality (Berson, Shamir, Avolio, & Popper, 2001; Frese, Beimeel, & Schoenborn, 2001). A visionary leader is able to influence the organizational environment to one that encourages members in their ability to understand, accept, and support the vision (Larwood, Falbe, Kriger, & Miesing, 1995).

Evidence from studies of transformational leadership indicates that vision is a powerful method of influence (Bass, 1990; Strange & Mumford, 2005). Kirkpatrick and Locke (1996) were able to demonstrate that vision had strong, positive influence in terms of its effects on follower performance and attitudes. Followers identified a collaborative future and described the potential of that future as the primary attribute they felt most distinguished leaders from non-leaders (Kouzes & Posner, 2009).

Transformational leaders influence followers' identity, aligning them with the goals, mission, and vision of their unit (Walumbwa, Avolio, & Zhu, 2008). The

transformational leader inspires followers with highly motivating visions (Manz & Sims, 1991; Yammarino, Dansereau, & Kennedy, 2001) through the appeal of Inspirational Motivation, which overlaps with the dimension of visioning (Avolio, 1994). Within the concept of Inspirational Motivation, a leader increases followers' awareness and moves the team to generate enthusiasm and optimism as the leader describes a future which team members can see involves them (Awamleh & Gardner, 1999).

2. Mentoring

Quality mentoring can contribute to employee effort, outcomes, and retention as well as strengthening the values and expectations of the organizational culture (Wilson & Elman, 1990; Ragins, Cotton, & Miller, 2000).

Conchie (2004) referred to mentoring as the ability of leaders to provide opportunities to individuals commensurate with their development, which is effective in encouraging leadership in others (Young & Wright, 2001). In the leadership demand of mentoring, leaders demonstrate the value of personal relationships. Leaders select and invest in the development of individuals, and commit to them for a significant time frame (Hunt & Michael, 1983; Galbraith, 2003).

Similar to the L7 dimension description of Mentoring, Avolio, Jung, and Berson (2003) considered Idealized Influence to be a characteristic of transformational leadership that leaders use to build trust and serve as role models. Leaders earn credibility by placing the needs of their followers above their own and are consistent in their values. The demand of Mentoring also overlaps with Individualized Consideration as transformational leaders act as a mentor by being attentive to their mentees' achievement

and progress toward reaching their potential. As a result, their followers want to identify with them and mirror their behavior (Bass, 1985).

Mentoring and transformational leadership both exert a developmental influence by modeling behaviors and actions that encourage the learning and growth of others (Sosik, Godshalk, & Yammarino, 2004).

3. Challenging Experiences

Thompson (2008) claimed that one of the most highly regarded elements of leadership development is that of “challenging experiences,” where leaders face situations that require higher levels of leadership that accelerate their growth and ability. Increased exposure to these challenging experiences can accelerate leader growth and experience (Heine, 2007). Conger (2004) and Dotlich (2005) added that leaders identify intense challenges as significant contributors to their leadership development. Bennis and Thomas (2002, p. 6) described “leadership crucibles which are transformative experiences through which an individual comes to a new or an altered sense of identity.”

When leaders take on challenges, their learning is accelerated, and they increase their effort, and awareness of what their organization has the potential to achieve (Heine, 2007). Owens (2008) cited a study conducted by Personnel Decisions International where responses from more than 4,500 participants indicated that well-timed assignments that were described as “tough challenges,” “high risk, high reward” projects or as stretch assignments were the experiences that best prepared leaders.

Lowe and Kroeck (1996) noticed that transformational leaders engage with others in such a way that the leader and the follower elevate each other to higher levels of effort

and motivation. Transformational leadership develops followers by helping them break out of their normal ways of thinking, and inspiring them to exceed their own expectations (Avolio, 1999; Avolio, Jung, & Berson, 2003; Avolio, Bass, & Jung 1999). Yukl (1989) noticed that a leading predictor of follower success is the involvement of leaders who provide followers with strategies, along with encouragement, coaching, and developmental opportunities.

Transformational leaders are able to create unity and align the beliefs and goals of their followers with their own. This form of leadership produces higher levels of performance among team members (Bass, 1985) and motivates followers to pursue difficult goals beyond their normal effort (Avolio, Waldman, & Yammarino, 1991).

Avolio (1994) stated that transformational leaders are characterized by Individualized Consideration, which allows them to be able to recognize the unique abilities of their followers, and push them to fulfill their potential.

4. Knowledge of Self

“The self-concept is an organization or patterning of attitudes, habits, knowledge, drives and the like” (Brouwer, 1965, p. 160).

The first component of what Goleman (1998) defined as emotional intelligence is self-awareness. Leaders who are self-aware recognize how their feelings affect themselves, others, and their performance. Church (1997) said effective managers are more capable of assessing their actions and the influence those actions have on others.

According to Rath and Conchie (2008), leaders need to constantly gain self-knowledge and self-awareness in their ability to know their strengths and minimize their

limitations. Of the research that identified the L7 items, the most revealing discovery was that “effective leaders have an acute sense of their own strengths and weaknesses. They know who they are and who they are not. They don’t try to be all things to all people” (Conchie, 2004, p. 4). Knowing Self as a key leadership attribute raises a question that Kuhnert and Lewis (1987, p. 655) asked: “What happens when leaders and followers operate at different developmental levels?” Alignment of leader-team awareness would allow the leader to see eye-to-eye with the team, which could gain perspective in team motivation.

Burns (1978) described Stage 4 leaders as those who are able to view their goals and commitments objectively through their own belief systems. Without this perspective, leaders can get caught between conflicts of the organization and their team. Conchie (2004) said effective leaders have no division of self between work and home. As a result, they maintain consistency in their personalities, which helps others know them, and in turn helps leaders create a relationship with others.

5. Making Sense of Experiences

Growth is often a dynamic process, and in some cases it is only partially controllable (Brouwer, 1965). Applied to this dimension, Kegan (1980) considered the nature of constructive leadership, which must take into account that each person organizes experiences differently. This ability is important for leaders to possess since, according to Dasborough (2006), employees remember negative events more readily, with more intensity, and in greater detail. The workplace is typically filled with obstacles,

and it is the leader's job to help employees overcome them (Pirola-Merlo, Hartel, Mann, & Hirst, 2002).

In this L7 demand, Conchie (2004) revealed that when leaders make sense of experience, they are more capable of teaching others. They take advantage of failures and success to ask questions and learn from their constituency.

Complexity, in addition to large amounts of information, and ambiguity define just some of the characteristics of leaders' problem-solving challenges. Leaders need the ability to quickly make sense of situations in highly charged settings (Mumford, Zaccaro, Harding, Jacobs, & Fleishman, 2000).

Different interpretations of events can provide subjective evaluations, and organizational leaders try to understand all of the outcomes and reactions represented in these evaluations (Meindl & Ehrlich, 1987). By keeping things basic and providing information, these leaders help their teams understand their business environment so that they can be more successful (Conchie, 2004; Bennis, 1989).

Transformational leadership involving the component of Intellectual Stimulation meshes with Making Sense of Experience dimension. Pirola-Merlo, Hartel, Mann, and Hirst (2002) found that transformational leaders helped their employees create a positive mood to lead to a more productive performance. Avolio (1994) described intellectually stimulating leaders as those who move their followers to question standard operating procedure. Leaders operating with Intellectual Stimulation encourage creative problem-solving and approaching problems from different perspectives. Bass, Avolio, Jung, and

Berson (2003) added that transformational leaders accept mistakes for the progress they make toward new ideas and innovations.

6. Maximizing Values

As climate and culture develop, the organization develops an identity based on the values and goals that are embodied in the climate and culture (Dickson, Smith, Grojean, & Ehrhart, 2001). Bass and Steidlmeier (1999) stated:

The ethics of leadership rests upon three pillars: (1) the moral character of the leader; (2) the ethical legitimacy of the values embedded in the leaders vision, articulation and program which followers either embrace or reject; and (3) the morality of the processes of social ethical choice and action that leaders and followers engage in and collectively pursue (p182).

Lord and Brown (2001) described two functions of values: One function is that values define the behavior and actions of organizational members; the other is that values provide standards for the team, group, or organization.

Conchie (2004) described this dimension as one in which leaders take opportunities to clarify their own work values. As a result, teams can anticipate the stance of their leader regarding primary personal and organizational issues (Dickson, Smith, Grojean, & Ehrhart, 2001; Lencioni, 2002).

Values and self-concepts serve as guides to influence subordinate motivation, behavior, and thought processes (Lord & Brown, 2001). Kuhnert and Lewis (1987) stated that effective communication of values, so that they are received and accepted by

followers, is a core component of transformational leadership. Bass (1985) said values are a part of what distinguishes transformational leadership from transactional leadership. Through the leadership characteristic of Idealized Influence, transformational leaders are consistently guided in their actions and decisions by their ethics, principles, and values (Avolio, Waldman, & Yammarino, 1991). The values of transformational leaders allows them to reinforce decisions based on what is right and not what is popular (Bass, 1985; Bass & Steidlmeier, 1999).

7. Building a Constituency

As organizational hierarchies continue to flatten, member interactions are more collaborative and are moving away from the traditional superior-subordinate relationship. Today, managers and leaders must develop a strong social network to be successful (Freshman & Rubino, 2004; Bass, 1999). According to Reichheld (2003), superior leaders build trust through networks of interdependent partnerships.

Mumford, Zaccaro, Harding, Jacobs, and Fleishman (2000) noted that leaders are involved in organizational social networks which influence the outcomes of their teams. Leaders solve problems in a socially dynamic environment, and these solutions will be influenced from organizational constituencies and stakeholders.

Managers' success is partly contingent on their ability to build support from their constituents in order to receive necessary information, material, and effort (Tsui, Ashford, St. Clair, & Xin, 1995; Mehra, Dixon, Brass, & Robertson, 2006). "Group leaders also serve as bridges between their own groups and high-ranking organization

members who, by virtue of their position in the formal hierarchy, possess significant power and decision-making authority” (Mehra et al., p. 66).

Gardner (1990) listed understanding of constituents, agreement building, and networking as necessary characteristics of leadership. Regardless of where leaders and managers are positioned, they do not work in a vacuum. Leaders and managers are expected to develop multiple relationships without compromising values (Hoff, 1999).

Within the transformational leadership characteristic of Individualized Consideration, leaders recognize differences of each individual’s goals, desires, and motivation (Avolio, Bass, & Jung, 1999; Bass, 1985).

Freshman and Rubino (2004) asserted that the daily interactions of the leader and manager form social networks, and it is the quality of these interactions that strengthen or weaken the network. Leaders need to understand the contributions of their constituency to their own performance and that of their team and intentionally engage in networking to expand their constituency (Conchie, 2004; Tsai & Ghoshal, 1998).

Conchie’s (2004) description of this ability was that development of supporters across the organization and in diverse functions is a necessary effort for effective leaders. Day (2001) also noticed that effective leaders break down barriers between silos by cultivating and maintaining broad individual networks, and by knowing who to involve for information, resources, and support (Tsai & Ghoshal, 1998).

Closing

“What is the most critical competency to leadership? In my mind, it’s self-awareness. Leaders who manage ego needs and have honest conversations with themselves about how they show up to lead become effective and sustainable leaders” (Riney, 2008, p. 66).

Chapter 3: Methodology and Design

Chapter 3 presents the design, methods, and procedures of this study. For the purpose of presentation, the chapter is divided into five main sections: design of the study, samples and permissions, instrumentation, data collection procedures, and data analysis procedures. Ethical considerations and the researcher's resources and skills are also discussed.

The relationship between rating congruence and managerial effectiveness is a cornerstone of multi-rater, or 360-degree, feedback. A straightforward premise to the design of this study is that leaders with congruent self-other leadership ratings generate higher levels of team engagement than those whose ratings are incongruent.

The hypotheses, using the alignment of self-and-other ratings (self-awareness) as independent variables, examined whether congruence between self-and-other ratings predicts the outcome or level of engagement the team rates itself as the dependent variable.

The relationships between the different measures and rater groups of self-awareness are examined, including comparing agreement, which is measured as the relationship between leaders' L7 self-ratings and others' L7 ratings, and (Q12) engagement. In addition, relationships are reported between the L7 self-awareness measures of overall leadership ability, the Knowing Self dimension of the L7, and the remaining six dimensions of the L7.

The current section provides an overview of the study methodology, including information on the participants, study design, procedures and manipulations, and measures.

Design of the Study

It is important to emphasize that the design of this study is intended to add to the understanding of the relationship between leadership self-awareness and engagement, not because engagement alone is the desired outcome, but because of its role as an antecedent for valued business outcomes. Harter and Schmidt (2000) said that when the workplace is engaged, then the groups within are more likely to improve employee retention, productivity, customer service, and profit.

Leader self-awareness is integrated in this design because of the description that Luthans and Avolio provided regarding role that clarity of one's leadership abilities plays in self-regulation of behavior. When this clarity and self-regulation are targeted toward team engagement, it can produce a culture where performance has an increased chance of being optimized (Buckingham & Coffman, 1999).

A quantitative design was used in an exploratory and descriptive approach to form and test hypotheses, analyze relationships among variables, and then develop generalizations to contribute to an understanding of the interaction between leader self-awareness and engagement. Because this study seeks to understand more about leadership self-awareness and its relationship to team engagement, it used L7 self-ratings of leadership ability from leaders, as well as ratings from their teams, their peers, and

their superiors. The combination of multi-rater L7 scores provides a more complete reflection of perceived leadership ability, and will be compared with the Q12 engagement results from the ratings provided by each leader's team. In order to understand the relationship of leader self-awareness and team engagement, this research effort will examine the alignment of L7 leadership scores given by self, superior, peer, and team and the correlation that exists between that alignment of L7 leadership assessment and the Q12 engagement score of the team.

The inclusion and use of quantitative data in this study bring a focus and ability to understand the relationship of the variables of leadership awareness and engagement. This approach will also allow for comprehensive conclusions due to the combination of statistical results produced from the examination of engagement (Q12) and self-awareness (L7). This will enhance the utility of the research, as well as the generation of practical solutions for the organization (Kiessling & Harvey, 2005).

Samples and Permissions

The sample represents 381 team leaders. All of these leaders attended a Demands of Leadership seminar at Gallup. All were employed by Gallup clients or were independent clients of Gallup. In order to participate in the seminar, all team leaders needed to provide L7 self-ratings, as well as be rated on L7 by their superior, peers, and team. They also needed to provide Q12 engagement scores from the team they lead.

The 381 leaders included supervisors, team leaders, managers, leaders, directors, vice presidents, presidents, and C-level executives. They were from a variety of

organizations and industries involving retail, finance, insurance, education, health care, military, government, and the clergy as examples. The leaders included within the sample were from a variety of backgrounds, such as general management, human resources, marketing, sales, manufacturing, research and development, and finance. As leaders, they were responsible for the performance of a team of direct reports, and various measures of leadership behavior were collected from these direct reports.

Education, gender, and age of these leaders were also collected, but it was offered as optional and in broad categories for each participant so as to reduce the effort of the surveys, and to not distract the respondents from the primary purpose of the study, which was to provide leaders with developmental feedback (Wohlers & London, 1989).

For the cases where race was indicated, 26 leaders, or 11.3%, identified themselves as a minority, and 205, or the remaining 88.7%, identified themselves as Caucasian (see Appendix D). Of those participants who did indicate gender, 173 cases, or 65%, were male, and 93 cases, or 35%, were female (see Appendix E). Of those participants who did indicate age, 68 cases, or 36.6%, were less than 40 years of age, and 118 cases, or 63.4%, were over 40 (see Appendix F).

As previously mentioned, each participant leader within the sample possessed a complete set of L7 self, superior, team, and peer ratings, in addition to Q12 engagement scores. This non-probability sample is appropriate because it includes those in leadership roles and the study is one of leadership. The sample of leaders was purposefully chosen for its ability to represent the examination of leader awareness as it relates to engagement.

Only leaders who were rated on the L7 by teams that had three or more respondents in the direct reports category were included in the study. This was to alleviate bias in the direct report responses due to any concern a member may have about expressing opinions about someone in a position to influence pay or employment (London & Smither, 1995; Conger & Toegel, 2003).

The number of leader participants and other-raters breaks out to L7 sample sizes of 381 leaders, 577 superiors, 2,693 direct reports, and 2,009 peers, in addition to 5,540 raters in the Q12 sample. These sample sizes should be sufficient to make statistically significant conclusions, reduce sampling error, and provide sufficient power. For most studies of this type, an N of over 30 is typically considered acceptable (Best & Kahn, 1993).

The average team size was 7 members, with a low of 3 members and a high of 18. Peer ratings averaged 5 per leader participant, and ranged from 2 members for some leaders to 19 members for the largest group of peers rating a leader. The average number of superior raters was 1.5, the minimum number of superiors rating a leader was 1, and the most was 11. The raters taking part in the Q12 were an average of 14 per leader, ranging from a low of 1 to a high of 120 raters.

Permissions Needed

It was necessary for the administration of this study to pass testing and receive approval from the International Review Board of the University of Nebraska-Lincoln. In order to ensure the ethical integrity of this study, IRB approval was sought and conditions

for approval were met in full disclosure of the data collection details to demonstrate that the proper steps had been taken to ensure the protection of the participants. Permission from the Gallup Organization regarding use of the Q12 and L7, as well as data access was also obtained in order to meet the requirements of the IRB.

Instrumentation

Q12

The study involved two different instruments. One of the instruments was the Q12, which was used to measure team engagement (see Appendix A). The development of the Q12 involved identifying and studying features that distinguished successful and less successful work units. In addition to the influence of the manager, environment and relationships were found to increase team and organizational outcomes. Some of the outcomes identified in the 12 items through meta-analysis were profitability, employee retention, customer satisfaction, and productivity (Harter & Schmidt, 2000; Harter & Wagner, 2008; Harter, Schmidt, Killham, & Asplund, 2006; Harter, Schmidt, & Hayes, 2002).

Buckingham and Coffman (1999) said the Q12's founding research includes a broad range of companies, roles, and work environments. The data included 105,680 individuals and 2,528 business units across a wide range of performance environments such as finance, health care, restaurants, entertainment, grocery, research, telecommunications/publishing, medical sales, electronics, hospitality, government, and education.

The Q12 survey makes use of a 5-point Likert-type scale, in which each of the 12 items is asked of each respondent with six response options (5=strongly agree, 1=strongly disagree, and a 6=don't know/does not apply option score).

One of the key Q12 measures that will be used to test each of the three hypotheses in this study is the Q12 grand mean. "For purposes of an overall evaluation of business units and for general theory building it is useful to study composite measures of the engagement facets that capture one general, global perception such as 'overall employee engagement in one's work' (which is defined as the grand mean of the Q12 items 1-12)" (Harter & Schmidt, 2000, p. 39).

L7

The L7 was the second instrument used in this study and consists of a questionnaire developed by studying thousands of items related to leadership. Conchie (2004) said these items were then culled to produce seven distinct dimensions made up of three items per dimension. Most of what is measured within L7 fits within three basic themes: (a) How does the leader direct? (b) How does the leader relate? (c) How well does the leader know him/herself?

Each item of the L7 was identified due to its demonstrated conceptual consistency within its assigned dimension and for its meaningful correlations to overall leadership effectiveness (see Appendix C).

The research produced the 21 core items of the L7, and also uses a 5-point Likert-type scale with 1=strongly disagree (that the leader displays the following characteristic) to 5=strongly agree (that the leader displays the following characteristic), and a 6=don't

know/does not apply option score. The 21 questions were the same for the leaders and their other raters; only the frame of reference was different (rate yourself vs. rate the person).

Consistency

As a total instrument at the business-unit level, the Q12 has a Cronbach's alpha of .91, as well as a test-retest score of .80.

Internal consistency of the L7 instrument was measured for each of leaders, superiors, peers, and direct reports. The Cronbach's alpha for the L7 within the group of leaders, superiors, peers, and teams was calculated to verify reliability of the instrument for each contingency (Atwater, Ostroff, Yammarino, & Fleenor, 1998). This was done to ensure that the L7 instrument was reliable in the measurement of each separate rater group to the degree that it was accurate and consistent and could produce results that could be compared (Best & Kahn, 1993). Scale reliabilities (Cronbach's alphas) on the L7 scales for each rater group (i.e., for self, direct report, peer, and superior ratings) were high for all measures: .976 for team ratings, .962 for peer ratings, .938 for superior ratings, and .923 for leader self-scores, indicating adequate reliability for use in subsequent analyses.

Considering the attributes possessed by the L7 and Q12 instruments, it was reasonable to consider them for this study of leader self-awareness and engagement. Exploring leadership self-awareness through multiple sources of rater perspective will add to the understanding of the dynamics between leadership and engagement.

Data Collection Procedures

In the first phase of the study, the self-ratings of 381 leaders on the L7 instrument were collected. In addition to the self-ratings, leaders received L7 ratings from their superior, their peers, and their team. In this phase, the Q12 scores were also gathered from the teams of these 381 leaders in order to understand how L7 scores relate to the Q12 scores. The data were collected from January 1992 through July 2007.

In addition to including their superiors, leaders were instructed to select the peers and direct reports who would rate them on the L7. The participant typically collects feedback from his or her superior, peers, and direct reports. Chappelow (1998) said the most accurate responses come from raters who have had a chance to observe the leaders using a wide variety of behaviors over time. Therefore, it is most beneficial for the participants to select raters who have worked closely with them over time (Yarrish & Kolb, 2002; Wohlers & London, 1989). Conger and Toegel (2003) described additional benefits of rater selection to include minimizing collusion, and gaining accurate feedback from those in the best position to provide it.

Respondents participating in the Q12 consisted of every direct report on that leader's team regardless of whether each took part in the L7 rating of that leader.

All participants (leaders, superiors, direct reports, and peers) were provided the expectations of participation before they responded to the L7 surveys. Because the data were expected to be shared, that was made known to all participants ahead of time. It was suggested and expected that the leader should share and discuss the results with any of the rater groups involved in the ratings. The implementation of the L7 survey and

feedback is intended to create action items to help with short-term performance as well as long-term development.

The suggested expectations for the use of the L7 and Q12 are important to establishing the conditions in which the survey respondents take part. For the L7, it was communicated to leaders, superiors, direct reports, and peers that this is a developmental process to benefit the abilities of the leader through multi-rater feedback. Conger and Toegel (2003) stated that positioning the purpose of the feedback as developmental or for performance appraisal generates different responses from the subject. For example, if multi-rater assessment is used for performance appraisal, raters may be motivated to alter their ratings for a variety of reasons (Bracken, 1994).

The L7 and Q12 scores used in the database were gathered and recorded through self-administered collection of online and paper questionnaires. The surveys were administered on the organization's premises. Complete confidentiality was maintained for leaders, direct reports, peers, and superiors who took part in the Q12 and L7 team ratings. Responses were collected to form an anonymous distribution process. This process ensured as much as possible that the ratings obtained from others reflected an accurate assessment of that leader's workplace behavior. Moreover, ratings were completed independently and were not revealed until the completion of the program, so that other-rater scores would not be influenced by the leader's self-assessments or vice versa.

Potential Ethical Issues

Church and Waclawski (2000) emphasized that the anonymity of rater responses is critical to the provision of effective feedback. Eichinger and Lombardo (2003) stated that expressed expectations of confidentiality should be met before and after data collection. Confidentiality was managed continually throughout the data collection and well into the later stages of the process. Bracken (1994) added that without anonymity, raters may be inhibited in their decisions of rating or participation. As part of this effort to ensure confidentiality, the quantitative forms of data were reported only in aggregate form (Best & Kahn, 1993).

Data Analysis

The first stage in analyzing quantitative research involved organizing the data. The research strategy and data collection techniques determine the method of organizing the data. The first step will include attempts to clean any data-entry errors. The items of the L7 and Q12 scores and the grand mean scores will be assigned values. A codebook will be created that lists the variables, their definitions, and the variable numbers needed to track results. SPSS will be the statistical software used to examine the correlations between the L7 and Q12 grand mean scores.

Descriptive analysis was used to find the mean, standard deviation, frequency, range of response, and correlations associated with these measures. In addition, available race, gender, and age categories were reported in as much detail as they were collected to understand as much about the participants as available within the sample.

Quantitative Data Exploration

The focus of this study was the relationship between leader self-awareness perceptions and team engagement. In order for these perceptions to be revealed, and to quantitatively represent the relationship between leader self-awareness and engagement, the statistical relationships between the L7 grand means of the various rater groups and grand mean of the Q12 engagement scores were examined. The use of quantitative data brought a focus and opportunity to understand the relationship of the variables of leadership awareness and engagement.

The term “L7 grand mean” refers to the averaged overall mean score of all 21 items of the L7 instrument, for each category of ratings for each leader. This study used the grand means of superior, peers, leader, and direct reports as four different L7 data points. The first was the grand mean calculated from the L7 scores provided by the 2,693 direct-report ratings of their leaders ($M=3.95$, $SD=0.46$); second was the grand mean calculated from the L7 scores provided by the 577 superiors of the team leader ($M=4.2$, $SD=0.44$); third was the grand mean of all the L7 scores from the self-ratings provided by the 381 leaders ($M=4.2$, $SD=0.42$); and the last was the grand mean calculated from the L7 scores provided by the 2,009 peers of the leader ($M=3.94$, $SD=0.42$) (see Appendix G). Also see Appendix H for additional descriptive statistics of the L7 overall difference scores by each L7 dimension, including range of difference scores and standard deviations.

Yammarino and Atwater (1997, p. 38) said that “the relative agreement or disagreement between self-ratings and other ratings is the core issue for determining the

implications for HRM.” Salam, Cox, and Sims (1997) point out ratings of leader performance from different sources might produce a different pattern of correlations with these leader behaviors. For example, a superior of a leader might value different leader behaviors than a direct report might.

Studies often use the agreement of self-other ratings to represent self-awareness (Atwater & Yammarino, 1992). This examination focused on measuring correlations between the hypothesized relationships between leader self-awareness as indicated by congruence of the L7 scores for each leader and the corresponding team engagement as measured by the Q12 grand mean. Analysis was then conducted on the differences between leader self-scores and the scores of other raters, referred to as “difference scores,” by combining them into a single index using the sum of absolute differences between self-ratings and observer ratings for each leader (Church, 1997). Several scholars (Ashford & Tsui, 1991; Wexley & Pulakos, 1982; Wohlers, Hall & London, 1993) cite the use of difference scores as one of the primary means by which multi-rater congruence and its outcomes have been studied in previous research.

The approach to data analysis in this study is founded on earlier work in which self-other alignment of ratings commonly use the Pearson correlation coefficient between the average self-score and the corresponding average others’ ratings (Furnham & Stringfield, 1994; Riggio & Cole, 1992). While this value has been found to be low in other quantitative reviews (Harris & Schaubroeck, 1988; Heneman, 1986; Mabe & West, 1982), it is a useful measure for comparison with previous research.

Quantitative Analysis

Previous studies have built an agreement index from the correlation between self- and other-scores (London & Wohlers, 1991), or from the difference score between self-ratings and other-ratings (Nilsen & Campbell, 1993), and then these agreement indexes have been correlated with a dependent outcome variable such as performance or, as in this study, team engagement.

In this manner, the database was examined to address the research questions and hypotheses. The data were analyzed based on the hypotheses and the quantitative questions. Pearson correlation coefficients were used to understand the nature of the relationship between the groups of items that make up each of the L7 dimensions and the relationship to the corresponding Q12 grand mean.

Church and Wacławski (2001) suggested that in order to explore linkage to outcomes, the multi-rater scores are typically compared to performance outcomes. Understanding of the relationship of leader self-awareness to team engagement was achieved through correlation analysis. Pearson correlation coefficients were calculated to explore the relationships between leader difference scores and team engagement. For comparison purposes, a difference score measure for each leader was used, based on the absolute value of the relative average L7 grand mean difference across self, team, peer, and superior reports representing each leader. Computed with the actual arithmetic average of the differences obtained, this measure reflects the degree of the differences obtained (Wohlers & London, 1989; Church, 2000).

Difference scores were calculated by finding the difference in absolute value between the L7 score of every rater by category of peer, superior, or direct report and that

of the L7 self-score of the corresponding leader. Next the mean of the difference scores was computed from each leader's rater group to obtain a single difference score for each rater group. Difference score self-awareness for each leader was the average absolute difference between the self-ratings subtracted from the average others' ratings across the L7 leadership dimensions, and L7 overall grand mean. The difference score is an indication of whether leaders view themselves at the same level as do the other raters in their constituency.

Analyses testing of each of the three research hypotheses was conducted. Correlation analyses at an alpha level of .05 and the use of a two-tailed test were incorporated to study the data and examine all three hypotheses.

Hypothesis 1: There is a positive relationship between team engagement (Q12 grand mean) and leader self-awareness, the multi-rater alignment of self-other (L7 grand means) leadership perception scores.

Hypothesis 1 was tested with a correlation approach; that is, the Pearson correlation coefficient between the difference scores representing the level of agreement between the L7 ratings of all 4 rater groups, and the Q12 engagement scores provided by the leaders' teams.

In testing Hypothesis 1, leader self-awareness was measured by producing a difference score for each leader. In order to identify the overall difference score, an L7 grand mean for each team, peer group, superior, and self-score representing each leader was calculated, resulting in four different grand means representing each set of raters associated with each leader.

The four L7 grand mean scores were then used to generate an overall difference score that reflected the alignment of perception related to the leader's ability. The difference between the grand mean of each leader's self-score and the grand mean of the corresponding peer's scores was then calculated, as well as the difference between the grand mean of each leader's self-score and grand mean of the corresponding direct reports score; the difference between the grand mean of each leader's self-score and corresponding superior score was measured as well. The last step to arriving at one representative number indicating leader self-awareness was to sum the absolute value of the differences between each of the 1,143 other raters relative to the 381 leader self-scores to arrive at an overall difference score ($M=1.11$, $SD=0.83$). Using the Pearson correlation coefficient, this overall difference score was then correlated to the averaged mean of the 2,693 ratings contained in the Q12 scores ($M=3.88$, $SD=0.36$) associated with each leader's team.

Because these measures utilized uniquely matched self-report comparisons across a series of self, peer, direct report, and superior L7 means for each leader, in addition to the corresponding Q12 grand mean, these data will have the potential to yield more comprehensive results than would analyses based on a comparison of the difference between only total self and total direct reports' scores (Church, 1997).

Hypothesis 2: The multi-rater alignment of the self-other grand mean of the three items that make up the L7 Knowing Self dimension is a greater predictor of team engagement (Q12 grand mean) than the multi-rater alignment of overall leadership self-other (L7 grand means) perceptions.

Hypothesis 2 was tested with a correlation approach, using the Pearson correlation coefficient between the Knowing Self difference score and the Q12 engagement scores provided by the leaders' teams. The Knowing Self difference score was calculated from the managers' Knowing Self self-ratings and their level of agreement with others-ratings of Knowing Self.

In examining what is proposed in the second hypothesis, an overall difference score of the Knowing Self dimension of the L7 was calculated. Hypothesis 2 was also tested with a correlation approach. This was done by first producing an averaged mean score consisting of the ratings given to the three items that make up the Knowing Self dimension from each leader, as well as the corresponding direct-reports, superiors, and peers rating of that leader. Conchie (2004) described the three items that make up the Knowing Self dimension as: (a) understands his/her own personal strengths and limitations; (b) has a management philosophy which is clear; and (c) teams effectively with other people to get the job done.

Calculating an overall difference score for the Knowing Self dimension involves producing a single grand mean score that includes the average ratings of the three items that make up the Knowing Self dimension. Through this approach, a Knowing Self grand mean score for each group of direct reports, peers, superiors, and self-scores representing each leader was produced, and in doing so generated four different means representing each set of raters associated with each leader, in addition to the leader. When the Knowing Self grand mean scores for each rater group were produced, they were then used to generate an overall difference score that reflected the alignment of rater

perception of that specific dimension. To accomplish this, the difference between the leader Knowing Self grand mean self-score and superior Knowing Self grand mean leader rating was calculated, in addition to the difference between the leader Knowing Self grand mean self-score and direct reports' Knowing Self grand mean leader rating, and lastly the difference between the leaders Knowing Self grand mean self-score and peer group Knowing Self grand mean rating. The next step to identifying one representative number indicating leader self-awareness was to sum the absolute value of the distance between each rater group relative to the leader self-score involving the Knowing Self grand mean ratings. Using the Pearson correlation coefficient, this difference score was then correlated to the grand mean of the 12 items contained in the Q12 scores associated with each leader's team.

Hypothesis 3: The multi-rater alignment of the grand means of the self-other ratings of the L7 Knowing Self dimension is a greater predictor of team engagement (Q12 grand mean) than the self-other multi-rater alignment of grand means of any other single leadership dimension measured by the L7.

In examining the third hypothesis, the Pearson correlation coefficient of the difference score of the Knowing Self dimension of the L7 to overall Q12 mean score was used for comparison to the Pearson correlation coefficient of the difference score for each of the other six dimensions of the L7 and their relationship to the overall Q12 grand mean score.

Each of the seven dimensions of the L7 comprises three items, and a grand mean was calculated for each L7 dimension consisting of the averaged scores given to each of

those seven sets of three items from leader, team, superior, and peers. This produced four different means for every dimension representing each set of raters associated with each leader in addition to the leader. When the grand mean scores for each dimension for each leader along with the corresponding rater groups were produced, they were then used to generate an overall difference score that reflects the alignment of perception of that specific dimension. To accomplish this, the difference between the means of each leader self-score and superior score, the leader self-score and direct report score, and between the leaders self-score and superior score were found for each dimension. The next step to identifying one representative number indicating congruence of perception between each group of raters was to sum the absolute value of the difference between each rater group relative to the leader self-score for each grand mean rating for each dimension. Using the Pearson correlation coefficient, the difference scores for each individual dimension were then correlated to the grand mean of the 12 items contained in the Q12 scores associated with each leader's team.

In order to examine Hypothesis 3, the overall Knowing Self difference score for each leader is correlated to the corresponding Q12 grand mean score using the Pearson correlation coefficient, and then compared to the Pearson correlation coefficient between the Q12 grand mean score associated with each of the other six dimensions and their difference scores. The overall difference scores for each dimension were used to assess whether any of the remaining six dimensions demonstrated a higher correlation to the corresponding Q12 mean score than the relationship that existed between the overall

Knowing Self difference score for each leader and its correlation to the corresponding Q12 grand mean score.

Researcher's Resources and Skills

The primary researcher involved in this proposal has 19 years as a Gallup employee, and 10 years as Director of Engagement for Gallup's Call Center Division. This experience involves a comprehensive understanding of the research behind the development of the Q12 instrument, as well as a first-hand role in the analysis of the scores. Beyond the understanding of the Q12 data, the researcher for this study also has extensive experience in the feedback process considering participants as the experts, as well as the implementation and follow-up of the action planning that the Q12 is designed to generate.

In addition to the extensive understanding of the Q12 background and application, the primary researcher has experience in the understanding the L7 instrument, its process, and its application.

The practical experience mentioned in the previous paragraph is supported with an academic background in statistics, social research, and program evaluation class at the master degree level, as well as study in correlations and mixed-method research at the doctoral level. The academic courses provided an opportunity to gain familiarity with SPSS and its capability to produce descriptive statistics from quantitative data.

The primary researcher was able to integrate acquired skills, knowledge and experience to identify the area of study and recognize the potential use of the L7 and Q12

data and conduct the statistical analysis to support the research necessary to understand the relationship between leadership self-awareness and engagement.

The role of the Gallup Organization in this study was obtain the leadership and engagement ratings, and then to provide L7 and Q12 survey and data access to the researcher. All other research efforts contained in this study were identified, driven and managed by the primary researcher.

Philosophical Foundations

The design of this study contains quantitative features and emphasis. Consistent with a quantitative research approach, the research of this study demonstrates characteristics in which the primary questions asked by the study demonstrate intent to discover cause and effect, focusing on select variables to interrelate, and includes detailed measurements of variables.

Additional Considerations

There are strengths present within the design and opportunity of this proposed study that allow it to meet its research objective. The sample is capable of statistically supporting the examination of the proposed hypotheses of the study. The study will benefit from access to the original researchers who took part in the L7 and Q12 instrument development and design. The statistical rigor that produced the Q12 and L7 instruments supports the quantitative approach.

No framework or study design is perfect, and the present approach to a multi-rater examination is no exception. Although the approach described may seem simple and perhaps lacks detail in certain areas, it does provide multi-rater study with a good place to begin thinking about the role of leader self-awareness to engagement.

Chapter 4: Results of the Study

“The most critical phase of the analysis process is that of interpretation. This involves explaining the findings, answering ‘why’ questions, attaching significance to particular results, and putting patterns into an analytic framework” (Best & Kahn, 1993, p. 204).

Before discussing the specific data analyses and results of hypotheses testing, information will first be presented on data screening, including dealing with missing data, outliers, and normality. Following the preliminary analyses, Pearson correlation coefficient analyses and results for each hypothesis will be described. The chapter will conclude with supplemental analyses and a summary of the results.

The research question being addressed is: “What is the relationship between leader self-awareness and team engagement?”

The three hypotheses that were examined were:

Hypothesis 1: There is a positive relationship between team engagement (Q12 grand mean) and the multi-rater alignment of self-other (L7 grand means) leadership perception scores.

Hypothesis 2: The multi-rater alignment of self-other (L7 grand means) leadership Knowing Self scores is a greater predictor of team engagement (Q12 grand mean) than the multi-rater alignment of overall leadership self-other (L7 grand means) perceptions.

Hypothesis 3: The multi-rater alignment of the self-other ratings on the L7 leader self-awareness dimension is a greater predictor of team engagement (Q12 grand mean)

than the self-other multi-rater alignment (L7 grand means) of any other single leadership dimension measured by the L7.

Power Analysis and Sampling Plan

In testing hypotheses, there are two kinds of incorrect decisions. One is a Type I error, in which the claim is made that there is a difference between or among groups when one does not exist. The other, a Type II error, is the claim that there is not a difference when one actually does exist.

The alpha level selected is a statistical decision as well as one that considers the consequences of the research. Typically, a .05 level of accepted Type I error is used, and this level, called alpha, indicates a probability of .05 that a Type I error will be made on a statistical test. To make sample estimates, the alpha value of .05 most commonly associated with and considered appropriate for social sciences was selected.

The power of a statistical test is the probability that the test will not make a Type II error. As power increases, the chances of a Type II error decrease. The probability of a Type II error is referred to as β , and power is equal to $1 - \beta$. Statistical power, which can also be considered the sensitivity of the analysis to find an effect, was used to estimate the sample size necessary to support the research of this study.

The following post facto power analysis was conducted to confirm that the sample size was sufficient to obtain the desired effects. Power analysis examines the relationship among four variables: the estimated effect size, the sample size, the type I error rate (α), and the type II error rate (β) (Freedman, 1982).

A very conservative estimate of the effect size of .3 (Cohen, 1988) was anticipated for each condition. The type I error rate (α) was set at .05, and for the type II error rate the statistical power was set at .80 (Pedhazur & Schmelkin, 1991). Given these figures, the freeware GPOWER software program (Erdfelder, Faul, & Buchner, 1996) was used to derive that the sample size required from this power analysis was 82 participants. This power analysis provided confirmation that the sample size of 381 leaders was sufficient to support the research proposed in this study for data collection.

Data Screening

Before hypothesis testing was conducted, the data were entered, cleaned, and prepared for analysis in SPSS. Analyses were conducted to identify missing data, to identify and correct for outliers, and to test for normality.

Missing Data

Data were screened for accuracy through the computation and review of frequencies of all study variables. There are three ways in which one can manage missing data (Kline, 1998). Missing data can be estimated, such as with mean replacement. As an alternative, cases with missing data can be deleted. In listwise deletion, cases with missing observations on any variable in an analysis are excluded. In pairwise deletion, cases are excluded only if they have missing data on variables involved in a specific analysis. Pairwise deletion was used to manage missing cases in this study.

Demographics were made optional for each participant, and data were missing in the categories of race, gender, and age. There were 150 missing cases of race data, 115 missing cases of gender data, and 208 missing cases of age data.

Frequencies were also run on the scores of the L7 and Q12 to be sure that no values were assigned to answers of “Don’t Know” or “Not Applicable” and to be sure those values were not included in the means.

Outlier Analysis and Normality

In many cases, issues of normality are found in samples of smaller sizes and which incorporate the use of a larger scale. While the mean scores for the ratings of each group were relatively close — 3.95 for Direct Reports, 3.94 for Peers, 4.20 for Superior, and 4.20 for the leader Self scores — there was a range of scores within each rater group, but not so much as to need to include any examination of outliers since the scale was 1–5. Scores for the direct reports ranged from 2.19 to 4.88, peer ratings ranged from 2.66 to 4.90, superior scoring ranged from 2.57 to 5.00, and self-ratings ranged most from 1.29 to 5.00. Engagement overall represented by the Q12 was a range of 2.90 to 4.75. So examinations involving Kurtosis or Skewness were not conducted.

For more detail, Appendix G provides descriptive statistics, including the range of minimum and maximum scores by each group of raters, as well as the standard deviations.

Findings

Several studies and scholars have provided evidence of a link between self-awareness and individual performance (Church & Waclawski, 1999; Van Velsor et al., 1993).

Sosik and Megerian (1999) noted when leaders were considered to be self-aware due to the alignment of self-superior-subordinate leadership ratings, they received higher performance ratings from their superiors, and their subordinates considered the leader to be transformational.

This study reviewed each hypothesis using engagement results as measured by the Q12, and leadership self-awareness using results of the L7, and congruence of the L7 rater grand means.

Hypothesis 1 Correlation Analysis

Hypothesis 1: There is a positive relationship between team engagement (Q12 grand mean) and the multi-rater alignment of self-other (L7 grand means) leadership perception scores.

Hypothesis 1 specifically poses the possibility that when there is congruence (less discrepancy) in how the leader self-ratings of L7 match leader ratings of L7 offered by peers, superiors, and direct reports, then engagement of the leader's team would be higher.

As a test of Hypothesis 1, a Pearson correlation coefficient was computed between the absolute value of the combined difference of the four groups of L7 leader

grand mean ratings and the associated Q12 grand mean of the leader's team. Based on the prediction from the hypothesis, it was expected that there would be a significant negative correlation, and Hypothesis 1 was supported.

Hypothesis 1: The relationship between the Q12 grand mean ($M=3.88$, $SD=.36$) and difference score index ($M=1.11$, $SD=.83$) was significant, $r(381) = -.130$.

While Hypothesis 1 did demonstrate a significant correlation, it was a weak relationship. Although relatively weak, this correlation indicates a relationship similar to that reported in previous research and comparisons (Furnham & Stringfield, 1994; Harris & Schaubroeck, 1988).

This finding implies that as ratings of leadership perceptions across the four groups of raters decreased in their discrepancy to one another, then the ratings of their team's engagement increased. This provides some support for the tenets behind Hypothesis 1, which suggest that leaders who are more self-aware, as indicated by the congruence of their self-ratings relative to other-ratings, were more capable of producing higher levels of team engagement.

Hypothesis 2 Correlation Analysis

Hypothesis 2: The multi-rater alignment of self-other (L7 grand means) leadership Knowing Self scores is a greater predictor of team engagement (Q12 grand mean) than the multi-rater alignment of overall leadership self-other (L7 grand means) perceptions.

As a test of Hypothesis 2, a Pearson correlation coefficient was computed between the absolute value of the combined difference of the four rater groups of L7

Knowing Self dimension grand mean ratings and the corresponding Q12 grand mean of the leader's team. The Pearson correlation coefficient indicating the relationship between the Knowing Self dimension and the Q12 grand mean was compared to the Pearson correlation coefficient indicating the relationship between the absolute value of the combined difference of the four groups of L7 leader grand mean ratings and the associated Q12 grand mean of the leader's team. Based on the prediction from the hypothesis, it was expected that there would be a more significant correlation between the congruence of the Knowing Self dimension and engagement than there was for the congruence of the four rater groups L7 grand means and engagement (see Table 2).

Table 2

<i>L7 Difference Scores and Correlation to Engagement</i>		
Measure	n	Pearson Correlation
Overall	381	-.130*
Knowing Self	381	-.088
*Correlation is significant at the .05 level (2-tailed)		

Hypothesis 2: The relationship between the Q12 grand mean (M=3.88, SD=.36) and the L7 Knowing Self difference score index (M=1.34, SD=1.04) is not significant, $r(381) = -.088, p < .05$.

The relationship between the Q12 grand mean (M=3.88, SD=.36) and overall difference score index (M=1.11, SD=.83) is significant, $r(381) = -.130, p < .05$.

In summary and based on the results, Hypothesis 2 was not supported. In comparing the two correlations it was demonstrated that the multi-rater alignment of the Knowing Self dimension $r(381) = -.088, p < .05$ did not predict team engagement to a greater degree than the multi-rater alignment of the overall self-other (L7) leadership perceptions $r(381) = -.130, p < .05$.

Hypothesis 3 Correlation Analysis

Hypothesis 3: The multi-rater alignment of the self-other ratings on the L7 leader self-awareness dimension is a greater predictor of team engagement (Q12 grand mean) than the self-other multi-rater alignment (L7 grand means) of any other single leadership dimension measured by the L7.

As a test of Hypothesis 3, a Pearson correlation coefficient was computed between the absolute value of the combined difference of the four groups of L7 Knowing Self dimension grand mean ratings and the corresponding Q12 grand mean of the leader's team. The Pearson correlation coefficient indicating the relationship between the Knowing Self dimension and the Q12 grand mean was compared to the Pearson correlation coefficients indicating the relationship between the absolute value of the combined difference of L7 dimension-level mean ratings and the corresponding Q12 grand mean of the leader's team. Based on the prediction from the hypothesis, it was expected that there would be a more significant correlation between the congruence of the Knowing Self dimension and engagement than there was for the congruence of any other L7 dimension means and engagement for any of the other six dimensions of the L7.

Based on the results, Hypothesis 3 was not supported. In comparing the correlation coefficients for each dimension, it was demonstrated that the multi-rater alignment of the Knowing Self dimension $r(381) = -.088$, $p < .05$ did not predict team engagement to a greater degree than the multi-rater alignment of every other L7 leadership dimension (see Table 3).

Table 3

<i>L7 Dimension Difference Scores Correlation to Engagement</i>		
Measure	n	Pearson Correlation
Visioning	381	-.117*
Mentoring	380	-.124*
Building Constituency	381	-.063
Knowing Self	381	-.088
Challenging Experiences	381	-.085
Maximizing Values	381	-.063
Making Sense of Experience	381	-.099

*Correlation is significant at the .05 level (2-tailed)

Hypothesis 3: The relationship between the Q12 grand mean ($M=3.88$, $SD=.36$) and the L7 Knowing Self difference score index ($M=1.34$, $SD=1.04$) is not significant, $r(381) = -.088$, $p < .05$. However, the relationship between the Q12 grand mean ($M=3.88$, $SD=.36$) and the L7 Visioning difference score index ($M=1.32$, $SD=1.08$) is significant,

$r(381) = -.117, p < .05$, as is the L7 Mentoring difference score index ($M=1.48, SD=1.05$) significant at $r(380) = -.124, p < .05$.

The relationship between the Q12 grand mean ($M=3.88, SD=.36$) and that of the L7 Making Sense of Experience difference score index ($M=1.43, SD=1.03$) not significant at $r(381) = -.099, p < .05$, but was greater than that of the L7 Knowing Self difference score index ($M=1.34, SD=1.04$), not significant at $r(381) = -.088, p < .05$.

For more detail, Appendix I displays the Z-values for the L7 difference scores and their correlation to engagement versus the difference score of the Knowing Self dimension.

In summary, Hypothesis 3 was not supported in that the dimension of Mentoring (-.124), Visioning (-1.17), and Making Sense of Experience (-.099) all had more significant correlations than Knowing Self (-.088) to the Q12 mean score. The dimensions of Challenging Experiences (-.085), Building a Constituency (-.063) and Maximizing Values (-.063) had lesser correlations to the Q12 mean than Knowing Self (-.088).

To understand more about the relationships that the variables of this study have with one another, see Table 4 for the variable correlation matrix.

Table 4

Correlation Matrix of Dependent and Independent Variables; Pairwise Deletion of Cases

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	L7 Dir. Rep. Mean	-																				
2	L7 Peer Mean	.427 ^{***}	-																			
3	L7 Superior Mean	.339 ^{***}	.395 ^{***}	-																		
4	L7 Self Mean	.376 ^{***}	.256 ^{***}	.299 ^{***}	-																	
5	L7 Overall Mean	.757 ^{***}	.720 ^{***}	.713 ^{***}	.670 ^{***}	-																
6	Q12 Overall Mean	.596 ^{***}	.343 ^{***}	.271 ^{***}	.296 ^{***}	.530 ^{***}	-															
7	L7 Overall Diff.	-.259 ^{***}	-.306 ^{***}	-.321 ^{***}	.205 ^{***}	-.242 ^{***}	-.130 ^{***}	-														
8	Vision Mean	.672 ^{***}	.645 ^{***}	.610 ^{***}	.610 ^{***}	.887 ^{***}	.466 ^{***}	-.197 ^{***}	-													
9	Mentoring Mean	.699 ^{***}	.687 ^{***}	.609 ^{***}	.575 ^{***}	.899 ^{***}	.552 ^{***}	-.197 ^{***}	.761 ^{***}	-												
10	Buil. Cons. Mean	.710 ^{***}	.661 ^{***}	.627 ^{***}	.594 ^{***}	.906 ^{***}	.502 ^{***}	-.214 ^{***}	.775 ^{***}	.844 ^{***}	-											
11	Kn. Self Mean	.662 ^{***}	.649 ^{***}	.696 ^{***}	.565 ^{***}	.899 ^{***}	.455 ^{***}	-.274 ^{***}	.727 ^{***}	.792 ^{***}	.807 ^{***}	-										
12	Chal. Exp. Mean	.611 ^{***}	.546 ^{***}	.567 ^{***}	.588 ^{***}	.808 ^{***}	.405 ^{***}	-.170 ^{***}	.695 ^{***}	.609 ^{***}	.648 ^{***}	.642 ^{***}	-									
13	Max. Val. Mean	.681 ^{***}	.598 ^{***}	.632 ^{***}	.568 ^{***}	.867 ^{***}	.439 ^{***}	-.226 ^{***}	.712 ^{***}	.722 ^{***}	.690 ^{***}	.776 ^{***}	.766 ^{***}	-								
14	Mak. Sen. Exp. Mean	.624 ^{***}	.636 ^{***}	.647 ^{***}	.634 ^{***}	.887 ^{***}	.429 ^{***}	-.205 ^{***}	.781 ^{***}	.780 ^{***}	.755 ^{***}	.780 ^{***}	.654 ^{***}	.739 ^{***}	-							
15	Vis. Diff. Score	-.190 ^{***}	-.221 ^{***}	-.291 ^{***}	.215 ^{***}	-.174 ^{***}	-.117 ^{***}	.689 ^{***}	-.178 ^{***}	-.119 ^{***}	-.124 ^{***}	-.198 ^{***}	-.147 ^{***}	-.165 ^{***}	-.143 ^{***}	-						
16	Ment. Diff. Score	-.228 ^{***}	-.248 ^{***}	-.261 ^{***}	.204 ^{***}	-.191 ^{***}	-.124 ^{***}	.646 ^{***}	-.168 ^{***}	-.183 ^{***}	-.168 ^{***}	-.232 ^{***}	-.083 ^{***}	-.176 ^{***}	-.157 ^{***}	.471 ^{***}	-					
17	Bui. Cons. Diff. Score	-.101 ^{***}	-.170 ^{***}	-.176 ^{***}	.004 ^{***}	-.155 ^{***}	-.063 ^{***}	.596 ^{***}	-.105 ^{***}	-.160 ^{***}	-.154 ^{***}	-.198 ^{***}	-.064 ^{***}	-.119 ^{***}	-.146 ^{***}	.307 ^{***}	.326 ^{***}	-				
18	Kn. Self Diff. Score	-.203 ^{***}	-.236 ^{***}	-.256 ^{***}	.072 ^{***}	-.220 ^{***}	-.088 ^{***}	.719 ^{***}	-.164 ^{***}	-.190 ^{***}	-.200 ^{***}	-.277 ^{***}	-.138 ^{***}	-.220 ^{***}	-.165 ^{***}	.397 ^{***}	.472 ^{***}	.448 ^{***}	-			
19	Chal. Exp. Diff. Score	-.193 ^{***}	-.227 ^{***}	-.212 ^{***}	-.104 ^{***}	-.257 ^{***}	-.085 ^{***}	.547 ^{***}	-.222 ^{***}	-.188 ^{***}	-.217 ^{***}	-.232 ^{***}	-.268 ^{***}	-.237 ^{***}	-.227 ^{***}	.264 ^{***}	.230 ^{***}	.269 ^{***}	.373 ^{***}	-		
20	Max. Val. Diff. Score	-.231 ^{***}	-.248 ^{***}	-.244 ^{***}	.023 ^{***}	-.247 ^{***}	-.063 ^{***}	.637 ^{***}	-.186 ^{***}	-.197 ^{***}	-.192 ^{***}	-.266 ^{***}	-.182 ^{***}	-.281 ^{***}	-.223 ^{***}	.351 ^{***}	.340 ^{***}	.370 ^{***}	.452 ^{***}	.408 ^{***}	-	
21	Mak. Sen. Exp. Diff. Score	-.231 ^{***}	-.208 ^{***}	-.289 ^{***}	.229 ^{***}	-.179 ^{***}	-.099 ^{***}	.652 ^{***}	-.143 ^{***}	-.188 ^{***}	-.194 ^{***}	-.185 ^{***}	-.104 ^{***}	-.136 ^{***}	-.133 ^{***}	.438 ^{***}	.420 ^{***}	.324 ^{***}	.396 ^{***}	.312 ^{***}	.368 ^{***}	-

Note: *p < .05; **p < .01; ***p < .001; (two-tailed).

Additional Analysis

The results of this study and awareness of previous research encouraged further examination to add context to the findings from testing each hypothesis. A multitude of studies show a range of differences in self- and other-ratings. As one example, Eichinger and Lombardo (2003) found that some research considers that perceptions that are more in alignment are positively associated with leader performance and self-awareness, while other research considers leaders who underestimate their abilities to be those leaders associated with higher performance.

Also, Nowack (1997) investigated differences between the self-ratings of 335 managers and the ratings from their supervisors, subordinates, and peers. The correlation coefficients from this study demonstrated a moderately low relationship between the leader and other ratings, ranging from .12 to .30 ($p < .05$).

Other-Rater Correlations

In order to understand more about the results of the three hypotheses and the relationship of leader self-awareness and engagement, additional analysis was conducted on each rater group's overall L7 grand mean and its relationship to the team's corresponding Q12 overall grand mean. This level of analysis also used the Pearson correlation coefficient of the overall L7 grand mean score of each rater group of direct reports, leader, peers, and superior to the overall Q12 grand mean score for each

corresponding team to understand more about the nature of leader self-awareness and team engagement (see Table 5).

Table 5

Group L7 Ratings in Correlation to Q12 Engagement Ratings

Rater Group	n	Engagement
Direct Reports	381	.596**
Peers	381	.343**
Self	381	.296**
Superiors	380	.271**

*Correlation is significant at the .05 level (2-tailed)

**Correlation is significant at the .01 level (2-tailed)

As demonstrated in the results of Table 5, the relationship between each rater group's L7 scores and team Q12 engagement scores was significant.

The relationship between the Q12 grand mean ($M=3.88$, $SD=.36$) and overall L7 Direct Report grand mean ($M=3.95$, $SD=.46$) was significant, $r(381) = .596$, $p < .01$.

The relationship between the Q12 grand mean ($M=3.88$, $SD=.36$) and overall L7 Peer grand mean ($M=3.94$, $SD=.42$) was significant, $r(381) = .343$, $p < .01$.

The relationship between the Q12 grand mean ($M=3.88$, $SD=.36$) and overall L7 Self grand mean ($M=4.20$, $SD=.42$) was significant, $r(381) = .296$, $p < .01$.

The relationship between the Q12 grand mean ($M=3.88$, $SD=.36$) and overall L7 Superior grand mean ($M=4.20$, $SD=.44$) was significant, $r(381) = .271$, $p < .01$.

For additional context of the results of Table 5, see Appendix J for the descriptive statistics of the direct report Q12 scores.

The next level of analysis was to examine the relationship of the difference score between each other-rater group's L7 scores and that of their leader with Q12 team engagement scores. This was done in an attempt to add more understanding of how the relationship of the alignment of leader self-ratings with another group would predict team Q12 engagement scores.

Difference scores were found between each rater group L7 grand mean and the leader self-rating L7 grand mean. Pearson correlation coefficients were then computed to determine the nature of the relationship between the L7 difference score of each other- and self-rating and the Q12 engagement scores (see Table 6). For additional understanding of the results of Table 6, see Appendix K, Appendix L, Appendix M, and Appendix N for descriptive statistics of the Direct Report, Peer, Superior, and Leader L7 ratings by item.

Table 6

Self-Other Rater L7 Difference Score Correlation to Engagement

Group	n	Engagement
Self-Direct Reports	381	-.236**
Self-Superiors	381	-.103*
Self-Peers	381	-.092

*Correlation is significant at the .05 level (2-tailed)

**Correlation is significant at the .01 level (2-tailed)

The findings of this level of analysis were as follows:

The relationship between the Q12 grand mean (M=3.88, SD=.36) and Self-Direct Reports difference scores (M=.43, SD=.34) was significant, $r(381) = -.236$, $p < .01$.

The relationship between the Q12 grand mean (M=3.88, SD=.36) and Self-Superior difference scores (M=.40, SD=.32) was significant, $r(381) = -.103$, $p < .05$.

The relationship between the Q12 grand mean (M=3.88, SD=.36) and Self-Peers difference scores (M=.48, SD=.36) was not significant, $r(381) = -.092$, $p < .05$.

For descriptive statistics of the L7 Self-Other difference scores and their relationship to Engagement, see Appendix O.

More examination involved studying the overall difference score across self-other L7 grand means and computing its Pearson correlation coefficient to the corresponding

team Q12 engagement grand means. This approach was used to attempt to detect any unique results at the item level of the Q12 that would explain the relationship between leader self-awareness and engagement in more detail (see Table 7).

Table 7

L7 Leader Self-Other Overall Difference Scores Correlation to the 12 Individual Engagement Items

Measure	n	L7 Difference Score Correlation
Expected at Work	381	-.112*
Materials and Equipment	381	-.085
Do Best	381	-.126*
Recognition in Seven Days	381	-.110*
Someone Cares	381	-.095
Encourages Development	381	-.159*
Opinion Counts	381	-.132*
Mission is Important	381	-.101*
Associates Quality Commitment	381	-.074
Best Friend	381	-.073
Progress in Past Six Months	381	-.057
Learn and Grow Opportunities	381	-.073

**Correlation is significant at the .01 level (2-tailed)

*Correlation is significant at the .05 level (2-tailed)

The results did identify statistically significant relationships in the items of I Know What's Expected of Me at Work, At Work I Have the Opportunity To Do What I Do Best Every Day, I Have Received Recognition in the Past Seven Days, Someone at Work Encourages My Development, My Opinion Counts, and the Mission of My Company Makes Me Feel My Job Is Important, but while the findings were significant, the correlations were weak.

The relationship between the Expected at Work item mean ($M=3.9769$, $SD=.46284$) and Self-Other overall difference scores ($M=1.1068$, $SD=.83041$) was significant, $r(381) = -.112$, $p < .05$.

The relationship between the Do Best item mean ($M=3.9338$, $SD=.43120$) and Self-Other overall difference scores ($M=1.1068$, $SD=.83041$) was significant, $r(381) = -.126$, $p < .05$.

The relationship between the Recognition in Seven Days item mean ($M=3.8399$, $SD=.43160$) and Self-Other overall difference scores ($M=1.1068$, $SD=.83041$) was significant, $r(381) = -.110$, $p < .05$.

The relationship between the Encourages Development item mean ($M=3.9738$, $SD=.48892$) and Self-Other overall difference scores ($M=1.1068$, $SD=.83041$) was significant, $r(381) = -.159$, $p < .05$.

The relationship between the Opinion Counts item mean ($M=3.7948$, $SD=.51359$) and Self-Other overall difference scores ($M=1.1068$, $SD=.83041$) was significant, $r(381) = -.132$, $p < .05$.

The relationship between the Mission Is Important item mean ($M=3.9160$, $SD=.45151$) and Self-Other overall difference scores ($M=1.1068$, $SD=.83041$) was significant, $r(381) = -.101$, $p < .05$.

The results of the L7 overall difference score and correlation to the Q12 items provided direction that further review of specific self-superior, self-direct reports, and self-peer comparisons might be more revealing and acute in their relationship and might add more understanding of the role of leader self-awareness and team engagement. In order to get to this level, a difference score was calculated between the L7 grand means of each set of leader self-scores and superiors, and then the same for leaders self-scores to direct reports, and leader self-scores to peers. Pearson correlation coefficients were then computed between each of the ensuing difference scores and each of the 12 items of the Q12 (see Table 8).

Table 8

L7 Leader Self-Other Difference Scores Correlation to Engagement

Measure	n	Self/Superior	Self/Direct Reports	Self/Peer
Expected at Work	381	-.73	-.167**	-.074
Materials, Equipment	381	-.148**	-.219**	-.033
Do Best	381	-.105*	-.189**	-.054
Recognition in 7 Days	381	-.104*	-.208**	-.067
Someone Cares	381	-.075	-.215**	-.061
Encourages Development	381	-.094	-.282**	-.143**
Opinion Counts	381	-.066	-.231**	-.122*
Mission Is Important	381	-.060	-.203**	-.088
Associates Quality Commitment	381	-.082	-.113*	-.038
Best Friend	381	-.038	-.108*	-.089
Progress in Past 6 Months	381	-.038	-.074	-.038
Learn and Grow Opportunities	381	-.045	-.145**	-.067

**Correlation is significant at the .01 level (2-tailed)

*Correlation is significant at the .05 level (2-tailed)

At this level the findings demonstrated that the relationship between leader and direct reports has more items correlated more highly to the level of congruence those two

rater groups share than the leader-to-superior relationship, or the leader-to-peer relationship. The leader-direct report pairing correlated significantly on 11 of the 12 Q12 engagement items ranging from ($r = -.108$) Best Friend to ($r = -.282$) Encourages Development. Even though several items correlated and the strength of the relationship between leader-direct report difference score and the engagement items was statistically significant, they were weak correlations. The item indicating Progress in Past Six Months was the only item not significantly correlated of the 12 at ($r = -.074$).

The self-superior L7 difference score and relationship to Q12 engagement indicated significant correlations with three individual items of the Q12. Those three items were Materials and Equipment ($r = -.148$), Do Best ($r = -.105$), and Recognition in Seven Days ($r = -.104$).

Self-peer L7 difference score and relationship to Q12 engagement showed significant correlations with two individual items of the Q12. Those were Encourages Development ($r = -.143$) and Opinion Counts ($r = -.122$).

Having viewed the leader self-awareness relationship with engagement from a variety of levels, attention was turned to understanding more about the self-other pairings of L7 overall difference scores and their relationship to specific L7 combined means of the three items that make up each specific dimension. This was accomplished by computing the difference between the self to superior overall L7 mean and correlating to each individual leadership dimension mean of the L7 represented in a Pearson correlation coefficient. This same procedure was repeated for the self to direct report relationship as well as self-peer relationship (see Table 9).

Table 9

L7 Leader Self-Other Overall Difference Score Correlation to L7 Dimensions

Measure	n	Self/Superior	Self/Direct Reports	Self/Peer
Visioning	381	-.097	-.175**	-.245**
Mentoring	381	-.107*	-.229**	-.197**
Constituency	381	-.078	-.256**	-.208**
Knowing Self	381	-.180**	-.284**	-.224**
Challenging Experiences	381	-.127*	-.220**	-.137**
Maximizing Values	381	-.140**	-.276**	-.190*
Making Sense of Exp.	381	-.135**	-.191**	-.203**

*Correlation is significant at the .05 level (2-tailed)

**Correlation is significant at the .01 level (2-tailed)

Also see Appendix P for descriptive statistics regarding the analysis of the overall Self-Other difference score and correlation to L7 dimensions.

Several significant correlations were found for all three self-other pairings and the seven leadership dimensions of the L7. The only dimensions that didn't demonstrate a significant relationship were Visioning ($r = -.097$) and Constituency ($r = -.078$) for the Self-Superior pairing. All other dimensions for the three Self-Other pairings were significant, ranging from Mentoring ($r = -.107$) as the lowest significant correlation from

the Self-Superior pairing up to Knowing Self ($r = -.284$) in the Self-Direct Reports pairing.

The levels of significant correlations among the leadership ratings provided by the three rater groups were consistent with several found in other research regarding multi-rater feedback.

Other scholars observing relationship of self-other ratings typically found greater rater agreement between the other-rater groups associated with the leader than with other self-other comparisons. (Furnham & Stringfield, 1994; Harris & Schaubroeck, 1988; Nowack, 1997; Riggio & Cole, 1992).

Results from other-rater studies and their comparison to self-other relationships have led some researchers (Brutus et al., 1996) to believe that understanding of leader awareness should include the views represented in others' ratings, and that self-ratings included in measuring agreement is relevant (Atwater, Ostroff, Yammarino, & Fleenor, 1998).

Additional analysis was conducted to compare the results of the data collected for this study with the finding cited previously to understand the relationship of leadership and engagement more comprehensively. Table 10 presents the results of the other-raters included in this study other than the leaders. This was done in order to reveal more about the relationship of other-rater perspectives with engagement. The discrepancy between the L7 grand mean other-rater pairing was computed and then correlated to the Q12 grand mean score of the teams involved in the study.

Table 10

L7 Other-Raters Overall Difference Score Correlation to Q12 Grand Mean

Measure	n	Engagement
Peer/Superior	381	-.089
Peer/Direct Report	381	.012
Direct Report/Superior	381	-.264**

**Correlation is significant at the .01 level (2-tailed)

As described in Table 10, it is the discrepancy between the Direct Reports and the Superior L7 grand mean that is significant and has a stronger relationship to engagement than any other-rater pairing.

The inverse relationship of the discrepancy between Direct Reports and Superior (M=.4453, SD=.35732) and Engagement (M=3.88, SD=.36) was significant, $r(381) = -.264$, $p < .01$.

For descriptive data regarding Table 10, see Appendix Q.

Another level of analysis was conducted in an effort to provide more comprehensive understanding of the other-rater relationships and engagement. Table 11 demonstrates the correlations between each pairing of other-raters L7 grand mean scores.

Table 11

<i>Other-Raters Difference Score to L7 Grand Mean Correlations</i>		
Measure	n	Leadership
Peer/Superior	381	.394**
Peer/Direct Report	381	.428**
Direct Report/Superior	381	.333**
**Correlation is significant at the .01 level (2-tailed)		

The correlation between the Peer group and Direct Reports was the strongest at $r(.428)$, and not surprisingly each group's L7 grand mean was correlated significantly with the other groups. For descriptive data regarding Table 11, see Appendix R.

Another level of analysis was then conducted at the item level for each pairing of other-rater categories. The difference score between each item of the L7 for each other-rater pairing was computed and correlated to the Q12 grand mean score. Table 12 shows the results for the Peer group and the Superior group difference scores and corresponding engagement scores. See Appendix C to match L7 item wording with item number.

Table 12

*Peer/Superior L7 Item Difference Score
Correlation to Q12 Grand Mean*

Measure	n	Engagement
<u>Visioning</u>		
Item 1	377	-.067
Item 49	373	-.022
Item 93	380	-.124*
<u>Mentoring</u>		
Item 13	377	-.044
Item 58	365	-.049
Item 85	355	.052
<u>Constituency</u>		
Item 14	380	-.089
Item 32	378	-.136**
Item 39	379	-.016
<u>Knowing Self</u>		
Item 12	379	-.099*
Item 22	379	-.074
Item 61	381	-.144**
<u>Challenging Experiences</u>		
Item 31	381	-.121*

Item 48	380	-.085
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Item 53	379	.009
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Maximizing Values

Item 11	380	.001
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Item 67	381	-.110*
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Item 69	379	-.009
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Making Sense of Experiences

Item 45	378	-.045
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Item 46	380	-.015
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Item 95	377	.010
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Six items were correlated significantly at this level for this pairing. While they were significant, none of the six items was strong in its correlation. Item 61, “Teams effectively to get the job done,” had the strongest correlation to engagement at ($r = -.144$).

The next pairing studied was the difference score between the Peer group and the Direct Report group and the relationship of that difference with the associated Q12 grand mean scores (see Table 13).

Table 13

*Peer/Direct Report L7 Item Difference
Score Correlation to Q12 Grand Mean*

Measure	n	Engagement
<u>Visioning</u>		
Item 1	381	-.017
Item 49	380	.059
Item 93	380	-.083
<u>Mentoring</u>		
Item 13	380	.057
Item 58	381	-.037
Item 85	381	-.060
<u>Constituency</u>		
Item 14	381	-.013
Item 32	381	-.075
Item 39	380	-.025
<u>Knowing Self</u>		
Item 12	381	-.070
Item 22	381	-.100*
Item 61	381	-.068
<u>Challenging Experiences</u>		
Item 31	381	-.067

Item 48	381	-.078
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Item 53	381	-.027
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Maximizes Values

Item 11	381	-.033
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Item 67	381	-.128*
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Item 69	381	-.083
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Making Sense of Experiences

Item 45	381	.005
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Item 46	380	.086
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Item 95	379	.019
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The Peer and Direct Report pairing produced only two items with significant relationships to the Q12 grand mean. Item 67, which is “Does What They Say They Will Do,” was the most significant with a correlation of $r = -.128$.

In Table 14, the Direct Report and Superior group difference scores were computed for each L7 item and then correlated to Q12 team engagement scores.

Table 14

*Direct Report/Superior L7 Item Difference
Score Correlation to Q12 Grand Mean*

Measure	n	Engagement
<u>Visioning</u>		
Item 1	377	-.112*
Item 49	374	-.066
Item 93	381	-.195**
<u>Mentoring</u>		
Item 13	378	-.243**
Item 58	365	-.211**
Item 85	355	-.078
<u>Constituency</u>		
Item 14	380	-.220**
Item 32	378	-.208**
Item 39	378	.003
<u>Knowing Self</u>		
Item 12	379	-.150**
Item 22	379	-.080
Item 61	381	-.165**
<u>Challenging Experiences</u>		
Item 31	381	-.173**

Item 48	380	-.194**
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Item 53	379	-.133**
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Maximizing Values

Item 11	380	-.183**
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Item 67	381	-.250**
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Item 69	379	-.161**
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Making Sense of Experience

Item 45	378	-.097
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Item 46	381	-.126
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Item 95	379	-.124
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Several items were found with significant correlations. Fourteen of the 21 items were significant at the .01 level, although ranging from weak ($r = -.112$) to moderate ($r = -.250$). The item with the highest correlation again was Item 67, which is “Does What They Say They Will Do,” as was indicated in the previous examination of Peers and Direct Reports.

Some scholars posit that self-ratings contain different forms of bias that must be considered in the interpretation of results. With this awareness, another level of analysis was conducted at the item level to understand more about the relationships of the other-rater groups and engagement. Table 15 shows the results of correlation of each of the 21 items of the L7 between the Peer and Superior groups.

Table 15

*Peer/Superior L7 Item-Level
Correlation*

Measure	n	Leadership
<u>Visioning</u>		
Item 1	377	.302**
Item 49	373	.304**
Item 93	380	.247**
<u>Mentoring</u>		
Item 13	377	.248**
Item 58	365	.214**
Item 85	355	.261**
<u>Constituency</u>		
Item 14	380	.311**
Item 32	378	.397**
Item 39	379	.383**
<u>Knowing Self</u>		
Item 12	379	.231**
Item 22	379	.298**
Item 61	381	.451**
<u>Challenging Experiences</u>		
Item 31	381	.347**
Item 48	380	.259**

Item 53	379	.319**
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Maximizing Values

Item 11	380	.198**
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Item 67	381	.277**
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Item 69	379	.188**
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Making Sense of Experience

Item 45	378	.222**
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Item 46	380	.241**
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Item 95	377	.210**
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Each of the 21 items was significantly correlated between the two rater groups. Consistent with the findings of the correlations of the previous examination between the difference scores of the Peer and Superior item means and the correlation with engagement, the findings here at the item-to-item correlation of the Peer and Superior groups revealed the strongest correlation ($r = .451$) to again be Item 61, which is “Teams effectively to get the job done.”

Next, item-level correlations were conducted between the Peer group and Direct Report group L7 ratings (see Table 16).

Table 16

Direct Report/Peer L7 Item-Level Correlation

Measure	n	Leadership
<u>Visioning</u>		
Item 1	381	.369**
Item 49	380	.394**
Item 93	380	.245**
<u>Mentoring</u>		
Item 13	380	.292**
Item 58	381	.247**
Item 85	377	.344**
<u>Constituency</u>		
Item 14	381	.411**
Item 32	381	.511**
Item 39	380	.407**
<u>Knowing Self</u>		
Item 12	381	.371**
Item 22	381	.405**
Item 61	381	.411**
<u>Challenging Experiences</u>		
Item 31	381	.394**

Item 48	381	.371**
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Item 53	381	.433**
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Maximizing Values

Item 11	381	.299**
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Item 67	381	.400**
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Item 69	381	.277**
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Making Sense of Experience

Item 45	381	.273**
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Item 46	380	.261**
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Item 95	379	.204**
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Each of the 21 items was significantly correlated between the two rater groups. The item most significantly correlated was Item 32, which is “Makes Work Fun” ($r = .511$), and the item with the lowest correlation was Item 95, “Helps Me Understand the Business,” ($r = .204$).

Analysis was then conducted to correlate each of the L7 items of the Direct Report and Superior group responses to each other (see Table 17).

Table 17

Direct Report/Superior L7 Item-Level Correlation

Measure	n	Leadership
<u>Visioning</u>		
Item 1	377	.211**
Item 49	374	.298**
Item 93	381	.175**
<u>Mentoring</u>		
Item 13	378	.302**
Item 58	365	.121**
Item 85	355	.165**
<u>Constituency</u>		
Item 14	380	.349**
Item 32	378	.391**
Item 39	378	.300**
<u>Knowing Self</u>		
Item 12	379	.108**
Item 22	379	.295**
Item 61	381	.350**
<u>Challenging Experiences</u>		
Item 31	381	.242**

Item 48	380	.311**
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Item 53	381	.433**
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Maximizing Values

Item 11	380	.240**
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Item 67	381	.314**
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Item 69	379	.048
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Making Sense of Experience

Item 45	378	.164**
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Item 46	381	.235**
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Item 95	379	.204**
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As with the previous group and their item comparisons, most of the 21 items were significantly correlated between the two rater groups. In this pairing, the item most significantly correlated was Item 53, which is “Takes on significant leadership challenges,” at ($r = .433$), and the item with the lowest correlation was Item 69, “Consistently makes decisions which reflect his/her management philosophy,” at ($r = .048$).

Research conducted with other-rater scores (Mount, 1984) found a moderate level of agreement between the performance and satisfaction ratings that supervisors received from their superior and subordinates. Also, results cited by Holzbach (1978) point to positive correlations between subordinate and superior ratings while leaders’ self-ratings were not significantly related to their superiors or subordinate scores. In a study of fire

chiefs, fire captains, and firefighters, Riggio and Cole (1992) found significant correlations between superior and subordinate ratings of supervisor performance (r s $-.48$ – $-.68$). Findings reported in Table 10 regarding Superior and Direct Report L7 difference scores and engagement are consistent with those results supporting agreement between superior and direct report assessment of leader ability.

Holzbach (1978) claimed that peer to superior ratings had higher correlations and are more aligned than peer to leader self-ratings. Additionally, mean scores of peer and superior ratings have been found to be similar. Harris and Schaubroeck (1988) reinforce Holzbach's description with findings between self- and peer ratings and between self- and supervisor ratings, where they found stronger correlations between peers and supervisors. While not mentioned by Holzbach (1978) or Harris and Schaubroeck (1988), results reported in Table 11 of correlations between L7 grand means and other-rater comparisons demonstrated that Peer to Superior correlations ($r = .394$) were not as high as Peer to Direct Report correlations ($r = .428$). When identifying the relationship of the difference between one other-rater group and the leader, and the correlation to engagement, it is the pairing of Direct Reports and the Leader that has the strongest correlation ($r = -.236$) (see Table 6).

Other analysis also included a stepwise forward regression analysis, which was conducted to compare models in order to find which leadership dimension of the L7 best predicts the Q12 grand mean. This was achieved by adding each of the seven predictors' difference scores in this order: visioning, mentoring, building constituency, knowing self, challenging experiences, maximizing values, and making sense of experience.

The analysis was geared toward achieving two key objectives. The first was to choose the smallest set of variables that best explained engagement through the Q12 grand mean. Second was to understand predictors for the Q12 grand mean that might not otherwise have been examined (see Appendix S).

The models are briefly summarized in Table 18. The most parsimonious model was found to be the one with the single predictor *diffvis*. This model accounts for a modest 1.4% ($R^2=0.014$; $R^2(\text{adj})=0.011$) of the variance in the Q12 grand mean. The final model (i.e., Model 7), although is not significant, accounts for 2.3% ($R^2=0.023$; $R^2(\text{adj})=0.005$) of the variance in the Q12 grand mean.

The bi-variate correlations between the predictor variables revealed significant positive correlations between *diffvis* and the other six predictor variables. This may have played a role in the insignificance of Models 2-7. In sum, all these analyses confirm that model is the most parsimonious model and none of the other predictors put together with *diffvis* contributed to the explanation of the variance in the Q12 grand mean in a significant way.

Table 18

*L7 Difference/Q12 Stepwise Forward**Regression Models*

Models	Predictors	b	SE	β
1	(Constant)	3.93	0.03	
	diffvis	-0.04	0.02	-0.12*
2	(Constant)	3.95	0.03	
	diffvis	-0.03	0.02	-0.08
	diffmen	-0.03	0.02	-0.09
3	(Constant)	3.96	0.04	
	diffvis	-0.02	0.02	-0.07
	diffmen	-0.03	0.02	-0.09
	diffbc	-0.01	0.02	-0.02
4	(Constant)	3.96	0.04	
	diffvis	-0.02	0.02	-0.07
	diffmen	-0.03	0.02	-0.08
	diffbc	0	0.02	-0.01
	diffks	-0.01	0.02	-0.02
5	(Constant)	3.97	0.04	
	diffvis	-0.02	0.02	-0.06
	diffmen	-0.03	0.02	-0.08
	diffbc	0	0.02	-0.01
	diffks	0	0.02	-0.01
	diffce	-0.02	0.02	-0.05
6	(Constant)	3.97	0.04	
	diffvis	-0.02	0.02	-0.07
	diffmen	-0.03	0.02	-0.08
	diffbc	0	0.02	-0.01
	diffks	0	0.02	-0.01
	diffce	-0.02	0.02	-0.05
	diffmv	0	0.02	0.01
7	(Constant)	3.98	0.04	
	diffvis	-0.02	0.02	-0.06
	diffmen	-0.03	0.02	-0.07

diffbc	0	0.02	0
diffks	0	0.02	-0.006
diffce	-0.02	0.02	-0.048
diffmv	0.01	0.02	0.013
diffms	-0.01	0.02	-0.028

Note: *p <.05; **p <.01; ***p <.001; (two-tailed).

For the last analysis, another stepwise forward regression analysis was conducted in an attempt to continue to understand which leadership dimension of the L7 best predicts the Q12 grand mean. This time the analysis focused on the relationship of each of the seven predictors' mean scores in explaining the relationship to engagement (see Appendix T).

In the results of this analysis, the model including Challenging Experiences and Mentoring was found to explain the largest part of the relationship of L7 to Q12 grand mean. This model accounts for 31.3% ($R^2=0.313$; R^2 (adj) =0.309) of the variance in the Q12 grand mean (see Table 19). The final model shown in appendix T accounts for 31.8% ($R^2=0.318$; R^2 (adj) =0.306) of the variance in the Q12 grand mean.

Table 19

Mentoring and Challenging Experiences/Q12
Stepwise Forward Regression Model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.552 ^a	.305	.303	.29795
2	.559 ^b	.313	.309	.29673

a. Predictors: (Constant), mentor_C

b. Predictors: (Constant), mentor_C, challenge_C

In both models displayed in tables 18 and 19, as well as appendices S and T, part of the reason for only two dimensions explaining so much of the variance in the relationship to engagement is due to the high levels of correlation between the dimensions of the L7 (see Table 4).

When contrasting the results of the stepwise forward regression examination of the L7 dimension difference scores with those of the L7 dimension mean scores and the relationship to engagement, the lack of statistical sensitivity that is cautioned about in the use of difference scores is evident as demonstrated by the small values in Table 18 and Appendix S.

It is also worth noting that the dimension of Mentoring continues to be revealed as a strong contributor to engagement in the analysis conducted in Hypothesis 3, as well as both stepwise forward regression analyses of L7 dimension difference scores and L7 dimension mean scores and their relationship to engagement.

Summary of Findings

Three hypotheses were tested in this study conducting exploratory and descriptive statistical analyses, using Pearson correlation coefficients and difference scores.

Although the relationship predicted in Hypothesis 1 between the congruence of the L7 ratings and Q12 scores was supported through a significant correlation with the absolute average profile difference $r(381) = -.130$ $p < .05$, it was only weakly supported. With regard to Hypothesis 1, which examined overall L7 difference scores and their correlation to team Q12 engagement, little support was found. Results of the Pearson correlation coefficient did not strongly support the hypothesis. The use of this kind of difference test found weak support for the inverse relationship between the size of the raters' L7 overall grand mean discrepancy and the corresponding teams' Q12 overall grand mean. Implications of these kinds of studies are sometimes limited due to problems with such indexes.

Hypothesis 2 was not supported, because the relationship of the congruence of the L7 Knowing Self dimension to the Q12 engagement scores $r(381) = -.088$, $p < .05$ was not greater than the relationship of the congruence of the L7 overall mean scores to the Q12 engagement scores $r(381) = -.130$, $p < .05$. Hypothesis 2 focused on the relationship that others' perceptions of leaders' self-awareness would have with the leaders' ability to contribute to team engagement.

Hypothesis 3 was not supported, because the relationship of the congruence of the L7 Knowing Self dimension to the Q12 engagement scores $r(381) = -.088$, $p < .05$ was not greater than the relationship of the congruence of each of the other six dimensions of

the L7 to the Q12 engagement scores. Regarding Hypothesis 3, there were two L7 leadership dimensions whose difference scores demonstrated a significant correlation to engagement, and three total dimensions that were greater than the correlation of the Knowing Self dimension difference score related to engagement.

Through additional analyses, more exploration of the different relationships of leader awareness and engagement was conducted. With regard to other rater relationships that might exist beyond those proposed in the original three hypotheses, different levels and combinations of leader self-awareness related to engagement were examined. In the first supplemental analysis, the four L7 rater groups of direct reports, peers, superiors, and leader self-scores were all separately correlated with team Q12 engagement overall mean scores. Not surprisingly, all the groups were significantly correlated to engagement, particularly direct reports, which as a group had the strongest correlation to engagement.

Supplemental analysis was also conducted to investigate self-other alignment pairings of each rater group L7 scores relative to leader self-scores and the resulting difference score correlation to engagement. This was done to reveal a more specific understanding of the self-awareness relationships within the overall difference score produced by the combination of all four rater groups. Results of this examination showed the strongest relationship between the difference score of the self-direct reports' L7 overall grand mean and Q12 engagement overall grand mean.

The next segment of analysis attempted to gain a more specific look at the item-level relationships involving L7 and Q12. First the difference score of all four rater groups' L7 grand means were correlated to each of the 12 items of the Q12 to understand

more about this relationship at a detailed level. Six of the items had significant correlations to leader self-awareness, but all were weakly supported in their relationship.

Findings from the previous study of overall L7 difference scores to each of the Q12 items motivated additional study involving the self-other alignment pairings of each rater group L7 scores relative to leader self-scores, and the resulting difference score correlation to each of the 12 items used to measure engagement. Eleven of the 12 items were significantly correlated to the L7 difference score of the leader self-direct report grand mean. The strongest relationship of these 11 items was that of L7 self-direct report difference score to the item of Encourages Development.

The self-other alignment pairings of each other-rater group L7 scores relative to leaders' self-scores, and the resulting difference score correlation to each mean score of the seven leadership dimensions of the L7, was studied. Most of these relationships were found to be significant, and the strongest relationship was found in the leader self-direct report difference score and that of Knowing Self.

Other layers of analysis were conducted to understand other-rater relationships and in turn their relationship to engagement overall and to the specific Q12 and L7 items. When reviewing different variations of the other-rater pairings, it was the L7 grand mean difference score of the Direct Report/Superior relationship that possessed the strongest correlation to corresponding Q12 grand mean scores. While Peer/Superior difference scores and Direct Report/Superior scores all had significant relationships to the L7 grand mean, it was the Peer/Direct Report L7 alignment that was the strongest predictor of L7 grand means scores.

At the item level, the difference score of L7 Item 61 “Teams Effectively to Get the Job Done” and Item 67 “Does What They Say They Will Do” demonstrated the strongest correlations to the Q12 grand mean for the Peer/Superior and Peer/Direct Report pairings, respectively. The difference score of the Direct Report/Superior pairing produced several significant relationships to the Q12 grand mean, with the strongest again being that of Item 67.

Item-level correlations between the other-rater groups were also conducted and revealed several significant correlations. Item 61 had the strongest correlation between Peers and Superiors; Item 32, which is “Makes Work Fun,” was the strongest between Direct Reports and Peers; and Item 53, “Takes On Significant Leadership Challenges,” was the most significant between Direct Reports and Superiors.

The stepwise forward regression analyses produced a more specific look at the dimensions that explained the relationship of L7 to Q12. When examining the difference scores, it was Vision and Mentoring that explained more of the relationship of L7 to engagement than any other combination of dimension difference scores, although the value was small. The analysis involving the L7 mean scores revealed that Mentoring and Challenging Experiences most explained the relationship to engagement.

As a theme, the dimension of Mentoring continues to be revealed as a key contributor to engagement and is one that leaders should consider and focus on in driving engagement within their teams based on the results of analyses conducted in this study.

To summarize, the patterns that were produced in the tests between L7 leader self-awareness combinations and the effect on Q12 engagement scores were provocative, and they reinforce the understanding that leaders view and assess certain behaviors differently than their superiors, peers, or subordinates.

Chapter 5: Discussion and Implications

Review of the Purpose of the Study

The Chinese philosopher Lao-Tzu said, “Knowing others is wisdom; knowing yourself is enlightenment.”

Organizations around the globe are facing challenges to identify and develop leaders to offset a significant leadership shortage that has been occurring the past few years and continues even now. The purpose of the current study was to understand more about the perception that leaders have of their own ability and to compare that with the estimations that peers, superiors, and direct reports have of the leader’s ability in order to see if there is a relationship in the congruence of those perceptions and team engagement. The aim of this research was to examine the relationship between leader self-awareness and team engagement through the use of multi-rater research.

There have been previous attempts to learn more about the outcomes of leader awareness through multi-rater research, yet there are still several aspects of the multi-rater approach to be understood, especially in relationship with engagement. Specifically, what is the team engagement impact of leaders whose self-ratings of their abilities match how others rate their abilities? Does the alignment of self-other ratings provide indication of leaders who are more aware of their strengths and limitations to the degree that they are more capable of creating the conditions for an engaged team?

A goal of this research was to contribute to the field of engagement. Because engagement is one of the newest members to the job attitude family, there is opportunity

to discover more about this construct and what conditions cause it to be optimized. Further intentions included a contribution of research that others could build from in order to understand more about leader self-awareness and its interactions with engagement.

Another contribution of this research would be that by studying the relationship of leaders' understanding of their abilities from a comprehensive reflection of self, direct reports, superiors, peers perspectives, and team engagement, it would further the understanding necessary to help offset the current and future leadership deficit and contribute to leaders' ability to optimize the benefits of engagement for their members and their organization.

Discussion of the Results of the Study

In this section, the basic arguments underlying each hypothesis are reviewed, and the results of statistical analyses that were conducted are summarized. Also, the implications of the findings related to each hypothesis are discussed and alternative explanations are offered where relevant.

Salam et al. (1997) emphasize because of the nature of individual perceptions, relevance to the rater becomes important in interpreting the perspective of feedback.

Traditionally only the superior of the leader has evaluated and provided feedback on the leader's performance. While the superior can have valuable input into assessing the leader, the vantage point of the superior may not include the opportunity to view the leader's daily interactions and efforts.

Because of potential limits caused by the lack of frequent interaction between superior and leader, direct reports are considered to be a valuable leadership feedback source. Most leadership theories are founded on the belief that leaders have a positive influence on how followers perform. Often it is the direct reports who interact with the leader most frequently; therefore, is it reasonable to consider direct reports as a useful and accurate source of feedback regarding leader performance.

In addition to the superior and direct reports perspective, it should be considered that leaders themselves have the most accurate understanding of their efforts and motivation; however, as Gioia and Sims (1985) pointed out, self-ratings can also be biased.

When we consider the unique perspectives of the leader, superior, and direct reports, and then add that of peers, it is understandable why Tornow (1993) attempted to expand the interpretation of different rating points beyond consideration as opposites. The possibility that ratings may differ solely as a result of rater perspective rather than leader performance provides a rich learning opportunity to understand more about leader self-awareness and engagement.

Hypothesis 1

Analyses of Hypothesis 1 examined the correlation of the combined difference score of L7 grand means of self, peer, superior, and direct report ratings to that of the team Q12 grand mean rating. The intention was to understand more about leader self-

awareness as it relates to team engagement and the possibility that a self-aware leader is more capable of contributing to the team in a way that promotes team engagement.

This study was based on previous research that had demonstrated a relationship between leader self-awareness as represented by the congruence in the self and other-ratings leadership perception and that of the ability of the leader to generate highly desired business outcomes (Sosik, Potosky, & Jung, 2002; Schwartzman, 2003; Church (1997).

The current study was also supported by research that revealed that perceptions of high leader self-awareness by direct reports increased the likelihood to associate that leader with more transformational style of leadership (Lord & Emrich, 2001; Sosik & Megerian, 1999).

This hypothesis predicted that as congruence rose among the four L7 grand mean scores, higher levels of team engagement would be created as a result of high leader awareness of strengths, weaknesses, perception of behavior, and how effective the leader was meeting the needs of stakeholders. Furthermore, it was hypothesized that the engagement grand means would be a function of the interaction between (1) the leaders and their stakeholders and (2) the perception of those interactions indicated by leaders and stakeholders in the L7 ratings.

The results of this analysis of Hypothesis 1 demonstrated a weak but significant correlation between self-other rater congruence of L7 ratings and team engagement. This indicates that the perception of leader behavior does provide evidence that the team

associated with that leader is more likely to be engaged, at least partly due to the level of self-awareness possessed by the leader.

Hypothesis 2

Hypothesis 2 attempted to explore the specific L7 dimension of Knowing Self as it attempts to measure leader self-awareness to understand whether there is a relationship between the alignment of scores associated with the three items of the dimension across the self, superior, peer, and direct report ratings and the correlation to team engagement.

Similar to the analysis of Hypothesis 1, a difference score was calculated from the raters Knowing Self dimension grand mean and correlated to team engagement to test significance. In this hypothesis it was predicted that agreement of self-other ratings across the four rater groups regarding the Knowing Self dimension of the L7 would possess a stronger relationship with team engagement than the agreement level of the overall L7 grand mean scores across the four rater groups and their relationship to team engagement computed from the analysis of Hypothesis 1.

The argument supporting the formation of this hypothesis stems from studies emphasizing the importance of self-awareness as a leadership attribute that contributes to leaders' development and in their ability to create the conditions for high performing teams (Berman & West, 2008; Yukl, 1989). The exploration of Hypothesis 2 was intended to explore self-awareness at another level, going beyond the understanding of overall self-other rater congruence, but also to test the strength of the self-other rater

congruence involving the specific Knowing Self items representing the concept of self-awareness.

The results of this hypothesis were not supported as it was demonstrated that the difference score created by the level of agreement of the self-other rater group's L7 overall grand mean score had a stronger correlation to team engagement than did the difference score of self-other rater group's Knowing Self mean score and engagement.

One reason the relationship of the Knowing Self dimension difference score did not correlate significantly to engagement may have to do with the statistical methods used. Some consider the use of difference scores to have flaws that limit their ability to accurately represent the relationships attempting to be studied. Gentry et al. (2007) warned that the use of difference scores may limit the ability to isolate and understand specific variables. Ostroff et al. (2004) added that the use of difference scores can hinder the ability to identify rater agreement, and to understand the details that might explain the levels of agreement.

Other factors to consider include the relevancy of leader self-awareness to what the other-raters need or perceive, and the other-raters capability of identifying and assessing self-awareness from their role. More specifically, are direct reports who are not engaged or actively disengaged in a state to accurately assess Knowing Self for their leader? Is Knowing Self a relevant attribute to what answers their engagement needs of a person who is Not Engaged or Actively Disengaged in a way that would accurately demonstrate a relationship to engagement? This will be discussed in more detail in the description of the analysis of Hypothesis 3.

Hypothesis 3

Hypothesis 3 predicted that the difference score of the Knowing Self grand means of self-other ratings would have a stronger relationship to team engagement than would the difference score of any of the other L7 dimension grand means of self-other ratings to team engagement.

Again research supported the pursuit of this hypothesis as it was presented that self-awareness as indicated by the self-other rater congruence of the Knowing Self dimension would indicate a leader capable of creating the conditions within a team that would contribute to higher levels of engagement, more so than any of the other L7 dimensions (Bowles & Bowles, 2000).

This hypothesis was not supported, as it was demonstrated that difference scores of multiple L7 dimensions created by the level of agreement of the self-other rater group's L7 overall grand mean score had a stronger correlation to team engagement than did the difference score of self-other rater group's Knowing Self mean score and engagement.

As was previously mentioned in the findings describing Hypothesis 2, the results of Hypothesis 3 may be attributed to the unengaged team members' opinion of whether Knowing Self would be a relevant attribute to what they need most from their leader regarding engagement, especially in a mentoring relationship (Kram, 1983).

There also may be a challenge for the superiors', peers', or direct reports' ability to accurately assess awareness in the leader being rated. Within this analysis, Mentoring and Visioning were the only two dimensions whose difference scores had significant

correlations to engagement, and it may be that those dimensions are what the majority of direct reports are indicating they need in order to become more engaged at the level they currently occupy.

Borredon and Inham (2005, p. 494) described mentoring as “a complex relationship involving the engagement of the ‘self’ in the process of learning.” The complexity of the mentoring relationship could be explained by the diversity of interests and the dependence on interpersonal relationships that exist within the organization (Ferris & Judge, 1991). According to Kram and Isabella (1985), when organizational change causes a difference in the needs of individual members, mentoring relationships are affected and shift into a new phase.

Considering dynamic organizational conditions, mentoring has value in its ability to effectively integrate members, establish their role, and retain them (Kirchmeyer, 2005).

The interaction of the mentoring and visioning dimensions happens when mentoring helps to connect the individual to the mission and purpose of the organization (Smith, 2008; Zaccaro, Rittman, & Marks, 2001; Bonvillian, 1997). Leaders need to help their team members share and accomplish the vision by helping them develop individually (Levasseur, 2005).

Using descriptions of engagement provided by Wagner and Harter (2006), a team member who falls in the category of “not engaged” or “actively disengaged” may desire the mentoring of a leader and the presence of a vision that communicates a future with this team perhaps more so than needing a self-aware leader, or perhaps the “not engaged”

and “actively disengaged” team members are not as capable of assessing self-awareness in their leader.

It should be considered that there is a hierarchy of engagement needs that the dimensions of L7 address, and that some expressions of leadership as described by the L7 are more suited to match the needs of followers as they ascend the engagement hierarchy. Buckingham and Coffman (1999) described the order of the 12 items of the Q12 as they operate in a hierarchy. The first two items can be considered more transactional and represent a mindset on the part of the team member asking, “What Do I Get?” The next four items elevate up the hierarchy and are reflective of a team member identity that evolves and asks, “What Do I Give?” As the items move from bottom to top they become more transformational, and the next four items indicate the priority of meaningful relationships in the team and ask, “Do I Belong Here?” The last two items then are indicative of need for growth, described by asking the question, “How Can We All Grow?”

Additional Analysis

The examination of the results of the tests of the three stated hypotheses provoked additional questions and motivated further study. The rationale of this research was to discover more specifically the attributes and exact nature of the relationship between leader self-awareness and engagement. This additional analysis was also conducted in order to provide a comprehensive view of the use of difference scores and correlation describing the relationships of leader self-awareness and engagement using the L7 and

Q12. An additional intent was to contribute to a foundation of understanding through this statistical design that would allow for further research using other statistical methods.

Acknowledging the cautions regarding the use of difference scores, additional analysis beyond the testing of the original hypotheses was conducted to more specifically and comprehensively examine the different combinations of raters, the congruence of their scores, and the relationships they have with L7 and Q12 grand mean scores, as well as the relationships they have with the individual items of the L7 and Q12. The following describes the rationale and findings of this continued effort to understand more about the relationship between leader self-awareness and engagement.

The ratings provided by direct reports presented a strong relationship to engagement as demonstrated in Tables 4 and 5. The direct correlation of the direct report L7 grand mean to Q12 grand mean was the strongest of all four rater groups, as was the self-direct report difference score correlation to Q12 grand mean.

That this relationship is the strongest makes sense due to the fact that the group of L7 sample direct reports made up some, but not all, of the group of participants to produce the ratings of the Q12. Also the L7 ratings are an assessment of the leader, and the Q12 ratings are an assessment of the workplace of which the leader is a part. So to anticipate that relationship to be significant is reasonable.

The overall self-other L7 difference score had significant relationships with six items of the Q12. Those were Expected at Work, Do Best, Recognition in Past Seven Days, Someone Cares, Encourages Development, Opinion Counts, and Mission Is Important (see Table 7).

The results presented in Table 8 reinforce the strength of the relationships in Table 7 by presenting significant self to direct report L7 difference score correlations with the Q12 items of Someone Cares, Encourages Development, and Opinion Counts. In testing Hypotheses 2 and 3, it was discovered that Mentoring and Visioning were the two dimensions with a significant correlation to engagement. It is reasonable to consider that those specific items of the Q12 could be directly influenced by a leader's mentoring and visioning ability, as well as being more visible behaviors noticed by superior and peers.

The results of Table 9 lead back to the inclusion and consideration of Knowing Self and self-awareness as key attributes to consider influencing team engagement as originally proposed in Hypotheses 2 and 3. In this table, when we look at each self-other L7 difference score for each of the three other-rater groups and the self-ratings and measure the correlation to a specific L7 dimension, the results show that Knowing Self possesses the strongest set of significant relationships across all three groups. This would provide some contextual support for what was originally proposed in Hypotheses 2 and 3.

Table 10 displays different combinations of the other-raters and their difference score relationship to engagement. The direct report and superior combination difference score had the only significant relationship to engagement. Some scholars (Brutus et al., 1996) have suggested that there may be merit to looking at only one set of self-other scores in order to understand the relationship to the dependent variable such as engagement. Table 11 presents similar analysis of the three other-rater pairings, only this time correlating the L7 difference scores to the L7 grand mean. This level of analysis produced the strongest relationship between the Peer/Direct Report combinations.

Results provided in Tables 12, 13, and 14 examined the three different combinations of the other-raters' item-level difference scores and their relationships to the Q12 grand mean. Here the most significant rater combination to leadership dimension relationships were found in the Direct Report/Superior combination regarding item 13 (Continually Inspires My Growth) and item 58 (Understands What Motivates Me) within the Mentoring dimension, item 14 (Builds the Kind of Team I Want to Be On) and item 32 (Makes Work Fun) within the dimension of Building a Constituency, and item 67 (Does What They Say They Will Do) within Maximizing Values.

These findings provide context to the understanding of the role that leaders play as the fulcrum in fulfilling and balancing the needs of their team and yet directing performance in a way that also meets the needs of their superior in impacting organizational outcomes. Zaccaro et al. (2001) said it is the role of the team leader to make sense of the conditions the organization is operating in and help the team to perform effectively within those conditions. In many cases simple dialogue in which a team leader connects the employee to the direction of the company can make a difference (Soyars & Brusino, 2009).

Table 15, 16, and 17 then examined the three different combinations of the other-raters' item-level difference scores and their relationship to the L7 grand mean. Here the most significant dimension was item 61, "Teams Effectively to Get the Job Done" on the Peer/Superior pairing.

For the Direct Report/Peer match, item 61 again was significant, as were the entire Building a Constituency dimension consisting of item 14 (Builds the Kind of Team

I Want to Be On), item 32 (Makes Work Fun), and item 39 (Continually Expands His/Her Circle of Influence), plus items from other L7 dimensions including item 22 (Has a Management Philosophy Which Is Clear), item 53 (Takes On Significant Leadership Challenges), and item 67 (Does What They Say They Will Do).

In the Direct Report/Superior combination it was again item 61 that was significant, in addition to item 14 (Builds the Kind of Team I Want to Be On), and item 53 (Takes On Significant Leadership Challenges).

Conclusions

It is important to note the presence of item 61 (Teams Effectively to Get the Job Done) as a significant correlation evident in the results of all three rater pairings presented in Tables 15, 16, and 17. This may be due to the presence of behaviors and performance that are observable to all raters as well as being an attribute that has value and relevance in what a team leader is expected to do. This item also is reasonable to consider as one that would have a direct influence on the engagement level of the team members regardless of their current level of engagement.

As item 61 describes, the ability to Team Effectively With Other People to Get the Job Done could be related to the awareness that leaders have regarding their strengths and weaknesses, to acknowledge them, and to adjust their contributions accordingly (Blanchard, Carew, & Parisi-Carew, 1996; Zaccaro, Rittman, & Marks, 2001).

Item 61 also is relevant to engagement since teams work in conditions that often include challenges that cause feelings of doubt and frustration (Baldwin, Royer, &

Edinberg, 2007). Sosik, Avolio, and Kahai (1997) found that a participative style of leadership was more effective in influencing team members to solve workplace challenges.

No previous research has examined the moderating role of leader self-awareness within engagement. Overall, the findings of this study reinforce the importance of team-building as a facet of engagement that incorporates the ability of the team leader in order to be optimized. While previous research has examined many attributes of team-building, it is still an effort that continually shifts depending on changes in team-membership and organizational performance expectations.

The results of this study indicate the value of leaders' pursuing an ongoing understanding of what constitutes a team from a comprehensive stakeholder viewpoint and incorporating feedback of their leadership ability to build a desirable team, with the knowledge that a stronger team will experience higher engagement as well as the associated increases in performance.

Mentoring and visioning are revealed as areas that have value in helping leaders make sense of their contribution to engagement. While it appears that the direct reports and the superior provide feedback to the leader that is most helpful in understanding how the leader behavior is interpreted, there is evidence that feedback from peers could contribute to the leader's ability to refine their contribution to the team in a more effective effort (Kram & Isabella, 1985).

Potential Limitations of the Study

“The nature of research implies certain restrictions or limitations about the group or the situation described, such as size, representation, and distinct composition. Failure to recognize these limitations may lead to the formulations of generalizations that are not warranted by the data collections” (Best & Kahn, 1993. p. 266). In this review, there are points that need to be acknowledged as to where limitations occur to affect the nature of the study.

Specifically, the L7 is designed to operate as a multi-rater instrument, and previous research regarding leadership development indicates there are limitations to be considered with multi-rater instruments that can inhibit the accuracy of their results and their use as an effective feedback tool.

Overall, there are areas of limitations that need to be recognized to ensure the integrity of interpretation of the results of this study, particularly errors, researcher decisions about the study design, and other forms of internal and external bias.

Errors

Errors in the coding must be checked for and resolved as accurately as possible. However, it is understood that all forms of research are susceptible to coding errors and this study will experience that as well.

Data Collection

There are aspects of multi-rater feedback not captured in the current study that limited the parameters of what was available to research. First, due to process design of

the data collection, items asking demographic information were made optional for all leader participants, and were not asked of the other-rater groups of superiors, direct reports, and peers. As a result, only broad demographic data regarding age, gender, and race was collected from the leaders, and there was a high percentage of missing cases in each demographic category.

In this specific database, there are potential moderators that were not captured, such as education, training, ethnicity, span of control, frequency of rater contact, leader tenure with the organization, and the level of leadership occupied.

Other limitations for this study specific to the data are that there are no performance measures captured along with the other data, other than that of the team engagement scores. In addition, no demographic data or information on any potential moderators was collected from any of the other-rater groups of direct reports, peers, or superiors.

Internal Validity

Internal validity refers to the degree of accuracy in predicting the relationship between independent and dependent variables in the study. High internal validity improves the confidence level that the observed effects of the dependent variables were a result of the identified independent variables and not from other causes. Any other causes of the effects on the dependent variables are considered to compromise internal validity. Aspects of this study that threaten the internal validity include participants' bias, measurement limitations, and sample limitations.

Participant Bias

The participatory design of the study can create conditions that could produce bias and limit the ability of the findings to contribute to other research settings. While it was made clear that participation was voluntary at the onset of the study, some of the raters may have felt motivated to participate due to leader encouragement. Therefore, some raters may not have fully engaged in participating in the surveys.

Raters were also notified and assured that individual identity would be kept confidential, but it is possible the answers provided were influenced by a concern or lack of trust in the conditions of anonymity, or ambiguity of how the feedback was to be conducted.

Leniency Error

Sharon and Bartlett (1969) said leniency error could affect leader ratings beyond self-awareness. Leniency errors typically occur when ratings from one group differ significantly from other rater groups. Klimoski and London (1974) presented research indicating that leniency is associated more with self ratings than with superior or peers' ratings.

Halo Error

Halo error is another potential source of rating bias, and Fleenor and McCauley (1996) cautioned researchers to beware of its effect, which can cause high-performing

leaders to also receive high self-awareness scores. Halo error occurs when the subject is rated based on an overall perception of performance rather than individual item or dimension (Holzbach, 1978).

Measurement Limitations

Many previous studies have investigated agreement of self-ratings relative to observers' ratings as an individual difference variable. In the statistical examination used in this study, all ratings (direct report, peer, superior, and self) were calculated by averaging scores across raters, either within groups or across groups and relating those averages to leader averages. There are concerns about using data in an aggregate form because averaging can conceal important variation.

Mount et al. (1998) and Conway (1996) raised concerns that aggregating ratings within or across raters reduces the construct validity of the ratings, and Johns (1981) added that there can be unreliability of difference scores when used in statistical analyses.

Some scholars such as Atwater and Yammarino (1992) questioned the interpretation of the discrepancy between self- and other ratings as an indicator of agreement in multi-rater studies. Others such as Edwards and Parry (1993) have said that there is no advantage to using rater discrepancies within groups, or across groups to create a difference score.

Sample Limitations

The findings of this study are limited to the participants on whom the study was based. As noted previously, the leaders selected to participate in this study were a convenience sample based on availability, and possession of self, superior, team, and peer L7 ratings, and team Q12 ratings.

Redwood (2007) and Antonioni (1996) cautioned that the use of 360-degree feedback or a multi-rater approach can bias participants or fail to include key stakeholders as raters. The procedure for this level of data collection involved assessment of leadership roles in a local context and incorporated the ratings of those groups affected by leaders' actions within an organization, namely their peer group, their team, and their superior.

Participation in the Q12 consisted of a census of the entire direct report team of each leader; however, in this study, as is often the case in rater selection, the invitation of which peers and direct reports to include as an L7 rater was left to the leader. The anticipated benefit of allowing the raters to be selected by the leaders is that these raters might possess more details in their insight and familiarity of the leader role and expectations. However, bias might be produced from this approach to rater selection through a more positive rating with less criticism. Within this selection process, it is possible that the leaders could have chosen individuals more similar to themselves to complete the survey, which would bias the survey in a positive direction. Ostroff et al. (2004) presented research that demonstrates that similar self-other raters give higher ratings.

Another important consideration is that while superior ratings of leadership were internally consistent, the fact that a superior, peer, or direct report could have rated multiple leaders is a potential limitation.

External Validity

External validity refers to the approximate accuracy of the conclusions of the study that involve generalizations. With high external validity, researchers are able to generalize the findings of their studies to different subjects, places and points in time. The main threat to the external validity of the findings of this dissertation is the participants.

Researcher Bias

The unconscious bias of the researcher plays a role in the limitations of the study that must be acknowledged in several areas. There is the potential for invalid assumptions regarding cause and effect, and the failure to recognize individual responses within each rater group can be a limitation to interpretation. Other forms of researcher bias include the temptation to omit evidence unfavorable to the hypothesis and to overemphasize favorable data. Best and Kahn (1993) summarized the role of the researcher stating that effective researchers need to be aware of their feelings and the likely areas of their bias and attempt to maintain objectivity.

Summary of Limitations

Like all research, this study has limitations. In summary, the four major limitations of this dissertation were (1) limitations of the use of difference score measurement, (2) participant motivation, (3) sample limitations, and (4) experimenter bias.

Lack of support for associated hypotheses indicates one of two things — either the focus of self-other comparison does not have relevance in understanding leader self-awareness and its influence on team engagement, or the statistical examinations used were not sensitive enough to detect the relationships proposed.

Implications for Future Research

The research represented in this proposal was intentionally positioned in order to answer specific research questions as well as provide additional research to assist future studies of leader self-awareness and engagement. The research questions, proposed hypotheses, and findings in this dissertation produce new questions and direction for consideration in future research. Some areas include consideration of different statistical procedures, targeting of more defined samples, collection of additional demographic and performance data, and use of qualitative and ongoing research to study the effects of multi-rater perspectives and relationship to engagement over time.

Measurement

While the significance effects of the hypotheses studied in this research were not large, they do indicate support for some of the hypotheses and suggest directions for future research.

Brutus et al. (1999) claimed that the criticism regarding the use of difference scores also includes the use of difference scores to form agreement categories. Atwater and Yammarino (1992) pointed out that it is likely that raters have biases that could affect their perceptions and ratings, which would affect the inclusion of different raters for the agreement categories. This position makes it difficult for proponents of agreement categorization to criticize the use of difference scores in general.

In response to the critique of the use of difference scores, Edwards (1995) encouraged the use of multivariate regression procedures when conducting research that uses difference scores or agreement categories.

Atwater et al. (1998) claimed that challenges exist in multi-rater research to identify a consistent understanding as to how to interpret rater congruence. For example, the opportunity to explain agreement in self-other ratings can be missed by not examining the relationships and characteristics of those raters who strongly agree or disagree with the leaders' self-perceptions (Ostroff, Atwater, & Feinberg, 2004). While these direct self-other combinations and their relationship to engagement were explored through the additional analysis, this focus should be a key area of study for future research in multi-rater feedback.

Future studies should also consider the use of different statistical techniques in attempting to understand more about the alignment between leader and other ratings and

the relationship to engagement. Identifying profiles of significant agreement and disagreement and examining those relationships in an attempt to understand those relationships are encouraged to gain understanding from that perspective as well.

Additional research is needed to understand more about the strengths and limitations of using agreement categories or self-other ratings and their relationship to various measures of organizational performance and outcomes.

Sample Background

Atwater and Yammarino (1992) proposed that rater demographic data such as gender, race and age, experience, education, tenure, and including frequency of interaction with the leader, should be considered when attempting to understand self-other agreement profiles and relationships.

In addition to demographic and profile detail, ongoing multi-rater research should be more intentional in ensuring the use of adequately sized samples to support the examination of the study, and samples that represent a more diverse range of leaders- and other raters. Church and Bracken (1997) have noted that much of the multi-rater research conducted has been limited by small sample sizes. The sample sizes included in the research of this paper were one of the strengths of the study.

Research that considers the size of overall constituency relative to each leader as well as size of each of the other-rater groups of superiors, peers, direct reports relative to each leader, and the relationship to the alignment of their respective L7 grand means and corresponding Q12 grand means would provide another meaningful approach to

understanding more about multi-rater relationships to outcome. Roles within a hierarchy are often confounded with differences in age, so the effect of age of the raters of each group might be another explanatory variable for the findings of this study and an area of opportunity for future study.

The collection of these rater attributes enables attempts to identify why ratings differ between leaders, peers and direct-reports. They would also assist in identifying the antecedents and outcomes of self-other rater differences.

Qualitative Research

Still to be determined is whether there are other influencers of self-other agreement beyond the leader's awareness of strengths and limitations. It should also be considered that raters may not be capable of accurately recognizing and evaluating the self-awareness possessed by others. It is important to consider that differences between self-other ratings may not be as simple as an indication of low self-awareness. Self-raters may be aware of how they see themselves, and how others see them as well, but may choose not to believe it, or not to act on the awareness. This can compromise the assumption of the relationship indicated between self-other rating agreement.

Sosik and Megerian (1999) raised the question of whether self-other rating agreement and the concept of self-awareness ought to be equated as the same constructs. In their view, "Self-awareness is a psychological state which enables an individual to incorporate information from self-other comparisons into self-evaluations and behavior" (p. 387).

A key contribution in future research would be to involve and analyze dialogue between the leader and other raters to understand the perspective of the rater groups. This would indicate some opportunities for qualitative research that could expand on the results of the current study. The qualitative component could provide detail that would help with the interpretation of rater differences and its impact on individual, team, and organizational performance (Walker & Smither, 1999).

Longitudinal Research

A longitudinal approach of multi-rater scores and related outcomes offers another potential area of study. Conger and Toegel (2003) offered research that recording the effects of multi-rater feedback, scores, and outcomes longitudinally would enhance the understanding of the multi-rater feedback process and its outcomes.

A longitudinal approach would also contribute to other multi-rater research and relationship to leadership outcomes to understand more about leaders who receive support in analyzing their scores, conduct effective feedback, interpret the results, reflect on those results, and then create action steps based on the results of the overall feedback process to review the effect of the support on ensuing rater scores and other related outcomes. It is also possible that time is a necessary element to consider in building trust in the 360-degree process beyond one administration.

Longitudinal follow-up would be valuable because as Sala (2003) noted, fully implemented feedback builds an organizational environment that communicates the value of hearing and acting on members' opinions. Understanding the effect of a

comprehensive multi-rater process would assist leaders in knowing how to activate the feedback and influence engagement.

Item-Level Relationships

Additional areas for consideration in order to provide more detailed understanding would involve exploring an item-by-item relationship between the L7 items and the items of the Q12 to attempt to understand causality or multi-rater alignment. While the item-level relationships were explored as part of the additional analysis in this study, there are more opportunities to gain further understanding through the use of different statistical methods and additional item-level relationships.

Operational Hierarchy

Another possibility for future study is to understand how the dimensions of the L7 are operationalized. Buckingham and Coffman (1999) considered the Q12 to have a hierarchical order in which the items are relevant to the individual and processed through the questions starting with “What Do I Get?” and moving successively up to “What Do I Give?,” “Do I Belong?,” and “How Do We Grow?” Whether there is an order or hierarchy to the L7 that leaders typically progress through or experience as they gain ability and awareness is a question that would have value in ongoing study.

Practical Implications

This study raises many interesting questions regarding effects of interactions between self-awareness, leadership behaviors on performance evaluation, multi-rater feedback information, and the effects of leadership throughout the organization.

One explanation for these findings is that different roles view different leader behaviors based on what is most relevant to the role, and at that particular level of engagement. (Salam, Cox, & Sims, 1997; Moxley, 1972).

These findings offer consideration that traditional managerial systems could be improved by adding expectations, systems, or processes with the intent of increasing the levels of leader self-awareness.

Within this analysis, Mentoring and Visioning were identified as two dimensions that could contribute to direct reports ability to become more engaged. Buckingham and Coffman (1999) described the order of the engagement hierarchy as “What Do I Get?”, “What Do I Give?” “Do I Belong Here?” The last level of the hierarchy is then, “How Can We All Grow?” Leaders should consider the hierarchy of engagement needs that the dimensions of L7 address and adjust their actions around the appropriate leadership demand suited to match the needs of their followers.

This study also demonstrates that leaders’ need to continue to pursue an understanding of what constitutes a team by soliciting feedback from multiple stakeholders. In this regard, it is important to note the presence of item 61 (Teams Effectively to Get the Job Done) as a finding that could provide a leadership foothold in creating team engagement. The strength of this item could be related to the awareness

that leaders have regarding their strengths and weaknesses, to acknowledge them, to partner with others, and build teams to complete the ability of the leader.

Item 61 is also relevant since teams work in challenging and constantly changing conditions. A participative style on the part of the leader can be more effective than directive leadership in influencing team members in finding solutions to these challenges

Summary of Implications

In summary, practical suggestions as well as suggestions for future research have been provided based on the findings of this study and previous theory and research that should give guidance to leaders of teams to improve their self-awareness and their ability to effectively contribute to engagement of their team members. Training programs could be designed, implemented and tested to help new team leaders understand the interaction of self-awareness and engagement to produce optimal results.

The present study makes at least three noteworthy contributions to the literature on self-other rating agreement. First, the study's multi-rater data collection (i.e., leader, peer, direct report, and superior ratings) provides a large and diverse leadership sample to an area of research that sometimes lacks both. Second, the study helps to refine the literature by helping to reveal relationships among leader self-awareness, self-other agreement, and engagement. Third, this study raises many interesting research questions regarding the effects of interactions between overall work attitudes and leader self-awareness.

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Appendix A

Q12: Measure of Team Engagement

Q12 uses a 5-point Likert-type scale, including response options of 5=strongly agree, 1=strongly disagree, and a 6=don't know/does not apply option score. The 12 questions:

1. I know what is expected of me at work.
2. I have the materials and equipment I need to do my work right.
3. At work, I have the opportunity to do what I do best every day.
4. In the last seven days, I have received recognition or praise for doing good work.
5. My supervisor, or someone at work, seems to care about me as a person.
6. There is someone at work who encourages my development.
7. At work, my opinions seem to count.
8. The mission/purpose of my company makes me feel my job is important.
9. My associates (fellow employees) are committed to doing quality work.
10. I have a best friend at work.
11. In the last six months, someone at work has talked to me about my progress.
12. This last year, I have had opportunities at work to learn and grow.

Appendix B

L7: Seven Demands of Leadership

1. Visioning: Leaders create a collective mindset that propels people to help them make their vision a reality.
2. Maximizing Values: Leaders clarify how their own values, particularly a concern for other people, relate to their work.
3. Challenging Experiences: Leaders are able to challenge their teams to achieve significant work goals.
4. Mentoring: Leaders consistently had a close relationship either with their manager or someone in the best position to advise them.
5. Building a Constituency: Leaders understand networks and the importance of networking.
6. Making Sense of Experience: Leaders help individuals understand what's going on so that they are better able to achieve success.
7. Knowing Self: Leaders have an acute sense of their own strengths and weaknesses.

Appendix C

L7 Dimensions and Core Items

The 21 items of the L7 use a 5-point Likert-type scale with 1=strongly disagree (that the leader displays the following characteristic) to 5=strongly agree (that the leader displays the following characteristic), and a 6=don't know/does not apply option score.

Visioning

Item 1: Communicates to those within the organization what the future will look like.

Item 49: Inspires me with his/her vision of the future.

Item 93: Helps me prepare for the changes which will affect our business.

Mentoring

Item 13: Continually inspires my growth.

Item 58: Understands what motivates me.

Item 85: Helps me know my contribution to the team is valued.

Building Constituency

Item 14: Builds the kind of team I want to be on.

Item 32: Makes work fun.

Item 39: Continually expands his/her circle of influence.

Knowing Self

Item 12: Understands his/her own personal strengths and limitations.

Item 22: Has a management philosophy which is clear.

Item 61: Teams effectively with other people to get the job done.

Challenging Experiences

Item 31: Initiates action.

Item 48: Sets high standards for performances.

Item 53: Takes on significant leadership challenges.

Maximizing Values

Item 11: Has made his/her values clear to me.

Item 67: Does what they say they will do.

Item 69: Consistently makes decisions which reflect his/her management philosophy.

Making Sense of Experience

Item 45: Helps me generate alternative solutions to problems/issues.

Item 46: Helps me understand why we do what we do.

Item 95: Helps me understand the business.

Appendix D

Race Demographics for Leader Population

Category	n	Valid Percent
Caucasian	205	11.3
Minority	26	88.7
Missing	150	

Appendix E

Gender Demographics for Leader Population

Category	n	Valid Percent
Male	173	65
Female	93	35
Missing	115	

Appendix F

Age Demographics for Leader Population

Category	n	Valid Percent
Over 40	118	63.4
Under 40	68	36.6
Missing	195	

Appendix G

L7 Descriptive Statistics, Range of Scores, and Standard Deviations by Rater Group and Overall

Measure	n	Min	Max	Mean	SD
Direct Reports	381	2.19	4.88	3.95	0.46
Peers	381	2.66	4.90	3.94	0.42
Superiors	381	2.57	5.00	4.20	0.44
Self	381	1.29	5.00	4.20	0.42
Overall	381	2.68	4.79	4.06	0.31
Engagement	381	2.90	4.75	3.88	0.36

Appendix H

L7 Overall Difference Scores by Dimension

Descriptive statistics, range of difference scores, and standard deviations

Measure	n	Min	Max	Mean	SD
Overall	381	0.00	5.57	1.11	0.83
Visioning	381	0.00	5.70	1.32	1.08
Mentoring	380	0.01	5.80	1.48	1.05
Constituency	381	0.00	5.55	1.31	1.02
Knowing Self	381	0.00	6.83	1.34	1.05
Challenging Experiences	381	0.00	8.17	1.24	0.89
Maximizing Values	381	0.00	8.51	1.28	0.93
Making Sense of Experience	381	0.00	5.54	1.42	1.03

Appendix I

Z-Values for L7 Difference Score vs. Knowing Self

Measure	n	Z-Value	.01	.05
Overall	381	-0.58	0.28	0.56
Visioning	381	0.40	0.34	0.68
Mentoring	380	0.050	0.31	0.62
Building Constituency	381	-0.35	0.36	0.72
Challenging Experiences	381	-0.04	0.48	0.97
Maximizing Values	381	-0.35	0.36	0.73
Making Sense of Experiences	381	0.15	0.44	0.88

Appendix J

Q12 Descriptive Statistics, Correlations, and Standard Deviations

Measure	n	Min	Max	Mean	SD
Expected at Work	381	2.48	5.00	3.9769	0.46284
Materials and Equipment	381	2.88	5.00	4.1980	0.37569
Do Best	381	2.52	5.00	3.9338	0.43120
Recognition in Seven Days	381	2.39	5.00	3.8399	0.43160
Someone Cares	381	1.00	5.00	3.4176	0.65786
Encourages Development	381	2.52	5.00	3.9738	0.48892
Opinion Counts	381	2.29	5.00	3.7948	0.51359
Mission Is Important	381	2.29	5.00	3.9160	0.45151
Associates Quality Commitment	381	2.60	5.00	4.0461	0.47304
Best Friend	381	2.80	5.00	4.1361	0.39280
Progress in Past Six Months	381	1.60	4.86	3.3465	0.56038
Learn and Grow Opportunities	381	2.00	5.00	3.8420	0.59494

Appendix K

L7 Direct Report Descriptive Statistics, Correlations, and Standard Deviations

Measure	n	Min	Max	Mean	SD
<u>Visioning</u>					
Item 1	381	1.60	5.00	3.9169	0.58257
Item 49	381	1.80	5.00	3.6982	0.61114
Item 93	381	2.00	5.00	3.8303	0.51901
<u>Mentoring</u>					
Item 13	381	1.40	4.86	3.6659	0.66784
Item 58	381	1.40	5.00	3.5563	0.60194
Item 85	381	2.40	5.00	4.0004	0.51612
<u>Constituency</u>					
Item 14	381	1.75	5.00	3.8950	0.66603
Item 32	381	1.40	5.00	3.6933	0.69454
Item 39	381	2.33	5.00	4.0312	0.52346
<u>Knowing Self</u>					
Item 12	381	1.60	4.86	3.8969	0.53721
Item 22	381	1.50	5.00	3.7961	0.60128
Item 61	381	2.00	5.00	4.0422	0.53345
<u>Challenging Experiences</u>					
Item 31	381	2.40	5.00	4.2059	0.50199
Item 48	381	2.25	5.00	4.2610	0.46093
Item 53	381	2.20	5.00	4.2340	0.54559
<u>Maximizing Values</u>					
Item 11	381	2.00	5.00	4.0264	0.50820
Item 67	381	1.80	5.00	4.0970	0.53637
Item 69	381	2.43	5.00	4.1835	0.45136
<u>Making Sense of Experience</u>					
Item 45	381	2.00	5.00	3.9979	0.45343
Item 46	381	1.86	5.00	3.9794	0.48478
Item 95	381	2.20	5.00	3.9300	0.48889

Appendix L

L7 Peer Descriptive Statistics, Correlations, and Standard Deviations

Measure	n	Min	Max	Mean	SD
<u>Visioning</u>					
Item 1	381	2.00	5.00	3.8276	0.54413
Item 49	380	1.50	5.00	3.6012	0.64269
Item 93	380	1.00	5.00	3.7197	0.55622
<u>Mentoring</u>					
Item 13	380	1.00	5.00	3.4450	0.66191
Item 58	381	2.00	5.00	3.5312	0.62971
Item 85	379	2.00	5.00	3.8667	0.53947
<u>Constituency</u>					
Item 14	381	1.50	5.00	3.7248	0.66595
Item 32	381	1.86	5.00	3.7725	0.66999
Item 39	381	2.25	5.00	3.9895	0.54078
<u>Knowing Self</u>					
Item 12	381	2.25	5.00	3.9558	0.52166
Item 22	381	2.00	5.00	3.8377	0.54629
Item 61	381	2.20	5.00	4.0466	0.56773
<u>Challenging Experiences</u>					
Item 31	381	2.50	5.00	4.2400	0.47856
Item 48	381	2.00	5.00	4.2129	0.46793
Item 53	381	2.38	5.00	4.1961	0.53262
<u>Maximizing Values</u>					
Item 11	381	2.00	5.00	4.0013	0.52041
Item 67	381	2.50	5.00	4.2461	0.50114
Item 69	381	2.00	5.00	4.2383	0.41780
<u>Making Sense of Experience</u>					
Item 45	381	2.00	5.00	3.9129	0.50403
Item 46	380	2.00	5.00	3.8307	0.51772
Item 95	379	1.00	5.00	3.7759	0.59106

Appendix M

L7 Superior Descriptive Statistics, Correlations, and Standard Deviations

Measure	n	Min	Max	Mean	SD
<u>Visioning</u>					
Item 1	377	2.00	5.00	3.9592	0.67516
Item 49	374	2.00	5.00	3.8517	0.72535
Item 93	381	2.00	5.00	4.3037	0.62006
<u>Mentoring</u>					
Item 13	378	2.00	5.00	4.0338	0.71900
Item 58	366	2.00	5.00	3.9491	0.73326
Item 85	357	2.00	5.00	4.0553	0.70582
<u>Constituency</u>					
Item 14	380	2.00	5.00	4.2175	0.73294
Item 32	378	1.00	5.00	4.1036	0.72962
Item 39	379	2.00	5.00	4.0966	0.75941
<u>Knowing Self</u>					
Item 12	379	1.00	5.00	4.0626	0.76615
Item 22	379	2.00	5.00	4.0513	0.71755
Item 61	381	2.00	5.00	4.2927	0.68242
<u>Challenging Experiences</u>					
Item 31	381	2.00	5.00	4.4265	0.60556
Item 48	380	2.00	5.00	4.4344	0.61099
Item 53	379	2.00	5.00	4.3997	0.64478
<u>Maximizing Values</u>					
Item 11	380	2.00	5.00	4.3508	0.64735
Item 67	381	2.00	5.00	4.5493	0.57791
Item 69	379	2.00	5.00	4.3649	0.56294
<u>Making Sense of Experience</u>					
Item 45	378	2.00	5.00	4.2313	0.64430
Item 46	381	2.00	5.00	4.1458	0.63360
Item 95	379	2.00	5.00	4.2185	0.56973

Appendix N

L7 Leader Self-Rating Descriptive Statistics, Correlations, and Standard Deviations

Measure	n	Min	Max	Mean	SD
<u>Visioning</u>					
Item 1	376	2.00	5.00	4.2287	0.58499
Item 49	379	1.00	5.00	3.8311	0.78880
Item 93	379	1.00	5.00	4.1082	0.62692
<u>Mentoring</u>					
Item 13	379	1.00	5.00	3.9261	0.70510
Item 58	379	2.00	5.00	3.9261	0.71257
Item 85	381	1.00	5.00	4.2992	0.61961
<u>Constituency</u>					
Item 14	381	1.00	5.00	4.1430	0.64370
Item 32	380	1.00	5.00	4.0000	0.78239
Item 39	381	1.00	5.00	3.9501	0.82725
<u>Knowing Self</u>					
Item 12	381	1.00	5.00	4.2139	0.69739
Item 22	380	1.00	5.00	4.0224	0.71187
Item 61	380	1.00	5.00	4.3079	0.64766
<u>Challenging Experiences</u>					
Item 31	381	1.00	5.00	4.4436	0.61993
Item 48	380	1.00	5.00	4.3632	0.67735
Item 53	379	1.00	5.00	4.4142	0.68615
<u>Maximizing Values</u>					
Item 11	381	1.00	5.00	4.3005	0.69555
Item 67	381	1.00	5.00	4.5197	0.59184
Item 69	379	1.00	5.00	4.4090	0.60773
<u>Making Sense of Experience</u>					
Item 45	381	1.00	5.00	4.3150	0.58084
Item 46	380	1.00	5.00	4.3197	0.62152
Item 95	380	1.00	5.00	4.2447	0.62961

Appendix O

Descriptive Statistics for L7 Leader Self-Other Rater Difference Scores Correlation to Engagement

Measure	n	Min	Max	Mean	SD
Overall	381	0.00	5.57	1.1068	0.83041
Self-Superior	381	0.00	1.48	0.4025	0.31743
Self-D. Report	381	0.00	2.15	0.4340	0.34403
Self-Peer	381	0.00	2.38	0.4756	0.35968

Appendix P

*Descriptive Statistics for L7 Leader Self-Other Overall Difference Scores Correlation to
L7 Dimensions*

Measure	n	Min	Max	Mean	SD
Vision	381	2.50	4.78	3.9060	0.37014
Mentoring	381	2.62	4.76	3.8520	0.37157
Constituency	381	2.29	4.87	3.9681	0.42987
Knowing Self	381	2.71	4.79	4.0438	0.36396
Challenging Experiences	381	2.73	4.94	4.3191	0.34178
Max. Value	381	3.13	4.90	4.2734	0.29320
Making Sense of Experience	381	2.38	4.85	4.0749	0.31165

Appendix Q

*Descriptive Statistics for L7 Other Raters Overall Difference Score Correlation to Q12**Grand Mean*

Measure	n	Min	Max	Mean	SD
Peer/Superior	381	.00	1.63	.4498	.32366
Peer/Direct Report	381	.00	1.64	.3660	.29820
Direct Report/Superior	381	.00	1.67	.4453	.35732

Appendix R

Descriptive Statistics for Other-Raters Difference Score Correlation to L7 Grand Mean

Measure	n	Min	Max	Mean	SD
Peer/Superior	381	2.66	4.90	3.90003	.41834
Peer/Direct Report	381	2.19	4.88	3.9503	.45791
Direct Report/Superior	381	2.57	5.00	4.1910	.43849

Appendix S

Model Summary Stepwise Regression L7 Difference Scores and Q12 Grand Mean

Model	R	R Square	Adjusted R Square	Standard Error of Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.117 ^a	0.014	0.011	0.35474	0.014	5.282	1	378	0.022
2	.141 ^b	0.020	0.015	0.35412	0.006	2.333	1	377	0.127
3	.142 ^c	0.020	0.012	0.35455	0	0.082	1	376	0.775
4	.143 ^d	0.020	0.010	0.35497	0	0.101	1	375	0.751
5	.149 ^e	0.022	0.009	0.35509	0.002	0.753	1	374	0.386
6	.150 ^f	0.022	0.007	0.35555	0	0.023	1	373	0.879
7	.151 ^g	0.023	0.005	0.35593	0.001	0.211	1	372	0.646

a. Predictors: (Constant), diffvis

b. Predictors: (Constant), diffvis, diffmen

c. Predictors: (Constant), diffvis, diffmen, diffbc

d. Predictors: (Constant), diffvis, diffmen, diffbc, diffks

e. Predictors: (Constant), diffvis, diffmen, diffbc, diffks, diffce

f. Predictors: (Constant), diffvis, diffmen, diffbc, diffks, diffce, diffmv

g. Predictors: (Constant), diffvis, diffmen, diffbc, diffks, diffce, diffmv, diffms

Appendix T

Model Summary Stepwise Regression L7 Mean Scores and Q12 Grand Mean

Model	R	R Square	Adjusted R Square	Standard Error of Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.439 ^a	.193	.190	.32121	.193	90.385	1	379	.000
2	.452 ^b	.204	.200	.31933	.012	5.471	1	378	.020
3	.472 ^c	.223	.217	.31595	.019	9.127	1	377	.003
4	.561 ^d	.314	.307	.29717	.091	50.141	1	376	.000
5	.563 ^e	.317	.308	.29705	.002	1.320	1	375	.251
6	.564 ^f	.318	.307	.29710	.002	.870	1	374	.352
7	.564 ^g	.318	.306	.29748	.000	.034	1	373	.855

a. Predictors: (Constant), maxvalue

b. Predictors: (Constant), maxvalue, challenge

c. Predictors: (Constant), maxvalue, challenge, making

d. Predictors: (Constant), maxvalue, challenge, making, mentor

e. Predictors: (Constant), maxvalue, challenge, making, mentor, buildcon

f. Predictors: (Constant), maxvalue, challenge, making, mentor, buildcon, vision

g. Predictors: (Constant), maxvalue, challenge, making, mentor, buildcon, vision, knowself