

1-1-2010

## Do Managers Walk The Talk? Using Behavioral Observations Scales (BOS) and 360-Degree Ratings To Assess Organizational Values

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### Recommended Citation

Buchko, Aaron A. and Buchko, Kathleen J. (2010) "Do Managers Walk The Talk? Using Behavioral Observations Scales (BOS) and 360-Degree Ratings To Assess Organizational Values," *Journal of Business & Leadership: Research, Practice, and Teaching (2005-2012)*: Vol. 6 : No. 1 , Article 6.

Available at: <http://scholars.fhsu.edu/jbl/vol6/iss1/6>

## DO MANAGERS WALK THE TALK? USING BEHAVIORAL OBSERVATIONS SCALES (BOS) AND 360-DEGREE RATINGS TO ASSESS ORGANIZATIONAL VALUES

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*A study was performed on the managerial staff and supervisors of a large manufacturing plant (n = 129) to measure individuals' commitment to the organization's values. A Behavioral Observation Scale (BOS) measurement instrument was developed by the members of the organization and was administered using a 360 degree evaluation process. Results indicated good scale reliability and consistency. A factor analysis of the data yielded 4 distinct factors, which corresponded reasonably well to the underlying organizational values. Implications for future research and for the evaluation of organizational values for practicing managers are discussed.*

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“Through the history of most of the visionary companies we saw a core ideology that transcended purely economic considerations. And – this is the key point – they have had a core ideology *to a greater degree than comparison companies in our study.*” (Collins and Porras, 1994: 55, authors' emphasis)

Shared beliefs or “common values” have long been viewed as basic elements of complex organizations (Barnard, 1939). Values have been viewed as central in building a strong organizational culture (Deal & Kennedy, 1982; Ouchi, 1980) and in the practice of management and the leadership of organizations (Anderson, 1997; Blanchard & O'Connor, 1997). A study by the American Management Association found 86% of the executives surveyed reported that their organizations' corporate values are written or stated explicitly (“Corporate Values Survey,” 2002). Another survey by the Aspen Institute and Booz Allen Hamilton of 9,500 senior executives from 365 companies in 30 countries found that 89% of respondents had written corporate values statements, and nearly three fourths of respondents indicated that executives and employees were expected to demonstrate commitment to the corporate values (Van Lee, Fabish, & McGaw, 2002). Best-selling books on business management such as Collins and Porras' (1994) *Built To Last* have gone so far as to suggest that the presence of a core ideology, encompassing core values and purpose, is a key element in defining visionary or outstanding companies.

But what does it mean to have core values “to a greater degree” than other organizations or managers? This is an open question in most of the research and writing on organization values. There are many anecdotes and great stories about “visionary” or “excellent” companies with shared values, and the evidence seems compelling. However, there is not much explanation about exactly HOW it was determined that Company X had a greater degree of core beliefs than Company Y. How does one measure the “greater degree” or depth of an organization's core ideology?

In a recent study, Gruys, Stewart, Goodstein, Bing, and Wicks (2008) noted that “one of the key challenges faced by organizations that want to follow through on their core values is how to reinforce the importance of the values in the day-to-day lives of executives, managers, and all employees...and, thus, align employees' behaviors with the core values” (Gruys, et al., 2008, p. 808). The study measured “values enactment,” defined as the extent to which employee and managerial behaviors are aligned with the explicitly defined core values of the organization. While this conceptualization of values enactment as behaviorally based makes great intuitive sense and seems appropriate, there are two major questions that the “walk the talk” or “values enactment” assertion doesn't address: (1) How do we know if a manager is “walking the talk?” and (2) does “walking the talk” have anything to do with espoused organizational values? The intention of this study is to examine these two issues by first, establishing a process of measuring managerial behaviors based on the organization's values, or values enactment; and second, to see if these behaviors are related to the organization's espoused values.

### BACKGROUND: ORGANIZATIONAL VALUES

The concept of organizational values has a long history in the sociology of organizations, and it is not our intention to develop a lengthy treatment of the extensive research and writing on the subject. Values have long been considered central to the understanding of principles that guide societies, institutions, organizations, and individuals (Schwartz, 1992). For our purposes, we accept the definition of values as the relatively enduring beliefs about what kinds of behaviors or end-states are preferable to others (Rokeach, 1973). Values form the shared conceptions of what is most desirable in social life.

While all social organizations have values – indeed, without shared values, organizations could not exist – we distinguish between the general concept of values and what is meant by the phrases “core values,” “common values,” “corporate values,” and similar terminology. Core values have been defined as “a corporation's institutional standards

of behavior” (Van Lee, et al., 2002). Core values, as noted by Lencioni, are “inherent and sacrosanct; they can never be compromised, either for convenience or short-term gain” (Lencioni, 2002). Most often, the term “core values” applies to those values that are seen as central to the organization’s existence and are generally known by all members of the enterprise, and are sometimes referred to as the organization’s “espoused” values (Kabanoff, Walderssee, & Cohen, 1995). In many cases, these are formalized and stated in writing for all members of the organization, are frequently shared with other key organization stakeholders, and, occasionally, are available to the general public.

Within the past few years, there has been an increasing amount of interest among managers and organization researchers on the use of shared or common values as a means of improving organization performance. Best-selling and influential books on management and organizational leadership, such as *Built to Last* (Collins & Porras, 1994), *Building a Values-Driven Organization: A Whole System Approach to Cultural Transformation* (Barrett, 2006), and *True To Yourself: Leading a Values-Based Business* (Albion, 2006) extol the positive effect of having strong corporate values. The core values provide the basis for organizational action, ethical behaviors, and profitability (Collins & Porras, 1994; Paine, 1994; Waddock, 2002). While there has been some critique of such approaches (e.g., Shellenbarger, 1999), the prevailing view among managers and academics seems to be that common, shared organizational values are an important component of successful organizations (Anderson, 1997; Blanchard & O’Connor, 1997).

A review of the extant literature on organizational values indicates that there are two dominant themes in the existing literature. The first might be called the “normative” perspective. In this approach, shared values are seen as an inherent characteristic of complex organizations which, therefore, significantly affect the firm’s policies and practices and influence individuals’ behaviors within the organizational setting. Since values are inherent to organizations, writings in the normative perspective seek to identify or suggest a set of values that will improve firm performance or increase managerial effectiveness. These values are then presented as being the “good” or “right” values for managers to espouse, and executives are encouraged to develop these values within their companies (e.g., Blanchard & O’Connor, 1997).

The second theme might be called the “anecdotal” perspective. In this approach, the author(s) or researcher(s) seek out organizations that are perceived as effective or high-performing organizations. Narrative case studies or qualitative analyses of the company and/or the firm’s leaders are conducted, usually with an assertion that the leader’s or firm’s values are in some way responsible for the organization’s success. From these specific examples, the authors frequently engage in the normative process of inferring that these values ought to be adopted by other

corporations and executives. These works often take the form of “Managing the (fill in name of Well-Known Successful Company) Way” or “Leadership According to (fill in the name of Well-Known CEO from Successful Organization),” in which the values of Successful Company or Well-Known CEO are presented as keys to the firm’s success (e.g. Anfusio, 1999; Collins & Porras, 1994; Filipczak, 1996; Welch, 2005).

One of the abiding tenets of many managers, authors, researchers, and consultants working within the concept of corporate values has been the importance of having managers who “walk the talk,” that is, whose behaviors are consistent with and aligned with the organization’s values (Despain, Converse, & Blanchard, 2003; Jones, 1995). This has been formalized in the concept of “values enactment” (Gruys, et al., 2008), wherein the espoused values of the organization are aligned with demonstrated employee behaviors. Although this makes intuitive sense and is an appealing argument, it begs the question: but how does one know whether or not the manager is in fact enacting the values of the organization?

### **Core Organization Values: A Review of the Empirical Research**

A review of the extant empirical research on the nature and effects of organization values leads us to concur with Cha and Edmondson (2006) that such research is in the “nascent stages.” Much of what passes for research is an assessment of a single organization in a case study format and is qualitative in nature (e.g., Fitzgerald-Turner, 1992; Howard, 1990; Ledford, Wendenhof, & Strahley, 1995). As has been noted, such research on a single firm is limited in applicability.

Much of the existing empirical research has examined macro-level organization phenomena. For example, shared organization values have been found to affect the firm governance in multinational corporations (Nohria & Ghoshal, 1994). Organization values have also been linked to organization structure (Hinings, Thibault, Slack, & Kikulis, 1996) and design (Buenger, Daft, Conlon, & Austin, 1996). However, the measure of organization values in these studies were based upon firms’ espoused values; whether or not these values were enacted and influenced managerial behaviors was not examined in this research.

Others have examined the content and structure of firm’s espoused values. Kabanoff and Holt (1996) found that the structure of espoused values can change over time and, in a related study, that the structure of the firms’ values were related to organization members’ descriptions of the change process (Kabanoff, Walderssee, & Cohen, 1995). Once again, however, the issue of values enactment was not examined.

The most significant empirical study on values enactment was performed by Gruys et al. (2008). In a study of 2,622 employees in a not-for-profit hospital, these

researchers examined factors hypothesized to be antecedents of individuals' values enactment and the resulting outcomes of such behaviors. The extent to which an employee enacted the organization's values was measured on a 5 point scale, from 1 (ineffective) to 5 (role model), with higher scores indicating a higher level of values enactment. The ratings were provided by employees' supervisors, who also performed an annual performance appraisal of the employees. The results indicated that employees' age and tenure was positively related to individuals' values enactment. Values enactment was also negatively correlated with the outcome of employee turnover and positively with task performance; but had no apparent relationship to employee promotions or advancement.

While this study by Gruys et al. represents a significant gain in the research on organization values, the study is limited by the use of the single score, single-rater approach to assess values enactment. To their credit, Gruys et al. did provide behavioral anchors for the values enactment rating, and encouraged raters to consider employees' behaviors over an extended period of time. Ultimately, though, the assessment was based on a single individual's perception which, as has been amply demonstrated, can be problematic when conducting employee assessments (e.g., Cascio, 1982). The fact that the measure of values enactment and task performance (the annual performance appraisal) were done by the same person (the employee's supervisor) introduces a potential confound into the assessment, as the ratings were not necessarily independent observations.

Given the limitations of previous work in the area and the scant quantity of published empirical research on this issue, the purpose of our research was to determine if a more effective methodology for measuring or assessing an organization's core values or ideology might be developed. By doing so, we hope to provide a basis for future research on core values in organizations and to create an empirical, quantitative framework for evaluating the extent to which an organization may be viewed as possessing a common, shared set of core values. Our goal is to go beyond the qualitative analyses, anecdotal story-telling, and limited methodologies of prior research, and begin to move the field of organizational studies toward a more rigorous approach to the study of this important phenomenon.

### **Measuring Organization Values: A Conceptual Framework**

#### *Values as Behavioral Measures*

As has been demonstrated from this review of the research, the measurement of organizational values is problematic. Research at the macro-organizational view has tended toward content analyses of espoused organizational values (Kabanoff, & Holt, 1996; Kabanoff, Walderssee, & Cohen, 1995; Nohria & Ghoshal, 1994). While such approaches are useful at the macro level, such measures do not provide much utility in measuring individuals within

organizations and the extent to which organizational values are accepted by those individuals as a valid means of guiding behaviors.

While the study by Gruys et al. (2008) measured values as enacted by organization members, the measure was based on a single rater (the individual's supervisor) and a single item as the indicator of the extent to which a person demonstrated the organization's values. While there were behavioral anchors for these measures which have been shown to be fairly effective in conducting performance evaluations (e. g., Campbell, Arvey, & Hellervik, 1973; Schwab, Heneman, & DeCotiis, 1975), the fact remains that the measures used a single rater, single-item measurement of the extent to which a person enacted the organization's values. The limitations of such methods for assessing personnel are well known and well presented in the literature (Conway & Huffcutt, 1997; Ilgen, Barnes-Farrell, & McKellin, 1993; Landy & Farr, 1980; Lawler, 1967).

The primary difficulty in measuring organizational values lies in the definition of the construct: values are viewed as the "enduring beliefs" of an individual regarding what is preferable (Rokeach, 1973). Unfortunately, measuring the strength or extent of an individual's beliefs is difficult at best; and measuring the extent to which an individual holds to a set of organizational beliefs is fraught with even greater problems in measurement. However, Gruys et al. (2008) have provided a service to the field by defining organizational values as those that are enacted, that is, behaviorally demonstrated, by individuals in an organization. This shifts the assessment of values from measuring the strength of an individual's beliefs to measuring individuals' behaviors.

This is consistent with most approaches to the role of organizational values. Organizational values are seen as useful for directing the behavior of individuals within the organization; the stronger the values, the greater the behavioral evidence (Anderson, 1997). In order to determine what an individual believes, one tends to observe how the person acts. The greater the evidence of the behavior, the greater the perceived strength of the underlying belief; this is what is meant by the well-worn phrase, "walking the talk." Hence it is not the values that ought to be measured, but the behaviors that are consistent with the values.

### **Measuring Behaviors: Behavioral Observation Scales (BOS)**

Fortunately, there are available methods and processes for measuring individual performance based on behaviors. Gruys et al. (2008), in their study of values enactment, used a behaviorally anchored rating scale (BARS) that asked the employee's supervisor to establish the extent to which the employee demonstrated her or his belief in the organization's core values. While this measurement approach did address the limitations of prior research in

which values were measured as global assessments based on organization statements, it was limited by the use of a single item to measure each of the respective values, as well as the use of a single rater.

There is a technique that seeks to address the limitations of perceptual measures and single-behavior measurements, as is the case with the BARS (Schwab, et al., 1975). This technique is the Behavioral Observation Scale (BOS) developed by Latham and Wexley (1977). There are at least 3 advantages of the BOS technique that have been identified in the literature (Taggar & Brown, 2001). First, the psychometric properties of the BOS have been demonstrated; the BOS has test-retest reliability, inter-observer reliability, and construct validity (Latham & Wexley, 1977; Latham, Wexley, & Rand, 1975; Ronan & Latham, 1974). Second, the use of the BOS in conjunction with goal setting has been demonstrated to improve job performance in organizations (Latham, Mitchell, & Dossett, 1978; Tziner & Kopelman, 1988). And third, BOS are composed of behavioral referents that are under control of the ratee and are directly observable; this focuses the rater's attention on pertinent behaviors and thus is consistent with recommendations concerning methods to minimize bias in performance ratings (Wherry & Bartlett, 1982). While the BOS has been subject to some critique (Bernardin & Kane, 1980), on balance the weight of the empirical evidence suggests that the BOS is an effective tool for measuring performance (Latham, Saari, & Fay, 1980; Latham & Wexley, 1994).

Based on these properties of the BOS, it is possible that the use of this technique might offer an improvement in the measurement of organizational values-based behaviors. By introducing values-specific behaviors into the assessment process, and by measuring the frequency with which such behaviors are observed, raters can be more accurate in evaluating the extent to which an individual's behaviors conform to the organization's stated values (Steiner, Rain, & Smalley, 1993). In addition, the BOS measures observed frequency of behavior, rather than the more general behavioral anchors of the BARS. This removes some of the judgment from the process, as the rater is not evaluating behaviors in general, but the extent to which specific behaviors were, in fact, demonstrated by the ratee. Finally, by linking values enactment to the frequency of observed behaviors, the BOS provides a measure of relative strength of values-related behaviors rather than the yes-no assessment of the BARS. Studies of individual perceptions of alternative rating systems have indicated that individuals tend to prefer the BOS over alternative methods (Wiersma & Latham, 1986; Wiersma, Van Den Berg, & Latham, 1995).

### **Single-Rater Limitations: The 360 Degree Assessment Process**

There remains another significant issue with the current state of organizational values research and that is the use of

single-rater measures of values behaviors. As noted, a limitation of prior research has been the use of a single individual, usually the ratee's supervisor, to make the assessment regarding values-based behavior. This limits the opportunity to observe the employee's behaviors to those contexts in which the rater is present. However, values-based behaviors can be exhibited in multiple contexts: with the supervisor, with subordinates, on work or project teams, with peers, with customers, and the like. In order to more effectively measure the extent to which individuals manifest the observed values-based behaviors, it would seem appropriate to include multiple raters in the assessment.

Multi-rater methods have been found to overcome some of the limitations and biases of single-rater systems (Lawler, 1967). While there remain issues to be resolved with the use of multi-rater methods (Conway & Huffcutt, 1997; Hooft, Van der Flier, & Minne, 2006), on balance the use of multi-rater methods are generally preferred in performing reviews and evaluations of employee behaviors (Edward & Ewen, 1996; London & Beatty, 1993; Ward, 1997).

One particular technique that has emerged in recent years is the 360 degree evaluation technique. A 360 degree evaluation involves an assessment of the individual by supervisors, customers/clients, peers, and subordinates (Nowack, 1993). The 360 degree assessment, using as it does multiple raters from different levels within the organization, as well as individuals outside the organizations, is seen as providing a more comprehensive view of employee behaviors and performance (Edwards & Ewen, 1996; Tornow 1993; Tornow & London, 1998; Ward, 1997). The 360 degree assessment process has been shown to be effective for managerial development (Alimo-Metcalfe, 1998; Atwater & Waldman, 1998; Garavan, Morley, & Flynn, 1997; Hazucha, Hezlett, & Schneider, 1993) and, in conjunction with supervisory coaching, can improve employee performance (Luthans & Peterson, 2003).

Like any evaluative technique, the 360 degree process is not without limitations, and there are significant considerations that must be taken into account in developing and implementing a 360 degree evaluation process (Fletcher, Baldry, & Cunningham-Snell, 1998; Nathan & Alexander, 1985; Waldman, Atwater, & Antonioni, 1998; Wimer & Nowak, 1998). Determining who will provide the feedback and how often behaviors can be observed have been shown to affect the effectiveness of the process (Antonioni, 1996; DeNisi & Kluger, 2000). How to provide feedback based on such evaluations needs to be considered (Bailey & Austin, 2006; DeNisi & Kluger, 2000). Also, reactions of raters and ratees have an effect on the effectiveness of 360 degree evaluation programs (Facteau, Facteau, Schoel, Russell, & Poteet, 1998). On the whole, however, the use of 360 degree performance appraisal techniques are viewed positively by researchers and practitioners (Church & Bracken, 1997; Nowack, 1993; Ward, 1997).

The characteristics of the 360 degree evaluation process would appear to offer potential for application to the values

assessment process. Organizational values that are intended to be exhibited by all members of the organization should be manifested at multiple times, in multiple ways, and with multiple individuals. By broadening the assessment of organizational values to include supervisors, subordinates, peers, and customers, the potential to obtain a more comprehensive view of an individual's values-based behaviors should be increased. Coupling the 360 degree evaluation process with the BOS appraisal technique could offer substantial improvements to existing research and organizational practice with respect to the evaluation and assessment of organizational values.

Given the limitations of previous research on organizational values, we sought to develop a comprehensive BOS format from actual observations of individual behavior based upon the values of a specific organization. The goals of this study were (a) to determine if the use of the BOS technique might be effective in establishing a set of evaluative behaviors that could have utility in assessing organizational values; (b) to apply the BOS technique through a 360 degree evaluation process for the purpose of determining the effectiveness of the BOS technique, and (c) to determine if this process can be useful for the measurement of organizational values, thereby providing researchers with a potential tool for conducting future empirical research.

### **DEVELOPMENT OF A BOS AND 360 DEGREE ASSESSMENT OF ORGANIZATIONAL VALUES**

#### **Method and Procedures**

##### *Site/Subjects*

The site for this study was a facility that manufactures component parts and systems for a large Fortune 500 company. The facility is located in a small town in the Midwestern United States, about 50 miles from the company's headquarters and major assembly operations. The plant employs about 600 people, of which 129 were in managerial or salaried positions and the remainder were hourly employees involved in production, shipping, and operations. The hourly personnel were covered by a labor agreement and, as members of the labor union, were not included in the study due to contract restrictions. The study, therefore, focused on the managerial and salaried personnel. This included the senior plant leadership, operations managers, finance and accounting personnel, marketing, human resources, engineering, materials control, purchasing, planning, and plant supervisory personnel. The scope of the departments and divisions included gives a broad perspective on the facility in terms of the research study. Furthermore, all managerial and salaried personnel were included in the study; thus the study reports not on a sample of individuals in the facility, but rather on the entire population of individuals at the plant.

The facility manager and leadership team, as part of a program of continuous improvement, engaged in a process of defining the organization's core values. The results of the process yielded five Core Values that the leadership viewed as central to the facility's success and operations. These five espoused values (and the firm's definitions for each) were: (1) Customer Satisfaction (We exceed customers' expectations in everything we do), (2) Mutual Respect (We treat others as we would want to be treated ourselves), (3) Commitment (We are willing to do what is necessary for the company to be successful), (4) Teamwork (We work together effectively to reach our goals), and (5) Integrity (We deliver on our promises and do what we say we will do). These five espoused values were communicated to all of the employees through various communication activities, and had been in place in the facility for about 6 months prior to the initiation of the assessment process.

To further emphasize the importance of the espoused core values, the facility manager decided to conduct an assessment of the managerial personnel at the facility, based upon the organization's five espoused Core Values. To establish a measurement method and process, the manager contacted the lead researcher in this study to develop such a process. Upon interviewing the facility manager and the leadership team of the organization, it was determined that the use of the BOS in conjunction with a 360 degree evaluation might be an effective approach to address the leadership team's desired outcome for the process.

##### *Phase 1: Development of the BOS*

Consistent with most approaches to development of Behavioral Observation Scales (BOS), the Critical Incidents Technique (Flanagan, 1954; Latham & Wexley, 1994) was used to determine those behaviors that were most representative of the organization's core values. The use of the CIT and its efficacy for determining critical behaviors has been well documented in the literature (Butterfield, Borgen, Amundson, & Maglio, 2005). Participants who are familiar with the behaviors necessary to perform effectively on a particular job-related dimension are used to identify those behaviors that are seen as most essential to successful performance.

The BOS were developed consistent with the procedures outlined in detail by Latham and Wexley (1994). An abbreviated overview follows. First, participants were given a survey form that presented the organization's five espoused core values. The participants were asked to describe an incident in which they observed a member of the organization positively exhibiting one of the organization's core values, the specific behavior that was representative of that core value, and the outcome of the incident. Each member of the organization described an incident, behavior, and outcome for each of the organization's five Core Values. This yielded 565 critical incidents (some members of the organization were not available during the administration of the survey).

These critical incidents were then sorted by the researchers to eliminate duplications. Specifically, we focused on the behaviors that the participants indicated were representative of a positive or negative demonstration of the organization's Core Values. At the conclusion of this process, we had identified 112 behaviors that the organization members had indicated were representative of one or more of the organization's core values.

We then separated the members of the organization into two groups. The first group received the 112 behaviors, presented in random order. These individuals were asked to indicate which of the 5 Core Values of the organization was represented by the specific behavior mentioned. This was done to test the reliability of the potential measurement. We used the .80 criteria established by Latham and Wexley (1994) as the minimum acceptable for measurement adequacy. The result of this process yielded 54 items that met the test for reliability.

The second group received the same 112 behaviors, also in random order. For each of these behaviors, the individuals were asked to think about a person in the organization who most exhibited this behavior and a person who least exhibited this behavior. Then the group members were asked to indicate how often the best person they knew in the organization exhibited this behavior, and how often the worst person in the organization also exhibited the behavior, given the opportunity. This was done on a 5-point Likert scale, with 1 = the person exhibits this behavior less

than 20% of the time, 2 = the person exhibits this behavior less between 20% and 40% of the time, 3 = the person exhibits this behavior between 40% and 60% of the time, 4 = the person exhibits this behavior between 60% and 80% of the time, and 5 = the person exhibits this behavior more than 80% of the time. This was done to determine if the potential assessment items had discriminant validity. That is, a particular behavior may be very representative of a particular Core Value, but if all members of the group are equally good or bad at demonstrating this behavior, then the item will not allow for differentiation in assessment. For purposes of evaluation, it is important that the behavioral items are able to discriminate between those individuals who positively exhibit the values-based behaviors and those who do not do so. The results of this process yielded 37 items with a minimum discriminatory value of 3 (the difference between highest score give and the lowest score given).

We then compared the results of the reliability test and the discrimination test for the original 112 items. Using the 80% criteria for minimum reliability and the mean score difference of 3 as the criteria for discrimination, we arrived at 19 items that met both tests. Four of these items pertained to Customer Satisfaction, 3 to Mutual Respect, 4 to Commitment, 5 to Teamwork, and 3 to integrity. The final results of the BOS process, with the 19 items listed according to the respective organizational Core Value, are shown in Table 1.

**TABLE 1**

**Core Values: Behavioral Observation Scale**

**Core Value: Customer Satisfaction**

1. Follows up with customers and responds to their needs on a timely basis.
2. Meets the demands and needs of customers in a timely manner.
3. Actively seeks input from customers.
4. Uses customer feedback to improve performance, products, and/or processes.

**Core Value: Mutual Respect**

1. Accepts that everyone is different – respects equality.
2. Demonstrates faith in the ability of others.
3. Respects the privacy of others – keeps confidences.

**Core Value: Commitment**

1. Applies energy and effort to make things better.
2. Sticks with the job until all details are complete.
3. Takes action to solve problems.
4. Works diligently and stays on track; doesn't waste time or effort.

**Core Value: Teamwork:**

1. Communicates with other shifts/departments/payrolls.
2. Holds or participates in regular team meetings and updates.
3. Actively promotes team problem solving.
4. Works together effectively with his or her team members.
5. Works together with others to reach group and business objectives.

**Core Value: Integrity**

1. Tries to do what is right, even if it is not always the easiest thing to do.
2. Keeps his/her promises; can be relied upon to carry through on commitments.
3. Says what he or she means, and means what he or she says.

Once the 19 items for the assessment process had been determined through the CIT, an assessment instrument was developed. The 19 items were randomly sorted on the evaluation form, and the same 5-point Likert scale that was used in the development of the items was used as the measurement scale, with frequency of behavior as the measure of values enactment.

*Phase 2: The 360 Degree Assessment Process*

Once the BOS assessment instrument had been developed, the organization implemented a 360 degree evaluation process. All managers in the organization participated in the 360 degree evaluation, from the facility manager to first-level factory supervisors. (Due to contractual restrictions, only the managerial and salaried personnel were able to participate in the assessment.) To implement the process, each participant's subordinates and superiors were identified. All of a manager's subordinates evaluated their respective managers, and every superior evaluated her or his subordinates. For those without direct subordinates (e.g., product engineers, IT personnel, etc.), a peer review process was used. While the labor agreement did not allow for the evaluation of the hourly union workers, we were able to include these individuals as subordinates in the 360 degree process. Thus every supervisor received an evaluation from all of his or her direct reports in the organization.

In those situations where there were insufficient departmental members or team members to provide an adequate peer assessment, each individual in the organization was asked to identify 6 people in the organization with whom they interacted on a regular basis and who they felt were capable of providing an accurate assessment of their behaviors. In addition, each individual's supervisor provided the names of 6 persons who they felt, likewise, had sufficient interaction with the person being evaluated to be able to provide such an assessment. Both the employees being evaluated and their supervisors selected 2 persons to conduct the evaluation, and 4 more names were selected at random from the combined lists; thus, no person was able to have an undue influence on the evaluation process. The end result of the evaluation selection process was that the minimum number of persons conducting the evaluation was 9 (a superior and 8 peers); the largest number of persons evaluating a single individual was 24 (1

supervisor, 9 peers, and 14 subordinates, in the case of one of the factory forepersons).

To perform the 360 degree evaluation, a computer program was written that enabled the entire evaluation to be conducted electronically. By conducting the evaluations electronically, it was possible to insure the confidentiality of the process; only the researchers had access to individual results, so no one at the company had knowledge of individual assessors' responses.

**RESULTS****Interrater Agreement**

To determine if the process adequately provided an assessment of values-based behaviors for the organization, an analysis was done of the results to determine if the properties of the measurement procedure were sufficiently robust. Since the BOS scores were based on a 360 degree evaluation process, the first step was to determine if the raters agreed in their assessments of the individuals. Agreement was estimated using the interrater agreement statistic rwg developed by James, Demaree, and Wolf (1993). The lowest average rwg for BOS dimensions was .74; the range of rwg values across the evaluations was .71 to .89. Values of .70 or better are postulated to support aggregation (George & Bettenhausen, 1990); thus, the initial analysis suggests that the BOS instrument is adequate as a measurement tool, as the interrater agreement supports the underlying structure of the BOS scales. In addition, the Cronbach's Alpha for the 19 items in the scale was 0.941, indicating a high level of reliability in the ratings given by the individual raters as well.

**Factor Analysis**

While the initial results were encouraging and suggested that the method and process of using the BOS and 360 degree evaluation had potential for measuring organizational values, we wanted to determine if the measurement instrument and process developed by the organization adequately fit the data. To do this, we conducted a factor analysis of the results of the evaluation process. Initially, we obtained the correlations among the 19 items on the BOS to determine the relationships among the variables. The results are shown in Table 2.

TABLE 2

**Means, Standard Deviations, and Correlations  
of the BOS Items for Assessing Core Values (N=121)**

Item	Mean	SD	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
(1) Cus Sat1	3.34	0.38																		
(2) Cus Sat2	3.22	0.41	0.739																	
(3) Cus Sat3	3.39	0.39	0.712	0.735																
(4) Cus Sat4	3.41	0.40	0.712	0.726	0.792															
(5) Mut Res1	3.57	0.37	0.434	0.451	0.363	0.453														
(6) Mut Res2	3.35	0.41	0.465	0.536	0.507	0.482	0.589													
(7) Mut Res3	3.43	0.04	0.507	0.456	0.467	0.571	0.673	0.735												
(8) Commit1	3.43	0.37	0.553	0.620	0.706	0.594	0.469	0.568	0.554											
(9) Commit2	3.50	0.41	0.700	0.695	0.753	0.751	0.471	0.549	0.552	0.735										
(10) Commit3	3.38	0.39	0.552	0.630	0.652	0.655	0.568	0.645	0.622	0.750	0.706									
(11) Commit4	3.40	0.38	0.649	0.606	0.581	0.644	0.582	0.570	0.710	0.674	0.758	0.677								
(12) Team 1	3.44	0.40	0.678	0.696	0.644	0.674	0.619	0.714	0.708	0.672	0.713	0.692	0.725							
(13) Team 2	3.35	0.45	0.654	0.620	0.606	0.672	0.635	0.696	0.770	0.614	0.649	0.632	0.744	0.820						
(14) Team 3	3.28	0.43	0.608	0.632	0.555	0.653	0.672	0.675	0.661	0.589	0.662	0.611	0.709	0.760	0.715					
(15) Team 4	3.34	0.47	0.519	0.551	0.528	0.589	0.512	0.557	0.477	0.476	0.651	0.548	0.572	0.587	0.585	0.742				
(16) Team 5	3.33	0.41	0.563	0.621	0.685	0.594	0.501	0.585	0.453	0.575	0.650	0.613	0.564	0.626	0.609	0.615	0.656			
(17) Integ 1	3.46	0.41	0.537	0.576	0.544	0.578	0.667	0.627	0.672	0.646	0.685	0.702	0.725	0.754	0.746	0.697	0.577	0.606		
(18) Integ 2	3.43	0.40	0.554	0.629	0.643	0.659	0.627	0.728	0.648	0.747	0.677	0.741	0.673	0.710	0.696	0.722	0.628	0.606	0.749	
(19) Integ 3	3.46	0.40	0.597	0.617	0.534	0.661	0.697	0.690	0.749	0.599	0.699	0.698	0.740	0.792	0.759	0.741	0.569	0.596	0.806	0.724

Note: All correlations were significant at the  $p < .001$  level

The results indicate strong consistency in the results. The mean scores for the 19 items ranged from a low of 3.22 to a high of 3.57, all slightly above the midpoint of the 5-point rating scale. The standard deviations for the 19 items ranged from a low of .37 to a high of .47, suggesting that there was, in fact, adequate dispersion of the scores around the mean, as the distribution of the results suggests that raters were able to differentiate the values-based behaviors of those being evaluated. The correlations, likewise, were strong, with all items showing statistically significant correlations with the other items; of course, there was a wide range of differences in the correlations, suggesting further analysis.

We applied the Factor Analysis process to the data using the SPSS/PC software package to determine the underlying structure of the variables. Following Kim and Mueller (1978), we began by preparing the covariance matrix and conducting the initial extraction of factors. In this process, initial communalities were determined from the squared multiple correlations, and principal factor analysis

was used as the initial extraction method. The results from the initial assessment indicated that there were 2 underlying factors in the data using the Kaiser, or eigenvalue criterion (eigenvalue greater than one). However, the results indicated additional possible factor structures, as the nature of the eigenvalue distribution was suggestive of additional factor structures.

To obtain these results, we performed a Varimax rotation of the data, using the suggested 5 factors as obtained from an examination of the initial principal components extraction. The results of the Varimax rotation are shown in Table 3. From these results, we can see that the a 4 factor pattern after the Varimax rotation corresponds quite closely to the underlying hypothesized structure of the analysis as established from the BOS process. We further confirmed the robustness of the 4-factor solution by examining the percentage of variance in results explained by the 4 factor structure, and found that the four factors cumulatively explained nearly 75 percent (74.777%) of the variance in the results, as shown in Table 4.

**TABLE 3****Results After the Varimax Rotation**

Rotation Matrix:

	F1	F2	F3	F4	F5
F1	0.636	0.565	0.361	0.375	0.064
F2	0.677	- 0.727	0.023	- 0.086	0.072
F3	0.137	0.037	- 0.840	0.524	- 0.017
F4	0.340	0.347	- 0.352	- 0.691	- 0.404
F5	0.055	0.173	- 0.199	- 0.317	0.909

**TABLE 4****Percentage of Variance after Varimax Rotation**

	F1	F2	F3	F4	F5
Variability (%)	29.047	23.976	10.635	11.119	1.985
Cumulative %	29.047	53.023	63.657	74.777	76.762

The factor pattern loadings after performing the Varimax rotation are shown in Table 5. This provides some insight into how the individuals in the organization actually viewed the behaviors being measured by the 360 degree evaluation process. From these results, it can be observed that the first factor included 10 of the 19 items. However, this factor included 3 of the 5 items measuring teamwork, the 3 items measuring Integrity, the 3 items measuring Mutual Respect, and 1 of the 4 items pertaining to Commitment. Factor number 2 included all 4 of the items pertaining to Customer Satisfaction. Factor 3 included the remaining 2 items measuring Teamwork, and factor 4 contained 3 of the 4 items pertaining to Commitment. Thus, while Integrity and Mutual Respect were subsumed under the initial factor along with 3 of the Teamwork items, Customer Satisfaction and Commitment appear to be stand-alone factors, as well as those items measuring the extent to which the team is able to produce effective results. Factor 1 seemed to contain those items pertaining to interpersonal relationships within the organization. Factor 2 clearly pertained to Customer Satisfaction as it included all 4 of the items purporting to measure customer satisfaction. Factor 3 included two of the items from the Teamwork scale relating to the individual's ability to work effectively with others to produce results. Factor 4 included 3 of the 4 items pertaining to Commitment, and thus was most appropriately associated with the Commitment organizational value.

**DISCUSSION**

This purpose of this study was to determine if it was possible to develop a robust measure of organizational

values, based on a Behavioral Observation Scale methodology of measurement development and the use of a 360 degree evaluation process in the organization. The analysis of the results, using the factor analysis, provides a means to examine the items developed by the CIT in the BOS process, and to determine if the structure of the items is consistent with the defined organization values. In addition the results allow an initial exploration of the effectiveness of the 360 degree evaluation process in measuring organizational values, as the results indicate whether or not there is consistency among raters in assessing core values behaviors.

From the results obtained in this inquiry, we conclude that it is indeed possible, and may be preferable, to use the methodology of the BOS to develop a measurement scale for assessing individuals with respect to enacted organizational values. The results suggest that the BOS measurement is a robust measure of the extent to which members of an organization demonstrate the behaviors that are associated with the values of the organization. The results indicate that the BOS was robust with respect to reliability and structure; that the behaviors developed by the members of the organization through the use of the CIT could be assessed reliably by the members of the organization, and that the overall structure of the BOS was conceptually consistent with the values system of the organization. While three of the underlying values were interrelated from the factor analysis, we note that these behaviors were all characteristic interpersonal relationship behaviors within the organization. Thus, while teamwork, integrity, and mutual respect were all found to be similar through the factor analysis, the behaviors were distinct; yet all were demonstrated by individuals in

their interactions with one another in the company. Hence, the factor structure supports the presence of unique, values-

based behavior, yet demonstrates the interrelationships among values enactment in an organization.

TABLE 5

## Factor Pattern Loadings after Varimax Rotation

Survey Item	F1	F2	F3	F4
Cus Sat1	0.372	0.751*	0.188	0.074
Cus Sat2	0.317	0.699*	0.259	0.218
Cus Sat3	0.174	0.808*	0.183	0.359
Cus Sat4	0.359	0.713*	0.253	0.212
Mut Res1	0.675*	0.133	0.316	0.202
Mut Res2	0.650*	0.227	0.273	0.272
Mut Res3	0.814*	0.242	0.108	0.197
Commit1	0.356	0.461	0.130	0.565*
Commit2	0.353	0.426	0.325	0.622*
Commit3	0.462	0.408	0.218	0.555*
Commit4	0.611*	0.441	0.231	0.332
Team1	0.660*	0.496	0.237	0.237
Team2	0.719*	0.453	0.216	0.160
Team3	0.596*	0.366	0.519	0.172
Team4	0.313	0.339	0.754*	0.168
Team5	0.307	0.446	0.476*	0.287
Integ1	0.650*	0.289	0.300	0.404
Integ2	0.527*	0.352	0.331	0.493
Integ3	0.736*	0.346	0.268	0.272

\*Values with an asterisk correspond for each variable to the factor for which the squared cosine is the largest

We would further note that the use of the 360 degree evaluation process added to the robustness of the individual assessment. The fact that the evaluations were consistent (as demonstrated by the interrater reliability and Cronbach's alpha) suggests that the ability to evaluate values-based behaviors can be considered dependable measures. Multiple raters, from superiors to subordinates and peers, are able to provide an assessment of individuals' behaviors that are fairly constant across raters. This suggests that use of the 360 degree assessment process to measure organization values-based behaviors is a reliable and valid process for conducting such assessments.

Given the goals of our study, then, we suggest the following conclusions: First, use of the BOS technique can be an effective means for establishing a set of evaluative

behaviors that are effective in assessing organizational values. The process we used, with the CIT developed by members of the organization, through the determination of the actual measurement items, and the resultant consistency in the actual measurement through the 360 degree technique, suggests that development of BOS measures may be effective in assessing organizational values. In fact, by tying values assessment to observable behaviors, the BOS may represent an improvement over previous research methods that relied on individuals' perceptions of the extent to which a person was committed to the organization's values.

Second, the BOS technique appears to combine effectively with the 360 degree assessment process. By having superiors, subordinates, and peers assessing individuals' values-based behaviors, we were able to obtain

a multi-rater assessment of organizational values, overcoming the problems with the single-rater approach of existing research (e. g., Gruys et al., 2008). This technique helps eliminate individual bias that could affect results of research on organization values (Wherry & Bartlett, 1982). The consistency of raters' evaluations suggests that individuals' values-based behaviors can be viewed as a relatively stable construct in organizational research.

Third, as we have noted, the process described in this research does appear to be very useful for the measurement of organizational values. The scale properties and the nature of the process – using multiple raters – overcomes the limitations of extant measurement techniques with respect to the assessment of organization values (e.g., (Buenger et al., 1996; Gruys et al., 2008; Kabanoff, & Holt, 1996). We, therefore, believe that the technique described in this research provides researchers with a potentially useful tool for conducting future empirical research on organization values.

We are concerned, of course, that the results of the factor analysis did not reveal 5 conceptually distinct factors as would have been expected from the design of the research. However, we note that the 3 organizational values that were all part of the underlying first-order factor we termed “interpersonal relationships.” While the behaviors developed by the members of the organization are conceptually unique, several of these would be observed and would be interrelated within the scope of the interactions of members of the organization. Certainly, values may be distinct and yet may be interrelated with respect to individuals' behaviors. Thus, while the factor structure does raise some concerns, we do not believe that this materially affects our conclusions with respect to the utility of the process. Indeed, many personal qualities and characteristics in traditional performance assessments are interrelated, and would likely demonstrate similar results if subjected to a factor analysis. The fact that 3 of the values did exhibit relatively unique properties after the Varimax rotation suggests that the underlying factor structure is theoretically acceptable.

Our study was conducted within a single organization, and this is, of course, a limitation of the research. It will be important for this process to be replicated in other organizations to extend the generalizability of the process and to establish broader measures of values-based behaviors. We would note that, at the particular organization in question, we were fortunate to be able to include the entire population of supervisory, salaried, and managerial personnel in the development of the measure and were able to include all members of the organization in the 360 degree evaluation process for the supervisory and managerial personnel. Thus, while limited by a single organization, we did include the population of the organization in the process and are, therefore, not limited by potential sampling issues.

While all organizations have some common beliefs or values, to date there has been very little effort to determine

how to measure and assess the extent to which the members of an organization put their values into action. This research provides a method and process for doing so, one that ought to have broad application for future research as well as practice. For researchers, the BOS/360 process described allows for a common measurement method that is reliable and conceptually valid. Future research might apply the outcomes from the process to measures such as group productivity, individual job-related performance, and organizational outcomes to determine if there is a relationship between the extent to which a person or group demonstrates the organization's values and an organization's results. It has been suggested that one characteristic of high performing organizations is a commitment to a set of core values (Collins & Porras, 1994; Lencioni, 2002; Paine, 1994; Van Lee et al., 2002; Waddock, 2002); to date, the evidence for this is primarily anecdotal. By using a more rigorous measurement methodology, researchers can begin to examine the organization values – organization performance relationship empirically to better determine the nature of the relationships among these constructs.

For practitioners, the research offers a useful approach to the measurement and assessment of organizational values. All too often, managers have taken the approach that “I know who believes in our values when I see it,” without applying the tools of rigorous evaluation methodology. In addition, incorporation of the 360 degree evaluation process overcomes the single rater bias difficulty. The BOS/360 process we describe and test in this research offers managers an opportunity to obtain a much more robust assessment of the extent to which individuals in an organization “walk the talk,” that is, demonstrate behaviorally the values of the organization. Such information can be valuable in providing individuals with feedback to improve performance; rather than simply suggesting that “you need to do a better job with customer satisfaction,” managers can now provide specific information about the types of behaviors that an employee needs to practice that would better indicate that the individual shares the organization's belief in the value of customer satisfaction. Since specific 360 feedback is preferred over vague generalities (Antonioni, 1996; Bailey & Austin, 2006; Church & Bracken, 1997; DeNisi & Kluger, 2000; Garavan, et al., 1997), the BOS/360 process affords managers the opportunity to improve behaviors, individual performance, and organization outcomes.

Practitioners can also use the information from the BOS/360 values assessment process to show people what they need to start, stop, or improve doing in order to become more effective performers (Latham & Wexley, 1994). Hence the BOS/360 process described could be incorporated within an overall performance management and development program designed to improve individuals' behavior on organizationally important issues such as core values. Furthermore, based on research on goal setting and BOS instruments (Latham, et al., 1978; Tziner & Latham, 1989), this process in conjunction with goal setting could be

used to help people in organizations develop more effective values-based behaviors.

Further, we believe that the research reported here may have commercial applications. By following the methodology described in this paper, a consultant or Human Resources (HR) professional could develop a unique survey/questionnaire for a firm to allow the organization to assess managers for developmental and performance feedback/coaching purposes. Being able to provide managers with specific behavioral suggestions that could be improved offers firms an opportunity to direct managerial actions in specific ways that might provide beneficial to organizations.

We conclude that the use of the BOS methodology, involving members of the organization through the CIT to define values-based behaviors, can be effective in developing a measurement of the extent to which individuals in an organization "walk the talk," that is, demonstrate the values of the organization through their behaviors. We also suggest that the BOS methodology, combined with the 360 degree evaluation process, provides a broad and reliable manner to conduct such an assessment within an organization. As organizations continue to wrestle with the challenges of directing individuals' behaviors in ways that support shared values, providing accurate assessments and information to individuals to enable them to improve their performance offers an opportunity to improve conduct and potentially enhance outcomes for the enterprise. There are methods and processes available that enable researchers and practitioners to improve on the current theory and practice. We would encourage further efforts to refine the process to enable organizations to live their values.

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