

Summer 2006

Measurement of Valuing Diversity: A Multidimensional Conception and Confirmatory Analysis

Rebekka A. Althouse
Old Dominion University

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**MEASUREMENT OF VALUING DIVERSITY:
A MULTIDIMENSIONAL CONCEPTION AND CONFIRMATORY ANALYSIS**

by

Rebekka A. Althouse
B. A. May 2002, Franklin & Marshall College

A Thesis submitted to the Faculty of
Old Dominion University in Partial Fulfillment of the
Requirement for the Degree of

MASTER OF SCIENCE

PSYCHOLOGY

OLD DOMINION UNIVERSITY
August 2006

Approved by:

Terry L. Dickinson (Director)

Robert M. McIntyre (Member)

Donald D. Davis (Member)

ABSTRACT

MEASUREMENT OF VALUING DIVERSITY: A MULTIDIMENSIONAL CONCEPTION AND CONFIRMATORY ANALYSIS

Rebekka A. Althouse
Old Dominion University, 2006
Director: Dr. Terry L. Dickinson

This study explored the construct validity of the Attitudes Toward Diversity Scale (ATDS; Montei et al., 1996) in relation to the Scale of Ethnocultural Empathy (SEE; Wang et al., 2003) and the Miville-Guzman Universality-Diversity Scale (M-GUDS; Miville et al., 1999) in a sample of 157 undergraduate and graduate students at Old Dominion University. Because there was no precedent in the literature, a purely theoretical relationship was hypothesized. The relationship between the SEE and the ATDS was hypothesized to be stronger than between the M-GUDS and the ATDS. A multivariate structural model tested the hypothesized pattern of relationships emanating from the SEE and M-GUDS to the ATDS. The multivariate model was found to be a good fit for the data, although the relationship between the SEE and ATDS was not stronger than between the M-GUDS and ATDS as anticipated. All subscales of the SEE and M-GUDS were found to significantly predict scores on at least one subscale of the ATDS. Implications for the construct validity of the ATDS and the fundamental nature of the valuing diversity construct are discussed. Future research should further explore the valuing diversity construct.

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This thesis is dedicated to my parents for their
love, support and encouragement.

ACKNOWLEDGMENTS

Thank you to my committee members, Dr. Donald Davis and Dr. Robert McIntyre, for their expert guidance and advice. Special thanks to Bob for laying the groundwork for this piece of research and steering me through my early graduate studies. Thank you to all my family, friends, and colleagues for their encouragement and companionship throughout this process. Finally, this thesis would not have been possible without my thesis chair, Dr. Terry Dickinson. My deepest appreciation goes to you, Terry, for your brilliance, dedication, conscientiousness, and generosity of time.

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CHAPTER I

INTRODUCTION

Diversity in today's workforce is a phenomenon that many organizations must face. Changes in population demographics and globalization of business demand that organizations shift their attention to understanding and managing workforce diversity in order to remain competitive world-wide.

Demographic Shifts

Population data indicate that the United States workforce is and will become increasingly more diverse (U.S. Census Bureau, 2001, January). By 2020 the United States workforce is projected to be 67 percent White, 14 percent Hispanic (of any race), 11 percent Black, and 6 percent Asian (Judy & D'Amico, 1997). By 2050 the United States government predicts that the population will be 50.1 percent White (not Hispanic), 24.4 percent Hispanic (of any race), 14.6 percent Black (alone), 8 percent Asian (alone), and 5.3 percent Other (Population Projections Program, 2004). Organizations can no longer choose employees to fit their organizations; they must change their organizations to fit the changing nature of the workforce (Gottfredson, 1992).

In addition to the increasing diversity of the working population, diversity itself is becoming more diverse. This effect is demonstrated by the multiracial category growing in size (i.e., the number of individuals described as multiracial). The multiracial category currently describes a larger percentage of children than adults. In the 2000 United States

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Census, about 4 percent of children were identified as multiracial, compared with 1.9 percent of adults (U.S. Census Bureau, 2001, May). These multiracial children have already begun to enter the workforce.

Global Changes

National borders are increasingly irrelevant because of the globalization of business. One consequence of rising globalization is that markets are now composed of people from diverse nationalities as well as racioethnic and gender groups (Cox, 1997). As firms expand operations abroad, they must understand and effectively respond to this increasingly diverse marketplace to remain successful.

This globalization combined with ease of communication through technology has changed the nature of work. Many employees are members of virtual teams that span the globe in membership. In order to be successful, virtual team members need to work together effectively and understand their cultural differences. In addition to changing work structures, globalization has changed the notion of job permanence. Workers are moving more rapidly through a series of jobs, or working only temporarily or part-time in more than one job (Hays-Thomas, 2004). This amplified movement through the workforce also makes diversity management more important.

To meet the demands of today's business world, organizations have to rethink how they define and value diversity in order to successfully manage the power of a diverse workforce. Unfortunately, there are a number of different frameworks for defining and studying diversity.

Frameworks for Studying Diversity

Color-Blind Ideal

Diversity management research has historically concentrated on awareness of cultural differences as a primary strategy for managing diversity. The assumption of this research is that if individuals are properly educated about the cultural differences that shape diversity, then workers will be “color-blind” to these differences, and most problems can be avoided in managing a diverse workforce.

DiTomaso and Hooijberg (1996) suggest that there is a fallacy in presuming that all people are the same and that aspects of diversity are ‘superficial’ differences. Valuing diversity means treating others as they want to be treated, not treating everyone exactly the same way (Carnevale & Stone, 1994). By subscribing to the colorblind ideal, organizations assume that racial differences should be ignored and that historical treatment of people of color should also be ignored (Cox & Nkomo, 1990).

Nelville, Roderick, Duran, Lee, & Browne (2000) have shown that individuals who hold ‘colorblind’ racial attitudes (i.e., race should and does not matter) are actually *more* likely to hold racial and gender prejudices. Shofield (1986) even suggests that individuals are more likely to engage in racist behaviors without fear of repercussions in an environment where race does not appear to matter and is not discussed. Ironically, the color-blind ideal may actually encourage racism.

Melting Pot Metaphor

Similarly, the perception of the United States as a melting pot carries the powerful message of assimilation. A diversity perspective recognizes and appreciates contributions from all members of society, whereas assimilation emphasizes minimally

ignoring those differences (Thomas, Mack, & Montagliani, 2004). As described later, organizational research suggests that an atmosphere acknowledging and appreciating diversity can be inherently more beneficial in the workplace than an atmosphere encouraging assimilation. From this perspective, employees should be led to understand how diversity enriches an organization and be taught that ethnic and gender differences are not inferiorities to be ignored (Gottfredson, 1992).

Subtle Racism

Since the Civil Rights Act of 1964, society has become increasingly sensitive to breaches of ethical and moral behavior related to race and sex. Rampant bigotry in the United States has declined sharply in opinion polls (Thomas et al., 2004). Nonetheless, as members of society have either changed their attitudes or became aware of the consequences for expressing overtly their prejudices, modern more subtle forms of prejudice have emerged (Johnson, 2001). These subtle forms of prejudice have been identified in the literature as aversive racism, modern racism, and symbolic racism.

Gaertner and Dovidio (2005) define aversive racists as those who “sympathize with victims of past injustice, support the principle of racial equality, and regard themselves as nonprejudiced, but, at the same time possess negative feelings and beliefs about Blacks, which may be unconscious” (p. 618). Aversive racism is presumed to represent the racial attitudes of most well-educated and liberal Whites (Gaertner & Dovidio, 2005).

Aversive racists engage in a subtle, rationalized form of prejudice that social psychologists attribute to feelings of ambivalence (Thomas et al., 2004). Gaertner and Dovidio (1986) describe this ambivalence as the need of Whites to balance egalitarian

values of fairness with their early-learned anti-Black sentiments. Because aversive racists truly aspire to be nonprejudiced, discrimination will occur only when a negative response can be justified on the basis of some other factor besides race (Gaertner & Dovidio, 2005).

Modern and symbolic racists manifest their racism toward programs and policies that they perceive as giving Blacks an unfair advantage (Thomas et al., 2004). Modern racists exhibit a hesitance to change the status quo. Modern racists do not define their own behaviors and attitudes as racist and only act on their unconscious negative attitudes when there is a plausible, non-prejudiced explanation available for the prejudiced behavior (McConahay, 1986).

Inherent in the modern forms of racism is a lack of awareness. Majority group members can inadvertently negatively affect minority group members (Holvino, Ferdman, & Merrill-Sands, 1998). In fact, the consequences of aversive racism are thought to be as pernicious as more overt forms of racism (Gaertner & Dovidio, 1986). The evolution of “subtle racism” has at least two implications. First, it may account for the relative ineffectiveness of diversity training initiatives, particularly if these initiatives inordinately target the more overt forms of prejudice. The consequence of focusing on the overt and ignoring the subtle forms of prejudice is obvious: the subtle forms persist, whereas the overt forms are reduced or eliminated (Carnevale & Stone, 1994). The second implication concerns the measurement of prejudice for purposes of criterion development: the existence of subtle racism implies that respondents are “test wise” about the topic of prejudice. It becomes the challenge of the organizational scientist, therefore, to develop measures that do not provide cues to the organizational respondent

as to the socially appropriate response and that do assess the multidimensional nature of prejudice (Burkard, Boticki, & Madson, 2002). The lack of a well-developed, published measure of subtle racism has been a major obstacle to research on diversity management in the workplace (Montei, Adams, & Eggers, 1996).

One strategy for assessing the effects of diversity training programs is to consider constructs that are logically related to prejudice but less prone to sensitize respondents to give socially desirable responses. One such construct represents the obverse of prejudice, such as appreciation for diversity or valuing diversity. As overt prejudice continues to ebb in society and as organizations become increasingly diversified, psychologists are more and more interested in investigating tolerance and appreciation of diversity in attempts to “measure” subtle racism (Burkard et al., 2002). Measures that reflect proactive attitudes and behaviors toward coworkers and customers from different sociocultural backgrounds are less likely to “cue” respondents. At the same time, measures of proactive proclivities toward diversity are highly appropriate to the goals of many organizations whose ultimate purpose is often to leverage diversity to enhance organizational effectiveness. Relatively few “proactive” measures exist.

Valuing Diversity

Hays-Thomas (2004) describes ‘valuing diversity’ as pertaining to activities designed to increase information about and acceptance of cultural differences. This point of view assumes the uniqueness of individuals and champions the inclusion of everyone. The differences between individuals are seen as a bottom-line asset to organizations. Any definition of valuing diversity should include not only surface-level diversity (overt

features and behavioral characteristics), but also deep-level diversity (differences in attitudes, beliefs, and values) (Harrison, Price, & Bell, 1998).

Valuing diversity is defined for the present research by an individual's collection of attitudes and behavioral tendencies toward those who may be different in cultural or ethnic background. An individual high in valuing diversity recognizes and accepts both similarities and differences of other people generally and in the context of the workplace. The individual simultaneously recognizes the uniqueness of others and champions the inclusion of all. An individual high in valuing diversity is open to other races, cultures, and ethnic backgrounds. Such an individual appreciates diversity in the work environment and strives to promote multiculturalism.

Diversity can be an asset for organizations when managed well. This is not surprising. It seems logical that the more comfortable a workforce is with its diversity, the more cohesive and effective the workforce. The diversity in an organization generally impacts organizational-level outcomes indirectly through effects that are hypothesized to start at the individual level (Rynes & Rosen, 1995). In the next several pages, a summary is provided of positive organizational outcomes associated with the effective management of diversity.

Compliance with the Law

Equal employment opportunity (EEO) reflects a goal state of equal chance of employment regardless of race, sex, religion, and national origin. United States federal law and regulations mandate EEO. The law prohibits discrimination, but it does not require proactive measures to attain the goal state of EEO (Hays-Thomas, 2004). Failure to manage diversity appropriately can cost a lot of money. Discrimination suits often

cost organizations millions of dollars. Successfully avoiding discrimination suits is a business imperative. This can only be accomplished through carefully managing an organization's diversity through employment practices.

Increases in Workplace Effectiveness, Productivity, and Profitability

Diversity management can increase effectiveness in the workplace and leads to increased profitability in organizations (Hays-Thomas, 2004). For example, diverse work groups often exhibit improved problem solving and decision-making. The logic for this outcome is that diverse groups offer a broader base of experience to draw from when encountering problems and making decisions (Cox, 1997). Triandis, Hall, and Ewen (1965) found that heterogeneous groups that were trained about their differences exhibited six times the problem-solving ability of more homogenous groups. Similarly, Ng and Tung (1998) found that bank branches with culturally heterogeneous employees outperformed those branches with culturally homogenous employees.

Wright, Ferris, Hiller, and Kroll (1995) affirmed that investors actually bid up the stock price of firms that developed high quality affirmative action programs. The authors conjecture that this favorable market reaction reflects acknowledgment of the positive organizational outcomes of managing diversity well.

Decreases in Personnel Costs

Effectively managing diversity results in lower personnel costs associated with grievances, absenteeism, and turnover (Cox, 1997). Absenteeism and turnover rates are higher for members of gender or racial minority groups in organizations that do not manage diversity well (Cox, 1997). Furthermore, organizations that manage diversity

well show improvements in organizational commitment (Hopkins, Hopkins, & Mallette, 2001), and commitment mediates reductions in absenteeism and turnover.

Increase in Marketing to Under-Exploited Populations

Hiring diverse employees may appeal to diverse customers. There is a public relations value in being an organization that is recognized for managing diversity well (Cox, 1997). In addition to the public relations value, employees of varied cultural backgrounds can provide insights into cultural effects on buying decisions and strategy (Cox, 1997). Having a diverse workforce can also lead to an increased ability to effectively serve a diverse customer base (Holmes, 2005).

More Harmonious Interpersonal Work Relationships

Awareness and acceptance of differences in heterogeneous groups is essential for successful interaction among group members (Miville et al., 1999). If awareness and acceptance of differences are not cultivated in organizations, these differences may contribute to communication breakdowns (Cox, 1997). If not managed appropriately, diversity in work groups may actually impede communication.

A Caveat

There is one concern associated with the relationship of diversity with these positive outcomes. The outcomes can only be reached if organizations manage diversity well. Simply retaining diverse employees will not necessarily lead to positive organizational outcomes. Triandis et al. (1965) found that diverse groups that were not trained about cultural differences actually scored lower on problem-solving tasks than more homogenous groups. The bottom line is that diversity is a resource to organizations, but when ignored can actually diminish organizational effectiveness.

Managing Diversity

Ivancevich and Gilbert (2000) define diversity management as “the commitment on the part of the organization to recruit, retain, reward, and promote a heterogeneous mix of productive, motivated, and committed workers including people of color, Whites, females, and the physically challenged” (p. 77). Thus, the process of managing diversity requires interventions designed to capitalize on workplace differences as strengths (Hays-Thomas, 2004).

Programs for managing diversity have grown out of affirmative action policies. The programs typically have the dual goals of eliminating gender and ethnic differences in promotion and retention, as well as making the organizational climate more hospitable for women and minorities (Gottfredson, 1992). Unfortunately, many diversity programs are purely cosmetic, off-the-shelf approaches that do little to nothing for diversity concerns in organizations (Eagan & Bendick, 2001, as cited in Kossek, Lobel, & Brown, 2006).

Developing a Multicultural Organization

The goal of a well-designed diversity management system is to advance organizations to the multicultural stage of development. Holvino et al. (1998) define this as “an ideal stage in the development process – organizations seek and value all differences and develop the systems and work practices that support members of every group to succeed and fully contribute. Inclusion in multicultural organizations means that there is equality, justice, and full participation at both the group and individual levels, so that members of different groups not only have equal access to opportunities,

decision-making, and positions of power, but also are actively sought out because of their differences” (p. 248).

To attain the multicultural stage, diversity initiatives should address three levels of organizational change: structural change, cultural change, and behavioral change (Ragins, 1995). Structural interventions focus on the formal systems that support or hinder goals of diversity such as recruitment processes, equal pay and so on. Cultural change refers to basic assumptions and values of the organization. Behavioral change interventions seek to change individual-level behaviors, attitudes, and perceptions (Holvino et al., 1998). Each level can be considered complementary and must be integrated effectively with one another. Each level of change is equally important for organizations to be considered multicultural.

The most common intervention to address behavioral change is diversity education and training. While diversity training by itself cannot change organizational structure and culture, it may indirectly affect these areas (Holvino et al., 1998). Diversity programs that aim to foster more sensitive and appreciative attitudes toward women and minorities are often called “valuing diversity” programs (Gottfredson, 1992). Usually these programs are based on seminars and small group activities.

Valuing diversity programs endeavor to surpass traditional affirmative action initiatives. They focus on easing interpersonal tensions as well as hiring, promoting, and retaining women and minorities. The ultimate goal of diversity programs is to make women and minorities feel more valued in the organization. The valuing diversity programs aim to change the behaviors and attitudes of all employees to encompass styles of thought and behavior different from that of the stereotypical White male (Gottfredson,

1992). Furthermore, in a move away from the color-blind ideal criticized previously, diversity programs emphasize that differences should not simply be tolerated but that they should be celebrated and valued by employees.

Diversity Training Evaluation

The number of planned diversity initiatives implemented by organizations is on the rise (Rynes & Rosen, 1995). Organizations increasingly turn to diversity interventions to facilitate organizational improvement of workplace diversity. However, recent evidence suggests that these interventions are often ineffective (Chrobot-Mason & Quinones, 2002). Organizations spend significant time and resources on their diversity efforts, but many do not directly monitor the effects of their interventions beyond simply counting numbers of minority employees (Comer & Soliman, 1996). Despite the research evidence that a diverse workforce brings to the organization a myriad of benefits, organizational science has been at a loss to demonstrate the effects of planned diversity interventions. This may be due to the lack of conceptually and psychometrically sound measures for assessing diversity initiatives.

Holvino et al. (2004) argue that when ill-designed diversity initiatives are implemented, an increase in inappropriate stereotyping and inter-group conflict might result. How an organization handles diversity management will determine whether an initiative represents a net gain or a net loss. Under this reasonable premise it is axiomatic that organizations should properly evaluate diversity initiatives (including diversity training) in order to ensure that programs do not negatively influence an organization's effectiveness. However, there are many practical difficulties involved in evaluating training, including diversity training. In speaking to this issue, Salas and Cannon-Bowers

(2001) describe training evaluation as “labor intensive, costly, political, and many times the bearer of bad news” (p. 484). Further, “ordinary” training programs that target learning or skill development readily accommodate reasonable training criteria, but that is not the case for diversity training initiatives. Diversity training often has ephemeral goals that are not readily translated into good criterion measures. This appears to account for the lack of quality measures that operationalize attitudes towards diversity generally, as well as in the workplace. It further appears that the lack of measures is largely to blame for deficits in diversity training evaluation (Burkard et al., 2002).

All this is to say that if organizations embark upon diversity training programs with the genuine goal of changing racial and multicultural attitudes, then they need reliable measures of the relevant attitudes to serve as evaluation criteria.

Measuring Valuing Diversity

To guide change efforts related to diversity, it is important to have success indicators and realistic measures of progress. Establishing a formal measurement system as a baseline for assessing the valuing of diversity among employees is essential to this process (Cox, 2001). Conducting regular employee attitude and behavior surveys is also crucial (Kossek, Lobel, & Brown, 2006). Unfortunately there is very little research; few measures are widely available for measuring diversity.

Three recent research efforts offer scales that are promising for measuring the valuing of diversity. Although only one of the scales was actually developed for use in organizations, the three measures each provide a unique perspective on valuing diversity in organizations. The present research compares the relationships among these measures and draws conclusions about their usage in organizational settings.

Attitudes Toward Diversity Scale (ATDS)

Montei, Adams, and Eggers (1996) developed a 30-item paper and pencil scale to measure attitudes toward diversity in organizations. The authors define attitudes toward organizational diversity, as “the degree to which one tends to accept minorities, primarily women and non-Whites, in the workplace. This includes acceptance of such individuals as co-workers and supervisors, and any other persons in work-related roles. In addition, one’s attitude toward diversity includes the degree to which one accepts the increased hiring of minorities” (Montei et al., 1996, p. 295).

Three 10-item subscales comprise the ATDS. Each subscale is intended to measure a different attitude domain. The first subscale measures attitudes toward having minority coworkers. The second subscale measures attitudes toward having a minority supervisor, or attitudes toward minorities in positions of authority. The third subscale measures attitudes toward the hiring and promoting of minority individuals in the organization. This subscale also measures perception of the degree to which personnel decisions are based solely on race (Montei et al., 1996). Low scores on the ATDS and subscales indicate positive attitudes toward diversity in the workplace, whereas high scores indicate negative attitudes toward workplace diversity.

The authors suggest that their measure is useful to guide organizational diversity interventions. Specifically, they suggest that the measure is useful as a criterion of effectiveness for these interventions (Montei et al., 1996). The ATDS is the only published scale presented here that was developed and intended for use in the workplace as a tool for evaluating diversity training.

In a preliminary study, Montei et al. (1996) gave the ATDS to a sample of 67 full-time employees of varying jobs recruited through referral from undergraduate psychology students. The researchers reported a coefficient alpha of .90 for the total scale, .78 for the Coworker subscale, .71 for the Supervisor subscale, and .83 for the Hiring subscale.

In a follow-up study, the researchers administered the ATDS to a sample of 349 full-time employees and civil service workers. The researchers also administered a form of the Social Desirability Scale (SDS) to these participants (Crowne & Marlowe, 1964). For this sample, the researchers reported a coefficient alpha of .90 for the total scale, .79 for the Coworker subscale, .81 for the Supervisor subscale, and .76 for the Hiring subscale (Montei et al., 1996). Correlations between the ATDS and the SDS were not significant, suggesting no social desirability bias in responses and evidence for discriminant validity (Montei et al., 1996).

Montei et al. (1996) also performed a confirmatory factor analysis using the data from the follow-up study. A three-factor model was hypothesized with the correlations between the three factors set to zero. That is, Coworker, Supervisor, and Hiring factors were defined as uncorrelated. Fit statistics supported the hypothesized three-factor model in comparison to a one-factor model. Unfortunately, the research did not evaluate a three-factor model that allowed the factors to correlate. It is logical that organizational culture and training initiatives aimed at valuing diversity would target attitudes encompassing relationships with coworkers and supervisors as well as perceptions about hiring practices.

Scale of Ethnocultural Empathy (SEE)

Wang et al. (2003) developed a 31-item paper and pencil scale, the Scale of Ethnocultural Empathy (SEE), to measure ethnocultural empathy in a counseling psychology setting. Previous research on empathy had suggested that empathy can be both measured and altered (Batson et al., 1997), but no research had previously developed a scale to measure empathy explicitly related to ethnic, racial, or cultural issues. If empathy (specifically ethnocultural empathy) can be altered, then changes as a result of diversity training might be measured using this scale.

Ethnocultural empathy was defined based on conceptions of multiculturalism, cultural empathy, and general empathy (Wang et al., 2003). It involves intellectual empathy, empathic emotions, and communicative empathy (Wang et al., 2003). The researchers developed four subscales named Empathic Feeling and Expression, Empathic Perspective Taking, Acceptance of Cultural Differences, and Empathic Awareness (Wang et al., 2003). The first subscale, Empathic Feeling and Expression, measures communication of prejudiced attitudes as well as emotional responses to emotions/experiences of people with racial and ethnic backgrounds different from one's own. The second subscale, Empathic Perspective Taking, measures efforts to understand the emotions/experiences of those with racial and ethnic backgrounds different from one's own. The third subscale, Acceptance of Cultural Differences, measures accepting and understanding the cultural background of those with racial and ethnic backgrounds different from one's own. The final subscale, Empathic Awareness, measures awareness of the emotions/experiences of those with racial and ethnic backgrounds different from

one's own, particularly concerning unequal treatment and discrimination (Wang et al., 2003).

The researchers reported coefficient alpha for the total scale as .91. The subscale coefficient alphas ranged from .73 to .89 across various studies (Wang et al., 2003). Test-retest reliabilities reported were .76 for the total SEE score and ranged from .64 to .86 for the subscales (Wang et al., 2003).

In a confirmatory factor analysis, the researchers fit a second-order hierarchical factor model to the data (Wang et al., 2003). The second-order factor represents the construct, ethnocultural empathy, and the four first-order factors represent the subscales. All reported fit indices were high for this model. Further, the second-order factor model was compared to a four-factor model with correlated factors. Both models fit the data well, but the researchers chose the second-order factor model based on theoretical considerations.

To investigate the convergent validity of the SEE, it was compared to the Interpersonal Reactivity Index (IRI; Davis, 1983) and the Miville-Guzman Universality-Diversity Scale (M-GUDS; Miville et al., 1999). The Empathic Concern subscale of the IRI and the Empathic Feeling and Expression subscale of the SEE correlated, $r(362) = .54, p \leq .01$, indicating that the SEE measures emotional reactivity. Correlations between the overall SEE and M-GUDS were also quite strong, as well as between the subscales of both measures. These correlations provide evidence for the convergent validity of the SEE.

To investigate discriminant validity, the SEE was compared to The Balanced Inventory of Desirable Responding (BIDR; Paulhus, 1991a). The BIDR is a measure of

social desirability. Both measures were administered to a sample of 364 undergraduate students. The researchers hypothesized that that correlations between the SEE and BIDR would be relatively modest in magnitude. There were several statistically significant but weak correlations between the total BIDR with several SEE subscales. The researchers concluded that there was evidence of discriminant validity for the SEE and its four factors (Wang et al., 2003).

Although the SEE was developed for counseling settings, the researchers assert that it may be used as a “necessary tool in assessing workers’ attitude change and the evaluation of diversity training outcomes...The SEE, as a unique measure of cultural empathy toward individuals from racial and ethnic backgrounds other than one’s own, can be a valuable tool to aid such efforts” (Wang et al., 2003, p. 232).

The Miville Guzman Universality-Diversity Scale

Miville et al. (1999) developed a 45-item paper and pencil scale entitled “The Miville-Guzman Universality-Diversity Scale” (M-GUDS) to assess the construct of universal-diverse orientation (UDO) in a counseling psychology setting. The researchers define UDO as “an attitude toward all other persons that is inclusive yet differentiating in that similarities and differences are both recognized and accepted; the shared experience of being human results in a sense of connectedness with people and is associated with a plurality or diversity of interactions with others ” (Miville et al., 1999, p. 292). Miville et al. (1999) theorize that the M-GUDS taps into a “social attitude that reflects the ability to simultaneously appreciate the commonalities and differences between oneself and other people. Such an attitude is probably critical for helping to establish healthy relationships

with other people that, at the same time, allow for the uniqueness of oneself and the other person to be perceived and accepted” (p. 304).

The M-GUDS operationalizes UDO as “an awareness and potential acceptance of both similarities and differences in others that is characterized by interrelated cognitive, behavioral, and affective components” (Fuertes, Miville, Mohr, Sedlacek, & Gretchen, 2000, p. 158). Three subscales corresponding to these cognitive, behavioral, and affective facets of UDO comprise the M-GUDS: Relativistic Appreciation Scale, or relativistic appreciation of oneself and others; Diversity of Contact Scale, or seeking a diversity of contact with others; and Sense of Connection Scale, or a sense of connection with the larger society or humanity as a whole. High scores on the M-GUDS and its subscales indicate higher levels of UDO, whereas low scores indicate low levels of UDO.

Miville et al. (1999) report that the coefficient alpha for the M-GUDS ranged from .89 to .94 across studies. They also reported a test-retest reliability of .94 for a two-week lag. Construct validity was established by comparing the M-GUDS to other published scales, using both racially homogenous and heterogeneous samples of university students.

In one sample of 93 all-White undergraduate students, Miville et al. (1999) administered the M-GUDS with three other scales in order to establish convergent and discriminant validity. The M-GUDS significantly and positively correlated with the Autonomy subscale of the White Racial Identity Attitude Scale (Helms, 1990), $r(91) = .48, p \leq .01$, indicating convergent validity for the M-GUDS (Miville et al., 1999). The M-GUDS also significantly negatively correlated with both the Homophobia Scale (Hansen, 1982), $r(91) = -.33, p \leq .01$, and the Dogmatism Scale (Troidahl & Powell,

1965), $r(91) = -.27, p \leq .01$ (Miville et al., 1999). These results provide evidence for the convergent validity of the M-GUDS. White individuals who exhibited high levels of UDO generally held racially positive worldviews, less dogmatic beliefs, and less prejudicial attitudes toward gays and lesbians. Additionally, the M-GUDS did not significantly correlate with self-reported SAT Verbal scores in this sample, and only weakly negatively correlated with SAT Quantitative scores, $r(91) = -.21, p \leq .05$. These latter results were taken as evidence of discriminant validity for the M-GUDS, because theoretically the M-GUDS should not relate to cognitive ability as defined by the SAT.

In order to further explore the construct validity, Miville et al. (1999) administered the M-GUDS along with three additional measures to a sample of 110 racially heterogeneous undergraduate students. Miville et al. (1999) found that two subscales of the M-GUDS positively correlated with the Davis (1983) Interpersonal Reactivity Index (IRI), Empathic Perspective Taking, $r(108) = .54, p \leq .01$, and Empathic Concern, $r(108) = .29, p \leq .01$. The Inventory of Self-Psychology (ISP; Goldman & Gelso, 1997) was also administered to this sample. The M-GUDS correlated positively with its subscales of Healthy Grandiose Self, $r(108) = .49, p \leq .01$ and Healthy Idealized Parental Image Scale, $r(108) = .46, p \leq .01$, but did not significantly correlate with its Defensive Narcissism Scale. These results suggest the M-GUDS correlates with aspects of a well-functioning self (Miville et al., 1999). A healthy sense of self should be related to appreciating similarities and valuing differences, a major tenet of UDO. The third measure administered in this sample was the SDS (Crowne & Marlowe, 1964). No significant correlation was obtained with the M-GUDS, supporting the discriminant validity of the M-GUDS (Miville et al., 1999).

Another study by Miville et al. (1999) examined the relationships of the M-GUDS with the Attitudes Toward Feminism and the Women's Movement Scale (FWM; Fassinger, 1994), and the Bem Sex-Role Inventory (BSRI; Bem, 1981). A sample of 153 racially heterogeneous undergraduate students completed these measures. Miville et al. (1999) found that the M-GUDS significantly positively correlates with both attitudes toward feminism, $r(151) = .39, p \leq .01$, and sex-role androgyny, $r(151) = .24, p \leq .01$ (Miville et al., 1999). These results provide evidence for the convergent validity of the M-GUDS, because UDO should be related to gender-based social attitudes. Similarly, it is logical that more androgynous individuals would express stronger UDO than those individuals who more strongly identify with one gender role.

In a final validation study, Miville et al. (1999) compared the M-GUDS with the SDS (Crowne & Marlowe, 1964), The Black Racial Identity Attitude Scale (BRIAS; Helms, 1990), and The Collective Self-Esteem Scale (CSES; Luhtanen & Crocker, 1992). A sample of 135 Black participants from a historically Black college completed these scales. The researchers found that the M-GUDS significantly correlated with the SDS, $r(133) = .26, p \leq .01$, indicating social desirability bias in responses that was not present in other samples (Miville et al., 1999). However, the M-GUDS still correlated significantly with Internalization Status, a subscale of the BRIAS, after controlling for social desirability, $r(133) = .29, p \leq .01$ (Miville et al., 1999). No other relationships were significant.

Fuertes et al. (2000) examined the factor structure of the M-GUDS using exploratory factor analysis in a sample of 335 undergraduate psychology students. Three factors were extracted that correspond with the hypothesized subscales of the M-GUDS.

In a follow-up study, a short form of the M-GUDS was administered to a sample of 206 undergraduates to further examine the hypothesized factor structure. A confirmatory factor analysis showed that the hypothesized three-factor model fit the data significantly better than a one-factor model (Fuertes et al., 2000).

The research studies conducted by Miville and colleagues provide empirical evidence that the M-GUDS is reliable and demonstrates validity across different samples. The M-GUDS measures a social attitude (i.e., UDO) allied with healthy self-perceptions and empathy for others, low prejudicial attitudes, and positive racial identity. Given this evidence, the M-GUDS should be considered for studying the valuing of diversity in organizations.

The Present Research

The present research assesses the construct validity of the ATDS in relation to the M-GUDS and the SEE. All of these scales and their subscales are intended to reflect various aspects of valuing diversity, ranging from organizationally specific attitudes and behavioral tendencies to broader orientations of valuing differences and similarities among people. The intended purpose of the research is to place the ATDS in a theoretical context for use as a tool by organizations that strive to achieve a multicultural stage of development. The theoretical context reflects an individual's predisposition to perceive the importance of diversity from moral, ethical, interpersonal, and business perspectives.

Research Hypotheses

A multivariate multidimensional model was used in the present research (Edwards, 2001). This model treats the subscales of the ATDS, SEE, and M-GUDS as

conceptually related dimensions. The dimensions collectively represent the multidimensional concept of valuing diversity. This model considers the dimensions as theoretical constructs that each have claim to being a contributor to the general concept (Edwards, 2001). Edwards argues that among several models that a multivariate structural model is most appropriate for evaluating the construct validity of the dimensions and the general concept. In the multivariate structural model, the validity of the construct is assessed by the structural relations that “effect dimensions” have with the dimensions that are the central focus of investigation. In the present research, the ATDS dimensions are of central focus and the SEE and M-GUDS are “effect” dimensions.

As shown in Figure 1, the multivariate model predicts a set of relations emanating from the M-GUDS and SEE to the ATDS. Generally, the relations of the SEE with the ATDS are hypothesized to be stronger than those of the M-GUDS. As mentioned earlier, the ATDS measures specific attitudes in the workplace toward racial minorities and women, whereas the SEE measures these same attitudes in everyday affairs. However, the M-GUDS measures attitudes toward valuing diversity broadly to include people from different countries and cultures, including racial minorities and women. Each of the subscales of the ATDS is compared to the subscales of the M-GUDS and SEE. Because the subscales of the ATDS are hypothesized to reflect unique aspects of valuing diversity (cf. Montei et al., 1996), it is expected that the subscales will show a differential pattern of relationships with the M-GUDS and the SEE. Unfortunately, previous research is not sufficient to generate hypotheses about specific patterns of relationships. Indeed, part of the purpose of the present research is to provide this validity information.

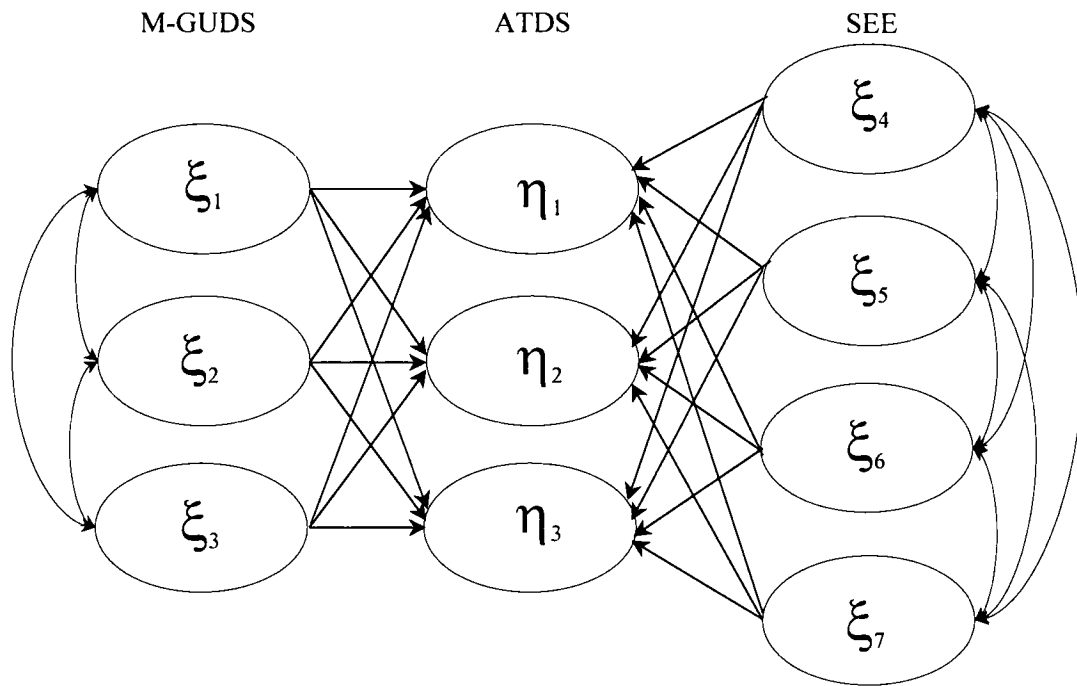


Figure 1. Hypothesized relationships between the subscales of the ATDS (η_i variables) with the subscales of the M-GUDS and SEE (ξ_j variables).

CHAPTER II

METHOD

Participants

Data were collected from 157 Old Dominion University undergraduate and graduate students. All participants were required to be at least 18 years of age and have at least one year of continuous part-time or full-time work experience. A power analysis determined that approximately 82 participants were required to achieve statistical power of at least .80. The specific procedures used to calculate power are described below.

The participants were offered one psychology department research credit for their participation. Demographic information was collected on age, gender, ethnicity, and work experience. The research was reviewed by the Old Dominion University (ODU), College of Sciences Human Subjects Committee to ensure that participants would be treated in accordance with ethical guidelines endorsed by the American Psychological Association and the ODU Institutional Review Board.

Seventy-four percent of participants were female and 26% were male. The mean age of participants was 24 years old. Sixty-four percent of participants reported their race as White, 27% Black, 7% Asian/Pacific Islander, 3% Hispanic, 2% American Indian/Alaskan Native, and 4% Other. Eighty percent of participants were currently employed at the time they took the questionnaire, 20% were not. Table 1 summarizes all demographic information.

Table 1

Participant Demographic Data

Gender		Age	
	Percentage		Percentage
Males	26	18-20	43
Females	74	21-25	28
		26-30	16
		31-35	7
		36-40	3
		40+	3
Race*		Marital Status	
	Percentage		Percentage
White	64	Single	76
Black	27	Married	18
Hispanic American	3	Divorced/Widowed	4
Indian/Alaskan Native	2		
Asian/Pacific Islander	7		
Other	4		
Currently employed?		Hours/week spent at work	
	Percentage		Percentage
Yes	80	0-10	24
No	20	10-20	23
		20-30	22
		30-40	15
		40+	16

Note. N=157. *Participants were asked to check all that apply.

Valuing Diversity Instruments

The 30-item ATDS instrument employs a 5-point Likert-type scale ranging from *strongly disagree* (1) to *strongly agree* (5) (Montei et al., 1996). However, to avoid participant confusion, a 6-point Likert-type scale was employed in the present research to maintain consistency with the 6-point response formats of the M-GUDS and SEE. This change in the ATDS response format was not considered to affect its measurement properties. There are 3 dimensions that constitute the ATDS, the Coworker, Hiring, and Supervisor subscales. Example ATDS items are as follows: Coworker subscale—“I often pick up the slack for some of my female coworkers who are less productive”; Supervisor subscale—“I feel that diversity is good for this organization even if it means I will have a supervisor who is a minority”; and Hiring subscale—“I feel that increasing the hiring of women and minorities can only help this organization.” Of the 30 items, 12 are reverse scored (See Appendix A for the complete scale). The “positive” response direction of ATDS items differs from the other two target scales. Therefore, after reverse-scoring the 12 items, the entire scale was reverse coded for data analysis. Again, this change to the ATDS was not considered to affect its measurement properties.

The 31-item SEE instrument employs a 6-point Likert-type scale ranging from *strongly disagree that it describes me* (1) to *strongly agree that it describes me* (6) (Wang et al., 2003). Example items are as follows: Empathic Feeling and Expression subscale—“I share the anger of those that face injustice because of their ethnic or racial backgrounds”; Empathic Perspective Taking subscale—“It is easy for me to understand what it would feel like to be a person of another racial or ethnic background other than my own”; Acceptance of Cultural Differences subscale—“I feel irritated when people of

different racial or ethnic backgrounds speak their language around me (reverse-scored)”; and Empathic Awareness subscale—“I am aware of how society treats racial or ethnic groups other than my own.” Of the 31 items, 12 are reverse scored (See Appendix B for the complete scale).

The 45-item M-GUDS instrument employs a 6-point Likert-type scale ranging from *strongly disagree* (1) to *strongly agree* (6) (Miville et al., 1999). Example items are as follows: Relativistic Appreciation subscale—“Knowing about the different experiences of other people helps me to understand my own problems better”; Diversity of Contact subscale—“I would like to join an organization that emphasizes getting to know people from different countries”; and Sense of Connection subscale—“ I often feel a sense of kinship with persons from different ethnic groups.” Of the 45 items, 15 are reverse scored (See Appendix C for the complete scale).

Discriminant Validity Instruments

Three measures were included in the present research to demonstrate the discriminant validity of the diversity measures. In line with previous research on valuing diversity (Miville, et al., 1999; Montei et al., 1996; Wang et al., 1996), a measure of social desirability was expected to show small and insignificant correlations with the diversity measures. In addition, measures of the leader-member exchange relationship and general job satisfaction were included in the present research. These latter two measures reflect important relationships and attitudes that individuals develop in the workplace (Muchinsky, 2003). The more general measures of valuing diversity (i.e., M-GUDS, SEE) were expected to show small and insignificant correlations with the satisfaction and leader-member exchange measures. However, the ATDS was expected

to show somewhat stronger and statistically significant correlations, because of its emphasis on the value of diversity shown by coworkers and supervisors in the workplace.

The Balanced Inventory of Desirable Responding (BIDR, Paulhus, 1994) was administered as a measure of social desirability bias (See Appendix D). This instrument employs a 7-point Likert-type scale ranging from *not true* (1) to *very true* (7) (Paulhus, 1994). The full scale contains 40 items that measure two constructs: self-deception, and impression management. Based on previous research that indicates the complexity of interpreting both positively and negatively worded items for personality scales, only the 20 positively worded items were administered in this study (Horan, DiStefano, & Motl, 2003).

The Leader-Member Exchange (LMX-7) scale contains 7 items that measure the quality of leader-member exchange in supervisor-subordinate work relationships (Graen, Novak, & Sommerkamp, 1982). The quality of exchange reflect a range of employee contributions from the mundane and expected to those that go beyond formal job duties, and a range of supervisor contributions from close monitoring and work structuring to autonomy and increased job opportunities. For the present research, only the seven items that assess leader-member exchange with the employee as referent were included. All items are rated on a 5-point Likert-type scale with varying answer options (See Appendix E for the complete scale).

The Minnesota Satisfaction Questionnaire (MSQ) contains 20 items that measure general job satisfaction (Weiss, Dawis, England, & Lofquist, 1967). In this widely used measure of job satisfaction, participants rate the extent to which they are pleased with 20

aspects of their jobs. They rate each item on a 5-point Likert-type Scale ranging from (1) *strongly disagree* to (5) *strongly agree* (See Appendix F).

Participants were also asked to record their age, marital status, work experience, and racial-ethnic background (see Appendix G).

Procedure

After receiving approval from the Old Dominion University College of Sciences Human Subjects Committee, convenience sampling was used to obtain the sample for the study. A recruitment flyer with information about how to access the scale online (See Appendix H) was posted on the Psychology Department Experiment Board in the Mills Godwin Building. The recruitment flyer brought the research to the attention of students who participant in the Department's research pool. Course instructors were also approached individually to seek their support for the research study. The recruitment flyer was also made available to these instructors.

Participants completed all scales and demographic questions online using the Inquisite Survey Software (Inquisite Inc., 2005). Identifying information was collected in a separate Inquisite survey that was linked to the first survey. This separate survey collected identifying information in the form of university identification numbers (UIN) for the purposes of assigning research credit appropriately. The addition of the second Inquisite survey ensured that UIN could not be connected to responses in any way. The participants read a brief letter (See Appendix I) before taking the surveys. This letter assured participants that their responses were confidential and explained that their UIN could be collected in a separate survey in order to assign research credit appropriately without identifying their responses. The letter also provided information on how to

contact the researcher to obtain the results of the study. Finally, instructions informed the participants that the scales measured their opinions and that items had no right or wrong answers (See Appendix J for complete instructions). Participants were also asked to respond to items based on their most current work experience. The completion of the entire survey took approximately thirty minutes.

Analytic Strategy

LISREL 8.71 (Jöreskog & Sörbom, 2005) was used to assess the multivariate structural model. Parameter matrices were estimated using the maximum likelihood estimation method. The three sets of subscales were compared to evaluate relationships among the dimensions and associated hypotheses. Chi-square goodness-of-fit tests and goodness-of-fit indices are reported to assist in the evaluation.

Confirmatory Factor Analyses

A confirmatory factor analysis was conducted on the items that composed each of the subscales prior to the evaluation of multivariate structural model. The purpose of these factor analyses was to ensure that subscale items were measuring their intended dimension or construct. The composite reliability (Bollen, 1989) and Cronbach's alpha are reported for each of the subscales.

Parcels

There are 10 to 15 items for each of the subscales of the ADTS, SEE, and M-GUDS. For the present research, the items of each subscale were used to construct two to three parcel scores. Each parcel was composed of two to five items. The mean of these items scores defined the parcel score.

The rationale for the parcels was to keep the number of observed variables to a manageable size (e.g., 3 parcels for each 3 subscales of the ADTS for a total of 9 scores versus the 31 scores at the item level) as well as to ensure that the data more closely met the multivariate normality assumptions required by LISREL.

Goodness of Fit

Goodness-of-fit indexes are reported to show the quality of subscales and the multivariate model in fitting the data. These indexes include the non-normed fit index (NNFI) and Bentler's (1990) comparative fit index (CFI). Both indexes are relatively unbiased when sample sizes approach 200 or greater. These indexes range in magnitude from 0 to 1, with values of .90 or greater generally believed to indicate a model of good fit.

Root mean square error of approximation (RMSEA) is also reported. This index reflects the amount of error per degree of freedom in fitting the model to the population variance-covariance matrix (Steiger, 1990). Like the NNFI and CFI, it is also relatively unbiased when sample sizes are 200 or greater. A value of .05 or less suggests a close fit, with values to .08 representing reasonable errors for the model in the population.

Unfortunately, all goodness-of-fit indexes are influenced by model complexity, the number of observed variables, and failure to specify the model correctly (Anderson & Gerbing, 1984; Brevik & Olsson, 2001; Kenny & McCoach, 2003). As guidance, Kenny and McCoach suggested that researchers consider the three indexes as whole. If there are minor variations in the goodness-of-fit indexes (i.e., around .90 or greater; around .08 or smaller), there is no cause for concern. However, if all three indexes show poor fit, then this is a sign of a truly poorly fitting model.

Statistical Power

The RMSEA can also be used to estimate the sample size needed for a desired level of statistical power (MacCallum, Browne, & Sugawara, 1996). According to this approach, the null hypothesis (H_0) has an associated hypothesized value of E_0 for the RMSEA. If H_0 is false and the alternative hypothesis is correct (H_A), the actual value of the RMSEA is E_A . MacCallum et al. (1996) suggest that the difference between E_0 and E_A reflects the degree to which H_0 is incorrect.

In the MacCallum et al. (1996) approach, the required sample size is a function of: the degrees of freedom of the hypothesized model; the desired power, the degree to which H_0 is incorrect (i.e., the difference between E_0 and E_A); and the defined alpha level. Thus, for 382 degrees of freedom for the multivariate structural model, an alpha level of .05, power of .80, and a difference between E_0 and E_A of .04 (i.e., $E_0 = .01$ and $E_A = .05$), the minimum sample size is 82 participants. However, it is important to note that the estimated sample size is not solely a function of power and effect size. The researcher may require a much larger sample size to maintain the accuracy of parameter estimation (MacCallum et al., 1996; Schumacker & Lomax, 1996). For the present research, a sample of 200 participants was deemed more than adequate to maintain sufficient accuracy of parameter estimation and statistical power. Indeed, the MacCallum et al. procedure suggested that 200 participants would provide a statistical power of .99. The researchers experienced some difficulty securing the anticipated 200 participants, but the total sample size of 157 is adequate for the present research.

CHAPTER III

RESULTS

Overview

The purpose of the analyses was to assess the nature of the data, relationships of the diversity measures to discriminant measures, measurement properties of diversity subscale items and formation of parcels, measurement properties of diversity scales, and fit of the hypothesized structural model. The results are organized and described in six sections: (1) frequency and distribution analyses; (2) discriminant validity; (3) confirmatory factor analysis of subscales; (4) parcel construction; (5) confirmatory factor analysis of scales; and (6) evaluation of the multivariate structural model.

Frequency and Distribution Analyses

A frequency analysis of item, subscale, and total scores revealed minimal missing observations. The item analysis indicated that no item had more than 5% missing observations. The analysis of diversity subscale and total means indicated no missing observations. Bivariate scatterplots between all possible pairs of subscale and total mean scores were examined to assess the normality of the data. The scatterplots indicated that there were linear relationships between all pairs. Finally, the data were analyzed for kurtosis and skewness using the procedures described in Tabachnick and Fidell (2001). There was no evidence of kurtosis or skewness in any of the diversity variables. Table 2 displays the means, standard deviations, and intercorrelations of the scales and subscales.

Table 2

Means, Standard Deviations, and Inter-Scale Correlations

Scale	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
1. ATDS C	.75	--															
2. ATDS H	.67	.50**	--														
3. ATDS S	.70	.55**	.37**	--													
4. ATDS TOT	.57	.86**	.79**	.77**	--												
5. SEE EFE	.81	.52**	.52**	.49**	.63**	--											
6. SEE EPT	.92	.38**	.39**	.30**	.45**	.64**	--										
7. SEE ACD	1.07	.50**	.42**	.52**	.59**	.56**	.51**	--									
8. SEE EA	1.11	.30**	.36**	.25**	.38**	.56**	.49**	.42**	--								
9. SEE TOT	.76	.54**	.54**	.50**	.66**	.92**	.81**	.74**	.71**	--							
10. M-GUDS RA	.55	.25**	.23**	.16*	.27**	.42**	.27**	.38**	.41**	--							
11. M-GUDS DC	.83	.39**	.38**	.25**	.43**	.69**	.58**	.45**	.39**	.69**	.47**	--					
12. M-GUDS SC	.74	.49**	.43**	.49**	.58**	.78**	.61**	.68**	.52**	.82**	.37**	.65**	--				
13. M-GUDS	.58	.47**	.43**	.37**	.53**	.79**	.62**	.56**	.53**	.80**	.69**	.90**	.85**	--			
14. BIDR SD	.81	-.02	-.03	-.05	-.04	.16*	.15	-.09	.10	.12	.11	.20*	.01	.14	--		
15. BIDR IM	1.16	-.06	-.01	-.09	-.06	.19*	.09	-.04	-.12	.09	.14	.20*	.05	.16*	.26**	--	
16. LMX-7	.81	.10	-.02	.23**	.12	-.04	.01	.04	-.11	-.03	-.06	-.05	-.04	-.06	.18*	.03	--
17. MSQ JS	.78	.10	-.12	.13	.04	.00	-.03	.02	-.08	-.02	.09	.08	.04	.08	.19*	.23**	.51**

Note. $N = 157$. *Significant at $p \leq .05$. **Significant at $p \leq .01$. ATDS C = ATDS Coworker; ATDS H = ATDS Hiring; ATDS S = ATDS Supervisor; ATDS TOT = ATDS Total Scale; SEE EF = SEE Empathic Feeling and Expression; SEE EP = SEE Empathic Perspective Taking; SEE AC = SEE Acceptance of Cultural Differences; SEE EA = SEE Empathic Awareness; SEE TOT = SEE Total Scale; M-GUDS RA = M-GUDS Relativistic Appreciation; M-GUDS DC = M-GUDS Diversity of Contact; M-GUDS SC = M-GUDS Sense of Connection; M-GUDS TOT = M-GUDS Total Scale; BIDR SD = BIDR Self-Deception; BIDR IM = BIDR Impression Management; and MSQ JS = MSQ Job Satisfaction.

Discriminant Validity

Discriminant validity of the subscales of the ATDS, SEE, and M-GUDS was assessed via correlations with the two BIDR scales, as well as the LMX-7 and MSQ scales (see Table 2). As expected, the BIDR Impression Management scale generally did not correlate significantly with the ATDS, SEE, or M-GUDS. The only significant correlations with Impression Management were the Empathic Feeling and Expression subscale of the SEE, $r = .19, p \leq .05$, and the Diversity of Contact subscale of the M-GUDS, $r = .20, p \leq .05$. Although statistically significant, these are weak correlations. As expected, the Self-Deception Enhancement scale of the BIDR generally did not correlate significantly with the subscales of the ATDS, SEE, or M-GUDS. Again, the exceptions were low correlations with the Empathic Feeling and Expression subscale of the SEE, $r = .16, p \leq .05$, and the Diversity of Contact Subscale of the M-GUDS, $r = .20, p \leq .05$. Overall, these results suggest that responses to the three valuing diversity questionnaires show discriminant validity and are free of social desirability bias.

The LMX-7 showed no significant correlations with any subscales of the SEE or M-GUDS. It was expected the ATDS would have somewhat greater and significant correlations with the LMX-7, especially for the Supervisor and Coworker scales. However, only the Supervisor subscale showed a statistically significant correlation, $r = .23, p \leq .05$. The MSQ General Job Satisfaction subscale did not significantly correlate with any subscales of the ATDS, SEE, or M-GUDS. Taken together the correlations of the valuing diversity measures with the LMX-7 and MSQ provide moderate evidence that the three valuing diversity questionnaires also have discriminant validity from the major organizational variables of leader-member exchange and job satisfaction.

Confirmatory Factor Analyses of Subscales

Each subscale of the ATDS, SEE, and M-GUDS was examined with a one-factor confirmatory factor analysis of its items. The intent of these analyses was to ensure that items were measuring their intended subscale factor.

The one-factor model for the ATDS Coworker subscale had poor fit across the goodness-of-fit indices with a normal theory weighted least squares fit of $\chi^2(35) = 204.60, p \leq .05$, RMSEA of .18, CFI of .80, and NNFI of .74. Similarly, the ATDS Hiring subscale one-factor model had a poor fit with a normal theory weighted least squares fit of $\chi^2(44) = 251.65, p \leq .05$, RMSEA of .17, CFI of .64, and NNFI of .56. The Supervisor subscale of the ATDS also showed a questionable fit with a normal theory weighted least squares fit of $\chi^2(27) = 103.35, p \leq .05$, RMSEA of .14, CFI of .91, and NNFI of .88, because its fit indices for the one-factor model are not in agreement.

Due to the poor fit of the ATDS items to a one-factor model, all items that had factor loadings less than .3 were removed from the ATDS subscales. Three items were dropped from the ATDS Coworker subscale, six items were dropped from the ATDS Hiring subscale, and one item was dropped from the ATDS Supervisor subscale. Subsequent confirmatory factor analysis of the reduced subscales showed that the remaining items provided a substantially better fit to a one-factor model. After removal of the poor items, the remaining items provided a moderate to excellent fit to a one-factor model. See Table 3 for a summary of the goodness-of-fit indices for each subscale.

All of the models of SEE subscales showed moderate to excellent fit to a one-factor model. No items were removed from these subscales. See Table 3 for a summary of the goodness-of-fit indices for each subscale.

Table 3

Goodness-of-Fit Indices for One-Factor Confirmatory Analyses on Subscales

Subscale	χ^2	<i>df</i>	NNFI	CFI	RMSEA	Composite Reliability	Cronbach's Alpha
ATDS C	60.50*	14	.87	.91	.15	.80	.79
ATDS H	10.18	5	.96	.98	.08	.79	.77
ATDS S	66.45*	20	.90	.93	.12	.83	.83
SEE EFE	242.13*	90	.93	.94	.10	.90	.90
SEE EPT	40.98*	14	.90	.93	.11	.77	.76
SEE ACD	22.84*	5	.92	.96	.15	.86	.86
SEE EA	4.02	2	.99	1.00	.08	.90	.89
M-GUDS RA	143.68*	35	.94	.95	.14	.91	.91
M-GUDS DC	148.21*	65	.95	.96	.09	.90	.90
M-GUDS SC	304.06*	54	.85	.88	.17	.87	.87

Note. *Significant at $p \leq .05$. NNFI = non-normed fit index; CFI = comparative fit index; RMSEA = root-mean-square error of approximation. ATDS C = ATDS Coworker; ATDS H = ATDS Hiring; ATDS S = ATDS Supervisor; SEE EF = SEE Empathic Feeling and Expression; SEE EP = SEE Empathic Perspective Taking; SEE AC = SEE Acceptance of Cultural Differences; SEE EA = SEE Empathic Awareness; M-GUDS RA = M-GUDS Relativistic Appreciation; M-GUDS DC = M-GUDS Diversity of Contact; and M-GUDS SC = M-GUDS Sense of Connection.

The M-GUDS Relativistic Appreciation subscale fit a one-factor model questionably with a normal theory weighted least squares fit of $\chi^2(90) = 405.41$, $p \leq .05$, RMSEA of .15, CFI of .90, and NNFI of .88. The Diversity of Contact subscale of the M-GUDS also showed questionable fit with a normal theory weighted least squares fit of $\chi^2(90) = 249.47$, $p \leq .05$, RMSEA of .12, CFI of .93, and NNFI of .92. Again, because the fit indices for the first two subscales are not in agreement, the items can be assumed to have poor fit to a one-factor model. Finally, the Sense of Connection subscale of the M-GUDS showed poor fit with a normal theory weighted least squares fit of $\chi^2(90) = 646.64$, $p \leq .05$, RMSEA of .20, CFI of .82, and NNFI of .79.

were evaluated using the item parcels. In previous research, both the M-GUDS and SEE dimensions were specified to be correlated factors. This hypothesized factor model yielded a good fit for both the SEE and M-GUDS parcel data. The SEE model provided excellent statistics with a normal theory weighted least squares fit of $\chi^2(29) = 55.23, p \leq .05$, RMSEA of .08, CFI of .99, and NNFI of .98. The M-GUDS model had good statistics with a normal theory weighted least squares fit of $\chi^2(24) = 76.86, p \leq .05$, RMSEA of .12, CFI of .97, and NNFI of .96. Table 4 summarizes the goodness of fit indices for the SEE and M-GUDS.

In their factor analysis Montei et al. (1996) specified the ATDS dimensions to be uncorrelated. However, this uncorrelated factor model provided a poor fit to the parcel data yielding a normal theory weighted least squares fit of $\chi^2(17) = 34.65, p \leq .05$ and unacceptable fit statistics with RMSEA of .26, CFI of .74, and NNFI of .82. A second factor model was specified that allowed the ATDS dimensions to be correlated. The ATDS model with correlated dimensions had excellent statistics with a normal theory weighted least squares fit of $\chi^2(17) = 32.76, p \leq .05$, RMSEA of .08, CFI of .99, and NNFI of .98. A chi-square difference test that compared the uncorrelated and correlated factor models strongly favored the correlated model ($\chi^2(3) = 188.85, p \leq .05$). The correlated factor model for the ATDS was used to evaluate the multivariate structural model. See Table 4 for ATDS fit statistics.

Table 4

Goodness-of-Fit Indices for Confirmatory Analyses on Scales

Scale	Number of Factors	χ^2	<i>df</i>	NNFI	CFI	RMSEA
ATDS	3	32.76*	17	.98	.99	.08
SEE	4	55.23*	29	.98	.99	.08
M-GUDS	3	76.86*	24	.96	.97	.12

Note. *Significant at $p \leq .05$. NNFI = non-normed fit index; CFI = comparative fit index; RMSEA = root-mean-square error of approximation.

The three confirmatory factor analyses revealed moderate to strong correlations among the latent variables. Specifically, the ATDS confirmatory analyses yielded high correlations (.76-.82) between the latent variables representing the subscales. The correlations among the latent variables representing the subscales of the M-GUDS were more moderate in magnitude and ranged from .63 to .70. Finally, the correlations among the latent variables representing the subscales of the SEE were also moderate in magnitude and ranged from .49 to .73.

Evaluation of the Hypothesized Multivariate Structural Model

A multivariate structural model was hypothesized to evaluate the pattern of relationships among the subscales of the ATDS, SEE, and M-GUDS (see Figure 1). The maximum likelihood method of estimation was used to evaluate the multivariate model. The hypothesized model fit the data well with normal theory weighted least squares fit of $\chi^2(291) = 580.50, p \leq .05, RMSEA=.08, CFI=.96, \text{ and } NNFI=.96$.

Figure 2 shows the structural model with the obtained standardized structural coefficients relating the subscale dimensions of the valuing diversity measures. All four dimensions of the SEE and all three dimensions of the M-GUDS significantly predicted

at least one of the dimensions of the ATDS. The ATDS Coworker subscale was significantly predicted by 4 of the SEE and M-GUDS subscales. The ATDS Supervisor subscale was significantly predicted by 6 of the SEE and M-GUDS subscales. Finally, the ATDS Hiring subscale was significantly predicted by only 2 of the SEE and M-GUDS subscales.

Specifically, The Empathic Feeling and Expression SEE subscale significantly predicted the ATDS Coworker (.45) and Supervisor (.65) subscales ($*p \leq .05$). The Empathic Perspective Taking SEE subscale significantly predicted the ATDS Supervisor subscale (-.30). The Acceptance of Cultural Differences SEE subscale significantly predicted the ATDS Coworker (.31) and Supervisor (.32) subscales. The Empathic Awareness SEE subscale significantly predicted the ATDS Hiring subscale (-.25).

The Relativistic Appreciation subscale of the M-GUDS significantly predicted the ATDS Supervisor subscale (.35). The M-GUDS Diversity of Contact subscale significantly predicted the ATDS Coworker (-.28) and Supervisor (-.43) subscales. Finally, the M-GUDS Sense of Connection subscale significantly predicted all three of the ATDS subscales, the Coworker(.37), Hiring (.55), and Supervisor subscales (.28). The nature of these significant relationships is explained in detail in the following section.

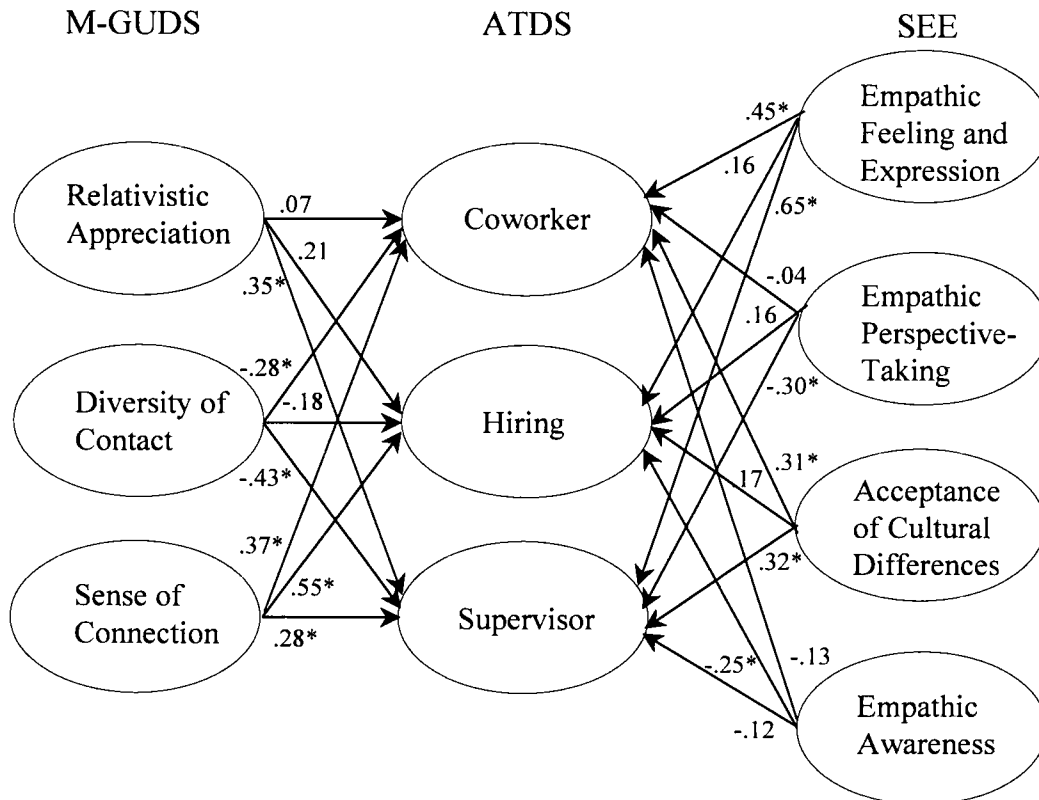


Figure 2. Obtained standardized structural coefficients between the subscales of the ATDS with the subscales of the M-GUDS and SEE.

CHAPTER IV

DISCUSSION AND CONCLUSION

The goal of this study was to assess the construct validity of the ATDS in relation to the M-GUDS and the SEE. It is critical that the construct validity of the measure be carefully evaluated before being widely used as a measure of valuing diversity. The anticipated function of this research was to place the ATDS in a theoretical context for use as a tool by organizations that strive to achieve a multicultural stage of development. To this end, each of the subscales of the ATDS was related to the subscales of the M-GUDS and SEE using a multivariate structural model. There was not sufficient literature to make precise predictions about the relationship between the scales. Nevertheless, given the theoretical emphasis of the scales, the relations of the SEE with the ATDS were hypothesized to be stronger than those of the M-GUDS. The meaningfulness and implications of the results are discussed in the following paragraphs. Limitations of the study and suggestions for future research are also discussed.

Evaluation and Discussion of Hypothesized Model

The subscales of the ATDS were hypothesized to reflect uncorrelated aspects of valuing diversity (cf. Montei et al., 1996). However, the present research indicates that the ATDS dimensions are strongly correlated. As suggested in the introduction, it is conceptually meaningful that the ATDS dimensions are correlated, because employee attitudes about valuing diversity are likely reflected in perceived relationships with coworkers and supervisors as well as perceived organizational hiring practices.

Overall, the results support the construct validity of the ATDS in relation to the SEE and M-GUDS. The multivariate structural model fit the data well, and many of the

SEE and M-GUDS dimensions were statistically significant predictors of the ATDS dimensions. Nonetheless, the SEE dimensions were hypothesized to show a stronger pattern of prediction for the ATDS dimensions than the M-GUDS dimensions. Based on the results, however, this hypothesis was not supported. The SEE had 6 significant paths with the ATDS of 12 potential paths, whereas the M-GUDS had 6 significant paths with the ATDS of 9 potential paths.

There were significant relationships between all four subscales of the SEE with the ATDS. The SEE Empathic Feeling and Expression subscale significantly predicted the ATDS Coworker and Supervisor subscales. The Empathic Feeling and Expression subscale is intended to measure communication of prejudiced attitudes as well as emotional responses to emotions/experiences of people with racial and ethnic backgrounds different from one's own. The ATDS Coworker subscale is designed to measure attitudes toward having minority coworkers. The ATDS Supervisor subscale is intended to measure attitudes toward having a minority supervisor, or attitudes toward minorities in positions of authority. The items of the Empathic Feeling and Expression subscale include not only questions about general empathy and support for people of different racial and ethnic backgrounds, but expression of these same attitudes. The ATDS Coworker and Supervisor subscale items seem to concentrate on support and empathy for minority coworkers and supervisors. It is not surprising that there is a significant relationship between these subscales. If individuals generally feel support and empathy for people from different backgrounds, they will feel the same way about their minority work colleagues. There were strong correlations between the Empathic Feeling and Expression subscale and all subscales of the ATDS. It is unclear why the path

between this subscale and the ATDS Hiring subscale was not significant. This might be due to problems in the model caused by highly correlated ATDS subscales. However, the Hiring subscale of the ATDS was not predicted that well by any of the SEE or M-GUDS subscales. This suggests that the attitudes measured by the Hiring subscale are conceptually distinct from valuing diversity in some way. Examination of Hiring items suggests that this subscale measures extreme attitudes and is more reflective of overt prejudice than the other subscales. The Coworker and Supervisor subscales contain items that are more in line with valuing diversity.

The Empathic Perspective Taking subscale of the SEE significantly predicted the ATDS Supervisor subscale. The ability to put oneself in the shoes of someone from a different ethnic and cultural background should theoretically be related to valuing diversity in the workplace. It is unclear why the Coworker and Hiring subscales of the ATDS did not have significant relationships with the Empathic Perspective Taking subscale. Again, this may be related to the highly correlated ATDS subscales.

It is important to note that the structural coefficient for the Empathic Perspective Taking subscale to ATDS Supervisor subscale is negative. Two explanations are considered for this and all negative weights in the model. First, the design of the ATDS may have contributed to the production of negative weights. In contrast to the other two scales, the majority of items on the ATDS are worded so that an individual must disagree with an item as stated in order to indicate a “positive” attitude toward diversity. Twelve items of the ATDS deviate from this with an agreement response indicating a “positive” attitude toward diversity. These 12 items were reversed-scored, and then all items of the ATDS were reversed-coded to match the “positive” direction of the SEE and M-GUDS

scales. These 12 reverse-scored items are not evenly distributed among the 3 subscales. The Supervisor subscale contains only 2 reverse-scored items, and the Hiring and Coworker subscales contain 5 each. Therefore, the Supervisor subscale contains a larger percentage of items that an individual must disagree with in order to indicate a “positive” attitude toward diversity. The Supervisor subscale is the target subscale for 3 of the 4 negative structural coefficients obtained for the model (see Figure 2). Since there is no theoretical basis for these structural coefficients to be negative, the negative coefficients may be explained by acquiescence response bias (Paulhus, 1991b). This refers to a tendency for individuals to agree with items as stated, regardless of the actual item content (Paulhus, 1991b). Future research using the ATDS should change the “positive” direction of its response format and reduce response bias using the standard recommendation of balancing the number of reverse-scored items in the scale (Anastasi & Urbina, 1997). Reverse-scored items should also be equally distributed across the 3 subscales to reduce any differential response bias between the subscales.

A second explanation for the negative weights is the net suppression effect that can occur in regression relationships (Cohen & Cohen, 1975, p. 89). In a net suppression effect all variable intercorrelations are positive, but some regression weights of predictors with a dependent variable are negative. The suppression effect occurs because the correlation of a predictor with the dependent variable is mostly accounted for by remaining predictors such that the major function of the predictor is to control or suppress that variance of the remaining predictors which does not covary with the dependent variable. As reported previously the latent variables had strong positive intercorrelations,

and these correlations may explain the occurrence of negative weights in the multivariate structural model.

The Acceptance of Cultural Differences subscale of the SEE significantly predicted both the Coworker and Supervisor ATDS subscales. The Acceptance of Cultural Differences subscale measures accepting and understanding the cultural background of those with racial and ethnic backgrounds different from one's own. This relationship is as expected. If someone harbors general feelings of acceptance for differences of those from different ethnic and cultural backgrounds, it is not surprising that these attitudes are also present in the context of the workplace.

The Empathic Awareness subscale of the SEE significantly predicted the ATDS Supervisor subscale. Awareness of how society treats others from different backgrounds should theoretically be related to the construct of valuing diversity. This significant coefficient also has a negative weight that the researchers attribute to acquiescence response bias or suppression effects. Again, it is unclear why the Coworker and Hiring subscales of the ATDS did not also have significant relationships with the Empathic Awareness subscale.

There were significant paths from all of the M-GUDS subscales to at least one ATDS subscale. The Relativistic Appreciation subscale of the M-GUDS significantly predicted the Supervisor subscale of the ATDS. The Relativistic Appreciation subscale measures relativistic appreciation of oneself and others. The items of this subscale concentrate on the willingness to understand how others are different from self. Do you seek out and value the differences between people? It is unclear why this subscale only

predicted the Supervisor subscale of the ATDS. The correlations between the subscales of the ATDS with the Relativistic Appreciation subscale are all fairly low.

The Diversity of Contact subscale of the M-GUDS significantly predicted both the Coworker and Supervisor subscales of the ATDS. These items ask about the current diversity of individuals in one's social network. These items also reflect intentions to diversify aspects of one's social life and activities. Overall, current social network and intentions to seek out diverse friends and music and art from different cultures would theoretically be related to attitudes toward working with diverse individuals and hiring practices that encourage workforce diversity. Both of these coefficients had negative structural coefficients that probably reflect suppression or acquiescence response bias effects.

The Sense of Connection subscale of the M-GUDS significantly predicted all three of the ATDS subscales. The Sense of Connection subscale measures sense of connection with the larger society or humanity as a whole. It measures level of comfort with and connection to people from different ethnic groups. This relationship is also to be expected. Feeling a generalized deep sense of connection with dissimilar others would translate into valuing these same differences in the work environment.

Limitations

Using structural equation modeling and confirmatory factor analysis requires large sample sizes. Although this study obtained a satisfactory sample size according to some researchers (MacCallum, et al., 1996), other researchers would assert that a larger sample size should have been employed. For example, Jöreskog and Sörbom (2002) state that the minimum sample size for any calculation of model fit statistics is denoted in the

equation $N = \frac{1}{2}[k(k-1)]$, where k is the number of variables. Since 27 parcels were created from the 106 items, the multivariate structural model would require a minimum sample size of 351 participants. Given that the sample size of 157 was considerably smaller, there could be a number of difficulties in interpreting the results. Jöreskog and Sörbom (2002) indicate that the interpretation of parameter estimates may be misleading in smaller samples. Also, having a small sample size might actually affect the significance of paths in the structural model in unpredictable ways (Jöreskog & Sörbom, 2002).

The composition of the sample as well as the sampling method may have contributed to error in this study. Students are not the proposed audience for a scale developed for the evaluation of diversity initiatives in an organization. Although care was taken to select a sample of participants who had at least one year of continuous work experience, this was based entirely on self-reports. There is no guarantee that the student participants who took the survey had appropriate experiences in a diverse work environment. Unfortunately, there was no way to check objectively on work experience.

The ethnicity of the participants may also have played a role. The ATDS contains many questions asking about comfort with “minorities,” whereas the SEE and M-GUDS contain items that ask about those with different racial and ethnic backgrounds. A large percentage of participants in this sample (36%) were minorities themselves. It is unclear how this affected the results. Future research using the ATDS should modify the wording of these items to target those of differing racial, ethnic, and cultural backgrounds.

One benefit of the sampling strategy used in this study is the job and organization variety that the sample possessed. Employees from a solitary organization might answer diversity items in similar ways because of a common organizational environment and approach to valuing diversity.

Directions for Future Research

The preceding research examined three attitudinal measures that reflect the construct of valuing diversity. The relationships among the measures were assessed with a multivariate structural model. As noted by Edwards (2001), this structural model provides an optimum fit among multidimensional constructs. However, more parsimonious and theoretically satisfying models may fit multidimensional data nearly or equally as well. These models may also control for the potential occurrence of suppression effects. Future research should develop and compare alternative models for the valuing diversity construct.

The valuing diversity construct and the three measures used in the present research attempt to assess subtle racism indirectly (Burkard et al., 2002). Although valuing diversity and its measures reflect an important avenue for research on subtle racism, there has been some discussion among diversity researchers about the use of computer technology for even less obvious measurement of subtle racism. The most promising non-obtrusive measure of racial attitudes is the Implicit Association Test (IAT; Greenwald, McGhee, & Schwartz, 1998). As a measure of racial attitudes, the IAT requires respondents to view attitudinal words and pictures on a computer monitor. The cumulative differential response times for assigning an attitudinal word to pictures of individuals of different races is intended to measure racial attitudes indirectly. One of the

most interesting facets of the IAT is that even when participants are aware of what the test is supposed to measure, it can still reflect individual differences in racial attitudes (Greenwald et al., 1998).

There has been some controversy as to whether or not the IAT is related to more explicit measures of prejudice. Greenwald et al. (1998) did not find a relationship between the IAT and explicit measures of prejudice. However, McConnell and Leibold (2001) found explicit measures of prejudice to be significantly positively correlated with the IAT measure. Wittenbrink, Judd, and Park (1997) also found a significant correlation between the IAT and an older explicit racial attitude measure, the Modern Racism Scale (McConahey et al., 1986). Taken together, these studies provide some evidence for the construct validity of the IAT. More evidence needs to be gathered. It would be particularly interesting to study the relationships between the valuing diversity and IAT measures.

Conclusions

The intended purpose of this research was to place the ATDS in a theoretical context for use as a tool by organizations that strive to achieve a multicultural stage of development. This study was an important first step in establishing the construct validity of the ATDS and clarifying the fundamental nature of the valuing diversity construct. Before the ATDS can be used as a tool to evaluate diversity interventions, revisions to the items and the overall construct are necessary. The relationship of the ATDS with the SEE and M-GUDS should guide future research in the development of criterion measures for valuing diversity. Future research should further explore the principal nature of valuing diversity and its relationships to other constructs.

REFERENCES

- Anastasi, A., & Urbina, S. (1997). *Psychological testing*. Upper Saddle River, NJ: Prentice Hall.
- Anderson, J.C., & Gerbing, D.W. (1984). The effect of sampling error on convergence, improper solutions, and goodness-of-fit indices for maximum likelihood confirmatory factor analysis. *Psychometrika*, *49*, 155-73.
- Batson, C.D., Bednar, L.L., Harmon-Jones, E., Highberger, L., Imhoff, H.J., Klein, T.R., Mitchener, E.C., & Polycarpou, M.P. (1997). Empathy and attitudes: Can feeling for a member of a stigmatized group improve feelings toward that group? *Journal of Personality and Social Psychology*, *72*, 105-118.
- Bem, S.L. (1981). *Bem Sex-Role Inventory: Professional manual*. Palo Alto, CA: Consulting Psychologists Press.
- Bentler, P.M. (1990). Comparative fit indexes in structural equation models. *Psychological Bulletin*, *107*, 238-246.
- Bollen, K.A. (1989). *Structural equations with latent variables*. New York: Wiley.
- Breivik, E., & Olsson, U.H. (2001). Adding variables to improve fit: The effect of model size on fit assessment in LISREL. In R. Cudeck, S. Du Toit, & D. Sörbom (Eds.), *Structural equation modeling: Present and future: A festschrift in honour of Karl Jöreskog* (pp. 169-194). Chicago: Scientific Software International.
- Burkard, A.W., Boticki, M.A., & Madson, M.B. (2002). Workplace discrimination, prejudice, and diversity measurement: A review of instrumentation. *Journal of Career Assessment*, *10*, 343-361.

- Carnevale, A.P., & Stone, S.C. (1994). Diversity: Beyond the golden rule. *Training & Development, 48*, 22-39.
- Chrobot-Mason, D., & Quinones, M.A. (2002). Training for a diverse workplace. In K. Kraiger (Ed.), *Creating, implementing, and managing effective training and development: State of the art lessons for practice* (pp. 117-159). San Francisco, CA: Jossey-Bass Inc.
- Cohen, J., & Cohen, P. (1975). *Applied multiple regression/correlation analysis for the behavioral sciences*. Hillsdale, NJ: Lawrence Erlbaum.
- Comer, D., & Soliman, C. (1996). Organizational efforts to manage diversity: Do they really work? *Journal of Management Issues, 8*, 470-483.
- Cox, T.H., Jr. (2001). *Creating the multicultural organization*. San Francisco: Jossey-Bass.
- Cox, T.H., Jr. (1997). Linkages between managing diversity and organizational performance. In T. Cox, Jr., and R.L. Beale (Eds.), *Developing competency to match diversity* (pp. 35-42). San Francisco, CA: Berrett-Koehler.
- Cox, T.H., Jr., & Nkomo, S.M. (1990). Invisible men and women: A status report as a variable in organizational behavior and research. *Journal of Organizational Behavior, 11*, 419-431.
- Crowne, D. P., & Marlowe, D. A. (1964). *The approval motive*. New York: Wiley.
- Davis, M. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology, 44*, 113-126.

DiTomaso, N., & Hooijberg, R. (1996). Diversity and the demands of leadership.

Leadership Quarterly, 7, 163-187.

Edwards, J.R. (2001). Multidimensional constructs in organizational behavior research:

An integrative analytical framework. *Organizational Research Methods*, 4, 144-

192.

Fassinger, R.E. (1994). Development and testing of the Attitudes toward Feminism and

the Women's Movement Scale. *Psychology of Women Quarterly*, 18, 389-402.

Fuertes, J.N., Miville, M.L., Mohr, J.J., Sedlacek, W.E., & Gretchen, D. (2000). Factor

structure and short form of the Miville-Guzman Universality-Diversity Scale.

Measurement and Evaluation in Counseling and Development, 33, 157-169.

Gaertner, S.L., & Dovidio, J.F. (2005). Understanding and addressing contemporary

racism: From aversive racism to the Common Ingroup Identity Model. *Journal of*

Social Issues, 61, 615-639.

Gaertner, S.L., & Dovidio, J.F. (1986). The aversive form of prejudice. In J.F. Dovidio

and S.L. Gaertner (Eds.), *Prejudice, discrimination, and racism* (pp. 61-89).

Orlando, FL: Academic Press.

Goldman, G.F., & Gelso, C.J. (1997). Kohut's theory of narcissism and adolescent drug

abuse treatment. *Journal of Psychoanalytic Psychology*, 14, 81-94.

Gottfredson, L.S. (1992). Dilemmas in developing diversity programs. In S.E. Jackson &

Associates (Eds.), *Diversity in the workplace* (pp. 279-305). New York: The

Guilford Press.

- Graen, G.B., Novak, M.A., & Sommerkamp, P. (1982). The effects of leader-member exchange and job design on productivity and satisfaction: Testing a dual attachment model. *Organizational Behavior and Human Performance*, 30, 109-131.
- Greenwald, A.G., McGhee, D.E., & Schwartz, J.K.L. (1998). Measuring individual differences in implicit cognition: The Implicit Association Test. *Journal of Personality and Social Psychology*, 74, 1464-1480.
- Harrison, D., Price, K., & Bell, M.P. (1998). Beyond relational demography: Time and the effects of surface- and deep-level diversity on work group cohesion. *Academy of Management Journal*, 41, 96-107.
- Hays-Thomas, R. (2004). Why now? The contemporary focus on managing diversity. In M.S. Stockdale & F.J. Crosby (Eds.), *The psychology and management of workplace diversity* (pp. 245-276). Malden, MA: Blackwell.
- Helms, J.E. (Ed.). (1990). *Black and White racial identity: Theory, research, and practice*. New York: Greenwood Press.
- Holmes, T.A. (2005). How to connect diversity to performance. *Performance Improvement*, 44, 13-17.
- Holvino, E., Ferdman, B.M., & Merrill-Sands, D. (2004). Creating and sustaining diversity and inclusion in organizations: Strategies and approaches. In M.S. Stockdale & F.J. Crosby (Eds.), *The psychology and management of workplace diversity* (pp. 245-276). Malden, MA: Blackwell.

- Hopkins, W., Hopkins, S., & Mallette, P. (2001). Diversity and managerial value commitment: A test of some proposed relationships. *Journal of Managerial Issues, 13*, 288-306.
- Horan, P.M., DiStefano, C., & Motl, R.W. (2003). Wording effects in self-esteem scales: Methodological artifact or response style? *Structural Equation Modeling, 10*, 435-455.
- Inquisite, Inc. (2005). *Inquisite Survey Software (Version 7.0)* [Computer software]. Austin, TX: Catapult Systems, Inc.
- Ivancevich, J.M., & Gilbert, J.A. (2000). Diversity management: Time for a new approach. *Public Personnel Management, 29*, 75-92.
- Johnson, O.E. (2001). The content of our character: Another look at racial differences in Navy officer fitness reports. *Military Psychology, 13*, 41-54.
- Jöreskog, K.G., & Sörbom, D. (2005). *LISREL (Version 8.71)* [Computer software]. Chicago: Scientific Software International, Inc.
- Jöreskog, K.G., & Sörbom, D. (2002). *PRELIS 2: User's reference guide*. Illinois: Scientific Software International.
- Judy, R.W., & D'Amico, C. (1997). *Workforce 2020: Work and workers in the 21st century*. Indianapolis, IN: Hudson Institute.
- Kenny, D.A., & McCoach, D.B. (2003). Effect of the number of variables on measures of fit in structural equation modeling. *Structural Equation Modeling, 10*, 333-351.

- Kossek, E.E., Lobel, S.A., & Brown, J. (2006). Human resource strategies to manage workforce diversity: Examining the business case. In A.M. Konrad, P. Prasad, & J. Pringle (Eds.), *Handbook of Workplace Diversity* (pp. 53-74). Thousand Oaks, CA: Sage.
- Luhtanen, R., & Crocker, J. (1992). A collective self-esteem scale: Self-evaluation of one's own self-identity. *Personality and Social Psychology Bulletin*, *18*, 302-318.
- MacCallum, R.C., Browne, M.W., & Sugawara, H.M. (1996). Power analysis and determination of sample size for covariance structure modeling. *Psychological Methods*, *1*, 130-149.
- Mathieu, J.E., & Farr, J.L. (1991). Further evidence for the discriminant validity of measures of organizational commitment, job involvement, and job satisfaction. *Journal of Applied Psychology*, *76*, 127-133.
- McConahay, J.B. (1986). Modern racism, ambivalence, and the Modern Racism Scale. In J. Dovidio & S. Gaertner (Eds.), *Prejudice, discrimination, and racism* (pp. 91-124). New York: Academic Press.
- McConnell, A.R., & Leibold, J.M. (2001). Relations among the Implicit Association Test, discriminatory behavior, and explicit measures of racial attitudes. *Journal of Experimental Social Psychology*, *37*, 435-442.
- Miville, M.L., Gelso, C.J., Pannu, R., Liu, W., Touradji, P., Holloway, P., & Fuertes, J. (1999). Appreciating similarities and valuing differences: The Miville-Guzman Universality-Diversity Scale. *Journal of Counseling Psychology*, *46*, 291-307.

- Montei, M.S., Adams, G.A., & Eggers, L.M. (1996). Validity of scores on the Attitudes Toward Diversity Scale (ATDS). *Educational and Psychological Measurement*, 56, 293-303.
- Muchinsky, P.M. (2003). *Psychology applied to work* (7th ed.). Belmont, CA: Wadsworth/Thompson Learning.
- Nelville, H.A., Roderick, L.L., Duran, G., Lee, R.M., & Browne, L. (2000). Construction and initial validation of the Color-Blind Racial Attitudes Scale. *Journal of Counseling Psychology*, 47, 59-70.
- Ng, E.S., & Tung, R.L. (1998). Ethno-cultural diversity and organizational effectiveness: A field study. *International Journal of Human Resource Management*, 9, 980-995.
- Paulhus, D.L., (1994). *Balanced Inventory of Desirable Responding: Reference manual for BIDR Version 6*. Unpublished manuscript, University of British Columbia, Vancouver, Canada.
- Paulhus, D.L. (1991a). Balanced Inventory of Desirable Responding. In J.P. Robinson, P.R. Shaver, & L.S. Wrightsman (Eds.), *Measures of personality and social psychological attitudes* (pp. 37-41). San Diego, CA: Academic Press.
- Paulhus, D.L. (1991b). Measurement and control of response bias. In: J.P. Robinson, P.R. Shaver, & L.S. Wrightsman, (Eds.), *Measures of personality and social psychological attitudes*. (pp.17-60). San Diego, CA: Academic Press.
- Population Projections Program (2004). Population Division, US Census Bureau, Washington DC. Retrieved October 1, 2005, from <http://www.census.gov/ipc/www/usinterimproj/natproptab01a.pdf>

- Ragins, B.R. (1995). Diversity, power, and mentorship in organizations: A cultural, structural, and behavioral perspective. In M.M. Chambers, S. Oskamp, and M.A. Costanzo (Eds.), *Diversity in organizations: New perspectives for a changing workplace* (pp. 91-132). Thousand Oaks, CA: Sage.
- Rynes, S., & Rosen, B. (1995). A field survey of factors affecting the adoption and perceived success of diversity training. *Personnel Psychology, 48*, 247-70.
- Salas, E., & Cannon-Bowers, J.A. (2001). The science of training: A decade of progress. *Annual Review of Psychology, 52*, 471-499.
- Schumacker, R.E., & Lomax, R.G. (1996) *A beginner's guide to structural equation modeling*. Mahwah, NJ: Erlbaum Associates, Inc.
- Shofield, J.W. (1986). Causes and consequences of the colorblind perspective. In J.F. Dovidio and S.L. Gaerdner (Eds.), *Prejudice, discrimination, and racism* (pp. 231-253). New York: Academic Press.
- Steiger, J.H. (1990). Structural model evaluation and modification: An interval estimation approach. *Multivariate Behavioral Research, 25*, 173–180.
- Tabachnick, B.G., & Fidell, L.S. (2001). *Using Multivariate Statistics (4th Edition)*. Boston: Allyn and Bacon.
- Thomas, K.M., Mack, D.A., & Montagliani, A. (2004). The arguments against diversity: Are they valid? In M.S. Stockdale & F.J. Crosby (Eds.), *The psychology and management of workplace diversity* (pp. 31-51). Malden, MA: Blackwell.
- Triandis, H.C., Hall, E.R., & Ewen, R.B. (1965). Member heterogeneity and dyadic creativity. *Human Relations, 18*, 33-55.

- Troidahl, V.C., & Powell, F.A. (1965). A short-form dogmatism scale for use in field studies. *Social Forces*, 44, 211-214.
- U.S. Census Bureau. (2001, January). *Resident population estimates of the United States by sex, race, and Hispanic origin: April 1 1990 to July 1, 1999, with short-term projection to November 1, 2000*. Retrieved January 27, 2006, from <http://www.census.gov/population/estimates/nation/intfile3-2.txt>
- U.S. Census Bureau (2001, May). *Profiles of general demographic characteristics: 2000 Census of Population and Housing*. Retrieved November 27, 2005, from <http://www.census.gov/prod/cen2000/dp1/2kh00.pdf>
- Wang, Y.-W., Blier, J.K., Davidson, M.M., Savoy, H.B., Tan, J.A., & Yakushko, O.F. (2003). The Scale of Ethnocultural Empathy: Development, validation, and reliability. *Journal of Counseling Psychology*, 50, 221-234.
- Weiss, D., Dawis, R., England, G., & Lofquist, L. (1967). *Manual for the Minnesota Satisfaction Questionnaire*. Minneapolis, MN: Work Adjustment Project, Industrial Relations Center, University of Minnesota.
- Werts, C.E., Linn, R.L., & Jöreskog, K.G. (1974). Inter-class reliability estimates: Testing structural assumptions. *Educational and Psychological Measurement*, 34, 25-33.
- Wittenbrink, B., Judd, C.M., & Park, B. (1997). Evidence for racial prejudice at the implicit level and its relationship with questionnaire measures. *Journal of Personality and Social Psychology*, 72, 262-274.

Wright, P., Ferris, S.P., Hiller, J.S., & Kroll, M. (1995). Competitiveness through management of diversity: Effects on stock price valuation. *Academy of Management Journal*, 38, 272-287.

APPENDIX A

ATTITUDES TOWARD DIVERSITY SCALE ITEMS

Subscale	Item Number	Item Description	Scoring
Coworker	1	All in all, I would say that minority workers are just as productive as other workers.	R
	2	I often pick up the slack for some of my female coworkers who are less productive.	
	3	Sometimes I have to compensate for the lack of productivity of minority workers.	
	4	The most qualified workers in my job seem to be male.	
	5	I find that minority workers seem to be less productive on average.	
	6	The minorities in this organization have a greater degree of difficulty getting along with others.	
	7	If a member of my work group were prejudiced, he or she would be less likely to fit in.	R
	8	If one of my coworkers were racist, I would confront that person and let him or her know of my disapproval.	R
	9	Workers who are prejudiced have no place in this organization.	R
	10	I do not feel comfortable with coworkers who are racist.	R
Hiring	11	I would feel just as comfortable with a Black or Hispanic supervisor as I do with a White supervisor.	R
	12	I know some workers who would be fired if they were not minorities.	
	13	It does not bother me that some preferential hiring goes on because we need more of a mix in this organization.	R
	14	Because some tests are known to be biased toward minorities, I feel it is alright to adjust test scores to even things out.	R
	15	I am against hiring by quotas even when done out of necessity.	
	16	I know many more qualified White males who should have been hired instead of some minorities that have been hired lately.	
	17	We would have a more creative work environment if more women and minorities were hired.	R
	18	I feel that it is wrong for an organization to have two sets of test scores for minorities and nonminorities, even when the test is somewhat biased.	

Subscale	Item Number	Item Description	Scoring
Hiring	19	Some of the members of this organization were hired just because they are women.	
	20	I feel that increasing the hiring of women and minorities can only help this organization.	R
	21	Some of the workers in this organization were only hired because they are minorities.	
Supervisor	22	I feel that women have a more difficult time handling positions of authority relative to men.	
	23	It seems that those minorities in supervisory positions are ineffective relative to other supervisors.	
	24	Most of the women in management positions do an outstanding job.	R
	25	I feel that diversity is good for this organization even if it means I will have a supervisor who is a minority.	
	26	Relative to male supervisors, female supervisors seem to be less effective.	
	27	Under most circumstances, I would prefer a male supervisor.	
	28	I would feel less comfortable with a female supervisor than I would with a male supervisor.	
	29	Most of the minority supervisors in this organization possess the same leadership qualities as do those supervisors who are White.	R
	30	It seems as if some of the women I work with need to be more assertive to be effective supervisors.	

Note. From Montei et al., 1996.

APPENDIX B

SCALE OF ETHNOCULTURAL EMPATHY ITEMS

Subscale	Item Number	Item Description	Scoring
Empathic Feeling and Expression			
	1	I am touched by movies or books about discrimination issues faced by racial or ethnic groups other than my own.	
	2	I seek opportunities to speak with individuals of other racial or ethnic backgrounds about their experiences.	
	3	When I know my friends are treated unfairly because of their racial or ethnic backgrounds, I speak up for them.	
	4	I share the anger of those who face injustice because of their racial or ethnic backgrounds.	
	5	When I interact with people from other racial or ethnic backgrounds, I show my appreciation of their cultural norms.	
	6	I feel supportive of people of other racial or ethnic groups, if I think they are being taken advantage of.	
	7	I get disturbed when other people experience misfortunes due to their racial or ethnic backgrounds.	
	8	I rarely think about the impact of a racist or ethnic joke on the feelings of people who are targeted.	R
	9	I am not likely to participate in events that promote equal rights for people of all racial or ethnic backgrounds.	R
	10	I express my concern about discrimination to people from other racial or ethnic groups.	
	11	I don't care if people make racist statements against other racial or ethnic groups.	R
	12	When I see people who come from a different racial or ethnic background succeed in the public arena, I share their pride.	
	13	When other people struggle with racial or ethnic oppression, I share their frustration.	
	14	I share the anger of people who are victims of hate crimes (e.g., intentional violence because of race or ethnicity).	
	15	When I hear people make racist jokes, I tell them I am offended even though they are not referring to my racial or ethnic group.	

Subscale	Item Number	Item Description	Scoring
Empathic Perspective Taking			
	16	I don't know a lot of information about important social and political events of racial or ethnic groups other than my own.	R
	17	I know what it feels like to be the only person of a certain race or ethnicity in a group of people.	
	18	I can relate to the frustration that some people feel about having fewer opportunities due to their racial or ethnic backgrounds.	
	19	It is easy for me to understand what it would feel like to be a person of another racial or ethnic background other than my own.	
	20	It is difficult for me to put myself in the shoes of someone who is racially and/or ethnically different from me.	R
	21	I feel uncomfortable when I am around a significant number of people who are racially/ethnically different from me.	R
	22	It is difficult for me to relate to stories in which people talk about racial or ethnic discrimination they experience in their day to day lives.	R
Acceptance of Cultural Differences			
	23	I feel annoyed when people do not speak standard English.	R
	24	I get impatient when communicating with people from other racial or ethnic backgrounds, regardless of how well they speak English.	R
	25	I don't understand why people of different racial or ethnic backgrounds enjoy wearing traditional clothing.	R
	26	I feel irritated when people of different racial or ethnic backgrounds speak their language around me.	R
	27	I do not understand why people want to keep their indigenous racial or ethnic cultural traditions instead of trying to fit in to the mainstream.	R
Empathic Awareness			
	28	I am aware of institutional barriers (e.g., restricted opportunities for job promotion) that discriminate against racial or ethnic groups other than my own.	
	29	I can see how other racial or ethnic groups are systematically oppressed in our society.	
	30	I recognize that the media often portrays people based on racial or ethnic stereotypes.	
	31	I am aware of how society differentially treats racial or ethnic groups other than my own.	

Note. From Wang et al., 2003.

APPENDIX C

MIVILLE-GUZMAN UNIVERSALITY-DIVERSITY SCALE ITEMS

Item			
Subscale	Number	Item Description	Scoring
Relativistic Appreciation			
	1	Becoming aware of the experiences of people from different ethnic groups is important to me.	
	2	Persons with disabilities can teach me things I could not learn elsewhere.	
	3	I can best understand someone after I get to know how he/she is both similar and different from me.	
	4	Knowing how a person differs from me greatly enhances our friendship.	
	5	Knowing someone from a different ethnic group broadens my understanding of myself.	
	6	In getting to know someone, I like knowing both how she/he differs from me and is similar to me.	
	7	Knowing about the experiences of people of different races increases my self-understanding.	
	8	Knowing about the different experiences of other people helps me understand my own problems better.	
	9	I place a high value on being deeply tolerant of others' viewpoints.	
	10	In getting to know someone, I try to find out how I am like that person as much as how that person is like me.	R
	11	It is very important that a friend agrees with me on most issues.	R
	12	Knowing how a person is similar to me is the most important part of being good friends.	R
	13	It's often hard to find things in common with people from another generation.	R
	14	Placing myself in the shoes of a person from another race is usually too tough to do.	R
	15	It's hard to understand the problems that people face in other countries.	R

Subscale	Item Number	Item Description	Scoring
Diversity of Contact	16	I would like to join an organization that emphasizes getting to know people from different countries.	
	17	I would like to go to dances that feature music from other countries.	
	18	I often listen to music of other cultures.	
	19	I am interested in learning about the many cultures that have existed in this world.	
	20	I attend events where I might get to know people from different racial backgrounds.	
	21	I am interested in knowing people who speak more than one language.	
	22	I am interested in going to exhibits featuring the work of artists from minority groups.	
	23	I would like to know more about the beliefs and customs of ethnic groups who live in this country.	
	24	I don't know too many people from other countries.	R
	25	If given another chance, I would travel to different countries to study what other cultures are like.	
	26	I have not seen many foreign films.	R
	27	I am not very interested in reading books translated from another language.	R
	28	I would be interested in taking a course dealing with race relations in the United States.	
	29	I would be interested to participating in activities involving people with disabilities.	
Sense of Connection	30	I have friends of differing ethnic origins.	
	31	I feel a sense of connection with people from different countries.	
	32	I often feel a sense of kinship with persons from different ethnic groups.	
	33	It deeply affects me to hear persons from other countries describe their struggles of adapting to live here.	
	34	When I hear about an important event (e.g., tragedy) that occurs in another country, I often feel as strongly about it as if it had occurred here.	
	35	I feel comfortable getting to know people from different countries.	
	36	For the most part, events around the world do not affect me emotionally.	
	37	When I listen to people of different races describe their experiences in this country, I am moved.	

Subscale	Item Number	Item Description	Scoring
Sense of Connection			
	38	It grieves me to know that many people in the Third World are not able to live as they choose.	
	39	Getting to know someone of another race is generally an uncomfortable experience for me.	R
	40	I am only at ease with people of my own race.	R
	41	It's really hard for me to feel close to a person of another race.	R
	42	I often feel irritated by persons of a different race.	R
	43	It does not upset me if someone is unlike myself.	
	44	I am often embarrassed when I see a physically disabled person.	R
	45	I sometimes am annoyed at people who call attention to racism in this country.	R

Note. From Miville et al., 1999.

APPENDIX D

BALANCED INVENTORY OF DESIRABLE RESPONDING ITEMS

Item			
Subscale	Number	Item Description	Scoring
Self-Deception Enhancement			
	1	My first impressions of people usually turn out to be right.	
	2	I don't care to know what other people really think of me.	
	3	I always know why I like things.	
	4	Once I've made up my mind, other people can seldom change my opinion.	
	5	I am fully in control of my own fate.	
	6	I never regret my decisions.	
	7	The reason I vote is because my vote can make a difference.	
	8	I am a completely rational person.	
	9	I am very confident of my judgments.	
	10	It's all right with me if some people happen to dislike me.	
Impression Management			
	11	I never cover up my mistakes.	
	12	I never swear.	
	13	I always obey laws, even if I'm truly unlikely to get caught.	
	14	When I hear people talking privately, I avoid listening.	
	15	I always declare everything at customs.	
	16	I have never dropped litter on the street.	
	17	I never read sexy books or magazines.	
	18	I never take things that don't belong to me.	
	19	I have never damaged a library book or store merchandise without reporting it.	
	20	I don't gossip about other people's business.	

Note. From Paulhus, 1994.

APPENDIX E

LEADER-MEMBER EXCHANGE (LMX-7) ITEMS

Item Number	Item Description	Answer Options
1	Do you know where you stand with your leader, do you usually know how satisfied your leader is with what you do?	Rarely Occasionally Sometimes Fairly Often Very Often
2	How well does your leader understand your job problems and needs?	Not a bit A Little A Fair Amount Quite a Bit A Great Deal
3	How well does your leader recognize your potential?	Not at all A Little Moderately Mostly Fully
4	Regardless of how much formal authority he/she has built into his/her position, what are the chances that your leader would use his/her power to help you solve problems in your work?	None Small Moderate High Very High
5	Again, regardless of the amount of formal authority your leader has, what are the chances that he/she would "bail you out" at his/her expense?	None Small Moderate High Very High
6	I have enough confidence in my leader that I would defend and justify his/her decisions if he/she were not present to do so.	Strongly Disagree Disagree Neutral Agree Strongly Agree
7	How would you characterize your working relationship with your leader?	Extremely Ineffective Worse Than Average Average Better Than Average Extremely effective

Note. From Graen et al., 1982.

APPENDIX F

MINNESOTA SATISFACTION QUESTIONNAIRE ITEMS

Subscale	Item Number	Item Description	Scoring
General Job Satisfaction Subscale			
	1	Being able to keep busy all the time.	
	2	The chance to work alone on the job.	
	3	The chance to do different things from time to time.	
	4	The chance to be well known in the community.	
	5	The way your boss handles employees.	
	6	The ability of your supervisor in making decisions.	
	7	Being able to do things that don't go against your values.	
	8	The way your job provides for steady employment.	
	9	The chance to do things for other people.	
	10	The chance to tell people what to do.	
	11	The chance to do something that makes use of your abilities.	
	12	The way City policies are put into practice.	
	13	Your pay and the amount of work you do.	
	14	The chances for advancement on the job.	
	15	The freedom to use your own judgment.	
	16	The chance to try your own methods of doing the job.	
	17	The working conditions.	
	18	The way your co-workers get along with each other.	
	19	The praise you get for doing a good job.	
	20	The feeling of achievement you get from the job.	

Note. From Weiss et al., 1967.

APPENDIX G
DEMOGRAPHIC ITEMS

Item Number	Question	Answer Options
1	What is your age?	
2	Gender	Female Male
3	Race	White/Caucasian (Non-Hispanic) Black/African-American Hispanic/Latino American Indian or Alaskan Native Asian or Pacific Islander Other _____
4	Marital Status	Single Married Divorced/Widowed
5	Are you currently employed?	Yes No
6	Approximately how many hours per week do you spend at work?	
7	Please indicate the extent of your agreement with the following statement. <i>I believe that my workplace values diversity.</i>	Strongly Disagree Disagree Neutral Agree Strongly Agree

APPENDIX H**PARTICIPANT RECRUITMENT FLYER**

Date Posted: March 28, 2006

COSHSC #005-06-035

***Project Diversity
An Online Survey***

Description: This research project consists of completing surveys that have to do with attitudes and behaviors related to diversity.

Participants: Participation is open to any ODU undergraduate or graduate student enrolled at Old Dominion University. Participants must be 18 years of age or older. **All participants must have AT LEAST one year of continuous part-time or full-time work experience.**

Time Requirements: It will take participants approximately 30 minutes to complete the online survey.

Sign-up Information: You may obtain an information sheet from the Research Participant Administrator in MGB 134E. Check the folder marked "PROJECT DIVERSITY" for information on the study.

Please go online to <https://periwinkle.ts.odu.edu/surveys/9BFSZH> to complete the survey.

Research Participation Credits: If you are currently taking a Psychology class you will receive 1 Psychology Department research credit.

Researchers and Contact Information:

Principal Investigator: Rebekka A. Althouse
ralthous@odu.edu
757.683.4462

Faculty Supervisor: Terry L. Dickinson, Ph.D.
MGB 229
tdickins@odu.edu
757.683.4241

APPENDIX I**PARTICIPANT LETTER***INFORMATION SHEET/LETTER FOR PROJECT DIVERSITY*

Dear Students:

My name is Rebekka A. Althouse and I am a Ph.D. student in the Psychology Department at Old Dominion University. I am conducting a research study investigating attitudes and behaviors related to diversity. The College of Sciences Human Subjects Committee has approved this study. Participation in this study is completely voluntary. Participation in the study requires students to fill out an online survey, which should take approximately 30 minutes to complete. Online surveys are hosted on a secure website and only I have access to the database. All responses remain confidential and all subsequent reports will be based on grouped, not individual, data. For those students who wish to participate, **please go to <https://periwinkle.ts.odu.edu/surveys/9BFSZH> to complete the survey.**

Once you have filled out the survey you will have the opportunity to enter your UIN if you want Psychology department research credit (1 credit). This information will be collected in a separate survey that will not link your identifying information to your responses. Thank you in advance for your participation. Those students who would like more information about the study can contact me (see contact information below) for more information. Students who would like to receive a copy of the final report for this project may contact me in August 2006.

If at any time you feel pressured to participate, or if you have any questions about your rights or this form, then you should call Dr. David Swain, the current IRB chair, at 757-683-6028, or the Old Dominion University Office of Research and Graduate Studies, at 757-683-3460.

Principal Investigator: Rebekka Althouse
Psychology Department, ODU
ralthous@odu.edu
0.683.4241

Faculty Supervisor: Dr. Terry Dickinson
Psychology Department, ODU
tdickins@odu.edu
757.683.4462

APPENDIX J

PARTICIPANT INSTRUCTIONS

The following survey measures your opinions. Items have no right or wrong answers. Some survey items ask about your experiences at work. Please respond to these items based on your most current work experience.

Please rate how strongly you agree or disagree with each of the following statements by filling in the appropriate circle. You darken a circle by clicking once over the circle. You must complete all the items on each page before clicking submit.

APPENDIX K

FACTOR LOADINGS FOR SCALES

Table K1

Factor Loadings for Subscales

Subscale	Item Number	Item Description	Loading
ATDS Coworker			
	C6	The minorities in this organization have a greater degree of difficulty getting along with others. (R)	0.953
	C3	Sometimes I have to compensate for the lack of productivity of minority workers. (R)	0.944
	C5	I find that minority workers seem to be less productive on average. (R)	0.921
	C2	I often pick up the slack for some of my female coworkers who are less productive. (R)	0.819
	C1	All in all, I would say that minority workers are just as productive as other workers.	0.653
	C4	The most qualified workers in my job seem to be male. (R)	0.608
	C10	I do not feel comfortable with coworkers who are racist.	0.388
	C7	If a member of my work group were prejudiced, he or she would be less likely to fit in. (R)	*
	C8	If one of my coworkers were racist, I would confront that person and let him or her know of my disapproval. (R)	*
	C9	Workers who are prejudiced have no place in this organization. (R)	*
ATDS Hiring			
	H21	Some of the workers in this organization were only hired because they are minorities.	0.836
	H12	I know some workers who would be fired if they were not minorities. (R)	0.776
	H16	I know many more qualified White males who should have been hired instead of some minorities that have been hired lately. (R)	0.733
	H19	Some of the members of this organization were hired just because they are women. (R)	0.474
	H11	I would feel just as comfortable with a Black or Hispanic supervisor as I do with a White supervisor.	0.332
	H13	It does not bother me that some preferential hiring goes on because we need more of a mix in this organization. (R)	*
	H14	Because some tests are known to be biased toward minorities, I feel it is alright to adjust test scores to even things out. (R)	*
	H15	I am against hiring by quotas even when done out of necessity.	*

Subscale	Item Number	Item Description	Loading
ATDS Hiring			
	H17	We would have a more creative work environment if more women and minorities were hired. (R)	*
	H18	I feel that it is wrong for an organization to have two sets of test scores for minorities and nonminorities, even when the test is somewhat biased.	*
	H20	I feel that increasing the hiring of women and minorities can only help this organization. (R)	*
ATDS Supervisor			
	S26	Relative to male supervisors, female supervisors seem to be less effective. (R)	0.834
	S22	I feel that women have a more difficult time handling positions of authority relative to men. (R)	0.720
	S23	It seems that those minorities in supervisory positions are ineffective relative to other supervisors. (R)	0.689
	S28	I would feel less comfortable with a female supervisor than I would with a male supervisor. (R)	0.673
	S27	Under most circumstances, I would prefer a male supervisor. (R)	0.644
	S24	Most of the women in management positions do an outstanding job.	0.568
	S29	Most of the minority supervisors in this organization possess the same leadership qualities as do those supervisors who are White.	0.428
	S30	It seems as if some of the women I work with need to be more assertive to be effective supervisors. (R)	0.409
	S25	I feel that diversity is good for this organization even if it means I will have a supervisor who is a minority.	*
SEE Empathic Feeling and Expression			
	EF13	When other people struggle with racial or ethnic oppression, I share their frustration.	0.749
	EF4	I share the anger of those who face injustice because of their racial or ethnic backgrounds.	0.726
	EF12	When I see people who come from a different racial or ethnic background succeed in the public arena, I share their pride.	0.690
	EF5	When I interact with people from other racial or ethnic backgrounds, I show my appreciation of their cultural norms.	0.685
	EF1	I am touched by movies or books about discrimination issues faced by racial or ethnic groups other than my own.	0.669
	EF10	I express my concern about discrimination to people from other racial or ethnic groups.	0.655

Subscale	Item Number	Item Description	Loading
SEE Empathic Feeling and Expression			
	EF14	I share the anger of people who are victims of hate crimes (e.g., intentional violence because of race or ethnicity).	0.641
	EF7	I get disturbed when other people experience misfortunes due to their racial or ethnic backgrounds.	0.640
	EF2	I seek opportunities to speak with individuals of other racial or ethnic backgrounds about their experiences.	0.639
	EF6	I feel supportive of people of other racial or ethnic groups, if I think they are being taken advantage of.	0.631
	EF3	When I know my friends are treated unfairly because of their racial or ethnic backgrounds, I speak up for them.	0.575
	EF15	When I hear people make racist jokes, I tell them I am offended even though they are not referring to my racial or ethnic group.	0.542
	EF11	I don't care if people make racist statements against other racial or ethnic groups. (R)	0.516
	EF9	I am not likely to participate in events that promote equal rights for people of all racial or ethnic backgrounds. (R)	0.486
	EF8	I rarely think about the impact of a racist or ethnic joke on the feelings of people who are targeted. (R)	0.389
SEE Empathic Perspective Taking			
	EP20	It is difficult for me to put myself in the shoes of someone who is racially and/or ethnically different from me. (R)	0.791
	EP22	It is difficult for me to relate to stories in which people talk about racial or ethnic discrimination they experience in their day to day lives. (R)	0.790
	EP17	I know what it feels like to be the only person of a certain race or ethnicity in a group of people.	0.551
	EP19	It is easy for me to understand what it would feel like to be a person of another racial or ethnic background other than my own.	0.527
	EP18	I can relate to the frustration that some people feel about having fewer opportunities due to their racial or ethnic backgrounds.	0.499
	EP16	I don't know a lot of information about important social and political events of racial or ethnic groups other than my own.	0.453
	EP21	I feel uncomfortable when I am around a significant number of people who are racially/ethnically different from me. (R)	0.319
SEE Awareness of Cultural Differences			
	AC27	I do not understand why people want to keep their indigenous racial or ethnic cultural traditions instead of trying to fit in to the mainstream. (R)	0.827

Subscale	Item Number	Item Description	Loading
SEE Awareness of Cultural Differences			
	AC25	I don't understand why people of different racial or ethnic backgrounds enjoy wearing traditional clothing. (R)	0.778
	AC24	I get impatient when communicating with people from other racial or ethnic backgrounds, regardless of how well they speak English. (R)	0.757
	AC23	I feel annoyed when people do not speak standard English. (R)	0.715
	AC26	I feel irritated when people of different racial or ethnic backgrounds speak their language around me. (R)	0.650
SEE Empathic Awareness			
	EA31	I am aware of how society differentially treats racial or ethnic groups other than my own.	0.888
	EA28	I am aware of institutional barriers (e.g., restricted opportunities for job promotion) that discriminate against racial or ethnic groups other than my own.	0.854
	EA29	I can see how other racial or ethnic groups are systematically oppressed in our society.	0.818
	EA30	I recognize that the media often portrays people based on racial or ethnic stereotypes.	0.732
M-GUDS Relativistic Appreciation			
	R7	Knowing about the experiences of people of different races increases my self-understanding.	0.834
	R1	Becoming aware of the experiences of people from different ethnic groups is important to me.	0.794
	R8	Knowing about the different experiences of other people helps me understand my own problems better.	0.784
	R6	In getting to know someone, I like knowing both how she/he differs from me and is similar to me.	0.773
	R5	Knowing someone from a different ethnic group broadens my understanding of myself.	0.751
	R2	Persons with disabilities can teach me things I could not learn elsewhere.	0.719
	R9	I place a high value on being deeply tolerant of others' viewpoints.	0.709
	R4	Knowing how a person differs from me greatly enhances our friendship.	0.650
	R3	I can best understand someone after I get to know how he/she is both similar and different from me.	0.650
	R10	In getting to know someone, I try to find out how I am like that person as much as how that person is like me. (R)	0.471
	R11	I don't care if people make racist statements against other racial or ethnic groups. (R)	*

Subscale	Item Number	Item Description	Loading
M-GUDS Relativistic Appreciation			
	R12	When I see people who come from a different racial or ethnic background succeed in the public arena, I share their pride.	*
	R13	When other people struggle with racial or ethnic oppression, I share their frustration.	*
	R14	I share the anger of people who are victims of hate crimes (e.g., intentional violence because of race or ethnicity).	*
	R15	When I hear people make racist jokes, I tell them I am offended even though they are not referring to my racial or ethnic group.	*
M-GUDS Diversity of Contact			
	D23	I would like to know more about the beliefs and customs of ethnic groups who live in this country.	0.816
	D21	I am interested in knowing people who speak more than one language.	0.746
	D19	I am interested in learning about the many cultures that have existed in this world.	0.738
	D22	I am interested in going to exhibits featuring the work of artists from minority groups.	0.717
	D16	I would like to join an organization that emphasizes getting to know people from different countries.	0.709
	D25	If given another chance, I would travel to different countries to study what other cultures are like.	0.698
	D20	I attend events where I might get to know people from different racial backgrounds.	0.650
	D17	I would like to go to dances that feature music from other countries.	0.622
	D28	I would be interested in taking a course dealing with race relations in the United States.	0.618
	D29	I would be interested to participating in activities involving people with disabilities.	0.555
	D18	I often listen to music of other cultures.	0.525
	D30	I have friends of differing ethnic origins.	0.525
	D27	I am not very interested in reading books translated from another language. (R)	0.430
	D24	I don't know too many people from other countries. (R)	*
	D26	I have not seen many foreign films. (R)	*
M-GUDS Sense of Connection			
	S39	Getting to know someone of another race is generally an uncomfortable experience for me. (R)	0.828
	S42	I often feel irritated by persons of a different race. (R)	0.825

Subscale	Item Number	Item Description	Loading
M-GUDS	Sense of Connection		
	S40	I am only at ease with people of my own race. (R)	0.776
	S41	It's really hard for me to feel close to a person of another race. (R)	0.732
	S44	I am often embarrassed when I see a physically disabled person. (R)	0.715
	S43	It does not upset me if someone is unlike myself.	0.568
	S36	For the most part, events around the world do not affect me emotionally.	0.555
	S35	I feel comfortable getting to know people from different countries.	0.525
	S45	I sometimes am annoyed at people who call attention to racism in this country. (R)	0.467
	S38	It grieves me to know that many people in the Third World are not able to live as they choose.	0.417
	S37	When I listen to people of different races describe their experiences in this country, I am moved.	0.415
	S33	It deeply affects me to hear persons from other countries describe their struggles of adapting to live here.	0.372
	S31	I feel a sense of connection with people from different countries.	*
	S32	I often feel a sense of kinship with persons from different ethnic groups.	*
	S34	When I hear about an important event (e.g., tragedy) that occurs in another country, I often feel as strongly about it as if it had occurred here.	*

Note. $N = 157$. * Item Excluded.

APPENDIX L

PARCEL ASSIGNMENT FOR SCALES

Table L1

Parcel Assignment for Scales

Subscale	Parcel	Item Number	Loading
ATDS Coworker			
	A_C_1	C6	.953
	A_C_1	C10	.388
	A_C_2	C3	.944
	A_C_2	C4	.608
	A_C_3	C5	.921
	A_C_3	C1	.653
ATDS Hiring			
	A_H_1	H21	.836
	A_H_1	H11	.332
	A_H_2	H12	.776
	A_H_2	H19	.474
ATDS Supervisor			
	A_S_1	S26	.834
	A_S_1	S30	.409
	A_S_2	S22	.720
	A_S_2	S29	.428
	A_S_3	S23	.689
	A_S_3	S24	.568
SEE Empathic Feeling and Expression			
	S_EF_1	EF13	.749
	S_EF_1	EF8	.389
	S_EF_1	EF4	.726
	S_EF_1	EF9	.486
	S_EF_1	EF12	.690
	S_EF_2	EF11	.516
	S_EF_2	EF5	.685
	S_EF_2	EF15	.542
	S_EF_2	EF1	.669
	S_EF_2	EF3	.575
	S_EF_3	EF10	.655
	S_EF_3	EF6	.631
	S_EF_3	EF14	.641

Subscale	Parcel	Item Number	Loading
SEE Empathic Feeling and Expression			
	S_EF_3	EF2	.639
	S_EF_3	EF7	.640
SEE Empathic Perspective Taking			
	S_EP_1	EP20	.791
	S_EP_1	EP21	.319
	S_EP_2	EP22	.790
	S_EP_2	EP16	.453
	S_EP_3	EP17	.551
	S_EP_3	EP18	.499
SEE Acceptance of Cultural Differences			
	S_AC_1	AC27	.827
	S_AC_1	AC26	.650
	S_AC_2	AC25	.778
	S_AC_2	AC23	.715
SEE Empathic Awareness			
	S_EA_1	EA31	.888
	S_EA_1	EA30	.732
	S_EA_2	EA28	.854
	S_EA_2	EA29	.818
M-GUDS Relativistic Appreciation			
	M_RA_1	RA7	.834
	M_RA_1	RA10	.471
	M_RA_1	RA1	.794
	M_RA_2	RA3	.650
	M_RA_2	RA8	.784
	M_RA_2	RA4	.650
	M_RA_3	RA6	.773
	M_RA_3	RA9	.709
	M_RA_3	RA5	.751
M-GUDS Diversity of Contact			
	M_DC_1	DC23	.816
	M_DC_1	DC27	.430
	M_DC_1	DC21	.746
	M_DC_1	DC30	.525
	M_DC_2	DC19	.738
	M_DC_2	DC18	.525

Subscale	Parcel	Item Number	Loading
M-GUDS Diversity of Contact			
	M_DC_2	DC22	.717
	M_DC_2	DC29	.555
	M_DC_3	DC16	.709
	M_DC_3	DC28	.618
	M_DC_3	DC25	.698
	M_DC_3	DC17	.622
M-GUDS Sense of Connection			
	M_SC_1	SC39	.828
	M_SC_1	SC33	.372
	M_SC_1	SC42	.825
	M_SC_1	SC37	.415
	M_SC_2	SC40	.776
	M_SC_2	SC38	.417
	M_SC_2	SC41	.732
	M_SC_2	SC45	.467
	M_SC_3	SC44	.715
	M_SC_3	SC35	.525
	M_SC_3	SC43	.568
	M_SC_3	SC36	.555

Table L2

Inter-parcel Correlations

Parcel	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. A_C_1	4.83	.93	--												
2. A_C_2	4.84	1.03	.53**	--											
3. A_C_3	4.98	.99	.69**	.57**	--										
4. A_H_1	4.84	.95	.53**	.49**	.58**	--									
5. A_H_2	4.69	1.08	.50**	.53**	.48**	.65**	--								
6. A_S_1	4.35	1.10	.35**	.46**	.35**	.36**	.45**	--							
7. A_S_2	4.70	1.00	.59**	.48**	.56**	.51**	.44**	.46**	--						
8. A_S_3	4.82	.91	.53**	.51**	.48**	.56**	.48**	.50**	.69**	--					
9. S_EF_1	4.36	.93	.51**	.37**	.49**	.54**	.28**	.38**	.50**	.50**	--				
10.S_EF_2	4.48	.84	.43**	.29**	.40**	.51**	.26**	.36**	.42**	.44**	.78**	--			
11.S_EF_3	4.39	.89	.48**	.25**	.40**	.44**	.22**	.28**	.47**	.40**	.74**	.76**	--		
12.S_EP_1	3.94	1.08	.33**	.21**	.32**	.43**	.26**	.29**	.31**	.30**	.48**	.39**	.40**	--	
13.S_EP_2	3.73	1.14	.35**	.21**	.34**	.36**	.21**	.22**	.21**	.19*	.53**	.42**	.39**	.60**	--
14.S_EP_3	3.87	1.31	.23**	.09	.21**	.32**	.10	.12	.17**	.20*	.48**	.46**	.50**	.37**	.42**
15.S_AC_1	4.52	1.13	.44**	.36**	.49**	.44**	.39**	.35**	.43**	.42**	.47**	.40**	.43**	.49**	.37**
16.S_AC_2	4.42	1.18	.42**	.37**	.46**	.50**	.39**	.34**	.43**	.46**	.56**	.47**	.48**	.51**	.41**
17.S_EA_1	4.68	1.11	.36**	.19*	.33**	.28**	.20*	.14	.33**	.32**	.52**	.45**	.47**	.29**	.36**
18.S_EA_2	4.32	1.25	.23**	.14	.23**	.27**	.09	.16	.25**	.24**	.51**	.45**	.48**	.30**	.41**
19.M_RA_1	4.45	.91	.36**	.26**	.28**	.43**	.26**	.15	.44**	.38**	.53**	.49**	.59**	.37**	.32**
20.M_RA_2	4.60	.85	.38**	.32**	.31**	.46**	.30**	.21**	.47**	.46**	.50**	.49**	.54**	.35**	.28**
21.M_RA_3	4.66	.93	.36**	.36**	.28**	.48**	.29**	.21**	.39**	.43**	.54**	.50**	.57**	.35**	.29**
22.M_DC_1	4.50	.88	.44**	.28**	.34**	.49**	.29**	.14	.38**	.44**	.57**	.62**	.64**	.43**	.38**
23.M_DC_2	4.33	.90	.24**	.14	.19*	.35**	.13	.08	.16*	.26**	.52**	.58**	.63**	.31**	.31**
24.M_DC_3	4.32	1.01	.24**	.21**	.22**	.31**	.14	.08	.20*	.25**	.51**	.61**	.62**	.31**	.30**
25.M_SC_1	4.54	.86	.46**	.43**	.52**	.61**	.40**	.36**	.45**	.47**	.71**	.66**	.62**	.46**	.47**
26.M_SC_2	4.54	.92	.52**	.49**	.51**	.54**	.42**	.36**	.52**	.53**	.65**	.57**	.57**	.44**	.42**
27.M_SC_3	4.71	.82	.36**	.30**	.36**	.52**	.36**	.29**	.37**	.49**	.58**	.55**	.50**	.44**	.42**

VITA

Rebekka A. Althouse received her Bachelor of Arts degrees in Psychology and English Literature from Franklin & Marshall College in May of 2002. She was the recipient of the Franklin & Marshall College Presidential Merit Scholarship. Rebekka received her Master of Science degree in Industrial/Organizational Psychology from Old Dominion University in July 2006.

The address for the Department of Psychology at Old Dominion University is 250 Mills Godwin Building, Norfolk, VA 23529.

PROFESSIONAL EXPERIENCE:

- **Consultant**, Cresting Wave Solutions, Virginia Beach, VA,
May 2005 – August 2006
- **Project Coordinator**, Personnel Decisions International (PDI) New York
Operating Office, August 2002 – August 2003

PROFESSIONAL AFFILIATIONS:

- Society for Industrial/Organizational Psychology (SIOP), Student Affiliate
- American Psychological Association (APA), Student Affiliate
- Society for Human Resource Development (SHRM), Student Affiliate
- American Society for Training and Development (ASTD), Student Affiliate