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“WHAT MAKES A KING OUT OF A SLAVE? COURAGE!”

THE CREATION OF A SOCIAL COURAGE MEASURE AND

IMPLICATIONS FOR ITS USE IN ORGANIZATIONS

A Thesis in

Psychology

by

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Abstract

Although courage is a concept with which almost everyone is likely familiar, little research into the construct has been performed, especially in the context of an organizational workplace. One potential reason for this may be the lack of an adequate measurement scale. Following a literature review of the various conceptualizations of courage, a specific dimension of courage which has particular benefits for organizations is identified – social courage. Six studies using multi-source data are presented. These studies create a psychometrically sound measure of social courage, and examine the newly created scale's convergent, concurrent, and discriminant validity. Insights into future research needs and specific implications of social courage are discussed.

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Chapter 1

Introduction

Researchers and scholars have debated the nature of courage for eons, and the discussion will likely last for many more. Ancient philosophers, such as Plato and Aristotle, sought to define the construct, and often gave it varying definitions. Plato believed that courage was “The ability to remember what is worth prizing and what is worth fearing,” and Aristotle labeled it as “The disposition to act appropriately in situations that involve fear and confidence: rationally determined mean between cowardice and foolhardiness” (Lopez, O’Byrne, and Peterson, 2003). Later great thinkers also gave precise labels to courageous action, but also differed in their conceptualizations. For instance, Hemingway noted that courage is “grace under pressure” (Lopez, O’Byrne, and Peterson, 2003). Alternatively, Rachman created one of the most popular definitions of courage, “Willing and able to approach a fearful situation despite the presence of subjective fear and psychophysiological disturbances” (Rachman, 1990, p. 12; as cited in Rate et al., 2007). Regardless of the chosen definition, all of these historic figures attributed positive definitions to courage, and always lauded the importance of courage in great individuals.

Today, scholars still emphasize the importance of courage, especially in business and military affairs. Researchers have argued its influence on organizational citizenship behaviors (Hannah, Avolio, & Fred, 2011), leadership (Snyder, Dowd, and Houghton, 1994; Wasylyshyn and Stefano, 2005), and general performance (Bournes, 2000; Lachman, 2007a; Lachman, 2007b; Lindh, Barbosa da Silva, Berg, and Severinsson, 2010; Martin, 2010). In journals focused on business ethics, the importance of courage is constantly underlined (Ayling, 2006; Bashir, Khattak, Hanif, and Chohan, 2011; Faunce, Bolsin, Chan, 2004; Sekerka and Bagozzi, 2007; Sekerka, Bagozzi, and Charnigo, 2009). Sekerka, Bagozzi, and Charnigo (2009) noted, in

regards to courage, that “character development can extend the worth of an organization,” and that organizations should focus on promoting courageous action rather than implementing controls to prevent unethical behavior. Even popular magazines laud the importance of courage in businesses. In 2002, Time magazine selected Sherron Watkins of Enron, Coleen Rowley of the FBI, and Cynthia Cooper of WorldCom as their persons of the year, because they exemplified extreme courage in the workplace (Time, 30 December 2002). Due to its proposed importance, some researchers have gone as far to theorize about methods to increase courageous behaviors in organizations (Ayling, 2006; Hashemian and Loui, 2005). While these proposed relationships draw to the importance of courage, very few of them have been empirically tested. This dearth of courage research may be due to a variety of reasons.

First, only recently have researchers come to a common consensus in regards to the definition of courage (Norton and Weiss, 2009; Rachman, 1990; Rate et al., 2007; Rate, 2010; Woodard, 2004; Woodard and Pury, 2007). This schism in courage research posed a great barrier, as authors ascribed different operationalizations to the construct and their results could not even generalize to other courage studies. Second, many authors have attempted to categorize the types of courage. While many of them have postulated overlapping dimensions, few have conceptualized the same dimensions (Lopez, O’Byrne, and Peterson, 2003; Pury, Kowalski, Spearman, 2007; Woodard and Pury, 2007). Third, no study has provided a psychometrically sound measure of courage. Some attempts have been made, but the studies often suffer from inappropriate operationalizations of courage, poor or no validity checks, and very small sample sizes (Norton and Weiss, 2009; Woodard and Pury, 2007). These shortcomings resulted in scales which have very poor factor loadings, unclear labels to dimensions, unsatisfying psychometric properties, and concerns with construct validity.

In light of these downfalls, the current research is adapted from the previous studies and creates a sound measure of courage. Rather than developing a broad, global measure of courage, the current research leads to a scale for a certain dimension of courage. The chosen dimension is particularly beneficial for organizations, and will aid future researchers and practitioners. Additionally, the current research will avoid previous mistakes made in creating a courage measure, so that the same scale deficiencies will not occur again.

Therefore, in the current research, a literature review on courage is performed. From this literature review, several dimensions of courage are clearly defined. Then, a particular dimension of courage, social courage, is identified which could have important implications for organizations. The current research reports several studies using multiple samples to create a psychometrically sound and valid measure of social courage. In doing so, the scale's convergent, concurrent, and discriminate validity are examined. Finally, with the scale created, several implications of social courage in modern organizations are discussed. Therefore, the current research provides a useful tool for courage and organizational researchers, while providing a thorough overview of existing courage literature.

Chapter 2

Background

What is Courage?

As apparent from the opening quotations, many historical figures have provided varying definitions to the concept of courage. Not only do these popular definitions differ in their mandated requirements for courage, but they also differ in how they treat courage. That is, the definitions vary in terms of whether courage is a label to a behavior or a trait. This disagreement leads to much confusion in the courage literature. Many studies use operationalizations such as

“persistence despite fear” (Norton and Weiss, 2009) or “grace under pressure” (Hemingway, as cited in Lopez, O’Byrne, and Peterson, 2003) to define courage; however, while these definitions describe a behavior, the authors often use them to describe a character trait, and create scale questions akin to “I am courageous” (Norton and Weiss, 2009, p. 10). How can courage be both a behavior and a trait? Pury and Starkey (2010) call this the difference between courage as a process and courage as an accolade. They note that defining courage as a process, such as “persistence despite fear,” encapsulates a wide variety of behaviors, and even includes some behaviors which would be considered common by a general population. Alternatively, when defining courage as an accolade, such as in Aristotle and Plato’s definitions, the label is often reserved for those who have displayed extreme examples of courage. Defining courage as an accolade is often used to provide information on how courageous individuals are “different from the rest” (Pury and Starkey, 2010, p. 85). In modern courage literature, it seems that definitions which define courage as a process are more common and more desired than those which define courage as an accolade (Norton and Weiss, 2009; Rachman, 1990; Rate et al., 2007; Rate, 2010; Woodard, 2003; Woodard and Pury, 2007), as they are the most often used. When using definitions which define courage as a process, an individual is considered courageous if they perform courageous behaviors.

The most accepted definition for courage was created by Rate et al. (2007). This popular definition is similar to previously accepted definitions (Peterson, 2006; Peterson and Seligman, 2004; Shelp, 1984; Snyder and Lopez, 2007), and has been defended by several authors (Hannah and Avolio, 2010; Rate, 2010; Sekerka, Bagozzi, and Charnigo, 2009). The definition is, “(a) A willful, intentional act, (b) executed after mindful deliberation, (c) involving objective substantial risk to the actor, (d) primarily motivated to bring about a noble good or worthy end, (e) despite,

perhaps, the presence of the emotion of fear” (italics in original; p. 95). This definition is quite long, and it may be beneficial to break it down into its parts. First (a), all courageous behaviors must be a voluntary behavior. If an individual is forced to do a behavior against their will, then the behavior cannot be considered courageous. Second (b), the behavior must have its outcomes considered by the individual performing the behavior. In other words, the actor must consider the multiple outcomes, and consciously choose the courageous outcome among other possibilities. Third (c), the behavior must have risk involved, with the potential of negative repercussions for the individual performing the behavior. Fourth (d), the behavior must be motivated for noble purposes. Although the term “noble” is slightly ambiguous in the psychological literature, it seems that most courage studies consider it to be synonymous with prosocial (Rate et al., 2007; Rate, 2010). So, a courageous behavior must be primarily prosocially motivated, or done with the benefits for others in mind. Fifth (e), the behavior may or may not involve fear. Since any emotion may or may not be involved with any behavior, the last requirement of courage seems to be extraneous and unnecessary. It should be noted that the aspect of fear, although traditionally important (Norton and Weiss, 2009, Rachman, 1990), has been removed in further revisions of this definition of courage (Rate, 2010), and is not discussed further. Without all of these first four requirements, a behavior cannot be considered courageous, even if only one requirement is absent. Additionally, akin to many other courage operationalizations, this definition describes courageous behaviors, and implies that a courageous individual is one who performs courageous behaviors.

These four requirements for courage have been empirically tested and extensively supported (Rate et al., 2007). There is little doubt that they are the proper requirements of courage, although some studies still use alternative definitions. Once these four requirements are

met, an act can be further distilled into a particular type of courage, such as physical courage or moral courage. Identifying the different types of courage may be helpful in predicting certain types of behaviors and knowing which types of courage to analyze in a work environment. Therefore, a brief overview of several different types of courage is provided below.

Types of Courage

While many philosophers and researchers have sought to define courage, others have identified different dimensions of courage. As Woodard and Pury (2007) note, courage is often labeled by the risks involved with a particular behavior, instead of the outcome or other contextual factors. From this perspective, researchers have created a multitude of types of courage. Almost every dialogue on courage includes the term physical courage (Clancy, 2003; Putman, 1997; Woodard, 2004). Adhering to the previous motif of labeling the types of courage, an act of physical courage is a behavior which satisfies the four requirements of courage and the risk is a threat to an individual's own physical well-being. A classic example of physical courage is a firefighter who enters into a burning building to save a child; the firefighter is voluntarily and consciously risking personal physical well-being for the betterment of others. Physical courage is often easy to conceptualize, because the risks are observable in nature; however, other forms of courage are more internalized and often more difficult to accurately label.

The extant literature related to different types of courage often diverges after labeling physical courage (Lopez, O'Byrne, and Peterson, 2003; Pury, Kowalski, Spearman, 2007). Some authors argue for the existence of existential courage (Maddi, 2004), while others argue for family-based courage (Woodard and Pury, 2007), and yet others argue for psychological courage

(Putman, 1997). A comprehensive list of the types of courage could that have been posited would be lengthy. What is important to note is that authors have conceptualized a large number of courage subtypes, with many of them overlapping and becoming repetitive. Instead of attempting to synthesize each individual type of courage, it would be more valuable to identify types of courage which appear relevant for a particular interest. In the current instance, the particular interests are outcomes in an organizational context. Thus, types of courage which have relevance to organizational settings were investigated further.

While the previously mentioned types of courage are important in many situations, some are arguably more important than others in an organizational context. Physical courage is crucial for occupations such as soldier or firefighter; however, it seems unlikely that physical courage is essential in the day-to-day workings of most white-collar employees. Kidder (2005) goes as far to say that physical courage is no longer needed in today's society. Thus, it is assumed that some types of courage are more appropriate for some organizational settings than others. Fortunately, other researchers have already provided qualitative reports of experiences of courage in the workplace (Schilpzand, 2008; Worline, Wrzesniewski, and Rafaeli, 2002). From these reports, four types of courage emerge that largely arise in an organizational setting.

The first of these is moral courage. Moral courage is often defined as "the ability to use inner principles to do what is good for others, regardless of threat to self, as a matter of practice." (Sekerka and Bagozzi, 2007, p. 135), or more generally "doing the right thing." When employees describe when they see or experience moral courage at work, they mention instances in which employees must stand up for their beliefs for the good of others (Graham, 1995), or even when a nurse is forced to decide whether to resuscitate a patient who is dying in pain (Lachman, 2007a). These instances of courage generally emerge in high-risk situations, since it

involves a conflict of one's inner values. Also, moral courage is the most written about form of courage (Sekera, Bagozzi, and Charnigo, 2009), and the most commonly identified as being important for workplace interactions (Hannah, Avolio, and Fred, 2011). Authors have often noted the importance of moral courage in employee whistle blowing behaviors (Bashir, Khattak, Hanif, and Chohan, 2011; Faunce, Bolsin, Chan, 2004), as well as leadership positions (Wasylyshyn and Stefano, 2006). These researchers frequently argue that not only do organizations benefit from morally courageous employees, but so does society as a whole. This far-reaching importance of moral courage is likely why researchers are interested in this form of courage; however, while instances that require moral courage have caught the attention of researchers and practitioners, the base rate for these behaviors are low. Rarely does an employee "whistle-blow" or decide whether to resuscitate a patient (Lachman, 2007a). So, while these behaviors have large impacts, they do not occur often in organizations, and may not be the most appropriate form of courage to concentrate on. Instead, other forms of courage which are more relevant to day-to-day interactions would more reliably and consistently benefit organizations. For this reason, moral courage was not chosen as a focus of the current research.

Another often identified type of courage is not always named, but generally describes when an individual makes a monetary risk and the associated ramifications with the loss of money (loss of property/safety). Schilpzand (2008) calls this entrepreneurial courage. Entrepreneurial courage can be seen when individuals make a risky investment, unsure of whether their money will pay-off. For example, if an individual buys many shares of a start-up company with the assumption that they may or may not see a return on their investments, they are showing entrepreneurial courage. Although this type of courage is likely not seen on a daily basis, some authors have argued that it is a distinct construct (Schilpzand, 2008). Regardless of

its evidence in day-to-day interactions, this type of courage is generally only seen in the higher-level members of an organization. Typically, a lower-level employee will not make this type of monetary decision, and a general employee's extent of entrepreneurial courage will likely not have an effect on an organization. Furthermore, no reviewed article mentioned this dimension of courage being important for the majority of employees. Although I recognize the importance of entrepreneurial courage, I also chose not to study this form of courage.

A third, often mentioned subset of courage is managerial courage. Managerial courage is defined as, "willingness to do right in the face of risk" (Van Eynde, 1998). Although this definition seems to be very similar to moral courage, "do[ing] right" includes behaviors which do not involve an individual's morals or values, such as giving feedback to an employee (Furnham, 2002). Unlike the other types of courage, managerial courage is not defined by the risks involved. Instead, it is defined by its area importance, or the employees which likely need to possess this subset of courage. In defining managerial courage in this manner, it seems that this subset of courage encapsulates multiple form of courage, especially moral and social courage (described below). So, although many authors have argued for its importance, they may actually be arguing for the joint importance of moral and social courage.

The fourth type of mentioned workplace courage is social courage, which I define as a display of courage in which the risks involved could damage an individual's esteem in the eyes of others. It should be noted that this definition draws upon Jackson, Hourany, and Vidmar's (1972) chosen definition for social risk, which has been adopted in numerous studies for distinguishing the types of risk (Weber, Blais, and Betz, 2002). Social courage has been theorized by philosophers (Rate et al., 2007), but very few researchers have directly studied the construct. Fortunately, although the current amount of research on social courage is small, it still

provides sufficient information to begin investigating its nature. First, social courage is important for many workplace interactions. Social courage has been proposed to play a large role in whistle-blowing behaviors, feedback giving, and organizational citizenship behaviors (Bhal and Dadhich, 2011; Dozier and Miceli, 1983; Geller and Veazie, 2009; Miceli and Near, 1988; Worline, Wrzesniewski, and Rafaeli, 2002). These outcomes involve interactions with others, and often are deterred due to fear of interpersonal ramifications. Also, these behaviors may be performed by those at any level of an organization, and may even be performed often. So, while other forms of courage may not be useful due to their rare occurrences, social courage does not have this shortcoming. Therefore, it seems likely that social courage can benefit an organization through an increase of these outcomes, among others; however, this has not been explicitly shown in research.

Second, through a review of qualitative studies on courage, it appears that social courage is generally involved in two types of behaviors. The first type of behavior is that which could result in damaging one's interpersonal relationships (Worline, Wrzesniewski, and Rafaeli, 2002). Two examples are when an individual gives corrective feedback to an employee and risks upsetting the employee, or when an individual confronts a disruptive coworker who may react with anger. Behaviors which could damage interpersonal relationships are the most often referenced in relation to courage at the workplace, as evident in existing qualitative studies and informal interviews (Schilpzand, 2008; Worline, Wrzesniewski, and Rafaeli, 2002). Employees seem to repeatedly view their coworkers putting aside their interpersonal relationships for the betterment of the company, and do what needs to be done to get their jobs done.

The second social courage behavior is those which could result in damaging one's social image, also called face loss costs (Ashford and Cummings, 1983). These face loss costs could be

due to a variety of reasons. For example, if individuals ask for help on tasks, they could lead others to believe that they are weak or unknowledgeable of a task they were assigned, and they would lose esteem in the eyes of others. Additionally, it is possible that peers could also see their requests for assistance as ingratiation, and believe the individuals were only asking questions in order to feign interest. In this instance, the individual would lose esteem in the eyes of others, due to perceptions of inauthenticity. Therefore, face-loss costs are social in nature, may satisfy the four requirements of courage, and constitute the second type of social courage behaviors.

Thus, from existing qualitative studies and interviews, two categories of social courage behaviors arise. I refer to them as relationship damaging behaviors and face loss behaviors. Now that a type of courage which is important in organizational dynamics has been identified, it is important to review methods used to measure courage and social courage. When analyzing measures for social courage, a particular focus is given to whether both relationship damaging and face loss behaviors are adequately represented.

Measuring Courage and Social Courage

Measuring Courage

Multiple researchers have attempted to create a broad, overall scale to measure courage. Although it is possible that multiple scales exist, in the literature review for the current research, only two scales which were published in a peer-reviewed journal and could be applicable to workplace settings were found. Other measures of courage exist; however, their questions are often gauged towards a clinical context, with an example question being, “When you have a

panic attack, do you behave courageously?” (Schmidt and Koselka, 2000). Therefore, these measures are less relevant to an organizational context and are not discussed in the current paper.

Although it is a very recently created measure, the most widely used scale that I reviewed is Norton and Weiss’s the Courage Measure (2009). This scale measures courage as a single, broad construct, and consists of twelve “rationally-derived items to assess self-perceived courageousness” (Norton and Weiss, 2009). Example items are, “I would describe myself as ‘chicken’” (reverse coded), “If the thought of something makes me anxious, I will usually avoid it” (reverse coded), and “I will do things even if they seem to be dangerous.” In their original study, the researcher’s only validation of the Courage Measure was a participant’s ability to approach a spider despite their spider phobia, which doesn’t involve all four requirements of a courageous act. No other dependent measures were used. Despite the modest amount of validation of the Courage Measure, some studies have adapted its use (Muris, 2009; Muris, Mayer, and Schubert, 2010); however, the primary reason for its adoption seems to be its ability to be easily altered in order to gauge courage in children.

While the Courage Measure (Norton and Weiss, 2009) does not display any major psychometric concerns, the lack of validation could be detrimental, as only gauging its validation with a participant’s ability to approach a spider is not the most robust of validation techniques. Also, the vague wording of questions may alter participant responses, and may construe the questions to not even gauge courage. For example, if a participant answers that they would “do things even if they seem to be dangerous,” this could be an indication of a foolhardy or risky individual. Furthermore, if the act envisioned is not noble in nature (e.g., harming someone is dangerous), then the individual certainly would not be courageous, but their answer would indicate otherwise. Finally, the author’s operational definition of courage was “persistence or

perseverance despite having fear,” which is not a generally accepted definition of courage. Questions which only measure one’s persistence despite fear may not be the same as measuring an individual’s courage. This is obviously an issue with the scale’s construct validity. Thus, although this scale does draw attention to certain aspects of creating a successful courage measure, the authors certainly did not succeed in their attempt.

The other courage scale is the Woodard-Pury Courage Scale 23 (WP-23; Woodard and Pury, 2007). This scale was created by gathering multiple courage-related questions, administering them to a student sample, and analyzing the resulting factor structure to develop a multi-dimensional measure of social courage. The resulting scale consists of questions which load on multiple factors, and the authors admit that even they are unsure of the appropriate labels for their factors. A possible reason for the loading of several questions onto multiple factors is a lack of attention to previous research on the types of courage. As mentioned, the authors created many general courage questions (e.g., “I would go where I wanted to go and do what I wanted to do, even though I might be bullied as an ethnic minority”) in an attempt to see how they loaded on a factor analysis, but they failed to realize that some questions may represent multiple types of courage. The question given (I would go where...) could be an example of physical courage, as an individual may be at risk for being physically assaulted if they went into a hostile area; however, the question could also be an example of social courage, as an individual may be involved with a negative social interaction for their behavior. Therefore, this scale seems to ask questions which measure multiple types of courage, leaving the authors unable to determine the proper factor structure of the scale.

Much like the Courage Measure (Norton and Weiss, 2009), the WP-23 also includes questions that seem to go against modern conceptualizations of courage. For example, the

question, “I would go to the dentist and have painful surgery if it meant saving a tooth,” does not seem to be a noble act; thus, it does not gauge courage. Additionally, the question “I could keep my wits about me if I were lost in the woods at night,” does not seem to measure courage either. This question has no aspect of the behavior being voluntary. So, instead of being courageous, this question may instead measure one’s ability to cope with stress.

With all of these factors taken into consideration, these two courage measures seem to fail at adequately gauging courage. Their psychometric properties and differing conceptualizations of courage are problematic. Instead of creating a broad, general measure of courage, it may be more applicable to create a measure which gauges a specific type of courage. Therefore, in the current study, a form of courage which is particularly applicable to workplace settings was identified – social courage. This form of courage seems to be the most useful in predicting certain, valuable workplace-related outcomes. Below is a review of the previous attempt to measure this form of courage.

Measuring Social Courage

Although social courage has been repeatedly identified as an important virtue for an employee (Rate, 2010), little research has analyzed its effects. This may be due to the lack of adequate measurement. Currently, only one scale exists that includes a measure of social courage, the Personal Courage Scale (Schilpzand, 2008). This scale was created and examined through a multiple sample, multiple method style dissertation. The results of the dissertation show that the scale has satisfying psychometric properties, and several aspects of the scale’s validity were shown (both good and bad); however, the scale has never appeared in a peer-

reviewed journal publication. While this scale seems to be psychometrically sound, it still has multiple shortcomings.

First, the scale does not gauge all facets of workplace social courage. Previous researchers have given multiple examples of behaviors that could be considered as social courage (Ashford and Cummings, 1983; Worline, Wrzesniewski, and Rafaeli, 2002). These can be narrowed down into two categories, relationship damaging behaviors and face loss behaviors. The social courage subset of the Personal Courage Scale only asks questions that gauge one's likelihood of engaging in behaviors that could damage interpersonal relationships. So, this scale does not seem to gauge all aspects of social courage, and a more complete scale should include measures of both categories of social courage.

Second, while analyzing the scale's validity, the authors only reported the results of the total Personal Courage Scale analysis, which also includes physical courage and entrepreneurial courage. The reported factor structure of the scale shows that the three dimensions of the scale are separate constructs, and would likely provide very different results if they were analyzed separately. For example, in their results, the authors report that extraversion had a medium correlation with personal courage ($r = .35$), which is appropriate for convergent validity; however, this correlation would likely be higher if social courage was analyzed separately, instead of being aggregated with a construct which is very conceptually different from extraversion, physical courage. Thus, little can be deduced about social courage from this study, and instead only inferences about personal courage can be made.

Third, the author chose to include moral courage into the category of social courage, without providing sufficient reasoning. In her article, Schilpzand describes moral courage as

“When values like freedom, honesty, integrity, duty, and justice are challenged, people may act to protect what they believe are integral parts of their self” (Schilpzand, 2008; p. 31). From this definition, her conceptualization of moral courage seems to be when an individual risks compromising their internal values and morals. An example would be a student choosing whether to cheat on a test, knowing that they would not be caught. In this situation, the largest determinant of whether they would cheat would be if they are courageous enough not to compromise their internal values. Although Schilpzand defines moral courage in this manner, she goes on to state,

“... in most instances of moral courage, individuals take ‘social risks’. Walton (1986; 107) even argues that ‘morally courageous acts are those where the difficulty or danger is not so much an immediate threat to one’s physical well-being as a threat to one’s social standing.’ Thus, moral courage can generally be seen as a tantamount to social courage and in this manuscript I will regard moral courage in that way” (2008; p. 31).

This conceptualization of moral courage is different than the definition previously given in the article, and different from many other authors’ own conceptualizations. Other authors would likely disagree with the definition that Schilpzand (2008) gives, which draws into question the construct validity of her measure. Additionally, in the previous example of the student, there seems to not be a social factor playing into his or her decision to cheat, but rather only a moral factor. Likewise, the same is true for actions which could be considered as social courage; there are many instances where a courageous act involves social risks but no moral risks. While it is possible that social and moral courage are overlapping constructs, the case is not strong enough to combine the two into one construct named social courage. Therefore, inclusions of questions such as, “I am likely to remain silent about a peer’s ethics violation,” may compromise the

validity of the scale, as their measure of social courage may be contaminated with the inclusion of moral courage questions.

Lastly, Schilpzand (2008) also attempted to show predictive validity of the scale in a military sample that was given the task of rating peer's personal courage before and after performing a physical activity. This finding limited the generalizability of the results to organizational settings. The results could be skewed in comparison to another occupational setting because their scale included measures of physical courage, which would be more relevant to a military setting when giving ratings. Thus, their findings could be inflated due to the nature of the sample they used.

While the Personal Courage Scale is an important step forward in advancing the literature on social courage, the scale still has many shortcomings. Notably, the narrow view of social courage, lack of reported statistics, aggregation of dissimilar constructs, and the use of a military sample in an attempt to generalize leadership abilities and courage to a general workforce, are all concerns with the scale. With these shortcomings taken into account, I hope to improve upon the attempts of previous researchers in an attempt to make a more complete measure of social courage.

Chapter 3

Methodology

Purpose

In the current study, a measure of social courage is created using multiple samples across multiple studies. Study 1 creates and subsequently reduces an over-representative item list to

form the social courage scale. Study 2 analyzes the scale's psychometric properties. Study 3 investigates the scale's method effects, such as social desirability and affect. Study 4 examines the scale's convergent, concurrent, and discriminant validity. Finally, Study 5 explores a slightly reworded version of the social courage measure to understand the effect of the original scale's wording. Through these multiple studies of the current research, a psychometrically sound and valid measure of social courage is created.

Samples

Since the current study aimed to create a novel measure, several samples were collected. Each sample was used to examine multiple aspects of the scales psychometric properties and validity. So, when presenting the results, most studies' results draw from multiple samples. For this reason, the descriptions of the samples are presented separately from the studies. Measures given to each individual sample are presented in Table 1.

Sample 1. Sample 1 consisted of 20 subject matter experts (SMEs) from two large Northeast American universities. These SMEs were all research assistants or graduate students in Industrial/Organizational Psychology. Thus, it is believed that they are experienced in the dynamics of the workplace, and are able to give expert opinions on courage in the workplace. The sample was primarily Caucasian and had a median age of approximately 24 years.

Sample 2. Sample 2 consisted of 116 student participants (46% female) recruited from a large mid-Atlantic university. These participants were mainly Caucasian (80%), but also represented several other ethnicities (6% African American; 7% Hispanic/Latino; 7% Other). Additionally, participants had an average age of 20.4 years ($SD = 2.34$). Most of them were not currently

employed (64% unemployed). No monetary compensation was given to the student participants; however, they were given extra course credit for their voluntary participation.

Sample 3. Participants for Sample 3 were a general student population, which consisted of 258 individuals (74% female) recruited from a large mid-Atlantic university. The sample was largely Caucasian (78%), with other ethnicities also being represented (5% African American; 6% Hispanic/Latino; 6% Asian; 5% Other). Additionally, the average age of participants was 19.43 (SD = 1.78), and most of them were not currently employed (65% unemployed). No monetary compensation was given to the student participants; however, they were given extra course credit for their voluntary participation.

Sample 4. Sample 4 consisted of 148 student participants (56% female) recruited from a large mid-Atlantic university. They were largely Caucasian (77%), but also represented several other ethnicities (9% African American, 8% Asian, 5% Hispanic, 1% Other). The average age of participants was 20.4 years (SD = 1.22), and most were not currently employed (60% unemployed). No monetary compensation was given to the student participants; however, they were given extra course credit for their voluntary participation.

Sample 5. Participants for Sample 5 were a general student population, which consisted of 163 individuals (80% female) recruited from a large mid-Atlantic university. They were largely Caucasian (78%), but also represented several other ethnicities (8% African American, 7% Asian, 5% Hispanic, 2% Other). The average age of participants was 18.94 years (SD = 1.31), and most were not currently employed (60% unemployed). No monetary compensation was given to the student participants; however, they were given extra course credit for their voluntary participation.

Scale Development Studies

Study 1

In Study 1, an item bank for the measure of social courage was created and subsequently reduced. Following Hinkin's suggestions (1995, 1998), which have been adapted by numerous scale development studies (Chen, Gully, and Eden, 2001; Ferris, Brown, Berry, and Lian, 2008; Liden and Maslyn, 1998), an over-representative item bank of potential social courage questions was first formed. These questions were formulated based on the small amount of research that have qualitatively analyzed courage in the workplace. For example, in Worline, Wrzesniewski, and Rafaeli's (2002) study, they report about an employee standing up to their manager, which inspired the question "Although my supervisor may get offended, I would question their orders if I disagreed with them." Also, some items were created through the author's own informal interviews with employees at various organizational levels. About a dozen informal interviews were largely conducted with those in "white collar" jobs such as professor, but were also conducted with nurses and some factory workers. Most of these interviews included situations which the interviewee stood up to an unruly coworker or asked for assistance on a project. It was believed that these existing studies and informal interviews provided enough information to develop a sufficient item bank of questions.

Additionally, since the focus of the current study is on instances of social courage in the workplace, only created questions which are workplace specific were created, instead of general social courage questions. This organizational focus hopefully avoids most confusion in answering questions, and reduces other forms of bias. It should be noted that none of the items were taken from previously existing scales. Although a previously existing social courage scale

exists (Schilpzand, 2008), a majority of its items include aspects of moral courage which were unsuitable for the current measure. In total, 49 questions that assess the content of the domain of social courage in a workplace context were created.

Following the creation of the initial item bank by the author, all questions were evaluated through an item-sort task. Item-sort tasks have been used in a large amount of scale development research, and have been suggested by numerous researchers to remove possible problematic questions (Anderson and Gerbing, 1991).

Participants and Procedure

A sample of 20 subject matter experts was assembled, as described above, in order to reduce the number of questions. Sample sizes of 20 have been shown to produce satisfactory inter-item correlations (Anderson and Gerbing, 1991).

To begin the item-sort task, the SMEs were trained on the definitions of courage, social courage, and other similar constructs. This was necessary since courage and social courage are infrequently studied in Industrial/Organizational psychology; while the SMEs may be experienced in organizational research, they likely would not be knowledgeable about the constructs of courage and social courage. Other similar construct definitions were included due to their close relation to social courage. Thus, each SME was provided a definition of courage, social courage, sociability, shyness, extraversion, public self-consciousness, and honesty. The SMEs were allowed to refer to these definitions while completing the item-sort task.

Upon learning about the constructs of interest, the SMEs were asked to read each question and indicate which construct they believed the question measured. Each item was also presented along with a free response blank, allowing SMEs to indicate if they perceived any

shortcomings with item wording. Only questions from the original item pool were included, and no items from alternative scales were given. The choices presented were “Social Courage – Damaging Relationships,” “Social Courage – Damaging Social Image,” “Other Type of Courage,” “Sociability,” “Shyness,” Extraversion,” “Public Self-Conscientiousness,” and “Honesty.” Items which are consistently assigned to their corresponding construct display high levels of substantive validity, as opposed to items which are assigned to multiple constructs. It is valuable to establish items’ substantive validity, since it is indicative of the overall measure’s construct validity (Anderson and Gerbing, 1991; Ferris, Brown, Berry, and Lian, 2008). Additionally, two dimensions were given for the construct of social courage because, at this point, it was unclear whether social courage is a unidimensional construct or separated by its two associated risks. So, an adequate representation of both dimensions would be needed if it was not a unidimensional construct, and could later be collapsed if social courage is shown to be unidimensional.

For the current measure, the proportion of substantive agreement (PSA) and the coefficient of substantive validity (CSV) were used to assess the results of the item-sort task. PSA refers to the proportion of respondents who indicated an item measures its intended construct, and CSV is the extent which respondents indicate an item measures its intended construct more-so than any other construct (Anderson and Gerbing, 1991). A statistical significance test can be applied to the latter coefficient to determine whether the assignment of an item to its construct can be accounted for by random chance. These two statistical results can accurately predict which items are highly inter-correlated.

Results

Both PSA and CSV were considered when determining which items to remove. Thus, only items with $PSA \geq .85$ (items with three or fewer of the 20 SMEs listing the item as measuring a construct other than social courage) and $CSV \geq .60$ (not assigned due to random chance) were retained. For a sample size of 20, items which score above a $CSV > .50$ are considered to be statistically significant. The resulting PSA and CSV scores are presented in Table 2 for each item. From the original 49 statements, this process removed 32, resulting in a final item bank of 17 questions. None of these 17 items had any concerns to the item wording, as expressed by the SMEs. Nine of them were categorized under “Social Courage – Damaging Relationships,” and eight were “Social Courage – Damaging Social Image.” Henceforth, the resulting items are called the Workplace Social Courage Scale (WSCS), along with subsequent reductions of these 17 questions. Table 2 contains all questions which were included in the original 49 question item bank, and their resulting PSAs and CSVs. Appendix A consists of the 17 items which were retained through the item-sort task. The following studies in the current research tests the created measure to determine its psychometric properties and validity.

Study 2

In Study 2, the WSCS's psychometric properties were examined, particularly its reliability and factor structure. As previous authors have repeatedly noted (Hinkin, 1995, 1998), it is paramount that any measure is properly inter-correlated and has an identifiable factor structure. No a priori hypotheses were made about the WSCS's factor structure. Although two distinct categories for social courage were used for the item-sort task, these two constructs may be very highly related and indistinguishable. Therefore, it was unknown whether the WSCS had a one or two dimensional factor structure.

Measures

WSCS. The participant's workplace social courage was measured with the WSCS developed in Study 1. This scale is listed in Appendix A.

Results/Discussion

A principal components analysis with a Direct Oblimin rotation was performed to determine the factor structure of the scale, using Sample 2. This rotation was chosen because it is an oblique rotation and allows factors to be correlated. An analysis of the resulting scree plot (Figure 4) indicates that the scale is unidimensional. As apparent from the figure, the eigenvalues greatly decrease after the first factor and then decrease at a consistent, slight rate afterwards. This suggests that there is only one underlying factor. Although this is not the most robust method of determining the number of factors in a scale, compared to parallel analysis or minimum average partial correlation (Hayton, Allen, and Scarpello, 2004; Velicer, Eaton, and Fava, 2000), the results were conclusive enough to forego other advanced statistical techniques. Additionally, all but four factor loadings are above .5 on this single factor, exceeding the conventional cutoff of .40 (Hinkin, 1998). Three of these four items loaded above .40, and the remaining item loaded .35. Although this loading is below some conventional cutoffs (Hinkin, 1998), it still approaches acceptability and was chosen to be retained¹. The full results of the factor loadings are presented in Table 3. Therefore, despite the creation of the WSCS including the possibility that the items may load on two separate factors, the results indicate that the scale is unidimensional.

¹ For the purposes of this thesis, this item was chosen to be retained. In the eventual journal publication of this data, this item will likely be removed at this point in the scale development process.

These results were replicated with Samples 3 and 4 through a Confirmatory Factor Analysis (CFA). When performing the CFA, all error terms with modification indices above 10 were covaried. Many psychometricians mandate that error terms should only be covaried if their respective items load onto the same dimension (Brown, 2006). Since the WSCS is a unidimensional measure, it is appropriate to covary any error terms. Fit indices and residual indices are presented in Table 4. As apparent from the table, the unidimensional model fit the data very well. The CFI and GFI almost meet their benchmark of .95, and the SRMR and RMSEA hover around .05. The ratio of degrees of freedom to χ^2 also indicates good model fit. The worst fit index, NFI, was .882. Although this did not meet the cutoff of .90, the surrounding support for model fit overcomes this single low value. Therefore, these results suggest that a unidimensional model fits the data well. Additionally, item loadings onto the latent factor were analyzed. Most item loadings were above .55, indicating that the items loaded onto the latent factor well. The only problematic loading was WSCS item 7. This item loaded .36. Although this value only approaches satisfactory, it is not low enough to conclusively remove the item from the measure². Therefore, the results of Study 2 show that the WSCS is unidimensional and has a strong internal consistency, as evident of the scale's reliability, inter-item correlations, and factor structure. Also, all items loaded onto the latent factor well.

Additionally, the scale's means were 5.25 (SD = .75; Sample 2), 5.08 (SD = .71; Sample 3), and 5.35 (SD = .63; Sample 4). Although these means are on the upper end of the scale, they do not indicate that a problematic ceiling effect is present in the measure. For all of the results, the mean is more than two standard deviations away from the maximum value, indicating that the majority of participants do not have their responses restricted. Histograms of WSCS scores

² Once again, this item was chosen to be retained for the purposes of the thesis, but it will likely be removed for the eventual journal publication.

are presented in Figures 1, 2, and 3. Additionally, each administration of the WSCS resulted in satisfactory reliabilities. The WSCS had a reliability of .86 from Sample 2, .88 from Sample 3, and .83 from Sample 4. All items had strong (.50) item-total correlations across the samples, with most having item-total correlations above .60. Therefore, it seems that the WSCS has adequate internal consistency. With the results showing that the psychometric properties of the scale were satisfactory, the following study was performed to measure the scale's method effects.

Study 3

The primary goal of Study 3 was to investigate the WSCS's method effects. As others have noted, self-report scales should not be overly biased by social desirability and positive/negative affectivity. Social desirability, defined as "a tendency for an individual to present him or herself ... in a way that makes the person look positive with regard to culturally derived norms and standards" (Ganster, Hennessey, and Luthans, 1983, p. 322), and has been argued to skew correlations between variables and cause other psychometric concerns. For the WSCS, participants may find it to be desirable to respond that they possess social courage. Also, positive and negative affect, defined as "individual differences in the extent to which individuals experience chronic positive or negative emotionality" (Ferris, Brown, Berry, and Lian, 2008, p. 1352), has also been argued to cause several psychometric concerns, such as systematically influencing participant responses (Burke, Brief, and George, 1993; Watson, Pennebaker, and Folger, 1987). Although many scale development studies only analyze the biasing effects of trait positive and negative affect (Ferris, Brown, Berry, and Lian, 2008; Sullivan, Bishop, and Pivik, 1995), it is possible that trait and state positive and negative affect may bias results. For the current study, both were analyzed. Altogether, social desirability, trait positive and negative

affect, and state positive and negative affect were analyzed with the WSCS to ensure that these biasing effects do not greatly confound the results.

Measures

WSCS. The participant's workplace social courage was measured with the WSCS developed in Study 1. This scale is listed in Appendix A.

Trait and State Positive and Negative Affect. Watson, Clark, and Tellegen's (1998) PANAS scale was used to assess positive and negative affect. This is the most widely used measure of positive and negative affect in organizational research (Kercher, 1992; Mackinnon, Jorm, Christensen, Korten, Jacomb, and Rodgers, 1999). Participants were presented with individual words (e.g. interested, distressed), and asked to respond on a 5-point scales (1 = very slightly or not at all to 5 = extremely). To measure state affect, participants were asked the extent that they felt "at the present moment." To measure trait affect, participants were asked the extent that they felt "in general."

Social Desirability. For the current study, Paulhus's (1991) 20-item Impression Management Scale was administered to gauge social desirability ($\alpha = .79$; Meston, Heiman, Trapnell, and Paulhus, 1998). This scale has been used frequently in scale development studies to analyze the biasing effect of social desirability (Abrams, Viki, Masser, and Bohner, 2003). An example question is "There have been occasions when I have taken advantage of someone" (Meston, Heiman, Trapnell, and Paulhus, 1998).

Results

Correlations between all measures administered for Study 3 are presented in Table 5. As apparent from the table, the WSCS has low to moderate correlations with social desirability, state negative affect, trait negative affect, and trait positive affect. Therefore, these biasing effects do not pose a problem with the scale; however, the WSCS has a large correlation with state positive affect. Although a large correlation with positive affect may be a biasing effect for many scales, the same may not be true for the WSCS. Instead, state positive affect could simply be a predictor of social courage, as explained by empathy gaps. Theories regarding empathy gaps argue that individuals are more likely to endorse their willingness for a behavior when they are in an active state (Dunning, VanBoven, and Loewenstein, 2000; Loewenstein, 2000, 2005; Sayette, Loewenstein, Griffin, and Black, 2008). For example, an individual is more likely to be willing to dance in front of a classroom after they've done active physical activity, compared to when they are dormant (Loewenstein, 2005). This notion has been shown in previous Industrial/Organizational Psychology studies focusing on Organizational Citizenship Behaviors (OCBs; George, 1991). When individuals are in a positive state, they are more likely to endorse their willingness to perform OCBs, due to elevated state positive affect being an active state. The same seems to be true for social courage. Those who had high state positive affect were more likely to claim willingness to perform social courage behaviors, and this relationship was much stronger than trait positive affect's relationship to social courage. These results are consistent with previous research (George, 1991), and previous theories on empathy gaps (Loewenstein, 2005). Therefore, the results discovered in Study 3 may not be evidence of biasing effects, but support for the WSCS since it adheres to related results and theories. With these results taken into consideration, it seems that the WSCS is not overly encumbered with

biasing effects, and further research into the scale's convergent, concurrent, and discriminant validity is appropriate.

Scale Validity Studies

Study 4

The primary goal of Study 4 was to examine the convergent, concurrent, and discriminant validity of the WSCS. This is a necessary process in showing the validity of any scale, as the measure should be linked to theoretically related constructs and dissimilar to those which are theoretically unrelated. The current study looks towards previous theoretical and qualitative studies to determine which other constructs could provide adequate measures of convergent and discriminant validity. From this review, several constructs were believed to be correlated with social courage.

It is paramount that the WSCS is shown to be related to preexisting courage measures. If the WSCS is not related to overall courage, then it is very unlikely to actually be measuring social courage. Although the preexisting measures have been shown to have undesirable properties, they still likely measure certain facets of courage (Norton and Weiss, 2009; Woodard and Pury, 2007). So, it is still beneficial to use a general measure of courage. Also, it is important to show that the WSCS is related to alternative subcomponents of courage, such as physical courage (Schilpzand, 2008). Despite being alternative facets of courage, it seems conceptually plausible that they would be related.

Hypothesis 1: The WSCS is positively correlated with general courage and other courage dimensions.

In the definition of courage, two constructs are mandated. The first of these is risk taking. Without risk, an act cannot be courageous (Peterson, 2006; Peterson and Seligman, 2004; Rate et al., 2007; Snyder and Lopez, 2007). So, any courage measure should be related to risk; however, risk is not the only factor of courage. Courage must also involve the other three requirements, noble act, outcomes assessed, and voluntary. When creating a courage measure, it is possible that these three factors play such a small role in deciding to engage in courageous behavior that any courage scale only becomes a willingness to take risks scale. Therefore, any scale on should be related to risk, but not to an extent which insinuates that the two constructs are repetitive.

Hypothesis 2: Social courage is positively correlated with risk taking.

The second mandated aspect of courage is noble intentions, also known as prosocial motivation (Grant, 2008; Grant and Gino, 2010). Much like risk, being prosocially motivated is not the only aspect of courage, as it must fulfill the other three requirements. So, a newly created courage scale should positively correlate with prosocial motivation, but not only tap into this single aspect of courage.

Hypothesis 3: Social courage is positively correlated with prosocial motivation.

Multiple constructs of the Big Five seen to be particularly relevant to social courage, particularly neuroticism. Neuroticism is often thought of as emotional instability (Wang, Repetti, and Campos, 2011), and previous research has shown that neurotic individuals are more susceptible to potential stressors (Wang, Repetti, and Campos, 2011). It is possible that individuals who are high in neuroticism would be more vulnerable to negative social interactions or face loss costs, because they would be sensitive to the potential negative outcomes. So,

neurotic individuals would be more likely to shy away from situations which would demand social courage behaviors. Therefore, neuroticism should be negatively related to social courage.

Hypothesis 4: Social courage is negatively correlated to neuroticism.

Another related Big Five construct is conscientiousness. Individuals who are high in conscientiousness are generally seen to be "responsible, dependable, persistent, and achievement-oriented" (Barrick and Mount, 1993, p. 111), and are consistently rated as high performers (Dudley, Orvis, Lebiecki, and Cortina, 2006; Hochwarter, Witt, and Kacmar, 2000). Since those who are high in conscientiousness are generally seen as good performers, it is reasonable to believe that they may also be high in social courage. These individuals likely set their own social image or relationships aside in order to ultimately benefit their organization. For example, Worline, Wrzesniewski, and Rafaeli (2002) describe an individual who confronted their manager (and risked his interpersonal relationship) to ensure that the company's project released on time. For these reasons, it is expected that social courage is positively related to conscientiousness.

Hypothesis 5: Social courage is positively correlated with conscientiousness.

Also, since social courage involves individuals' interactions with others, several aspects of social perceptions and interpersonal tendencies should be related. The first social construct of interest is also from the Big Five. Social courage is likely related to extraversion, which is commonly described as, "people who choose to work on group projects, who like being the center of attention, and who enjoy working with others, especially in social-service or sales occupations" (Hansen, 1984). Additionally, the adjectives of sociable, gregarious, assertive, active (Goldberg, 1990), talkative, and ambitious (Mount, Barrick, Strauss, 1994) have been used

to describe extroverted individuals. These individuals seem to thrive in social situations, and are drawn to interpersonal interaction. They would likely have more experience interacting with others when compared to introverts, and would possibly have more confidence in situations which they should perform social courage behaviors. Therefore, it is expected that extraverted individuals are experienced in interpersonal interactions, and have higher levels of social courage.

Hypothesis 6: Social courage is positively correlated with extraversion.

In addition, the other two personality factors of the Big Five (agreeableness and openness to experience) are researched in an exploratory manner with no a priori hypotheses about their relationships to social courage.

Sociability is a similar construct to extraversion, but distinct. Sociability is defined as, “a tendency to affiliate with others and to prefer being with others to remaining alone” (Cheek and Buss, 1981). Those who are high in sociability desire to be around others and have experience interacting with people. Therefore, much like extroverted individuals, individuals high in sociability likely have had more practice dealing with situations which may require social courage to perform the correct behavior. Therefore, it is believed that those high in sociability would have more experience dealing with others, and would have higher levels of social courage.

Hypothesis 7: Social courage is positively correlated with sociability.

Another socially-related construct likely related to social courage is shyness. Although related to sociability, shyness has been demonstrated to be a separate construct (Cheek and Buss, 1981). Crozier (2005) noted that shyness encapsulates cognitive, affect, and behavioral components, which can all be measured individually. He further goes on to note that this

multidimensionality of shyness has led several psychologists to create alternative definitions for shyness, based on their particular component of interest. While these psychologists define shyness slightly differently, the construct generally refers to feelings of tension, concern, awkwardness, and discomfort when in the presence of strangers or casual acquaintances. Additionally, the behaviors of gaze aversion and inhibition of “normally expected behavior” are associated with shyness (Cheek and Buss, 1981). Much like sociability, those high in shyness may be low in social courage because they are more avoidant of any social interaction, while those low in shyness are more open to social interactions. It is believed that shy individuals are low in social courage.

Hypothesis 8: Social courage is negatively correlated with shyness.

Another relevant construct is interpersonal trust. Interpersonal trust is considered one of the most studied concepts in organizational and management literatures (Costa and Bijlsma-Frankema, 2007), and is defined as “positive expectations about others” (Lewiciki and Bunker, 1996), “the willingness to be vulnerable (Mayer, Davis, and Schoorman, 1995), and “belief and willingness to depend on another party” (McKnight, Cummings, Chervany, 1998; as cited in Costa, 2003). Individuals who are high in social trust are more likely to “be vulnerable” and “depend on another party.” So, they likely more often engage in behaviors which could incur face loss costs, because they trust others with their vulnerabilities. Therefore, it is possible that individuals high in social courage are more trusting of people with their social self-image.

Hypothesis 9: Social courage is positively correlated with interpersonal trust.

Public self-consciousness seems to be related to social courage. Public self-consciousness is, “A general awareness of the self as a social object that has an effect on others, e.g., 'I'm very concerned about the way I present myself.'” (Fenigstein, Scheier, and Buss, 1973,

p. 523). Individuals who are high in social courage have been hypothesized to enact in behaviors which could have their risks gauged by whether they are aware of themselves as a “social object that has an effect on others.” If an individual is unaware of themselves as a social object, then they are unlikely to realize the face loss costs or the potential to damage interpersonal relationships with their actions. In order to show the validity of social courage, it would be beneficial to show that social courage isn’t simply a function of public self-consciousness while still having some type of relationship with the construct. It is expected that the two constructs have a negative relationship.

Hypothesis 10: Social courage is negatively correlated with public self-consciousness.

Several personal characteristics should also be related to social courage. Core self-evaluations (CSE) is a recently developed grouping of four constructs, locus of control, self-esteem, neuroticism, and self-efficacy (Judge and Bono, 2001). When aggregated together, these constructs have been shown to have high correlations with life satisfaction, job satisfaction, conscientiousness, and extraversion (Judge, Erez, Bono, and Thoresen, 2001). Those who are higher in CSE generally feel better about themselves, and its subconstructs have been shown to be correlated with resilience (Luthans, Avolio, Avey, and Norman, 2008). Individuals with high CSE may be more resilient to obstacles they endure, and may be more willing to face them. So, it seems likely that those high in CSE are also be high in social courage, since they are more capable of enduring the negative risks involved with social courage acts.

Hypothesis 11: Social courage is positively correlated with core self-evaluations.

Psychological Capital is a recently developed construct, created by Luthans, Luthans, and Luthans (2004). This construct is a grouping of four other constructs, much like Core Self-

Evaluations. These four constructs are hope, resilience, self-efficacy, and optimism (Luthans, Youssef, and Avolio, 2007). Psychological Capital is often cited for its importance in positive psychology literature, as well as being compared to courage. Some authors have directly cited at least one of Psychological Capital's components as being a precursor of courageous actions (Geller and Veazie, 2009; Hannah, Sweeney, and Lester, 2007). Although it would be important to show that these constructs lead to courageous behaviors, no study has scientifically shown that they are even related to courage. Therefore, it would be important to first show that psychological capital is related to social courage. Each dimension of Psychological Capital is expected to positively relate to social courage.

Hypothesis 12: Social courage is positively correlated to psychological capital.

An abundant amount of literature has theorized and investigated an individual's approach and avoidance temperaments (Elliot and Covington, 2001). These two temperaments relate to an individual's motivation to secure positive outcomes and avoid negative outcomes, respectively (Elliot, 1999). One of the most popular applications of this line of research is the development of goal orientations (VandeWalle, 1997). Goal orientations, as described by Dweck (1986), are "dispositions towards developing or demonstrating ability in achievement situations." These goal orientations can be broken down into three different types, which are learning goal orientation, perform goal orientation, and prove goal orientation (VandeWalle, 1997). An individual with a learning goal orientation seeks to master their abilities, and their main concern is not necessarily towards completing the task. This goal orientation is most closely linked to an individual's approach temperament (VandeWalle, 1997). Conversely, an individual with a perform goal orientation seeks to complete their tasks without failing, but are less concerned with actually mastering their skills. This goal orientation is most closely linked to an

individual's avoid temperament (VandeWalle, 1997). Finally, an individual with a prove goal orientation seeks to show others that they are competent, but are not concerned with actually completing the task or mastering their skills and abilities. This goal orientation is most closely linked with an individual's approach temperament (VandeWalle, 1997). With goal orientations taken into consideration, it seems likely those high in social courage would be high in learning goal orientation. These individuals would be focused on mastering their positions, and would not be inhibited by the risks that are involved with their duties. Conversely, individuals who are low in social courage would be low in perform goal orientation or prove goal orientation. These individuals would be concerned with not appearing incompetent, or looking good in front of others. They would not be willing to put their social image or interpersonal relationships aside to perform a task. Therefore, these goal orientations should be investigated in order to understand the underlying approach and/or avoid tendencies of courage.

Hypothesis 13: Social courage is positively correlated to learning goal orientation.

Hypothesis 14: Social courage is negatively correlated to perform goal orientation.

Hypothesis 15: Social courage is negatively correlated to prove goal orientation.

For a behavior to be courageous, then it must be voluntary with the outcomes assessed. A type of behavior which is not voluntary and the outcomes are not assessed are impulses (Orbell and Verplanken, 2010). These behaviors are done without conscious thought, and, according to the definition of a courageous behavior, they cannot be considered courageous. While these behaviors cannot be courageous, there is no reason to believe that an individual who is impulsive does not perform courageous behaviors. These individuals could be high in

performing both types of behaviors, as they are not mutually exclusive. Thus, impulsivity could serve as a discriminant validity check.

Hypothesis 16: Social courage is unrelated related to impulsivity.

Additionally, one factor will be studied in an exploratory manner. A closely related construct to social courage is psychological safety. Psychological safety is defined as, “shared beliefs among work unit members that it is safe for them to engage in interpersonal risk taking” (Walumbwa and Schaubroeck, 2009). While social courage generally described an individual’s propensity to engage in prosocial and risky interpersonal interactions, psychological safety refers to a group’s belief that they will not incur negative repercussions for their risky interpersonal interactions. So, those in psychologically safe environments should be more likely to engage in social courage behaviors, since they believe that they are less likely to receive negative repercussions.

In total, I examined the relationship of the WSCS scale to 17 different relationships of the WSCS. Although the list is not exhaustive, I believe that these constructs adequately form initial evidence for the WSCS’s convergent, concurrent, and discriminant validity.

Measures.

Social courage. The WSCS was administered in order to measure social courage, and is given in Appendix A.

Courage. Although a psychometrically sound measure of overall courage has not been created, I chose to use Norton and Weiss’s The Courage Measure (2009). Although this scale has little investigation into its psychometric properties, it still seemed more psychometrically

sound than its alternatives. For example, the WPCS-23 (Woodard and Pury, 2007) has repeatedly shown to have a undesirable factor structure along with concerns about its construct validity, and other measures are not applicable to the workplace (Schmidt and Koselka, 2000). Therefore, while The Courage Measure may not be ideal, it is still better than its alternatives.

Personal courage. Only been one scale has been created which directly applies theories of courage to individuals in the workplace, thus creating a comparison for any newly created measure. This is The Personal Courage Scale (Schilpzand, 2008). This scale consists of three subscales which gauge physical courage, social courage, and entrepreneurial courage. The scale has shown to have adequate reliability ($\alpha = .85$), but the reliabilities of the individual subscales have not been reported.

Global risk taking. Risk Taking was measured with the five item measure taken from Westaby and Lee (2003). A sample item is, "I value having fun more than being safe." This scale has been shown to have adequate reliabilities ($\alpha = .73$; $\alpha = .77$; Westaby and Lee, 2003).

Dimensional Risk Taking. The Risk-Behavior Scale (Weber, Blais, and Betz, 2002) was used to measure dimensional risk taking. The types of risk include ethical, financial, health/safety, recreational, and social. Each subscale of the Risk-Behavior Scale have been shown to have reliabilities at or above .70; however, the Social Risk-Behavior subscale is the one which is reported only at .70 (Weber, Blais, and Betz, 2002). Nevertheless, this scale seems to be able to provide information which the previous risk scale could not, and provides evidence for the convergent validity of the WSCS.

Big Five. To measure the Big Five, Saucier's (1994) Minimarkers was administered. This scale consists of forty adjectives which participants rate the extent to which the adjectives

describes them, and is aimed to measure all five factors of the Big Five. Example words are “Talkative” (Extraversion), “Sympathetic” (Agreeable), “Organized” (Conscientiousness), “Unenvious” (Neuroticism), and “Creative” (Openness). The reported reliabilities for each subscale are all above .75 (Saucier, 1994).

Sociability. To assess a participant’s sociability, the Sociability Scale was administered (Cheek and Buss, 1981). The five item questionnaire has been shown to have strong reliability ($\alpha = .70$).

Shyness. To gauge shyness, the Revised Cheek and Buss Shyness Scale was administered (Crozier, 2005). This thirteen item measure has shown to have satisfactory reliability ($\alpha = .86$), and its original version (The Cheek and Buss Shyness Scale; Cheek and Buss, 1981) has been in use for decades with multiple studies confirming its validity.

Public self-consciousness. Public self-consciousness was measured with the 12 item measure created by Goldberg, Johnson, Eber, Hogan, Ashton, Cloninger, and Gough’s (2006). This scale is created after the Personal Attributes Survey, and has a reported Cronbach’s alpha of .77. An example item is, “I worry about what other people think of me.”

Interpersonal trust. Interpersonal trust was measured through Goldberg, Johnson, Eber, Hogan, Ashton, Cloninger, and Gough’s (2006) ten item measure on interpersonal trust, which is largely based off of the NEO-PI-R. The scale’s reported reliability is .82, and includes questions such as “I believe others have good intentions” and “I suspect hidden motives in others.”

Core self-evaluations. To measure CSEs, Judge, Erez, Bono, and Thoresen’s (2001) CSE scale was administered, which has been consistently shown to have reliabilities above .80. This

scale includes the items “I complete tasks successfully” and “I determine what will happen in my life.”

Prosocial Motivation. Prosocial motivation was measured with Grant’s (2008) measure. This scale consists of four items, and has a reported Cronbach’s alpha of .90. An example item is “Because I want to help others through my work.”

Psychological Capital. To measure psychological capital, Luthans, Youssef, and Avolio’s (2007) scale was used. This measure consists of four subscales for each of the subcomponents of psychological capital, with the aggregation of them constituting the complete psychological capital scale. The reliability of the total measure has been shown to be sufficient ($\alpha = .88, .89, .89, .89$), and the reliabilities of the subscales range from .66 to .85 (Luthans, Youssef, and Avolio, 2007). Example questions are “I feel confident in representing my work area in meetings with management” (efficacy), “If I should find myself in a jam at work, I could think of many ways to get out of it” (hope), “I usually take stressful things at work in stride” (resilience); and “I always look on the bright side of things regarding my job” (optimism).

Goal Orientation. Goal orientation was measured with a scale created by Vandewalle (1997). Although many goal orientation scales exist, Vandewalle’s (1997) is one of the most widely used, and it has been shown to have robust psychometric properties. This scale consists of three subscales, which measure learning goal orientation, prove goal orientation, and avoid goal orientation. The reported Cronbach’s alpha for each subscale is .89, .85, and .88, respectively. Example questions are “I am willing to select a challenging work assignment that I can learn a lot from” (learning), “I’m concerned with showing that I can perform better than my

coworkers” (prove), and “I would avoid taking on a new task if there was a chance that I would appear rather incompetent to others” (avoid).

Impulsivity. To measure impulsivity, the Barratt Impulsivity Scale (Patton, Stanford, and Barratt, 1995) was administered. This measure consists of thirty questions. Its reliability ranges from .79 to .83, and an example question is “I spend or charge more than I earn.”

Psychological Safety Vignettes. Since the current study did not use any group-level data, vignettes were created which presented varying levels of psychological safety (Edmondson, 1999). These vignettes were all constructed to describe a workplace scenario. One type of vignette described where the participant was an office employee (group-scenario), and the primary focus was directed towards the participant’s perceptions about their workgroup. The other type described the participant’s relationship with an individual coworker (individual-scenario), and the focus was directed towards an individual’s perceptions about a specific coworker. Also, each vignette type had four different versions, which were intended to show varying levels of psychological safety with a workgroup or coworker. The different versions differed on the amount of time the participant had been working in the organization (recently hired/very long time) and how friendly their coworker(s) were (warm/cold). It is assumed that when given vignettes where they had been working at the organization for a longer amount of time, they would feel more psychological safety. In addition, when their coworker(s) was depicted as friendly, they would also report being more psychologically safe. Following each vignette, participants were given 4 items from the WSCS. These items were chosen based on their relevance to the vignettes (individual vs. group), as well as being the highest loading items from the EFA. This was to measure how differently participants would rate their social courage

depending on the environment given. Each vignette and corresponding answer is listed in Appendix B.

Results/Discussion

All results of the Study 4 are presented in Table 6, and are separated by sample. To determine the convergent validity of the WSCS, measures of courage, social courage, entrepreneurial courage, and physical courage were administered. The WSCS correlated moderately to highly with all four of these constructs, ranging from .41 to .54 (all $p < .01$). The strongest correlation was between the WSCS and the preexisting measure of social courage (Schilpzand, 2008), but the correlation ($r = .54; p < .01$) indicates that the scales still measure two distinct constructs. This is likely due to the Personal Courage Scale's inclusion of moral courage items. These results show that the WSCS has adequate concurrent validity with other courage measures, and supports Hypothesis 1. These results give support for the convergent validity of the WSCS.

Several variables were used to analyze the WSCS's concurrent validity. The first set of variables was those mandated by the definition of courage, risk and prosocial motivation. The WSCS had a correlation of .05 with risk-taking ($p > .05$) and .22 with prosocial motivation ($p < .01$). While the correlation with prosocial motivation is supportive of the WSCS's concurrent validity, the correlation with risk-taking was surprising. While it is possible that the WSCS does not include aspects of risk, it is also possible that the risk measure used (Westaby and Lee, 2003) does not gauge risk that is related to social courage. So, a dimensional risk taking measure was given. The results of this measure shows that the WSCS moderately correlates with social risk-taking ($r = .35; p < .01$), and has small correlations with all other forms of risk-taking. It seems

that the WSCS does relate to risk-taking, but only to the relevant form of risk-taking. Therefore, the WSCS's moderate correlation with social risk-taking supports the scale's concurrent validity, while its low correlations with alternative forms of risk taking support the scale's divergent validity. These results support Hypotheses 2 and 3.

Next, two personality constructs of the Big Five, neuroticism and conscientiousness, were proposed to be positively correlated to the WSCS. Both of these constructs were shown to be significantly correlated, with neuroticism being negatively correlated ($r = -.18; p < .01$) and conscientiousness being positively correlated ($r = .23; p < .01$). These results support Hypothesis 4 and 5.

The WSCS was predicted to be related to several aspects of social perceptions and interpersonal tendencies. The first social perception or interpersonal tendency is also a Big Five personality construct, extroversion. The WSCS had a moderate correlation with extroversion ($r = .33, p < .01$), supporting Hypothesis 6. Also, the WSCS had significant correlations with sociability ($r = .22; p < .01$), shyness ($r = -.29; p < .01$), interpersonal trust ($r = .22; p < .01$), and public self-consciousness ($r = -.17; p < .01$). These results support Hypotheses 7, 8, 9, and 10.

Certain personal characteristics were chosen to show further support for the WSCS's concurrent validity. Among these were CSEs which had a moderate correlation with the WSCS ($r = .29; p < .01$), and the dimensions of Psychological Capital. From the dimensions of Psychological Capital, efficacy was correlated .53 ($p < .01$), resilience was correlated .21 ($p < .01$), hope was correlated .45 ($p < .01$), and optimism was correlated .42 ($p < .01$). All of these results are satisfactory, and support Hypotheses 11 and 12. Also, individual's goal orientations were believed to be related to the WSCS, and most of them were. Perform goal orientation had a

correlation of .54 ($p < .01$), and avoid goal orientation had a correlation of $-.38$ ($p < .01$); however, prove goal orientation had a non-significant correlation of .10 ($p > .05$). While perform and avoid goal orientation correlations were as predicted, the prove goal orientation correlation was surprising. These results support Hypotheses 13 and 14, but Hypothesis 15 was not supported.

An impulsivity scale was given as a measure of discriminant validity. The WSCS was not significantly correlated with impulsivity ($r = -.15$; $p > .05$). Hypothesis 16 was supported.

Finally, participant responses to the selected WSCS items differed based on the vignette given. These findings are presented in Figure 6. To statistically test the differences in responding based on the effect of the vignettes, two separate within-subjects ANOVAs were performed with a compound symmetry covariance structure. This statistical technique was chosen for several reasons. First, all participants gave responses based on each vignette in a randomized order. So, each response does not indicate a separate participant, and this should be accounted for through a within-subjects design. Second, the answer choices given for the group-scenario vignettes (Vignette 1A – 4A) differed from those given for the individual-scenario vignettes (Vignette 1B – 4B). This was a conscious choice made, so the item responses would make sense with the vignette given; however, this precludes analyses comparing the group-scenario responses with the individual-scenario responses. The results of these two analyses are presented in Table 7, and means of each vignette response is presented in Table 8. As apparent from the results, when the participant gave their WSCS responses based upon a group-scenario, coworker friendliness and participants' tenure were statistically significant. Alternatively, in the individual-scenario, only coworker friendliness was statistically significant, and its effect size was much smaller than the group-scenario. These findings demonstrate that those in

psychologically safe environments, especially when they are group environments, will be more likely to enact social courage behaviors. This is likely because these psychologically safe environments reduce the level of risk an individual can incur from their actions, which is supported in these findings.

Additionally, participants WSCS scores were correlated with their vignette responses, as presented in Table 9. From the correlations, it is apparent that a pattern emerges. It seems that the correlations of the WSCS with Vignettes 2, 3, 5, and 7 are notably higher than the other vignettes. These particular vignettes are those with an intended moderate level of psychological safety. That is, they contain one aspect which is supposed to increase psychological safety and another which is meant to decrease psychological safety. Alternatively, the other vignettes described scenarios which contained two aspects which increased or decreased psychological safety. In the scenarios with moderate psychological safety, participants have high latitude over their possible behaviors. In the scenarios with high or low psychological safety, they generally do not have as much of a choice over their behaviors. This difference between vignettes can be considered the difference between strong and weak situations (Cooper & Withey, 2009). In weak situations, an individual's personality largely directs their behavior. In strong situations, the environment largely directs individuals behaviors. The scenario with moderate psychological safety can be considered a weak situation, and those with high or low psychological safety can be considered strong situations. Therefore, the differences in correlations of the vignettes arise due to whether the environment dictates a participant's behavior, or whether it allows enough latitude for the participant's personality to dictate their behavior.

These results, taken together, show support for the validity of the WSCS. The WSCS was shown to be highly correlated to courage, social courage, physical courage, and

entrepreneurial courage, which is indicative of the scale's convergent validity. It was also shown to be significantly correlated with several related Big Five personality dimensions, aspects of social perceptions and interpersonal tendencies, and related personal characteristics. These results show the scale's concurrent validity. Participant responses to the WSCS were also shown to differ based on their frame-of-reference, when they were told to base their responses on constructed vignettes. Lastly, the WSCS was not significantly related to impulsivity, which is evidence for the scale's discriminant validity. With these results in mind, it appears that the WSCS is a valid measure of workplace social courage, as it relates to theoretically similar constructs and is not related to theoretically dissimilar constructs.

Study 5

After reviewing the WSCS, it was noted that the scale has a complex wording structure, which may lead to its unidimensional factor structure. All items consisted of an introductory stem which notes the risks involved with a behavior, while the other half states the behavior. So, instead of the items loading due to their underlying latent factor, they may actually load unidimensionally due to the item's consistent sentence structure. Also, the current wording of the items may cause some confusion in answering the questionnaire. Therefore, it is necessary to administer a simplified form of the WSCS in order to determine whether the scale's wording poses a threat to the validity of the measure. If the alternative scale has an identical factor structure to the WSCS, then the wording of the WSCS's questions likely does not cause its unidimensional factor structure, and the items represent a unitary construct. Additionally, if the alternative scale has relationships with other variables which are similar to the original WSCS, then the wording likely does not cause any changes in participant responses. If these two aspects can be shown with the altered scale, then the WSCS has even more robust properties.

Hypothesis 17: The alternative version of the WSCS has an unidimensional factor structure.

Hypothesis 18: The alternative version of the WSCS has similar relationships to other variables when compared to the original WSCS.

Measures.

Social courage. An altered form of the WSCS was administered in order to measure social courage, and is given in Appendix C. This altered form is similar to the original WSCS, but the stems of all questions were altered. For example, the original item “Although it would make me look bad, I would admit to my mistakes at work.” became “Admit my mistakes at work.” These changes to the questions were in hopes to create a simpler and clearer questionnaire.

The following measures were administered in Study 5, as well as in Studies 3 or 4. Since they are described above, they are only noted here: Courage (The Courage Measure; Norton and Weiss, 2009), Core Self-Evaluations (Judge, Erez, Bono, and Thoresen, 2001), The Big Five (Minimarkers; Saucier, 1994), Dimensional Risk Taking (Risk-Behavior Scale; Weber, Blais, and Betz, 2002), Prosocial Motivation (Grant, 2008), Psychological Capital (Luthans, Youssef, and Avolio, 2007), Goal Orientation (Vandewalle, 1997), and Impulsivity (Barratt Impulsivity Scale; Patton, Stanford, and Barratt, 1995).

Results/Discussion

The altered WSCS had a mean of 5.07 ($SD = .63$) and a reliability of .83, similar to the original WSCS. A principal components analysis with a Direct Oblimin rotation was performed

to determine the factor structure of the scale, using Sample 4. This rotation was chosen because it is an oblique rotation and allows factors to be correlated. The resulting scree plot is presented in Figure 5. As apparent from the figure, the altered WSCS has a much different factor structure from the original WSCS. While the original WSCS conclusively had a unidimensional factor structure, the altered WSCS contains either four or five factors. For the current study, the four factor solution was chosen because it also adhered to the Kaiser rule. The resulting factor structure of the WSCS, using four factors, is presented in Table 10. From the table, it seems that the items generally fit into the following categories: confrontation, volunteering, self-correcting, and other-correcting; however, many of these items cross-loaded onto different factors, leaving the solution unclear. This proposed factor structure is not only different from the original WSCS, but also the originally proposed two factor solution. These results fail to support Hypothesis 17.

Also, the altered WSCS had divergent correlations with theoretically similar constructs when compared to the original WSCS. Most noteworthy are its reduced correlations with general courage (.15 difference), perform goal-orientation (.13 difference), social risk-taking (.12 difference), optimism (.11 difference), and hope (.10 difference), and increased correlation with impulsivity (.07 difference); however, its correlations with the Big Five did not greatly change. These results give mixed support for Hypothesis 18.

Despite the varied results of Study 5, particular aspects of the original and altered WSCS can be determined. As mentioned, the two scales have greatly varied factor structures. The original WSCS is unidimensional, while the altered WSCS contains four or five factors. The factors of the original WSCS are presumed to be based on the risk involved, and the altered WSCS's factors appear to be based on the types of behaviors involved. For instance, the

confrontation factor consists of instances where individuals are forced to confront coworkers, and the volunteering factors are cases where individuals volunteer for certain activities. These factors seem to go against the traditional motif of labeling courage by the risks involved (Norton and Weiss, 2009; Woodard and Pury, 2007). So, the question should be asked whether the altered WSCS actually measures courage.

The altered WSCS had a similar correlation with prosocial motivation compared to the original WSCS; however, its correlations with social risk taking and general courage were notably reduced. The two reduced correlations draws question to the validity of the altered WSCS. Any courage measure should have higher correlations with general courage than the altered WSCS. Also, the measure's reduced correlation with social risk draws the altered WSCS even more into question, since it had lackluster correlations with a directly relevant form of risk taking. Even its correlations with alternative forms of risk taking are questionable, ranging from a reduction of .04 to .15 from the original WSCS. Most of the altered WSCS correlations with dimensions of risk taking are even negative. These results insinuate that through removing the item stems to form the altered WSCS, the items lost an essential component of courage. Many of the item stems in the original WSCS were constructed to emphasize the risk involved in the actions. For example, the original WSCS item, "Although it would make me look bad, I would admit to my mistakes at work," was changed to, "Admit to my mistakes at work." In the latter example, the risks involved become much less salient, and may possibly not be present whatsoever. In many situations, such as defending a thesis (hopefully), admitting to mistakes incurs no negative outcomes. So, participants may see no risk in this behavior, and the behavior would not satisfy the risk taking requirement of courage. The same is true for the items, "Despite appearing dumb in front of an audience, I would volunteer to give a presentation at

work” becoming “Volunteer to give a presentation at work,” and “Although it may show how little I know about the topic, I would still volunteer for workshops and other learning opportunities at work” becoming “Volunteer to take workshops and other learning opportunities at work.” Both of these examples show items with the risks highlighted in their stem becoming items with little or no risk. Therefore, it appears that the stems in the original WSCS highlight the risks involved with behaviors and cause the scale’s factors to be determined by the risks involved, while the altered WSCS does not have as much risk in the items and the items load based on the types of behaviors. This factor structure is problematic because courage dimensions are traditionally conceptualized as the risks involved, and the altered WSCS may fall into the same mistake of managerial courage – labeling the dimensions of courage by the types of behaviors involved.

Additionally, the reduced correlations of the altered WSCS with perform goal-orientation, optimism, and hope further support these ideas. Those who are more focused on performing in organizations are sensitive to the risks involved in actions. This is reflected by the strong negative correlation between perform goal-orientation and the original WSCS; however, this correlation is greatly reduced in the altered WSCS. The same is true for optimism and hope. Those who are optimistic and hopeful will believe the best will come from their risks, which is properly reflected by their strong correlations with the original WSCS. These correlations are notably smaller with the altered WSCS. It is plausible that these correlations are reduced because the altered WSCS does not have any aspect of risk involved. So, it does not matter whether individuals are hopeful or optimistic when performing these behaviors, because there is little to be uncertain about. These behaviors are straightforward, and could lead to few negative ramifications. Thus, the altered WSCS does not include risk in the questions, and the personality

variables which cause individuals to endorse the original WSCS are not as strongly related to the altered WSCS.

While Hypothesis 17 was not supported and Hypothesis 18 received mixed support, the results may actually lend support for the original WSCS. In the original WSCS, although all the items had similar sentence structures, the stems highlighted the risks involved in the behaviors. Without the stems, the risk component of many items is not present. So, the original WSCS is likely an accurate representation of a workplace social courage measure, while the altered WSCS may be a workplace prosocial behavior measure. Furthermore, the altered WSCS's correlation with impulsivity shows that the scale does not have adequate discriminant validity, as it significantly correlates with theoretically dissimilar measures. These results provide further evidence that the original WSCS specifically and adequately measures social courage in the workplace.

Study 6

After the first five studies, some concerns still exist in regards to the samples used. Each sample was a convenience sample solely consisting of undergraduate students. Most of these students did not have jobs when they were surveyed, which may result in undesirable statistical artifacts in the data. Since those who were not currently working probably have little workplace experience, these individuals would likely have different perceptions about workplace environments than those who were currently working. For example, these individuals may be more unreasonably optimistic about interactions in the workplace, because they may have never experienced any workplace disappointments. This unrealistic optimism would cause these individuals to express more willingness to perform social courage behaviors, since they are

unrealistic about the negative ramifications that can occur due to these behaviors; however, they may not truly be willing to perform these behaviors if they knew the true outcomes. For this reason, the current study will analyze group differences in participant responding to the WSCS, based on whether they were currently employed.

Measures

Social courage. The WSCS was administered in order to measure social courage, and is given in Appendix A.

Other measures. Several other measures were administered, which are described in Studies 4 and 5.

Results/Discussion

To begin, mean differences between Samples 2, 3, and 4 were analyzed. An independent t-test was performed with each sample to determine whether a mean difference existed between those who were and were not currently employed in their WSCS scores. The results showed that no significant difference existed between WSCS scores in Sample 2 ($t = .485$; $p > .05$; $df = 114$), Sample 3 ($t = 1.738$; $p > .05$; $df = 233$), and Sample 4 ($t = .609$; $p > .05$; $df = 145$).

Next, with all three samples combined, a PCA with direct oblimin rotation was performed. This was to determine whether the factor structure of the WSCS was altered when the sample consisted of only employed participants. Also, all three samples were combined, because there was a small number of employed students in each sample. If a PCA is performed on a sample that is below the recommended ratio of ten participants for each question, then the results would inflate the suggested number of factors. This would make the results insinuate that

an alternative factor structure is present when the WSCS is applied to a workplace sample, while the true reason for the alternative factor structure is the modest number of participants. With all the samples combined, the results show that the PCA on the non-employed student sample results in a single-factor solution, with all items loading similarly to the PCA performed on Sample 2. Alternatively, the PCA on the employed student sample resulted in a solution which indicated either one or three factors were the appropriate solution, based on a visual scree plot analysis; however, the results did not show conclusive support for either. The factor loadings for both, the one and three factor solution, are presented in Table 12. As apparent from the factor loadings, the three factor solution largely consists of items which load on factors 1 and 2, while factor 3 mainly consists of items which cross-load on the other factors. When analyzing factors 1 and 2, the items do not load onto the original conceptualization of social courage, two factors based on face-loss costs and damaging relationships. It is unclear how the items load when the three factor solution is chosen. Since the one or three factor solution could result from the PCA and the loadings are unclear when the three factor solution is chosen, it seems appropriate to support the one factor solution. Therefore, it appears that the use of a student population does not pose a great concern on the validation process of the WSCS; however, the use of an employee sample could greatly benefit the process.

Chapter 4

Overall Discussion

Although researchers have reached a common consensus to the nature of courage, previous research has seen particular struggles in creating an adequate measure of courage (Norton and Weiss, 2009; Woodard and Pury, 2007). Due to these measurement issues, courage

has seen very limited research, especially in relation to a workplace context. Therefore, the current research created a measure of a particular type of courage which theoretically had numerous implications for the dynamics of the workplace – social courage. If successful, the creation of this scale could open up numerous possibilities for future lines of research.

The current research consisted of six separate studies, which includes multi-source techniques for collecting data. In total, the current research collected data from 705 participants. Study 1 involved the creation of an over representative list of items which gauged social courage, and the subsequent reduction of this list. Study 2 showed that the resulting item list had a unidimensional factor structure and satisfactory internal consistency. Study 3 demonstrated that the WSCS is largely free from method effects, including social desirability, trait positive and negative affect, and state positive and negative affect. Study 4 revealed that the WSCS has strong convergent validity with other courage measures, proper concurrent validity with other theoretically-related constructs, and divergent validity with several unrelated constructs. Among the measures used for concurrent validity were the Big Five, social perceptions and interpersonal tendencies, and personality dimensions. Also, participant responses to the WSCS were also shown to differ based on their frame-of-reference, when they were told to base their responses on constructed vignettes. Study 5 addressed concerns with the WSCS's wording structure, particularly the stems present in each item. To achieve this, an alternative version of the WSCS without the item stems was administered. The results showed that the altered WSCS may not measure courage, while the original WSCS does. Finally, Study 6 investigated whether the same greatly altered the results of the WSCS. When comparing employed participants within the sample with non-employed participants, the results are similar. The sample used does not seem to pose a great problem. The results of these phases show that the WSCS is a satisfactory

measure of workplace social courage, adhering to guidelines set by previous researchers (Hinkin, 1995, 1998). While the current study has many positive aspects, it is not without its limitations.

Limitations

Like all other research, the current research contains its own limitations which should be recognized. First, the focus of the research was on creating a personal scale of social courage, and sought to devise a measure which gauges courage from an individual's own perspective. Due to the purported goal, the research largely relied on self-report data. As previous researchers have noted, self-report data may have several methodological concerns (Podsakoff, MacKenzie, Lee, and Podsakoff, 2003). Despite these concerns, the research design has somewhat alleviated these problems through assessing the most common sources of bias. Through showing that the WSCS does not correlate highly with social desirability, state positive and negative affect, or trait positive and negative affect, the results help make the argument that social courage does not seem to be contaminated by some of the concerns of self-report data.

Another note is that all of observed relationships are correlational in nature; therefore, direct, casual relationships cannot be cited as the cause for results. Although it seems likely that social courage has many antecedents and outcomes, the current data cannot support this claim. Instead, only alternative research designs can make this claim, such as longitudinal or cross-lagged panel designs (Cook, Campbell, and Peracchio, 1990). Nevertheless, despite the inability to make causal claims about the results, this was not the sole purpose of the current research. It was primarily attempted to create a valid measure of social courage. In this regard, causality is less of an issue, and demonstrating the validity of the WSCS is more important. Therefore, now

that a valid measure of social courage exists, it is possible that the WSCS can be used to investigate these casual relationships. These and other future directions are discussed below.

Finally, the current study only attempted to create a measure of social courage due to its application to a wide range of occupations, and it is not catered to any particular job. It may be beneficial to investigate courage measures which are catered for particular occupations, and therefore predict certain outcomes more appropriately. For example, the current measure did not include any aspects of physical courage. In an occupation such as firefighter or policeman, this type of courage would likely be very important for an individual's job performance. By creating a catered measure of courage, which includes multiple types of courage which are relevant for a particular job, it could be possible to better predict certain outcomes; however, any catered measure would lose generalizability. As mentioned, the goal of the current study was to create a measure which could be applied to a large range of occupations, and not suited for any one job in particular. Therefore, this is not seen as a large concern for the current study, but may also be a consideration for future research.

Future Directions

The current study is only the beginning of a hopefully expansive field of research. For eons, philosophers and theorists have pondered the true nature of courage, and its effects on an individual and their surrounding team or organization. From the results of this study, a psychometrically sound measure of social courage now exists. This measure allows researchers to easily measure social courage, and begin drawing new inferences about the construct.

The first suggestion is to investigate more outcomes of social courage, especially in regards to performance. In the current study, no aspects of actual workplace performance were

measured. It would be greatly beneficial for the WSCS and all courage research to show that the measure correlates with performance or other related outcome variables, such as organizational citizenship behaviors and counterproductive workplace behaviors. Also, although the WSCS is a general measure, it is still possible that social courage may be more relevant to the performance of certain jobs. For example, an individual working as a salesman is expected to interact with multiple strangers in order to be productive. If an individual is low in social courage, then they are likely to be unable to reliably interact with potential customers. Another outcome measure potentially related to social courage could be the effectiveness of a manager. Often, managers are expected to make a workgroup interconnected by involving them in coordinated tasks and even creating a friendship between them. It seems likely that for a manager to succeed, then they would need to be high in social courage. So, future studies may want to investigate whether social courage better predicts performance in certain occupations, more so than others.

Next, it may be beneficial to investigate some of the moderators of the relationship between social courage and the outcomes of the current study. As previously stated, all relationships investigated were simple correlations. It may be beneficial to show when certain related factors are not related to social courage, or vice versa. It may also be beneficial for researchers to determine situations which social courage does or does not lead to performance, after the WSCS's relationship with performance is discovered.

Finally, a vast amount of previous research has created a theoretical framework around the concept of courage. A synthesis of this material and a direct application to the workplace would be very helpful. For example, since the current study showed a few positive consequences of social courage, future studies could benefit in understanding how courage is fostered, which has been hypothesized for millenniums. This task would not be possible without

understanding previous theoretical literature on courage. Furthermore, few of the current articles on courage are written in the context of the workplace; so, an inclusion of any of these would be a step in the right direction.

Conclusion

No other study has ever created a satisfying measure of courage or a courage dimension, due to limitations in the current field of courage research; however, the current research synthesized previous research and created a satisfying measure of workplace social courage, the WSCS. The results of the current study provide evidence that the WSCS is a psychometrically sound and valid measure of workplace social courage, as evident in its internal consistency, factor structure, convergent, concurrent validity, and discriminant validity. Future studies should further argue for the importance of social courage, as well as provide evidence that social courage is related to many positive workplace-related outcomes. An additional future study should certainly analyze the scale's predictive validity.

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Table 1 – Measures Given in the Current Research

Measures	Sample 2	Sample 3	Sample 4	Sample 5
WSCS	X	X	X	
Altered WSCS				X
The Courage Scale	X	X		X
Personal Courage	X			
State Positive Affect	X			
State Negative Affect	X			
Trait Positive Affect		X		
Trait Positive Affect		X		
Impression Management	X			
Conscientiousness (Big Five)		X		X
Extraversion (Big Five)		X		X
Openness (Big Five)		X		X
Neuroticism (Big Five)		X		X
Agreeableness (Big Five)		X		X
Global Risk Taking		X		X
Social Risk Taking			X	X
Ethical Risk Taking			X	X
Financial Risk Taking			X	X
Recreational Risk Taking			X	X

Health/Safety Risk Taking		X	X
Sociability	X		
Shyness	X		
Public Self-Conscientiousness	X		
Interpersonal Trust	X		
Core Self Evaluations	X		X
Prosocial Motivation		X	X
Psychological Capital		X	X
Vignettes		X	
Impulsivity		X	X
Learning Goal-Orientation		X	X
Performing Goal-Orientation		X	X
Proving Goal-Orientation		X	X

Table 2 – Item-Sort Task Results of the Original 49 WSCS Items

Question	p_{sa}	c_{sv}
1.) If I thought a question was dumb, I would still ask it if I didn't understand something at work.	.80	.70*
2.) If I thought I may fail at a task at work, I would still volunteer to do it.	.75	.55*
3.) Despite making my coworker angry, I would tell him/her what they need to hear.	.95	.90*
4.) Although it would make me look bad, I would admit to my mistakes at work.	1.0	1.0*
5.) Although my coworker may disagree, I would stand up to him/her when they are being unfair.	.85	.75*
6.) If I was not confident in my abilities at work, I still wouldn't make excuses for my shortcomings.	.30	-.10
7.) I would not tolerate when a coworker is rude to someone, even if I make him/her upset.	.95	.90*
8.) Although it may show how little I know about the topic, I would still volunteer for workshops and other learning opportunities at work.	.80	.7*
9.) Even if my coworkers could think less of me, I'd lead a project with a chance of failure.	.85	.75*
10.) If I failed at a task, I would still show to my coworkers that I tried my best.	.30	0
11.) Despite looking bad in the end, I would take control of a risky project.	.80	.74*
12.) Although it may damage our friendship, I would tell my superior when a coworker is doing something incorrectly.	1.0	1.0*
13.) If a coworker asked me a question about my job that I didn't know, I would tell him/her that I am unsure.	.45	-.10
14.) Although my coworker may become offended, I would suggest to him/her better ways to do things.	1.0	1.0*
15.) Although it draws attention to my faults, I would own up to my mistakes when I mess up at work.	.75	.55*
16.) Even if a coworker didn't ask for it, I would give him/her negative feedback.	.65	.35
17.) Although my ideas may sound dumb, I share them with my coworkers.	.75	.55*
18.) Although my supervisor may get offended, I would question their orders if I disagreed with them.	.80	.70*
19.) Even if it would make a bad impression on my coworkers, I would do what I should at work.	.70	.50*
20.) I would give coworkers my opinion, even if is an unpopular one.	.45	.15
21.) Although it makes me seem like a “goodie-goodie,” I would publically acknowledge someone for doing a good job.	.85	.80*
22.) Despite making my coworker angry, I would tell him/her my thoughts about him/her.	.65	.35

23.) Although it makes me look incompetent, I would tell my coworkers when I've made a mistake.	.80	.65*
24.) I would tell a coworker my beliefs about our workplace, although (s)he disagrees with my thoughts.	.30	-.25
25.) Despite appearing dumb in front of an audience, I would volunteer to give a presentation at work.	.75	.65*
26.) Despite upsetting my coworker, I would let him/her know when they've made me mad.	.75	.60*
27.) Although my coworkers may notice my mistakes and judge me for them, I would let them look over my work.	.90	.85*
28.) I would do what I think is best for the organization, although my coworkers may make fun of me for it.	.70	.55*
29.) Although my actions would be seen as impolite, I would criticize a coworker when (s)he has done a poor job.	.70	.50*
30.) Although it makes my coworkers angry, I would do what is expected at work.	.45	.05
31.) Although it could make matters worse, I would try to "make up" with a coworker that does not like me.	.50	.05
32.) Despite my subordinate disliking me, I would tell him/her when they're doing something against company policy.	.90	.85*
33.) Despite my coworkers thinking I'm an overachiever, I would perform to the best of my abilities at work.	.65	.50*
34.) Even if my supervisor wouldn't like me as much, I would tell him/her when I think they are being unreasonable.	.85	.80*
35.) Despite my coworkers thinking I'm just trying to look good, I would do extra things at work.	.70	.55*
36.) I would be stern to a coworker to get a point across, even if they'd think differently of me.	.70	.55*
37.) Even if it may damage our relationship, I would confront a subordinate who had been disrupting their work-group.	1.0	1.0*
38.) I would let my coworkers know when I am concerned about something, even if they'd think I am too negative.	.75	.65*
39.) Although my coworkers would think I am a "suck-up," I would do more than what my boss expects me to do.	.70	.60*
40.) I would go against the norms of my coworkers if they were against company policy, even if they might think I'm weird for it.	.65	.60*
41.) Despite making other employees angry, I would do everything that I could to make my customers happy.	.65	.45
42.) Although my coworker might become annoyed, I would correct him/her if they were being unsafe.	.65	.35
43.) Even if my subordinate would become unhappy with me, I would point out and correct them on a task s(he) did incorrectly.	.90	.85*
44.) Although it may completely ruin our friendship, I would give a coworker an honest performance appraisal.	.85	.80*
45.) I would do everything I can at work, despite my coworkers getting mad at me for making them look bad.	.60	.30

46.) I would privately tell a coworker if I thought they were doing their job incorrectly, even if s(he) may get angry at me.	.80	.65*
47.) I would follow company policy, even if all my coworkers were breaking it and may think I'm different for not doing so.	.65	.50*
48.) I would discreetly tell my coworker when (s)he has messed up, even if they think it'd be rude to tell them.	.80	.75*
49.) I would tell a subordinate when they're not meeting my standards, even if s(he) may dislike me for it.	.80	.65*

* $p < .05$

Table 3 – Principal Components Analysis Results of the WSCS using Sample 2

Item	Factor Loading
WSCS1	.513
WSCS2	.589
WSCS3	.590
WSCS4	.520
WSCS5	.622
WSCS6	.406
WSCS7	.454
WSCS8	.682
WSCS9	.554
WSCS10	.540
WSCS11	.439
WSCS12	.641
WSCS13	.617
WSCS14	.347
WSCS15	.651
WSCS16	.611
WSCS17	.648

Table 4 – Confirmatory Factor Analysis Results of the WSCS using Samples 3 and 4

<i>df</i>	X^2	CFI	NFI	GFI	SRMR	RMSEA	AIC
108	240.3	.930	.882	.929	.048	.057	330.27

Table 5 – Correlations of the WSCS with Method Effects

Correlations of the WSCS with Method Effects Measured with Sample 2				
	WSCS	IM	SPA	SNA
WSCS	.86			
IM	.28**	.77		
SPA	.46**	.27**	.89	
SNA	-.20*	-.05	-.01	.84

Correlations of the WSCS with Method Effects Measured with Sample 3			
	WSCS	TPA	TNA
WSCS			
TPA	.15*		
TNA	-.25*	.23**	

* $p < .05$ ** $p < .01$

Table 6 – Correlations of the WSCS Testing Convergent, Concurrent, and Discriminant Validity

1	WSCS	TCS	PC	SC	EC									
WSCS	.86													
TCS	.51**	.89												
PC	.41**	.51**	.90											
SC	.54**	.24*	.41**	.76										
EC	.45**	.24**	.36**	.36**	.56									
2	WSCS	TCS	Extro	Neuro	Consc	Open	Agree	Soc	Shy	SoCon	Trust	Risk	CSE	
WSCS	.88													
TCS	.41**	.86												
Extro	.33**	.35**	.87											
Neuro	-.18**	-.30**	-.23**	.84										
Consc	.23**	.14*	.18**	-.44**	.84									
Open	.31**	.38**	.08	-.19**	.22**	.74								
Agree	.20**	-.02	.24**	-.40**	.48**	.17*	.88							
Soc	.22**	.18**	.55**	-.12	.17**	.07	.36**	.84						
Shy	-.29**	-.39**	-.77**	.39**	-.33**	-.11	-.28**	-.48**	.87					
SoCon	-.17**	-.52**	-.36**	.54**	-.21**	-.25**	.00	-.12	.49**	.83				
Trust	.22**	.16*	.34**	-.35**	.24**	.06	.49**	.44**	-.34**	-.26**	.90			
Risk	.05	.48**	.22**	-.03	-.18**	.18**	-.18**	.23**	-.17**	-.23**	.01	.85		
CSE	.29**	.33**	.36**	-.52**	.46**	.12	.29**	.26**	-.49**	-.48**	.52**	.05	.87	
3	WSCS	SocR	RecR	GamR	HeaR	EthR	IvstR	ProSo	Intri	Perfor	Prov	Avoid	Eff	
WSCS	.83													
SocR	.35**	.51												
RecR	.15	.18*	.77											
GamR	.03	.13	.43**	.80										
HeaR	.06	.27**	.45**	.40**	.70									
EthR	-.10	.29**	.31**	.36**	.54**	.78								
IvstR	.13	.11	.29**	.25**	.26**	.18*	.83							
ProSo	.30**	.28**	-.07	-.05	-.09	-.06	.03	.92						
Intri	.22**	.12	.00	-.06	-.09	-.03	.17*	.33**	.91					
Learn	.54**	.23**	.34**	.12	.04	-.00	.24**	.33**	.20*	.85				
Prov	.10	-.14	.09	.20*	.02	.02	-.05	.07	-.10	.05	.71			
Perf	-.38**	-.18*	-.28**	.01	-.11	.09	-.11	-.00	.03	-.36**	.27**	.88		
Eff	.53**	.32**	.16	-.00	.02	-.02	.05	.36**	.35**	.46**	.15	-.23**	.82	
Resil	.21*	.20*	.16	-.06	.10	-.12	.03	.04	.20*	.37**	-.10	-.26**	.40**	
Hope	.45**	.29**	.12	.07	.06	-.04	.10	.12	.22**	.50**	-.02	-.30**	-.50**	
Optim	.42**	.13	.21*	.09	.00	-.01	.15	.15	.21*	.49**	-.05	-.42**	.38**	
Impul	-.15	.15	.18*	.34**	.44**	.36**	-.06	-.13	-.22**	-.18*	.18*	.09	-.16	
3	Resil	Hope	Optim	Impul										
Resil	.72													
Hope	.60**	.78												
Optim	.45	.48**	.75											
Impul	-.14	-.09	-.13	.87										

Table 6 Key

Correlations in the section labeled 1 are from Sample 2.

Correlations in the section labeled 2 are from Sample 3.

Correlations in the section labeled 3 are from Sample 4.

* $p < .05$

* $p < .01$

WSCS = Workplace Social Courage Scale

TCS = The Courage Scale

PC = Physical Courage (Personal Courage Scale)

SC = Social Courage (Personal Courage Scale)

EC = Entrepreneurial Courage (Personal Courage Scale)

Extro = Extroversion (Big Five)

Neuro = Neuroticism (Big Five)

Consc = Conscientious (Big Five)

Open = Openness (Big Five)

Agree = Agreeable (Big Five)

Soc = Sociability

Shy = Shyness

SoCon = Public Self-Consciousness

Trust = Interpersonal Trust

Risk = Global Risk Taking

CSE = Core Self Evaluations

SocR = Social Risk Taking

RecR = Recreational Risk Taking

GamR = Gambling Risk Taking

HeaR = Health Risk Taking

EthR = Ethical Risk Taking

IvstR = Investment Risk Taking

ProSo = Prosocial Motivation

Intri = Intrinsic Motivation

Learn = Learning Goal Orientation

Prov = Prove Goal Orientation

Perf = Perform Goal Orientation

Eff = Efficacy (PsyCap)

Resil = Resilience (PsyCap)

Hope = Hope (PsyCap)

Optim = Optimism (PsyCap)

Impul = Impulsivity

Table 7 – Within Subjects ANOVA Results Comparing Vignettes

	Numerator df	Denominator df	F Value
Group Scenario			
Seniority	1	405.807	16.287**
Friendly	1	405.807	50.114**
Seniority*Friendly	1	405.807	1.713
Individual Scenario			
Seniority	1	406.835	.577
Friendly	1	405.831	5.453*
Seniority*Friendly	1	406.835	.808

Table 8 – Means (Standard Deviations) of Vignette Results Separated by Condition

Group Scenario			
Friendliness			
Tenure	Warm	Cold	All
Senior	5.40 (.95)	4.95 (1.12)	5.18 (1.06)
New	5.12 (.96)	4.80 (1.16)	4.96 (1.07)
Total	5.26 (.96)	4.89 (1.14)	5.06 (.90)

One-on-one Scenario			
Friendliness			
Tenure	Warm	Cold	All
Senior	5.32 (1.05)	5.40 (1.25)	5.37 (1.01)
New	5.22 (1.08)	5.42 (1.32)	5.31 (1.09)
Total	5.27 (1.07)	5.40 (1.28)	5.34 (1.01)

Table 9 – Correlations of Participant WSCS scores and their Vignette Responses

Vignette	WSCS Correlation
VigNum 1	.601**
VigNum 2	.667**
VigNum 3	.689**
VigNum 4	.531**
VigNum 5	.608**
VigNum 6	.562**
VigNum 7	.626**
VigNum 8	.526**

VigNum 1 = Group x Senior x Friendly

VigNum 2 = Group x Senior x Cold

VigNum 3 = Group x New x Friendly

VigNum 4 = Group x New x Cold

VigNum 5 = One-on-one x Senior x Friendly

VigNum 6 = One-on-one x Senior x Cold

VigNum 7 = One-on-one x New x Friendly

VigNum 8 = One-on-one x New x Cold

Table 10 – Principal Components Analysis Results of the Altered WSCS using Sample 4

	Factor 1	Factor 2	Factor 3	Factor4
WSCS1	<u>.320</u>	.149	<u>-.608**</u>	-.223
WSCS2	.121	.023	.077	<u>-.725**</u>
WSCS3	.036	-.083	-.191	<u>-.746**</u>
WSCS4	<u>.423*</u>	.092	<u>-.645**</u>	.029
WSCS5	-.116	<u>.649**</u>	-.036	-.111
WSCS6	<u>.556**</u>	-.034	-.091	-.103
WSCS7	<u>.518**</u>	.177	-.219	.151
WSCS8	<u>.790**</u>	-.164	.115	-.195
WSCS9	<u>.706**</u>	-.184	-.111	-.101
WSCS10	<u>.673**</u>	.109	.054	-.057
WSCS11	<u>.477**</u>	<u>.448*</u>	.033	.198
WSCS12	<u>.423*</u>	.081	<u>.490**</u>	-.223
WSCS13	<u>.306*</u>	.191	.210	<u>-.394**</u>
WSCS14	-.067	<u>.705**</u>	-.197	-.047
WSCS15	-.169	<u>.528**</u>	<u>-.371*</u>	<u>-.316*</u>
WSCS16	.168	<u>.685**</u>	.199	.168
WSCS17	.089	<u>.428*</u>	.265	<u>-.538**</u>

** Indicates highest loading for item

Bold and underlined indicates loading of above .3

Table 11 – Correlations of the Altered WSCS

	WSCS	TCS	SocR	RecR	GamR	HeaR	EthR	IvstR	Open	Consc	Extro	Agree
WSCS	.83											
TCS	.36**	.86										
SocR	.23**	.16*	.62									
RecR	.10	.45**	.23**	.79								
GamR	-.10	-.02	.13	.36**	.67							
HeaR	-.03	.02	.36**	.22**	.09	.69						
EthR	-.14	-.04	.34**	.22**	.33**	.51**	.80					
IvstR	-.02	.10	.19*	.25**	.28**	.10	.20*	.84				
Open	.28**	.27**	.26**	.07	.02	-.08	-.08	.02	.87			
Consc	.23**	.10	-.02	-.17*	-.18*	-.30**	-.27**	.03	.10	.78		
Extro	.39**	.41**	.18*	.16*	-.04	.10	-.00	-.10	.25**	.10	.84	
Agree	.26**	.22**	.05	.01	-.06	-.13	-.21**	-.06	.16*	.28**	.14	.70
Neuro	-.19*	-.36**	.06	-.13	-.04	.17*	.14	-.04	-.07	-.22**	-.22**	-.34**
ProSo	.32**	.15	.08	-.00	-.15	-.18*	-.23**	-.18*	.20*	.19*	.14	.25**
Learn	.46**	.27**	.14	.04	-.14	-.24**	-.31**	.08	.30**	.28**	.23**	.10
Prove	.16*	.03	.09	.07	-.03	.16*	.04	-.13	.16*	.09	.16*	.05
Perfor	-.25**	-.25**	-.04	-.04	.02	.17*	.23**	-.11	-.01	-.18*	-.14	.02
CSE	.27**	.23**	.05	.02	-.02	-.16*	-.18*	-.03	.03	.32**	.38**	.24**
Impul	-.22**	-.05	-.01	.15	.10	.40**	.30**	-.08	-.13	-.55**	.01	-.10
Effec	.51**	.41**	.30**	.13	-.13	-.02	-.15	.06	.35**	.19*	.34**	.14
Hope	.35**	.38**	.15	.13	-.09	-.03	-.16*	-.04	.13	.18*	.33**	.13
Resil	.38**	.46**	.13	.11	-.16*	.05	-.11	.00	.20*	.24**	.36**	.10
Optim	.31**	.37**	.06	.05	-.01	-.15	-.20*	-.08	.21**	.16*	.39**	.31**

* $p < .05$ * $p < .01$

Construct labels are identical to Table 6.

Table 11 Continued - Correlations of the Altered WSCS

	Neuro	ProSo	Learn	Prove	Perfor	CSE	Impul	Effec	Hope	Resil	Optim
Neuro	.84										
ProSo	-.05	.94									
Learn	-.18*	.54**	.90								
Prove	.09	.21**	.23**	.69							
Perfor	.21**	-.16*	-.35**	.16*	.84						
CSE	-.53**	.3	.24**	-.04	-.28**	.85					
Impul	.20*	-.11	-.38**	-.00	.23**	-.30**	.85				
Effec	-.23**	.17*	.45**	.26**	-.19*	.25**	-.28**	.86			
Hope	-.30**	.16*	.28**	.12	-.17*	.43**	-.18*	.52**	.82		
Resil	-.33**	.17*	.35**	.16	-.25**	.40**	-.13	.55**	.64**	.75	
Optim	-.50**	.16	.30**	-.01	-.24**	.55**	-.27	.42*	.54**	.49**	.78

Table 12 – Principal Components Analysis of the WSCS with only employed students

Items	One Factor Solution	Three Factor Solution	
WSCS 1	.447		.783
WSCS 2	.395		.621
WSCS 3	.582		.351
WSCS 4	.491	.724	
WSCS 5	.565		.642
WSCS 6	.544		.747
WSCS 7	.482	.554	
WSCS 8	.680	.611	
WSCS 9	.699	.593	
WSCS 10	.676	.573	
WSCS 11	.643	.751	
WSCS 12	.683		.630
WSCS 13	.692		.671
WSCS 14	.528	.625	
WSCS 15	.652	.320	.697
WSCS 16	.529	.304	.431
WSCS 17	.673		.489

Only factor loadings above .3 are shown.

Figure 1 – Histogram of WSCS Scores from Sample 2

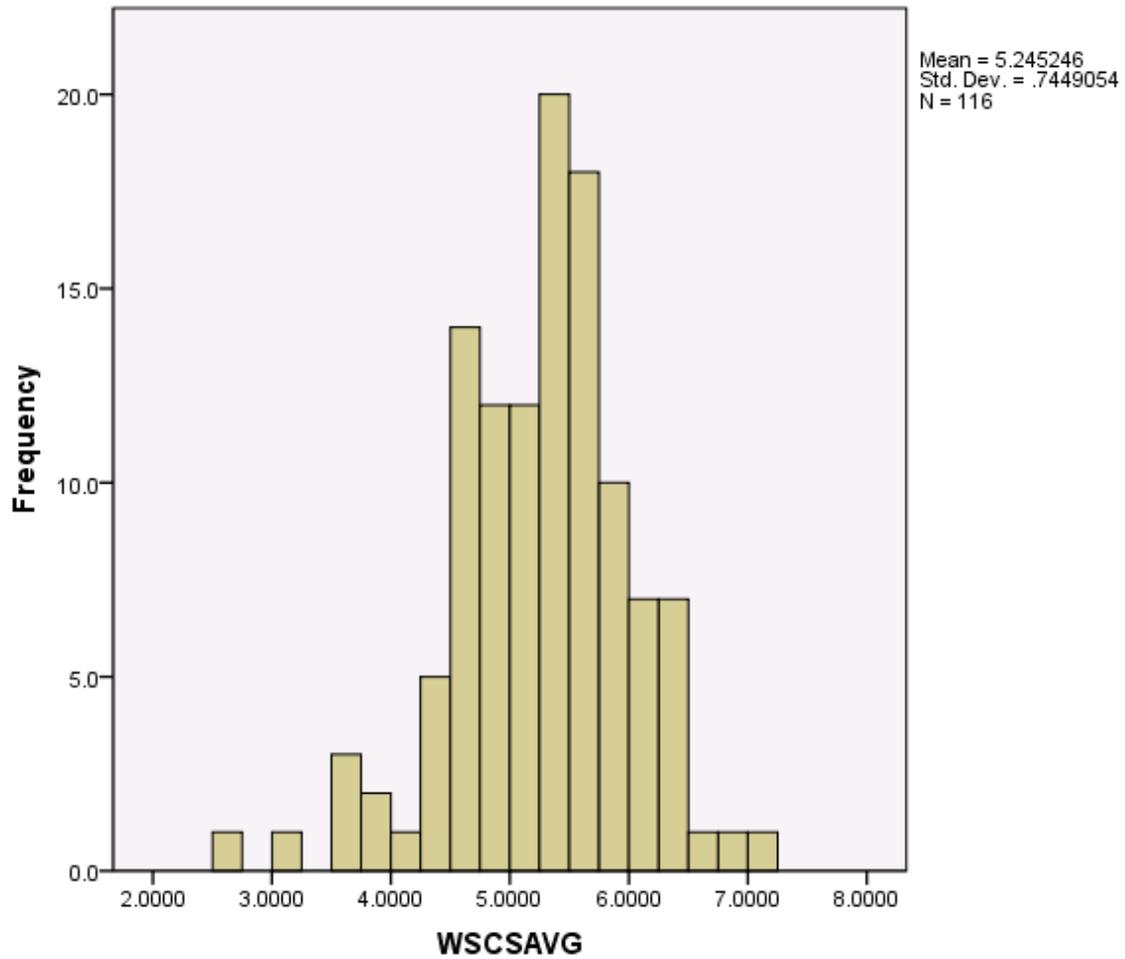


Figure 2 – Histogram of WSCS Scores from Sample 3

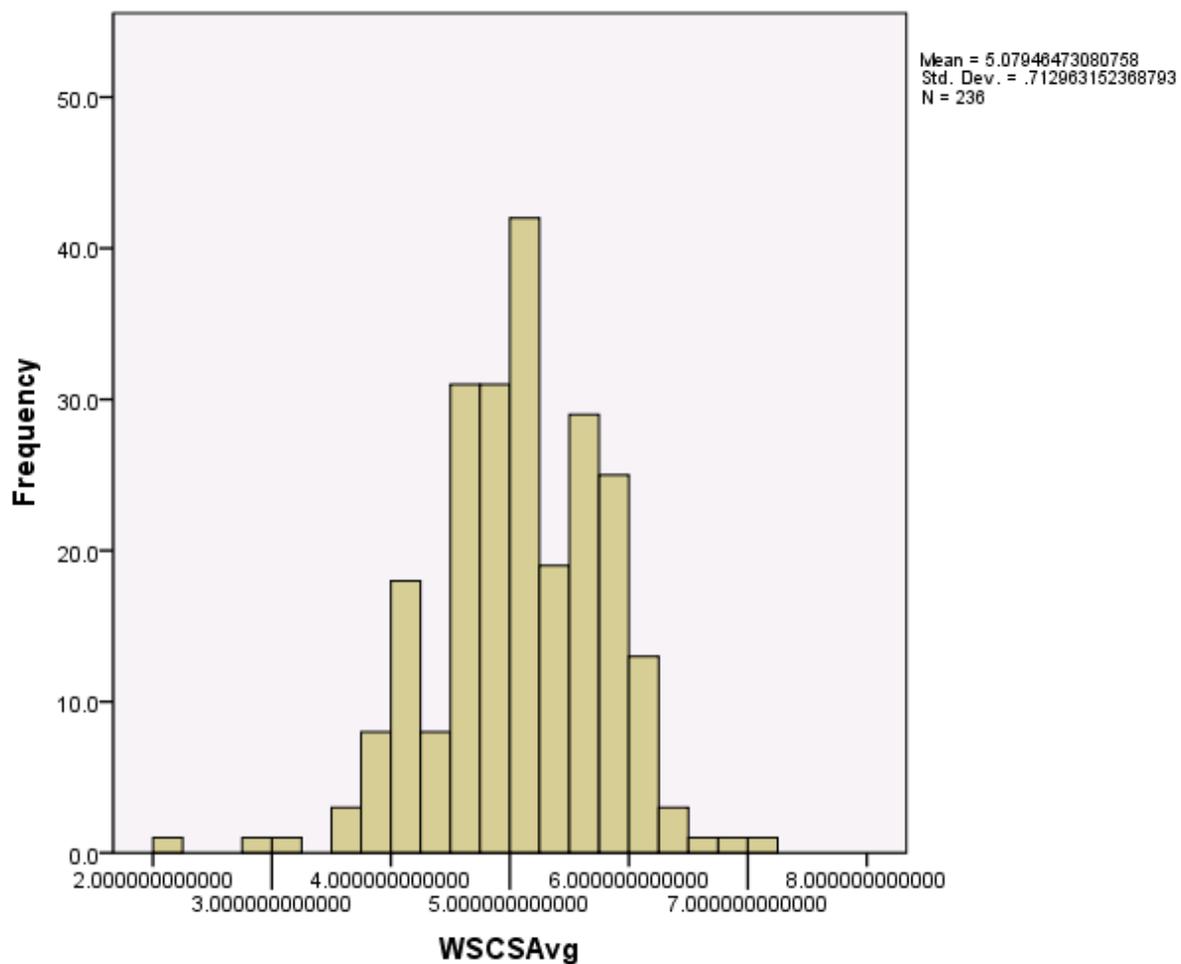


Figure 3 – Histogram of WSCS Scores from Sample 4

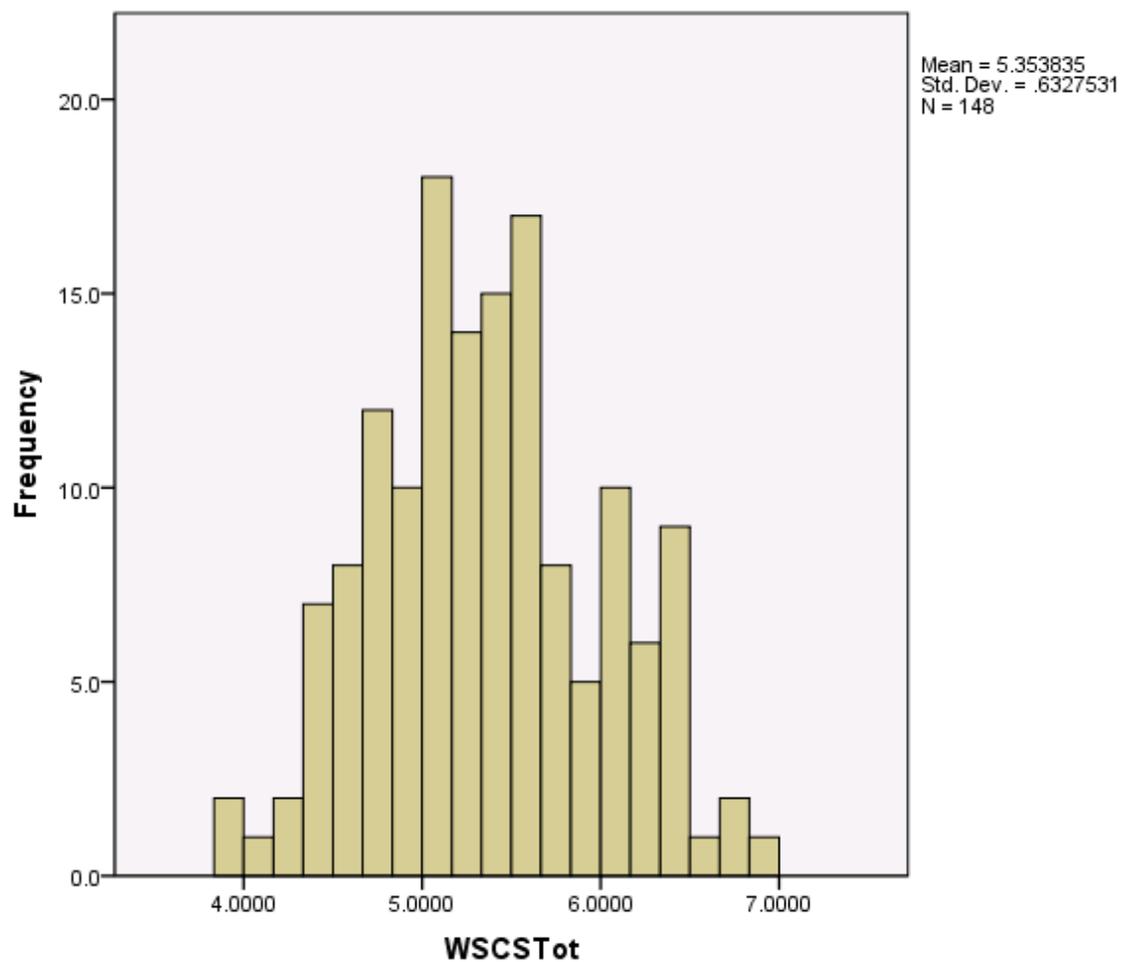


Figure 4 – Scree Plot of the WSCS using Sample 2

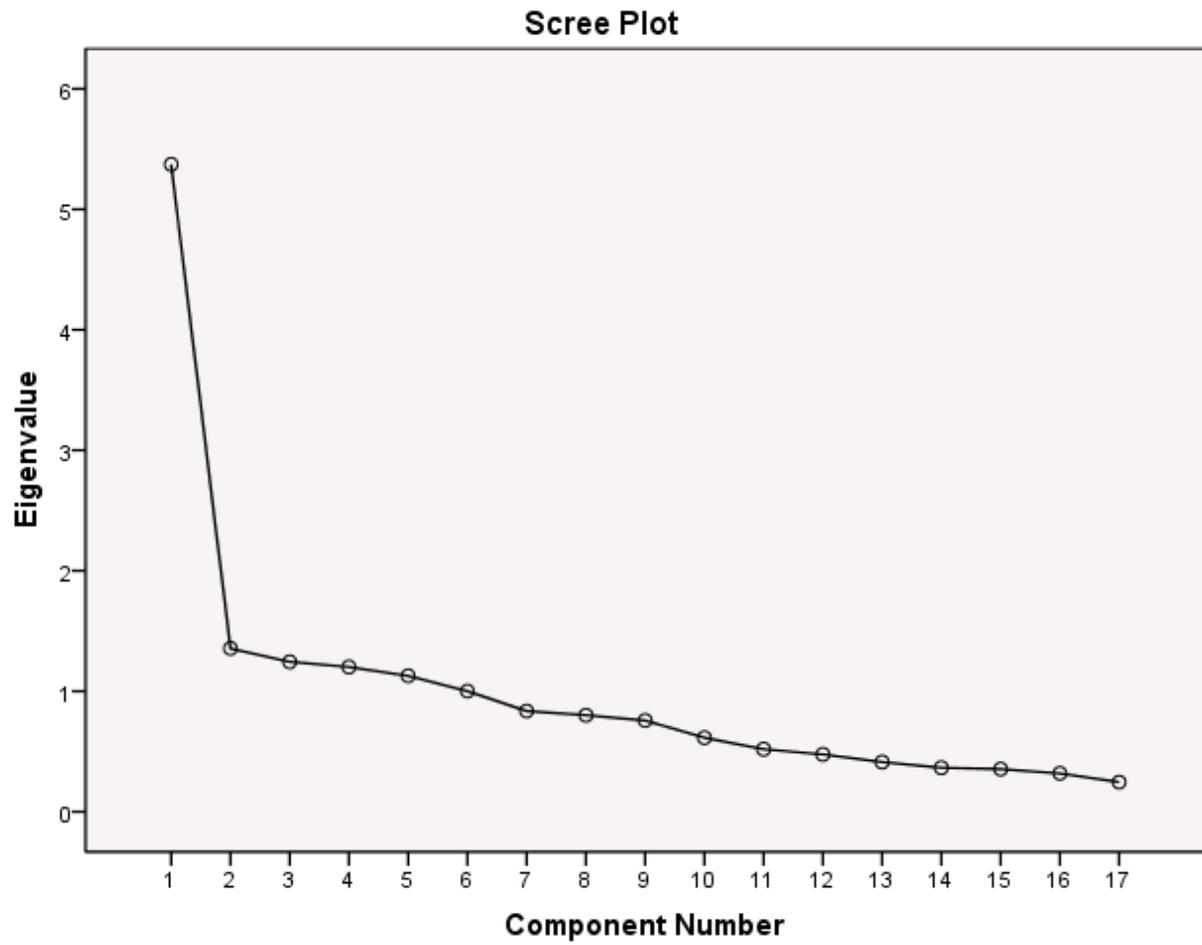


Figure 5 – Scree Plot of the altered WSCS using Sample 4

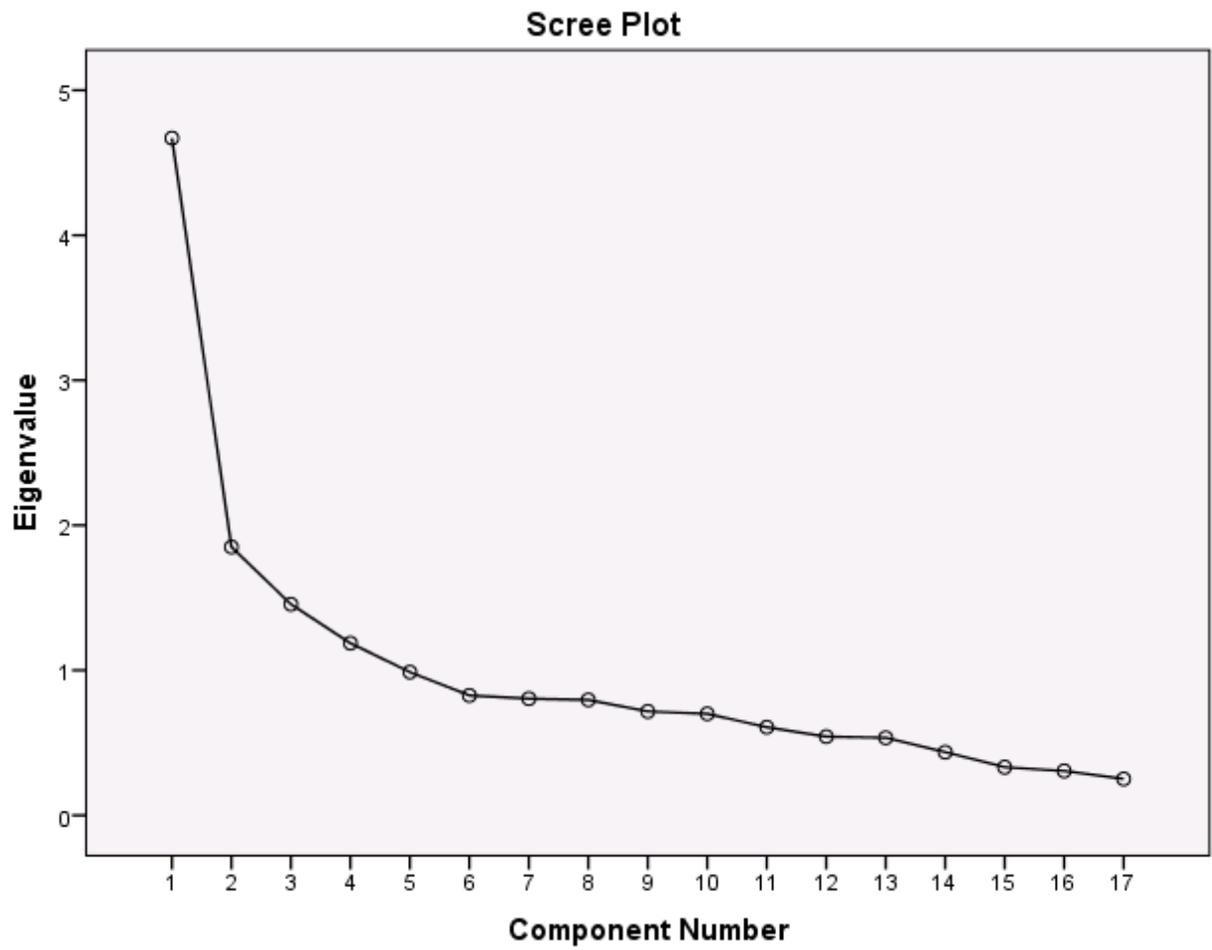
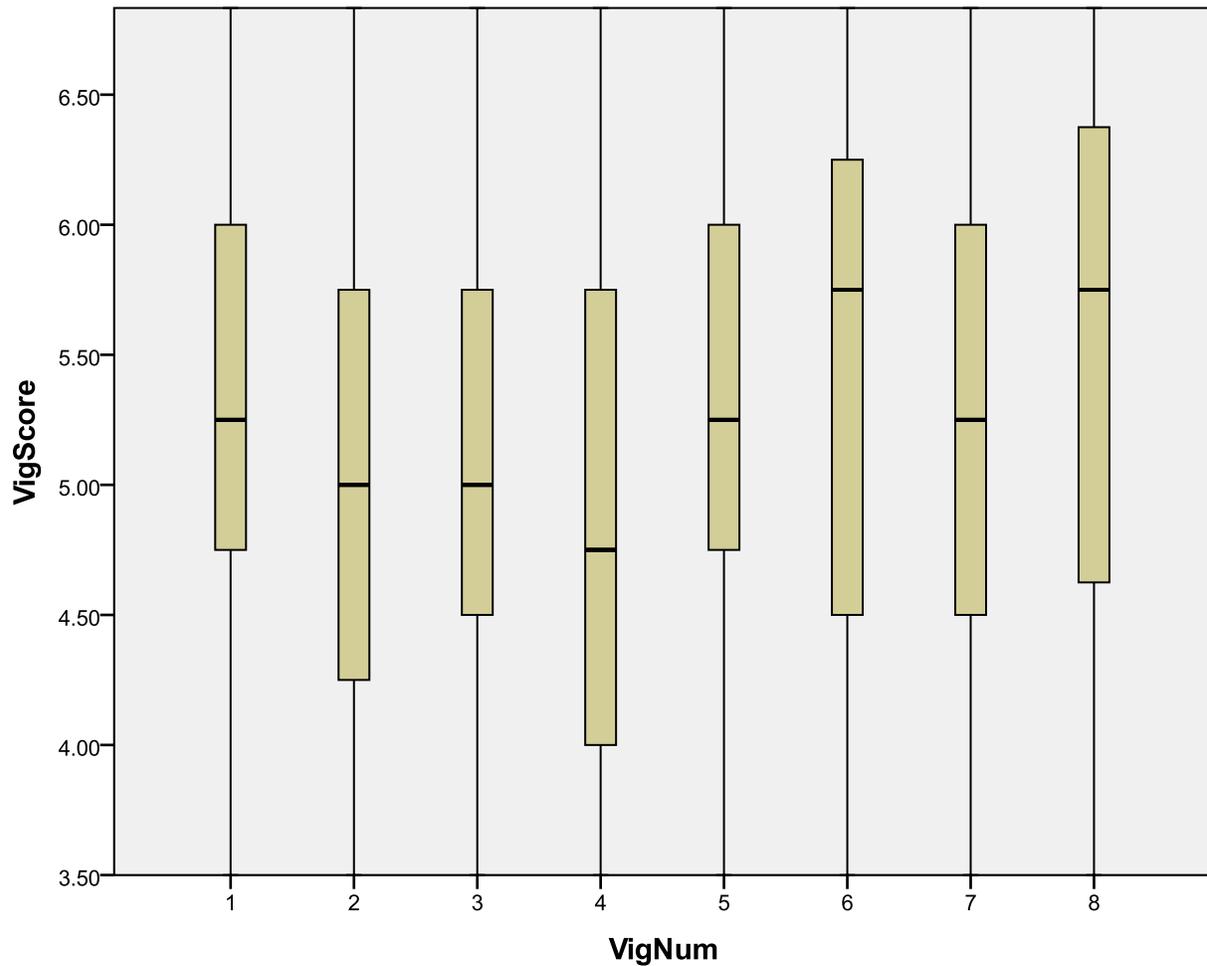


Figure 6 – Boxplots of Participant Responses to the Eight Vignettes



- VigNum 1 = Group x Senior x Friendly
- VigNum 2 = Group x Senior x Cold
- VigNum 3 = Group x New x Friendly
- VigNum 4 = Group x New x Cold
- VigNum 5 = One-on-one x Senior x Friendly
- VigNum 6 = One-on-one x Senior x Cold
- VigNum 7 = One-on-one x New x Friendly
- VigNum 8 = One-on-one x New x Cold

Appendix A – Workplace Social Courage Scale (WSCS)

There are many risks that could be involved in workplace interactions. These risks could range from minor to severe risks, depending on the behavior. For the following, please rate how likely you would do the following behaviors despite the risks involved. Use the scale below:

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Slightly Disagree
- 4 = Neutral
- 5 = Slightly Agree
- 6 = Agree
- 7 = Strongly Agree

You should NOT answer these questions with your current job or workgroup in mind. Instead, respond based on how you would act in a workplace after working there for five years.

- 1.) Although it would make me look bad, I would admit to my mistakes at work.
- 2.) Although it may damage our friendship, I would tell my superior when a coworker is doing something incorrectly.
- 3.) Although my coworker may become offended, I would suggest to him/her better ways to do things.
- 4.) If I thought a question was dumb, I would still ask it if I didn't understand something at work.
- 5.) Even if my coworkers could think less of me, I'd lead a project with a chance of failure.
- 6.) I would not tolerate when a coworker is rude to someone, even if I make him/her upset.
- 7.) Although my coworkers may notice my mistakes and judge me for them, I would let them look over my work.
- 8.) Despite my subordinate disliking me, I would tell him/her when they're doing something against company policy.
- 9.) Although my coworker might become annoyed, I would correct him/her if they were being unsafe.
- 10.) I would let my coworkers know when I am concerned about something, even if they'd think I am too negative.
- 11.) Although it makes me seem like a “goodie-goodie,” I would publicly acknowledge someone for doing a good job.
- 12.) Despite making my coworker angry, I would tell him/her what they need to hear.
- 13.) Even if it may damage our relationship, I would confront a subordinate who had been disrupting their work-group.
- 14.) Although it may show how little I know about the topic, I would still volunteer for workshops and other learning opportunities at work.
- 15.) Although it makes me look incompetent, I would tell my coworkers when I've made a mistake.
- 16.) Despite appearing dumb in front of an audience, I would volunteer to give a presentation at work.

17.) Although it may completely ruin our friendship, I would give a coworker an honest performance appraisal.

Appendix B – Vignettes

Below are several scenarios which describe certain workplace interactions, followed by several questions. Carefully read each scenario, and then answer the following questions with the workgroup in mind using the scale below. There are no right or wrong answers.

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Slightly Disagree
- 4 = Neutral
- 5 = Slightly Agree
- 6 = Agree
- 7 = Strongly Agree

You have been working in the same workgroup for quite a long time, and you know your coworkers very well. Everyone is very friendly, and they often joke around with each other. The office is usually buzzing with the conversation of coworkers, and your workgroup always goes out together on birthdays. For the following questions, answer with this workgroup in mind.

- 5.) Even if my coworkers could think less of me, I'd lead a project with a chance of failure.
- 10.) I would let my coworkers know when I am concerned about something, even if they'd think I am too negative.
- 15.) Although it makes me look incompetent, I would tell my coworkers when I've made a mistake.
- 16.) Despite appearing dumb in front of an audience, I would volunteer to give a presentation at work.

You have just been hired to work in a workgroup, and you still don't know your coworkers very well. Everyone is very friendly, and they often joke around with each other. The office is usually buzzing with the conversation of coworkers, and your workgroup always goes out together on birthdays. For the following questions, answer with this workgroup in mind.

- 5.) Even if my coworkers could think less of me, I'd lead a project with a chance of failure.
- 10.) I would let my coworkers know when I am concerned about something, even if they'd think I am too negative.
- 15.) Although it makes me look incompetent, I would tell my coworkers when I've made a mistake.
- 16.) Despite appearing dumb in front of an audience, I would volunteer to give a presentation at work.

You have just been hired to work in a workgroup, and you still don't know your coworkers very well. Everyone seems to be very cold towards each other, and they never joke around. The

office is usually silent, and your workgroup never goes out together. For the following questions, answer with this workgroup in mind.

- 5.) Even if my coworkers could think less of me, I'd lead a project with a chance of failure.
- 10.) I would let my coworkers know when I am concerned about something, even if they'd think I am too negative.
- 15.) Although it makes me look incompetent, I would tell my coworkers when I've made a mistake.
- 16.) Despite appearing dumb in front of an audience, I would volunteer to give a presentation at work.

You have been working in the same workgroup for quite a long time, and you know your coworkers very well. Nevertheless, everyone seems to be very cold towards each other. The office is usually silent, and your workgroup never goes out together. For the following questions, answer with this workgroup in mind.

- 5.) Even if my coworkers could think less of me, I'd lead a project with a chance of failure.
- 10.) I would let my coworkers know when I am concerned about something, even if they'd think I am too negative.
- 15.) Although it makes me look incompetent, I would tell my coworkers when I've made a mistake.
- 16.) Despite appearing dumb in front of an audience, I would volunteer to give a presentation at work.

Your coworker, Greg, has been working with you for a very long time, and you know him very well. He is very friendly towards you. Whenever you two pass in the office, he makes an effort to talk to you, and he often goes out to lunch with you. For the following questions, answer with this workgroup in mind.

- 8.) Despite Greg disliking me, I would tell him/her when they're doing something against company policy.
- 12.) Despite making Greg angry, I would tell him/her what they need to hear.
- 13.) Even if it may damage our relationship, I would confront Greg if he had been disrupting his workgroup.
- 17.) Although it may completely ruin our friendship, I would give Greg an honest performance appraisal.

Your coworker, Greg, has just been hired at your organization, and you don't know him very well. Nevertheless, he is very friendly towards you. Whenever you two pass in the office, he makes an effort to talk to you, and he often goes out to lunch with you. For the following questions, answer with this workgroup in mind.

- 8.) Despite Greg disliking me, I would tell him/her when they're doing something against company policy.
- 12.) Despite making Greg angry, I would tell him/her what they need to hear.
- 13.) Even if it may damage our relationship, I would confront Greg if he had been disrupting his workgroup.
- 17.) Although it may completely ruin our friendship, I would give Greg an honest performance appraisal.

Your coworker, Greg, has just been hired at your organization, and you don't know him very well. He is very cold towards you. Whenever you two pass in the office, he never makes an effort to talk to you, and he never goes out to lunch with you. For the following questions, answer with this workgroup in mind.

- 8.) Despite Greg disliking me, I would tell him/her when they're doing something against company policy.
- 12.) Despite making Greg angry, I would tell him/her what they need to hear.
- 13.) Even if it may damage our relationship, I would confront Greg if he had been disrupting his workgroup.
- 17.) Although it may completely ruin our friendship, I would give Greg an honest performance appraisal.

Your coworker, Greg, has been working with you for a very long time, and you know him very well. Nevertheless, he is very cold towards you. Whenever you two pass in the office, he never makes an effort to talk to you, and he never goes out to lunch with you. For the following questions, answer with this workgroup in mind.

- 8.) Despite Greg disliking me, I would tell him/her when they're doing something against company policy.
- 12.) Despite making Greg angry, I would tell him/her what they need to hear.
- 13.) Even if it may damage our relationship, I would confront Greg if he had been disrupting his work-group.
- 17.) Although it may completely ruin our friendship, I would give Greg an honest performance appraisal.

Appendix C – Altered WSCS

There are many risks that could be involved in workplace interactions, such as the potential to damage one's relationships or social image. These risks could range from minor to severe risks, depending on the behavior involved. For the following, please rate how likely you would do the following behaviors despite the risks involved. Use the scale below:

- 1 = Not Likely at All
- 2 = Very Unlikely
- 3 = Somewhat Unlikely
- 4 = Neither Likely or Unlikely
- 5 = Somewhat Likely
- 6 = Very Likely
- 7 = Almost Certain

For example, marking a 3 to the question “confront a workplace bully,” would indicate that you would be “somewhat unlikely” to confront a workplace bully

You should NOT answer these questions with your current job or workgroup in mind. Instead, respond based on how you would act in a workplace after working there for five years.

- 1.) Admit my mistakes at work.
- 2.) Tell my superior when a coworker is doing something incorrectly.
- 3.) Suggest to my coworker better ways to do work tasks.
- 4.) Ask my superior if I didn't understand something at work.
- 5.) Lead a project with a chance of failure.
- 6.) Not tolerate a coworker being rude to someone.
- 7.) Let a coworker look over my work.
- 8.) Tell a coworker when he/she is doing something against company policy.
- 9.) Correct a coworker if he/she is being unsafe.
- 10.) Let my coworkers know when I am concerned about my work environment.
- 11.) Publically acknowledge someone for doing a good job in front of others.
- 12.) Tell my coworker what they need to hear.
- 13.) Confront a subordinate who has been disrupting his/her workgroup.
- 14.) Volunteer to take workshops and other learning opportunities at work.
- 15.) Tell my coworkers when I've made a mistake.
- 16.) Volunteer to give a presentation at work.
- 17.) Give a coworker negative, but honest, feedback about his/her work performance.