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Construct Validity Analysis of the Organizational Cohesion Scale

Kristen Ruga
Western Kentucky University, kristen.ruga952@topper.wku.edu

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CONSTRUCT VALIDITY ANALYSIS OF THE
ORGANIZATIONAL COHESION SCALE

A Thesis
Presented to
The Faculty of the Department of Psychology
Western Kentucky University
Bowling Green, Kentucky

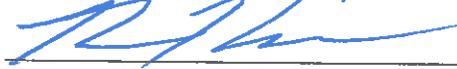In Partial Fulfillment
Of the Requirements for the Degree
Master of Arts

By
Kristen Ruga

May 2014

CONSTRUCT VALIDITY ANALYSIS OF THE ORGANIZATIONAL COHESION SCALE
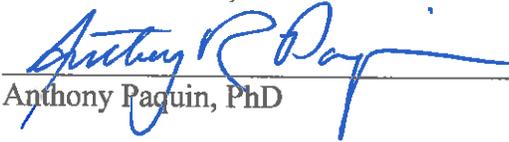
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_____
Reagan Brown, PhD, Director of Thesis

_____
Amber Schroeder, PhD

_____
Anthony Paquin, PhD

_____   5-14-14
Dean, Graduate Studies and Research   Date

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CONSTRUCT VALIDITY ANALYSIS OF THE
ORGANIZATIONAL COHESION SCALE

Kristen Ruga   May 2014   46 Pages

Directed by: Reagan Brown, Amber Schroeder, and Anthony Paquin

Department of Psychology   Western Kentucky University

Organizational cohesion is a multifaceted construct that has been defined and assessed in a multitude of ways. For the purpose of this study, the researcher has defined organizational cohesion as the extent to which employees within an organization feel a sense of unity with one another. Practitioners are often faced with uncertainty regarding the necessary assessment materials when trying to evaluate organizational cohesion. An easily accessible and valid scale had yet to be created to measure organizational cohesion. The Organizational Cohesion Scale (OCS) is an eight-item assessment of an employee's perception of the cohesion they have experienced with their peers within an organizational setting. The present research attempted to provide construct validity for the OCS. Assessments of the convergent and discriminant validity of the OCS were conducted; although the results did not provide strong evidence for construct validity of the OCS, the confirmatory factor analysis and criterion validity provided support for additional research to be conducted.

Construct Validity Analysis of the Organizational Cohesion Scale

Organizations often place employees in groups to achieve common specified goals, forge relationships, and increase overall productivity levels (Morgan, Salas, & Glickman, 1994). When all employees are willing and able to contribute valuable information, the group can be highly successful. The employees who comprise the group can lead to highly functioning and productive units within the organization, capable of fulfilling both basic human needs, and reach the organization's desired productivity goals (Koonce, 2011; Neuman & Wright, 1999).

The subsequent review will discuss previous literature examining group work. Specifically, group formation research lays the foundation of understanding cohesion by discussing how and why groups form, followed by a discussion of the positive implications teamwork can provide an organization. The second component of the literature review discusses the construct of cohesion via existing definitions, varying levels of cohesion experienced by individuals, and the limited amount of information provided on previous workplace cohesion assessments. The primary focus of the current study sought to remedy the gap in literature regarding a valid and accessible measurement of organizational cohesion.

Group Formation Research

Understanding how groups are formed is vital when researching cohesion. Research by Tuckman and Jensen (1977) first explored a multi-stage model of group development. They stated that group development occurs in four stages: forming, storming, norming, and performing. Subsequent research added a fifth and final stage of group development, known as adjourning (Bonebright, 2010).

Bonebright (2010) reviewed the five stages of group development. Forming is the first stage in-group development, which is when group members become aware of the common task, create basic rules for interactions, and test the boundaries of acceptable social and task behaviors. Storming is when intergroup conflict occurs due to a lack of agreement; an increase in separation takes place because of interpersonal differences. More specifically, individuals try to resist the formation of the group and seek to maintain individuality. Norming is the third stage, in which group cohesion begins to form as individuals begin to accept the differences and personal opinions of the other members. Neuman and Wright (1999) indicated that the norming stage is when the group develops shared mental models and uncovers the most effective way of working together. The fourth stage, performing, is when the group's effort is channeled to the completion of the common goal; the members adapt and develop functional roles to accomplish the desired end goal. A revised model of Neuman and Wright's original group development work was later published and added *adjourning* as the final stage (Bonebright, 2010). Adjourning is the time in which the group separates because the group has fulfilled their mission and is no longer required to work together. It is important to note that when one of the previously mentioned stages does not develop properly, it can lead to a dysfunctional group.

When dysfunctional teams form in the workplace, the organization must take action to correct the issue. Before corrective action can take place, it is important to be aware of and recognize the potential negative side effects (Liden, Wayne, Jaworski, & Bennett, 2004; Morrison, 2008). Research by Morrison examined negative relationships in the workplace and the adverse effect they played on workgroup cohesion. Morrison

concluded that employees who reported at least one negative relationship in the workplace reported lower levels of job satisfaction and organizational commitment, were involved with less cohesive workgroups, and reported a greater likelihood of leaving their job. Morrison's research is important because it lays the foundation for encouraging organizations to promote cohesive workgroups and positive relationships among employees.

Many organizations fail to realize the potential for negative consequences arising from dysfunctional work groups, as well as the potential for positive implications teamwork can have when it is achieved in a healthy environment. Forming cooperative groups has a variety of benefits for both the organization and the employee. Benefits of group work range from fulfilling the human need to belong to increased productivity levels due to team efficacy (Baumeister & Leary, 1995; Collins & Parker, 2010). When a group is operating at optimal productivity, more can be accomplished than can be achieved by a single employee.

Positive Implications of Teamwork

When teamwork in the workplace is not dysfunctional, it has the potential to benefit the organization as well as the individual employees. The subsequent discussion of literature strives to explain the various positive implications of teamwork and why they are beneficial to organizations. Several of the positive implications that transpire when organizational teamwork occurs include: fulfillment of an individual's need to belong, increases in team efficacy, and overall conditions of cohesion within the workplace (Ahronson & Cameron, 2007; Baumeister & Leary, 1995; Collins & Parker, 2010; Koonce, 2011).

The need to belong. Research in the mid-20th century (e.g., Smith, 1948) expressed the idea that deindividuation may be deemed psychologically acceptable if cohesion in a group has been gained. Simply stated, this means that if a person loses a sense of self, they may not see such a loss as a detrimental outcome if they feel it has led to their acceptance by the group at large. The idea of acceptable deindividuation substantiates the idea that the need to belong may be more important than the need to feel unique; this idea provided the opportunity for additional research to be conducted to explore why the need to belong and cohesion seem to provide sufficient compensation for loss of self (Baumeister & Leary, 1995).

Baumeister and Leary (1995) pioneered research explaining the human need to belong. In their seminal work, they discussed a variety of explanations and possibilities as to why humans experience the urge to create relationships with others, including emotional support, intellectual stimulation, and avoidance of the consequences of social deprivation. All individuals experience the need to belong in different ways, but share the commonality of striving to create and cultivate relationships with others. Additionally, the authors suggested that individuals form social bonds willingly, in some cases under unfavorable circumstances. Baumeister and Leary argued that there is a fundamental part of human motivation that drives the desire for interpersonal connection and leads to reluctance when attempting to break these bonds. Furthermore, Baumeister and Leary argue that the drive to cultivate relationships may be in part due to the unfavorable effects solitude can generate, such as physical illnesses, decreased levels of happiness, increased levels stress, and mental illness. It could be reasoned that by fulfilling an individual's

need to belong, the group to which the individual contributes may enjoy an increase in productivity.

Team efficacy. A team with a positive belief regarding their outcome tends to perform better than a team that doubts their effectiveness (Collins & Parker, 2010). Teams develop collective beliefs regarding their capability in a variety of ways, and the collective beliefs lead to team potency and team efficacy. Team potency is the belief held by the collective that the group has the potential to be effective at whatever they are attempting. Team efficacy is more concerned with the confidence a team holds regarding its ability to complete a specified task within a given area. Collins and Parker further divided team efficacy into team outcome efficacy and team process efficacy. Team outcome efficacy is the team's collective attitudes about their competence to accomplish team performance. Team process efficacy is maximized when shared experiences and contemplations regarding their interactions develop into consensual beliefs concerning the ability to collectively work together.

Collins and Parker (2010) collected survey data from two different samples of Australian managers and assessed team outcome efficacy, team process efficacy, and team potency over the course of two years. Researchers reduced sampling bias by matching demographic information across samples (e.g., participants were matched on age). Surveys were completed on an individual basis and, upon completion, aggregated to the team level. Collins and Parker concluded that team outcome efficacy, team process efficacy, and team potency were three empirically separate constructs, a distinction that had not been previously made. To reiterate, team potency is a general term used to include the team's collective belief regarding its effectiveness. More specifically, team

process efficacy refers to the team's collective belief regarding their competence to work together as a cooperative group on various processes throughout its entire existence and includes establishing team goals and managing relationships. Team outcome efficacy is the team's collective belief regarding their ability to attain team performance based on quantity or quality of output(s). Team outcome efficacy was the strongest predictor of team performance, suggesting that managers concerned with improving team motivation and effectiveness should primarily focus on evaluating team outcome efficacy. When teams cooperate and hold high collective beliefs about their abilities, cohesion may occur.

Cohesion in the workplace. Cohesion is an important group process that may lead to the formation and maintenance of groups (Lewin, 1935). There are a variety of situations in which cohesion can manifest (e.g., competitive sport settings, workplace environments, and overarching societal structures; Carron, Widmeyer, & Brawley, 1985; Koonce, 2011; Morrison, 2008). The construct of cohesion is especially important in organizations as it is linked to innovation, satisfaction, and increased performance. Koonce (2011) suggested that the size of the organization has the potential to mediate the degree of cohesion an individual feels with other employees. It should be noted that social cohesion cannot be directly pursued as it is a performance variable dependent on the outcomes of other activities and conditions; however, organizations could help create environments that facilitate the predictors of cohesion.

Koonce (2011) proposed that rather than trying to alter cohesion directly, the underlying factors that lead to cohesion should be altered. Understanding that cohesion cannot be directly pursued is an important point to clarify because many organizations may try to increase organizational cohesion directly, only to be met with internal

resistance. Koonce suggested that the following factors are favorable for cohesion (when pursing cohesion directly is not possible): fair policies, equity, and social capital bonding. Social capital bonding is the network of individuals and accompanying norms of reciprocity within a specified group. Because social capital bonding strengthens the relationships of individuals within a specified group based on collective needs, it is closely related to cohesion and in many ways directly affects group cohesion. Understanding that social capital bonding strengthens group relationships is beneficial for organizations because it may lead them to encouraging awareness of needs for the collective.

Military forces around the world comprise many of the current organizations found in today's society. Military personnel are required to work under stressful situations and put their lives in the hands of fellow soldiers. Ahronson and Cameron (2007) gave soldiers in the armed forces a work-adapted version of the Group Environment Questionnaire (GEQ; Carron et al., 1985), a job performance assessment, and a job satisfaction assessment. Ahronson and Cameron (2007) verified that both task and social cohesion were positively correlated with self-reported job satisfaction and job performance and were negatively correlated with psychological distress. The military is possibly the best example of the need to work in a team-based environment. Specifically, the United States Army is divided into a variety of teams, such as battalions, which require soldiers to work cooperatively with one another in life and death situations. Without forming positive work groups, many of the Army's objectives would not be able to be fulfilled. Furthermore, Ahronson and Cameron suggested that without the ability to rely on comrades, military personnel might show higher levels of psychological distress

and lower levels of job satisfaction, which can in turn lead to higher turnover rates and less efficient working atmospheres. When assessing cohesion in the workplace it is first important to adequately define the construct.

Defining Cohesion

Cohesion is an excellent example of one potential benefit of teamwork, however, definitions of cohesion have varied drastically across researchers. The subsequent information discusses several definitions previous researchers have used to describe cohesion.

Currently cohesion remains a function of the specific operational definition chosen by individual researchers. There are many components to cohesion, as well as a variety of possible definitions, depending on the focus of the researcher (Ahronson & Cameron, 2007; Chan, To, & Chan, 2006). Such definitions have the potential to vary drastically, as do the possible factors psychologists believe influence cohesion. For example, Li and Zhang (2010) defined cohesion as the simple formation and maintenance of groups over time. In slight contrast, Morrison (2008) stated that cohesion is a general liking of one's coworkers, as well as the perceptions of the commonality that an employee shares with his or her peers. Varying again from the two previously stated definitions, Koonce (2011) defined cohesion as the degree to which members of a society trust one another and the society itself.

Carron, Brawley, and Widmeyer (1998) suggested that there is one vital distinction to be made when discussing cohesion, the difference between group cohesion and task cohesion. Group cohesion refers to the internalized desire to become part of the collective, based on internal attributes, and is driven by intrinsic motivators to become part of the group. Task cohesion implies that individuals are driven by extrinsic

motivators to form cohesive units due to the necessity of completing a specific task. Both types of cohesion are found in organizations, and can vary from low to high. An organization may be high in one type of cohesion and not the other, high in both types, or low in both types of cohesion. Additionally, cohesion is a construct that has the potential to vary drastically over time due to the number of variables that influence the construct as a whole. For example, cohesion levels can vary based on turnover rates because the individuals responsible for creating a cohesive unit may leave the organization and thus alter the working relationships between other colleagues. Therefore, cohesion should be thought of as a continuous construct, which has the potential to change within an organization over time.

Cohesion can occur for a multitude of reasons and can create long-lasting bonds in a variety of relationships. The present research defined organizational cohesion as the extent to which employees within an organization feel a sense of unity with one another. Not only is a consistent definition of cohesion needed throughout the literature pertaining to the construct, but it is also important for researchers to be aware of the varying levels individuals can experience cohesion.

Levels of Cohesion

Koonce (2011) examined political, economic, social, and educational organizations, and concluded that the individual members of a society at large can impact the society in its entirety. Additionally, the level of cohesion experienced by an individual can be influenced by the size of the organization or the society at large. Furthermore, Koonce argued that political organizations have a significant impact on cohesion due to the bonds forged between members of a given political party. The

balance of power and government may have a great potential to increase societal

cohesion, at least within specified subgroups.

Koonce (2011) suggested that economic organizations, albeit driven by a desire to

increase profits, contribute to a society's cohesion through enhancing the economic

standing of that society. An example of an economic organization with the ability to

facilitate societal cohesion is Apple Inc. Apple Inc. possesses the potential to influence

societal cohesion within the lives of individuals by allowing the exchange of personal

information to occur at unparalleled rates.

Moreover, Koonce (2011) suggested that social organizations, such as religious

groups, unions, and various other nongovernmental establishments, may have the largest

impact on social cohesion; this being contributed in part by the idea that the members of

these organizations provide active, rather than passive, participation. Educational

organizations are the final group discussed in Koonce's research. Educational

organizations, such as universities encourage individuals to practice various concepts

consistent within a culture and thusly contribute to an increase in the cohesion level of

the society. Additionally, schools can provide miniature societal models that allow

individuals to become better acquainted with the concept of societal cohesion, and aid

them later in life as they eventually become fully integrated into society as functioning

members. Koonce stated that organizations could help create environments that facilitate

cohesion; however, social cohesion cannot be directly pursued. This is an important point

to clarify because many companies may try to increase organizational cohesion directly.

Koonce suggests that there are more important underlying factors that lead to cohesion,

which should be altered instead of trying to alter cohesion directly. In summary, Koonce is stating that cohesion can only be indirectly impacted via its causes.

Findings by Yukelson, Weinberg, and Jackson (1984) suggested that cohesion at the collegiate basketball level was multidimensional and consisted of common goals, valued roles, teamwork that supported the goals of the group, satisfaction, and team identification. Furthermore, results provided indication that coaches of collegiate basketball teams should consider the redistribution of their coaching styles in order to facilitate more cohesive units on and off the court. Yukelson et al. suggested that establishing common goals for the team, as well as ensuring players feel a sense of importance when performing on the court, could lead to better interpersonal relationships between players on and off the court. It could be reasoned that coaches have a similar relationship with team players, as managers do with employees in the organizational setting. As such, these conclusions may be generalizable to managerial positions within organizations, as organizations can facilitate competitive environments and require interdependence, similar to those expressed in sport teams.

Assessing Cohesion

Investigating cohesion is difficult when a widely accepted and used scale has yet to be introduced. There have been various attempts at creating cohesion scales (e.g., Carron et al., 1985; Li & Zhang, 2010; Yukelson et al., 1984); however, as discussed, a definitive definition of cohesion has yet to be formulated, and thus the construct itself has a certain degree of fluidity. Several scales have been developed in the past and have provided extensive insight to the potential precursors and outcomes of cohesion. However, many of these scales lack evidence in support of their validity and reliability.

Measuring cohesion can be a daunting task due to the multidimensional nature of cohesion. Cohesion is a multifaceted construct that is influenced by a multitude of components. Current measures of cohesion are limited to a handful of questionnaires, most of which attribute cohesion to environmental factors rather than the intrinsic motivation of an individual, and are very specific to the desired field of study (e.g., sport psychology).

Sport cohesion, which is the degree to which a group feels a sense of bonding within its team, is a leading topic of research and has provided a great deal of insight in to the construct of cohesion (Carron et al., 1985). A better understanding of sport cohesion may provide a pathway to understanding organizational cohesion. Sports entities are similar to organizations in that they require individuals to cooperate under the same institute, with a common goal in mind. In the seminal work conducted by Carron et al. they argued that the need for the development of an instrument to accurately assess group cohesion, was pertinent to better understanding what caused group cohesion and the factors that have an impact on it. The Group Environment Questionnaire (GEQ; Carron et al.) is currently the most widely used sport cohesion scale, along with the modified version pertaining to workplace cohesion (e.g., Ahronson & Cameron, 2007; Li & Zhang, 2010).

Two versions of the GEQ were initially developed and administered to athletes in hopes of accurately creating a valid and reliable scale; however, a third version had to be created to assess the attraction an individual felt toward a group task, the attraction an individual experienced toward the social components of the group itself, and the interaction of both aforementioned conditions (Carron et al., 1985). Many critiques

regarding the GEQ have been written, and although it is still widely used, some researchers are skeptical of its generalizability to other domains (Ahronson & Cameron, 2007; & Li & Zhang, 2010).

Research by Yukelson et al. (1984) was conducted to develop a reliable and valid scale assessing sport group cohesion in regards to both task and social-related subscales. A sport cohesion instrument was formulated and administered to collegiate basketball players. The scale was then reduced to questions only yielding high internal consistency. Based on their analyses, Yukelson et al. concluded that the scale provided four common factors: attraction to group, agreement of purpose, quality of cooperation, and valued roles.

Li and Zhang (2010) developed a scale to assess organizational cohesion in the Chinese workplace. The Organizational Cohesion Inventory (OCI) is an assessment of organizational cohesion, which examines six dimensions of the construct: employee centripetalism, leader cohesiveness, task cooperation, interpersonal harmony, benefit sharing, and value identification. Research by Li and Zhang suggested that cohesion, as assessed by the OCI, significantly impacted related variables such as organizational justice, organizational cohesion, organizational commitment, and organizational citizenship behavior.

As previously stated, Li and Zhang (2010) developed the OCI with the intent to utilize the instrument in the Chinese workplace. Chinese culture tends to be a collectivist society, whereas Westernized cultures focus on individualistic culture characteristics (Hofstede, 1983). Collectivist societies put the needs of the aggregate before the needs of each individual. Cohesion has the potential to be affected by the difference in societal

norms between collectivistic and individualistic societies because of the emphasis

collectivist societies place on the need to bond. Cultural predispositions will impact an

individual's likelihood to form bonds with the peers in his or her workplace. The cultural

difference may limit the relevance of the findings of Li and Zhang (2010) to the culture in

which it was developed. Further research utilizing the OCI in Westernized cultures would

help to ensure generalizability. Additionally, the OCI contained 50 items, which may

hinder an organization's willingness to use this measure, as the time with which it takes

employees to complete surveys assessing workplace environments reduces the time they

have for other important tasks. Organizations may see the length of the OCI as time lost,

and subsequently decide not to utilize this assessment despite potential gains.

Current Study

Based on the previous literature, there appeared to be a need for an easily

accessible and valid cohesion scale for organizational use (Carron et al., 1985, Li &

Zhang, 2010; Yukelson et al., 1984). Previously used assessments have either been

modified from their original content and not subsequently validated (e.g., the GEQ;

Carron et al., 1985) or are lengthy in nature and pose a potential time constraint to

employers (e.g., OCI; Li & Zhang, 2010). The purpose of the current study was to

validate the Organizational Cohesion Scale (OCS; Ruga & Hackathorn, 2012), an eight-

item scale assessing workplace cohesion via Likert-scale type questions (Appendix A).

The OCS was developed by Ruga and Hackathorn (2012) and was modified from

a sport spectator cohesion scale developed by Ruga and Wann (2012). A pilot study using

the OCS was conducted via Amazon's survey enlistment website, Mechanical Turk

(MTurk) and collected data from 199 participants employed outside the home (53.3%

male; $M_{age} = 30.09$, $SD = 8.62$). An exploratory factor analysis of the OCS indicated all

eight items loaded onto one factor ($\alpha = .922$). Loadings ranged from .741 to .869. The

eigenvalue of the first factor explained 65.48% of the total variance. The current study

extends the work of the pilot study and will attempt to establish the construct validity of

the OCS.

Method

Participants

Three-hundred and twenty-two participants completed the online survey; however, 65 returned unusable data, thus providing a final sample of 257 (33.1% men, M_{age} = 36.74 years, SD_{age} = 13.14, age range: 18 - 74 years). Usable forms are fully completed surveys in which the participant was employed outside the home and passed all three of the quality assurance checks. The sample majority was White (n = 192). The majority of participants (n = 199) reported working with others at least five times per week. Regarding weekly hours of employment, the majority of participants (n = 147) were employed for 40 hours or more per week. Participants were required to be at least 18 years of age, employed outside the home, and fluent in English. Participants recruited through Mturk received $.10 for completing the survey.

Materials and Procedure

A brief study description (Appendix B) was posted as a human intelligence task (HIT), which allowed MTurk users who were interested in completing the study to participate by clicking on the survey link. Once they selected the study they were then redirected to the Qualtrics website, which housed the full survey. Participants first read the informed consent (Appendix C), which explained the purpose and details of the study as well as the participation requirements. There was no penalty if participants chose not to consent; however, only consenting participants who complete the survey received monetary reimbursement.

After consenting, participants completed a 79-item survey assessing various workplace characteristics including cohesion, workplace incivility, social avoidance and

distress, the need to belong, and organizational citizenship behavior (OCB). Specifically, the survey contained the eight-item OCS assessing cohesion in the workplace, and various other scales to establish discriminant and convergent validity.

To establish the discriminant validity (Pedhazur & Schmelkin, 1991) of the OCS, the online survey contained Cortina, Kabat-Farr, Leskinen, Huerta and Magley's (2013) 12-item assessment of workplace incivility, and Watson and Friend's (1969) 28-item Social Avoidance and Distress Scale. Both of the aforementioned surveys were selected by the researcher because they were reasoned to be negatively correlated with organizational cohesion behaviors. Convergent validity was established through correlations with the Need to Belong Scale (Leary, Kelly, Cottrell, & Schreindorfer, 2013). The Need to Belong Scale was selected because the researcher believed high scores of the need to belong would yield a significant positive correlation with high scores on the OCS. Self-report versions of Williams and Anderson's (1991) two seven-item subscales of Organizational Citizenship Behavior (OCB) were included to examine criterion-related validity of the OCS. One subscale specifically pertains to OCBs directed at individuals (OCBI) and the other to OCBs directed at the organization (OCBO) itself. Measures of OCBs were selected for criterion-related validity purposes because both OCBs and organizational cohesion are prosocial behaviors found in the workplace.

Additionally, there were seven basic demographic questions assessing age, gender, race, and employment information (Appendix H). Finally, participants were required to answer three quality control items at various points throughout the study to ensure they were providing honest answers (Appendix I). After completing the survey,

participants were shown a debriefing statement (Appendix J) and received a small

monetary reward ($.10).

<div align="center">**Results**</div>

Confirmatory Factor Analysis and Reliability Analyses

   A confirmatory factor analysis was conducted on the OCS to assess the structural model. Three participants were removed from the confirmatory factor analysis because they failed to provide completed forms, thus rendering a sample of 254 for this analysis. The confirmatory factor analysis examined two models: a one-dimensional model which loaded all items onto a single factor and a two-factor model that created the unity and in-group subscales of the OCS. The information provided in Table 1 demonstrates the extent to which the model indexes improved from the single-factor model to the two-factor model.

   The researcher also examined modification indexes; these indices suggested that removing Item 8 from the OCS would provide a better fit. After removing Item 8, fit indexes were re-examined (goodness of fit, GFI = .96, standardized root mean square residual, SRMSR = .02). Although the fit indexes indicated improved model fit, the researcher decided to retain the eighth item for two reasons. First, it was determined to be an important item that is pertinent to cohesion research. Second, allowing any scale (or subscale) to only have two items was considered undesirable. Therefore, based upon the model fit indices, and taking the modification indexes in to account, the two-factor model retaining all items was determined to be the best fit. These two factors referred to unity cohesion and in-group cohesion. The SMSR, (SMSR = .04, which was below the cutoff score of .08) and GFI (GFI = .94, which was almost at the cutoff of .95) were at or near acceptable levels indicative of good model fit (Hooper, Coughlan, & Mullen, 2008; Hu & Bentler, 1999).

Table 1

Confirmatory Factor Analyses of the OCS

Models	x^2	df	Fit Indexes		
			x^2/df ratio	GFI	SRMSR
One Factor	188.831***	20	9.442	.8425	.0703
Final Two Factor Model	66.158***	19	3.482	.9358	.0445

Note: GFI = goodness of fit index, SRMSR = standardized root mean square residual,
***p < .0001

Reliability analyses of the two subscales of the OCS were conducted. Table 2 displays the means, standard deviations, and Cronbach's alphas for the OCS and its two subscales, unity cohesion and in-group cohesion. The factor intercorrelation was .76. The OCS unity subscale consisted of Items 1-5 and loaded on one factor (α = .94). Loadings for each item ranged from .844 to .936. The OCS in-group subscale consisted of Items 6-8 (α = .86). Loadings for each item ranged from .78 to .92. A visual representation of the cohesion model was created (see Figure 1). Furthermore, the factor loadings of each item are illustrated in Table 3.

Table 2

Means, Standard Deviations, and Cronbach's Alphas of the OCS and Subscales

Scale	Mean	SD	α
OCS (composite)	5.54	1.57	.93
Unity Cohesion	5.93	1.58	.94
In-Group Cohesion	4.92	1.87	.86

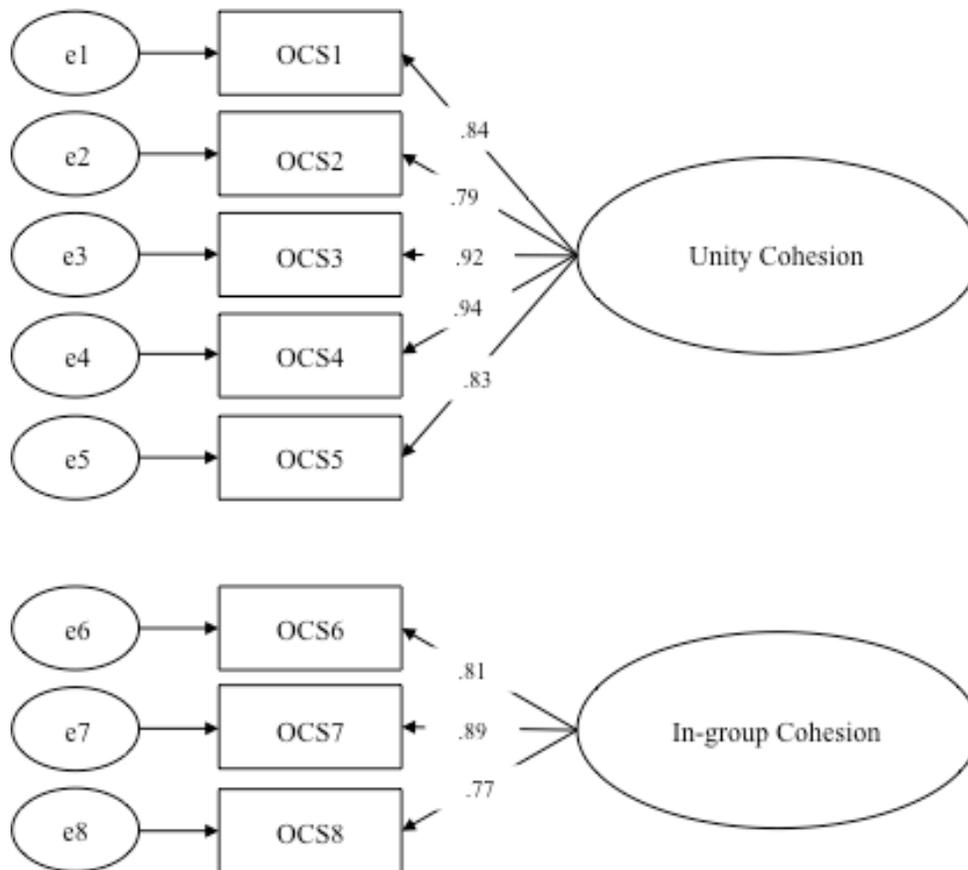*Note: OCS (comp) = Organizational Cohesion Scale composite score*

Figure 1. Standardized Loadings for Final CFA Model

Table 3

Factor Loadings from OCS

Item	Factor Loading
OCS 1: Unity cohesion subscale	
1. I enjoy being a part of the social setting at this organization.	.88
2. I would miss the fellowship I have with the coworkers around me if I were to quit.	.84
3. I feel a sense of unity with the coworkers in this organization.	.92
4. I feel a sense of unity with the coworkers in this organization.	.94
5. I enjoy working as a group with my coworkers in this organization.	.88
OCS 2: In-group cohesion subscale	
6. I believe that some of my coworkers in this organization are my best friends.	.89
7. Coworkers in this organization comprise one of my most important social groups.	.92
8. I am enjoying working with the people in my organization now more than I would enjoy working with other people in a difference organization.	.84

Convergent and Discriminant Validity Analyses

The construct validity of the OCS was assessed through convergent and discriminant validity analyses examined via multiple correlations (see Table 4).

With respect to convergent validity, the OCS composite score was correlated with Leary et al.'s (2013) Need to Belong Scale, $r = .13$, $p < .05$. The OCS subscales were then correlated with the Need to Belong Scale (Leary et al.). The OCS unity subscale did not significantly correlate with the Need to Belong Scale (Leary et al.),

$r = .11$, $p > .05$. However, the OCS in-group subscale was significantly correlated with Leary et al.'s Need to Belong Scale, $r = .14$, $p < .05$.

Table 4

Measure	2	3	4	5	6	7	8	9
1. OCS	.95**	.90**	.13	-.23**	.13*	.37**	.14*	.29**
2. OCS Unity	–	.71**	.20**	-.29**	.11	.40**	.23**	.35**
3. OCS In-Group		–	-.01	-.09	.14*	.26**	-.01	.14*
4. SADS			–	-.20**	-.04	.26**	.30**	.33**
5. WI				–	.04	-.14*	-.46**	-.33**
6. NBS					–	.18**	-.09	.06
7. OCBI						–	.49**	.88**
8. OCBO							–	.85**
9. OCB comp								–

*Note.**p<.01, *p<.05. OCS = Organizational Cohesion Scale, SADS = Social Avoidance and Distress Scale; WI = Workplace Incivility Scale; NBS = Need to Belong Scale; OCBI = Organizational Citizenship Behaviors directed at Individuals; OCBO = Organizational Citizenship Behaviors directed at the Organization; OCB comp = Organizational Citizenship Behaviors composite*

Regarding discriminant validity, the OCS composite score was correlated with Cortina et al.'s (2013) incivility assessment, $r = -.23$, $p < .01$. The OCS unity subscale and the incivility assessment (Cortina et al.) were negatively correlated, $r = -.29$, $p < .01$. However, the OCS in-group subscale did not significantly correlate with Cortina et al.'s incivility assessment, $r = -.09$, $p > .05$. Moreover, the OCS composite score was not

significantly correlated with Watson and Friend's (1969) Social Avoidance and Distress Scale, $r = .13$, $p > .05$, nor was the OCS in-group subscale significantly correlated with the Social Avoidance and Distress Scale, $r = -.01$, $p > .05$. However, the OCS unity subscale and Social Avoidance and Distress Scale (Watson & Friend) were positively correlated, $r = .20$, $p < .05$.

Criterion-Related Validity

Criterion-related validity of the OCS was examined via correlations between the two subscales of the OCS and the two subscale assessments of OCB (Williams & Anderson, 1991). Specifically the OCBI subscale yielded a significant a correlation with the OCS unity subscale, $r = .40$, $p < .01$, and a significant correlation with the OCS in-group subscale, $r = .26$, $p < .01$. The OCBO subscale was significantly correlated with the OCS unity subscale, $r = .23$, $p < .01$; however, it was not significantly correlated with the OCS in-group subscale, $r = -.01$, $p > .05$. Additionally, a composite score of the two OCB subscales was computed and correlated with the OCS unity subscale, and yielded a statistically significant correlation, $r = .35$, $p < .01$. Furthermore, the OCB composite score was significantly correlated with the OCS in-group subscale $r = .14$, $p < .05$.

Discussion

As previously discussed a valid and reliable assessment of cohesion in the workplace was needed (Carron et al., 1985, Li & Zhang, 2010; Yukelson et al., 1984). The present study sought to rectify this dilemma through validation of the eight-item OCS. Factor structure was assessed via a confirmatory factor analysis. Construct validity was examined via convergent and discriminant validity, in which multiple correlations were conducted to assess the OCS's various relationships with multiple constructs.

Factor Structure

A confirmatory factor analysis was conducted to assess the structural model of the OCS. Two models were analyzed and their fit compared. The first model assessed was a one-factor model, which assumed that all items of the OCS items loaded onto one factor. The second and final model examined was a two-factor model, which divided the OCS into two subscales: the OCS unity subscale and the OCS in-group subscale. The second model (see Figure 1) was deemed to be the better fit to the data. Due to the division of the OCS into two subscales, separate definitions for each of the subscale constructs were created. The researcher defined unity cohesion as the extent to which an employee perceived his or her overall relationship with the group as a whole, and in-group cohesion was defined as the employee's perception of specific individual-based relationships within the specified group.

Convergent Validity

Convergent validity was examined via correlations between the OCS composite score, unity subscale score, and in-group subscale score and Leary et al.'s (2013) Need to Belong Scale. Higher scores on the OCS indicate greater cohesion within the

organization. Higher scores on the Need to Belong Scale indicate that the individual has a high need to belong. The correlation between the OCS composite score and the Need to Belong Scale was statistically significant, and the correlation between the Need to Belong Scale and the OCS in-group subscale was also significant; however, the Need to Belong Scale was not significantly correlated with the OCS unity subscale. One potential explanation for the non-significant correlation between the OCS unity subscale and the Need to Belong Scale is that the questions contained in the Need to Belong Scale require a certain degree of introspection regarding an individual's feelings towards relationship formation, whereas the OCS unity subscale is an outward perception of already formed relationships.

Furthermore, it may help to think of need to belong and unity cohesion as two separate driving forces, one that is pushing and the other that is pulling. The need to belong can be thought of as an individual pushing out towards others around them and their thoughts on seeking relationships. Individuals high in need to belong can be thought of as seeking acceptance and worrying about being alone. Unity cohesion can be thought of as a pull from the outside world into a unit that is highly functioning. Unity cohesion assesses the social relationships that are already formed, whereas the need to belong assesses the individual's sensitivity to becoming involved in those relationships. In contrast, in-group cohesion refers to the perception of friendships and individual bonds created, rather then the group in its entirety. By assessing individual relationships (e.g., "I believe that some of my coworkers in this organization are my best friends") the feeling of fulfilling the need to belong may be higher than when interpreting the relationship to a group altogether (e.g., "I feel a sense of unity with the coworkers in this organization").

In short, the need to belong and cohesion may be assessing two different constructs, which accounts for the low correlation coefficients between the OCS composite score and the Need to Belong Scale composite score, as well as the nonsignificant correlation between the OCS unity subscale and the Need to Belong Scale.

In summary, the need to belong construct was selected to assess convergent validity but did not yield a strong relationship with the OCS. The Need to Belong Scale (Leary et al., 2013) was used in place of another cohesion test; however, because there was not another validated cohesion assessment, a true convergent validity analysis with the OCS was unable to be performed. The researcher initially selected The Need to Belong Scale because cohesion and the need to belong seemed to be similar constructs, and thus provide evidence for convergent validity. Future research assessing convergent validity of the OCS should utilize different assessments and endeavor to provide stronger correlations.

Discriminant Validity

Discriminant validity was examined via multiple correlations between the OCS (composite and subscales), the Social Avoidance and Distress Scale (Watson & Friend, 1969), and the workplace incivility assessment (Cortina et al., 2013). To clarify, higher scores on the Social Avoidance and Distress Scale indicate low levels of social avoidance and distress practices, and low scores on the workplace incivility scale indicate low incidence of workplace incivility.

The negative correlation between the OCS composite score and workplace incivility was expected, as was the negative correlation between the OCS unity subscale and the workplace incivility assessment. Specifically, the workplace incivility scale asked

the participant if his or her coworkers or supervisors had acted towards them in a disrespectful manner. If employees are experiencing disrespect from their coworkers, they are not likely to form a cohesive group with them, and therefore the perception of cohesion would be low. In general, workplace incivility is a negative social behavior and cohesion is a positive social behavior, therefore the negative correlation is plausible.

In contrast, the nonsignificant negative correlation between the OCS in-group subscale and the workplace incivility assessment was not expected. The nonsignificant correlation could be attributed to employee perceptions regarding coworkers who partake in disrespectful behavior. Perhaps employees do not perceive coworkers who are disrespectful towards them as part of their most important social group, and therefore do not actively think of them as being part of the cohesive unit. Further research should strive to better understand this relationship, and the effects workplace incivility has on in-group cohesion. In general, workplace incivility is a negative social behavior and cohesion is a positive social behavior, therefore the negative correlation is plausible.

The nonsignificant correlations between the OCS composite score and Watson and Friend's (1969) Social Avoidance and Distress Scale, as well as between the OCS in-group subscale and the Social Avoidance and Distress Scale, were attributed to the understanding that cohesion and social avoidance are different constructs. In contrast, the significant positive correlation between then OCS unity subscale and the Social Avoidance and Distress Scale (Watson & Friend, 1969), suggests that as unity cohesion increases, social avoidance and distress behaviors decrease. Unity cohesion is the extent to which employees within an organization feel a sense of unanimity with the group in its entirety at the present time, whereas social avoidance and distress is an assessment of

events that have yet to occur. Perhaps individuals who are likely to experience unity

cohesion fail to recognize the potential for positive relationships to be created until after

they have already occurred. Furthermore, social avoidance may be an individual's

instinctual response, however in the workplace employees are often unable to escape

many of the social gatherings that occur. Although a person may strive to avoid social

gatherings, if they are forced to attend, this person may form cohesive relationships with

other people.

In summary, the Social Avoidance and Distress Scale (Watson & Friend, 1969) as

well as the workplace incivility scale (Cortina et al., 2013) were selected to assess

discriminant validity; both scales failed to produce strong relationships with the OCS.

Criterion-Related Validity

Multiple correlations between the two subscales of the OCS and the two subscale

assessments of OCBs (Williams & Anderson, 1991) were used to assess criterion-related

validity. Significant correlations between the OCS composite score and subscales and the

OCB composite score and subscales were expected. Specifically, the OCS unity subscale

was significantly correlated with the OCBI subscale, and the OCBO subscale. The OCS

in-group subscale was significantly correlated with the OCBI subscale, but not with the

OCBO subscale. It is reasonable that in-group cohesion would be significantly correlated

with OCBs directed at individuals because in-group cohesion assesses specific individual

relationships within the cohesive group. Additionally, the OCS composite score was

significantly correlated with the OCB composite score. The significant relationships

between the correlated means indicated that there is consistency of pro-social behaviors

across individuals experiencing cohesion, unity or in-group, and then expressing OCB, either towards individuals or the organization.

Study Implications, Limitations, and Future Directions

The development of a new scale to assess organizational cohesion fills a research and applied need. Preexisting scales assessing organizational cohesion either lacked statistical validity or were unable to sufficiently assess the construct in a timely manner. For example, other researchers have attempted to assess cohesion via extensive surveys (e.g., the 50-item OCI; Li & Zhang, 2010), which cannot be adequately assessed by organizations in a suitable timeframe. One of the OCS's greatest advantages is its brevity. Because the OCS is only eight items, and it assesses unity and in-group cohesion, it has the potential for future research to better understand the facets of cohesion and how they relate to other organizational behaviors. Additional items may be developed in the future to try and increase the reliability of the current three-item in-group subscale. Removal of the eighth item, which had the lowest factor loading, and addition of adequate alternate items may allow for the in-group subscale to become a stronger factor within the OCS.

The minimal empirical support provided by the convergent and discriminant validity assessments in the present research suggested the need for the construct validity of the OCS to be improved upon in the future. The relationship between the OCS the OCBI subscale (Williams & Anderson, 1991) provides a basis for use in future research. The main limitation of this study is the method of data collection via Amazon MTurk. Albeit a convenient way of collecting participants, the incentive of $.10 may not have been a sufficient amount to encourage participants to carefully consider their answers. Only 79.8% of surveys completed were usable, either due to failed quality checks or

participants failing to be employed outside the home, which is consistent with the idea that participants may not have been fully engaged in the assignment.

Although the initial data on the OCS were collected without a question assessing national origin, additional research could examine cross-cultural differences. Particularly, differences across Eastern and Western societies could be examined and compared to those found in the development of the OCI (Li & Zhang, 2010). Cohesion is a construct that exists across continents and cultures. Through understanding cultural differences, the predictors of cohesion as well as the outcomes of cohesion can be better understood and applied.

In addition to cross-cultural samples, future research could study the aggregate cohesion level of an entire organization, which would be done by collecting data from the entire organization. The data could be used to assess similarity in cohesion perceptions and or aggregate at the group level to examine how group-level cohesion is linked to various work outcomes. Additional findings may reveal differences when the data are based on an entire organization completing the OCS as opposed to a random sample of employees from various organizations.

The primary implication of the present research is that organizations are now closer to having a valid way of assessing the cohesive units that form within the workplace, and further research on the construct can now be conducted. Researchers should utilize the OCS in other samples to further support its psychometric properties. One potential direction for future research is an exploration of the test-retest reliability of the OCS. Organizations and future researchers should keep in mind that cohesion is a continuous construct rather than categorical.

Conclusions

In conclusion, the present research attempted to provide construct validity evidence for the OCS. The confirmatory factor analysis provided structural support for a two-factor model. The correlations between the OCS and various other scales (e.g., workplace incivility, OCB, social avoidance and distress) suggested that construct validity evidence for the OCS is still lacking. Future research should endeavor to provide additional samples and attempt to assess convergent validity and criterion-related validity with other related measures. Although the psychometric properties of the OCS still require support, the OCS is much shorter than other assessments of cohesion that have been developed (i.e., Li & Zhang, 2010) which solves one of the previously discussed issues in the literature relating to cohesion (Carron et al., 1985; Yukelson et al., 1984).

Appendix A - The Organizational Cohesion Scale

Instructions: Please answer the following questions based on your feelings about your experiences within your organization. Remember, this is just about your current organization, not other organizations you may have been employed at. There are no "right" or "wrong" answers, simply be honest in your responses.

1.   I enjoy being a part of the social setting at this organization.

Not at All   1   2   3   4   5   6   7   8   Very Much

2.   I would miss the fellowship I have with the coworkers around me if I were to quit.

Not at All   1   2   3   4   5   6   7   8   Very Much

3.   I feel a sense of cohesion with my coworkers in this organization.

Not at All   1   2   3   4   5   6   7   8   Very Much

4.   I feel a sense of unity with the coworkers in this organization.

Not at All   1   2   3   4   5   6   7   8   Very Much

5.   I enjoy working as a group with my coworkers in this organization.

Not at All   1   2   3   4   5   6   7   8   Very Much

6.   I believe that some of my coworkers in this organization are my best friends.

Not at All   1   2   3   4   5   6   7   8   Very Much

7.   Coworkers in this organization comprise one of my most important social groups.

Not at All   1   2   3   4   5   6   7   8   Very Much

8.   I am enjoying working with the people in my organization now more than I would enjoy working with other people in a different organization.

Not at All   1   2   3   4   5   6   7   8   Very Much

Appendix B - Brief Study Description for Mechanical TURK posting

This study will look at cohesion among employees in the workplace. There are two steps to complete this HIT.

1. Please click on the link below (or copy and paste into your browser) and complete the survey. Please keep in mind that your participation is completely voluntary, and you may discontinue at any point. Completion should not take longer than 15 minutes. You must be 18 years of age or older, employed outside the home, and a fluent English speaker to participate in this questionnaire.

Link: *Posted here*

2. Toward the end of the survey, you will be given a 4-digit identifier. Please enter the 4-digit identifier code in the box below to receive your HIT credit. You will not receive payment if you fail to provide honest answers*.

Note: Throughout the survey you will be required to answer several quality control items to ensure your are providing accurate data.

Appendix C - Informed Consent

Project Title: Construct Validity Analysis of the Organizational Cohesion Scale
Principle Investigator: Kristen Ruga, Dept. of Psychology, Western Kentucky University, Bowling Green, KY 42101

You are being asked to participate in a project conducted through Western Kentucky University. The University requires that you give your signed agreement to participate in this project. You must be at least 18 years of age to participate and employed outside the home. Below is an explanation of the purpose of the project, the procedures to be used, and the potential benefits and possible risks of participation.

1. Nature and Purpose of Project: The purpose of this study is to gain information regarding organizational cohesion.

2. Explanation of Procedures: Your participation in this study will involve completing a very brief set of online questionnaires. The online questionnaires should only take 15 minutes.

3. Discomfort and Risks: There is minimal to no risk to you as a participant.

4. Benefits: There are no direct individual benefits to you beyond the opportunity to learn first-hand what it is like to participate in a research study and to learn about some of the methods involved in psychological research.

5. Confidentiality: Your responses on all the tasks will be completely anonymous; they will only be numerically coded and not recorded in any way that can be identified with you. Kristen Ruga will keep all information related to this study secured and password protected for at least three years after completion of this study, after which all such documents will be destroyed.

7. Refusal/Withdrawal: Your participation in this study should be completely voluntary. Your refusal to participate will involve no penalty. In addition, you have the right to withdraw at any time during the study without penalty or prejudice from the researchers.

You understand also that it is not possible to identify all potential risks in an experimental procedure, and you believe that reasonable safeguards have been taken to minimize both the known and potential but unknown risks.

By continuing to the next page you are indicating your voluntary consent to participate in this research.
THE DATED APPROVAL ON THIS CONSENT FORM INDICATES THAT

THIS PROJECT HAS BEEN REVIEWED AND APPROVED BY

THE WESTERN KENTUCKY UNIVERSITY INSTITUTIONAL REVIEW BOARD

Paul Mooney, Human Protections Administrator

Appendix D – Social Avoidance and Distress Scale (Watson & Friend, 1969)

For the following items please select either: TRUE or FALSE. *Note: (R) indicates that the item is reverse-scored.*

1. I feel relaxed even in unfamiliar social situations. (R)
2. I try to avoid situations that force me to be very sociable.
3. It is easy for me to relax when I am with strangers.
4. I have no particular desire to avoid people. (R)
5. I often find social occasions upsetting.
6. I usually feel calm and comfortable at social occasions. (R)
7. I am usually at ease when talking to someone of the opposite sex. (R)
8. I try to avoid talking to people unless I know them well.
9. If the chance comes to meet new people, I often take it. (R)
10. I often feel nervous or tense in casual get-togethers in which both sexes are present.
11. I am usually nervous with people unless I know them well.
12. I usually feel relaxed when I am with a group of people. (R)
13. I often want to get away from people.
14. I usually feel uncomfortable when I am in a group of people I don't know.
15. I usually feel relaxed when I meet someone for the first time. (R)
16. Being introduced to people makes me tense and nervous.
17. Even though a room is full of strangers, I may enter it anyway. (R)
18. I would avoid walking up and joining a large group of people.
19. When my superiors want to talk with me, I talk willingly. (R)
20. I often feel on edge when I am with a group of people.
21. I tend to withdraw from people.
22. I don't mind talking to people at parties or social gatherings. (R)
23. I am seldom at ease in a large group of people.
24. I often think up excuses in order to avoid social engagements.
25. I sometimes take the responsibility for introducing people to each other. (R)
26. I try to avoid formal social occasions.
27. I usually go to whatever social engagements I have. (R)
28. I find it easy to relax with other people. (R)

Appendix E - Workplace Incivility Scale-Revised (Cortina et al., 2013)

During the PAST YEAR were you ever in a situation in which any of **your supervisors or coworkers…**

0—Never
1—Once or twice
2—Once or twice a month (sometimes)
3—Once or twice a week (often)
4—Everyday (many times)

1. Paid little attention to your statements or showed little interest in your opinions.
    0   1   2   3   4

2. Doubted your judgment on a matter over which you had responsibility.
    0   1   2   3   4

3. Gave you hostile looks, stares, or sneers.
    0   1   2   3   4

4. Addressed you in unprofessional terms, either publicly or privately.
    0   1   2   3   4

5. Interrupted or "spoke over" you.
    0   1   2   3   4

6. Rated you lower than you deserved on an evaluation.
    0   1   2   3   4

7. Yelled, shouted, or swore at you.
    0   1   2   3   4

8. Made insulting or disrespectful remarks about you.
    0   1   2   3   4

9. Ignored you or failed to speak to you (e.g., gave you "the silent treatment").
    0   1   2   3   4

10. Accused you of incompetence.
    0   1   2   3   4

11. Targeted you with anger outbursts or "temper tantrums."
    0   1   2   3   4

12. Made jokes at your expense.
    0   1   2   3   4

Appendix F – Need to Belong Scale (Leary, Kelly, Cottrell, & Schreindorfer, 2013)

Respondents indicate the degree to which each statement is true or characteristic of them on a 5-point scale. (R) indicates that the item is reverse-scored.

1—Not at all
2—Slightly
3—Moderately
4—Very
5—Extremely

1. If other people don't seem to accept me, I don't let it bother me. (R)
      1   2   3   4   5

2. I try hard not to do things that will make other people avoid or reject me.
      1   2   3   4   5

3. I seldom worry about whether other people care about me. (R)
      1   2   3   4   5

4. I need to feel that there are people I can turn to in times of need.
      1   2   3   4   5

5. I want other people to accept me.
      1   2   3   4   5

6. I do not like being alone.
      1   2   3   4   5

7. Being apart from my friends for long periods of time does not bother me. (R)
      1   2   3   4   5

8. I have a strong "need to belong."
      1   2   3   4   5

9. It bothers me a great deal when I am not included in other people's plans.
      1   2   3   4   5

10. My feelings are easily hurt when I feel that others do not accept me.
      1   2   3   4   5

Appendix G – Organizational Citizenship Behaviors Scale (Williams & Anderson, 1991)

Responses are obtained using a 5-point Likert-type scale where 1 = strongly disagree and 5 = strongly agree. (R) indicates that the item is reverse-scored.

1—Not at all
2—Slightly
3—Moderately
4—Very
5—Extremely

Items for OCBI:

1. I help others who have been absent.

2. I help others who have heavy work loads.

3. I assist my supervisor with his/her work (when not asked).

4. I take time to listen to co-workers' problems and worries.

5. I go out of my way to help new employees.

6. I take personal interest in other employees.

7. I pass along information to co-workers.

Items for OCBO:

1. My attendance at work is above the norm.

2. I give advance notice when I am unable to come to work.

3. I take undeserved work breaks. (R)

4. I spend a great deal of time with personal phone conversations. (R)

5. I complain about insignificant things at work. (R)

6. I conserve and protect organizational property.

7. I adhere to informal rules devised to maintain order.

Appendix H – Basic Demographics Questions

How old are you (in years)? _____

Male   Female   Prefer not to answer

Please specify your ethnicity:

     White

     Hispanic

     African American

     Native American

     Other:

Are you currently employed outside the home?   Yes   No

     If yes, how long have you been with your current organization? _____

How often do you work with others?

     Once per week

     Twice per week

     Three times per week

     Four times per week

     Five times per week

How many hours are you employed at your organization? (Please select one)

     1-5
     6-10
     11-15
     16-20
     21-25
     26-30
     31-35
     36-39
     40 or more

Appendix I – Quality Control Items

1. For Quality Assurance, lease select the number 3
   1. 1
   2. 2
   3. 3
   4. 4
   5. 5

2. The year is currently 2014
          True   False

3. 3. For Quality Assurance, please select 2
   1. 0
   2. 1
   3. 2
   4. 3
   5. 4
   6. 5

Appendix J – Debriefing statement

First, I would like to thank you for your help in this study. This study attempted to cohesion in the workplace.

If you have any questions, comments, or concerns about this study, please contact Kristen Ruga at Kristen.ruga952@topper.wku.edu. Additionally, if you have any questions about your rights as a participant in this experiment, you may contact the IRB Coordinator at (270) 745-6733.

If you would like to receive a report of this research when it is completed, or a summary of findings, please contact Kristen Ruga at Kristen.ruga952@topper.wku.edu. Thank you for your participation.

*To receive credit for completing the survey, please enter the following 4 digit identifier in the Mechanical Turk website: 3663. (*Note: this is a required question so that we can ensure they receive their credit through the Mechanical Turk website*.)

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