JOURNAL OF ORGANIZATIONAL CULTURE, COMMUNICATIONS AND CONFLICT

JoAnn C. Carland
Editor
Carland College

Authors execute a publication permission agreement and assume all liabilities. Neither the DreamCatchers Group nor Allied Academies is responsible for the content of the individual manuscripts. Any omissions or errors are the sole responsibility of the authors. The Editorial Board is responsible for the selection of manuscripts for publication from among those submitted for consideration. The Publishers accept final manuscripts in digital form and make adjustments solely for the purposes of pagination and organization.

EDITORIAL BOARD

JOURNAL OF ORGANIZATIONAL CULTURE, COMMUNICATIONS AND CONFLICT

CONTENTS

LETTER FROM THE EDITOR

Welcome to the *Journal of Organizational Culture, Communications and Conflict*. The journal is owned and published by the DreamCatchers Group, LLC. The Editorial Board and the Editors are appointed by the Allied Academies, Inc., a non profit association of scholars whose purpose is to encourage and support the advancement and exchange of knowledge, understanding and teaching throughout the world. The editorial mission of the *Journal* is to publish empirical and theoretical manuscripts which advance knowledge in the areas of organizational culture, organizational communication, conflict and conflict resolution. We hope that the *Journal* will prove to be of value to the many communications scholars around the world.

The articles contained in this volume have been double blind refereed. The acceptance rate for manuscripts in this issue, 25%, conforms to our editorial policies.

We intend to foster a supportive, mentoring effort on the part of the referees which will result in encouraging and supporting writers. We welcome different viewpoints because in differences we find learning; in differences we develop understanding; in differences we gain knowledge; and, in differences we develop the discipline into a more comprehensive, less esoteric, and dynamic metier.

The Editorial Policy, background and history of the organization, and calls for conferences are published on our web site. In addition, we keep the web site updated with the latest activities of the organization. Please visit our site at www.alliedacademies.org and know that we welcome hearing from you at any time.

JoAnn C. Carland
Carland College

www.alliedacademies.org

SINGLE MOTHERS - HOW ARE THEY DOING?

Kathy L. Hill, Sam Houston State University

ABSTRACT

A review of the literature was conducted to examine the status of single mothers. Are they thriving or merely surviving?

The purpose of this study was to discuss economic and social factors that affect low-income single mothers and their children. The first objective examined was the economic factors, such as sometimes-severe financial hardships, the children's cognitive development, poverty-level living conditions, and quality child care which effects labor force participation. Financial strain was shown to have unhealthy effects on single mothers and especially on their children.

The second objective examined was the social factors, such as absent fathers, below-level status, and possible behavioral problems. Single parents, whether mothers or fathers, have a difficult time maintaining an above-poverty-level lifestyle and raising their children to be healthy, well-adjusted, respectful, and successful adults.

INTRODUCTION

Since the 1950's, traditional families have become increasingly rare with a boost in other types of family structures, specifically single parent households headed by women. For the past two decades, the number of single mothers has been increasing. These single parents are faced with economic and social obstacles as they try to care for their families.

From 1993 to 2003, the number of single mothers increased to approximately 77%. In 1993 the average number of single parents was 7.7 million compared to 13.7 million single parents in 2007 and approximately 84% of those parents were mothers. Single working mothers ages 55 to 64 total 31% and ages 15 - 24 total 4%. Single mothers are spread among all economic levels, ages, races, education, employment, and occupations (Grall, 2009).

From 1960 to 2007, the percentage of American women who were married fell from 66% to 51%, the percentage of men who were married fell from 69% to 55%, and the number of cohabiting couples increased from 439,000 to more than 6.4 million. Because of the increase in cohabitation, about 40% of American children spend some time in a cohabiting union; 20% of babies are born to cohabiting couples, and the vast majority of the children born to cohabiting couples see their parents break up by the time they turn 15 (Wilcox, 2009).

From an emotional and social perspective, about 20% of divorced adults find their lives enhanced and another 50% seem to suffer no long-term ill effects. Yet, men and/or women can be caught in a downward emotional spiral, experience difficulties at work, and go through serious

deteriorations in their relationships with their children. Because of the divorce, many will lose their homes, a substantial share of their monthly incomes, and regular contact with their children (Hetherington & Kelly, 2007).

Educators, lawmakers, and religious leaders continually express their concerns regarding the erosion and possible extinction of the traditional family (Moss, 2009). What=s more alarming are the potential debilitating effects broken families have on children and their development. Wilcox (2009) argues that the children of divorced parents are two to three times more likely to suffer from serious social or psychological problems than children from intact marriages. McLanahan and Sandefur (1994) found that 31% of adolescents with divorced parents dropped out of high school, compared to 13% of children from intact families; that 33% of adolescent girls from divorced families became teen mothers, compared to 11% from parents who were continuously married; and that 11% of boys from divorced families end up spending time in prison before the age of 32, compared to 5% of boys who come from intact homes. The consequences for children are immense. Some of these consequences include: 750,000 children have to repeat grades; 1.2 million school children are suspended; approximately 500,000 acts of teenage delinquency are committed; 600,000 kids receive therapy; and approximately 70,000 kids commit suicide every year (Amato, Booth, Johnson & Rogers, 2007). Many children=s lives would improve significantly if the family-stability clock could be turned back just a few decades (Amato, et al, 2007).

When children are exposed to high levels of conflict at home, they seem to do better when their parents separate, but most divorces do not involve high levels of conflict; therefore, the clear majority of divorces involving children in America are *not* in the best interests of the children (Amato et al, 2007).

Research also indicates that remarriage is no salve for children wounded by divorce. AChildren whose parents have remarried do not have higher levels of well-being than children in lone-parent families (Cherlin, 2009, p 5). Remarriage generally requires a move and more adjustment for children who thrive on stability (Cherlin, 2009).

Many studies have been completed about children and their unfavorable behaviors because of being raised in single parent households. One research study concluded that children do worse when raised by single parents - specifically low-income single mothers (Hofferth, Smith, McLoyd, & Finkelstein, 2000). Given their low wages, below average education, and harsh environment, many single mothers look to the government for help. In turn, social programs are instituted in hopes of improving the plight of single parents and the general welfare of their children.

It is often said that it is difficult enough for two parents to raise a child, let alone one parent. When that single parent depends only on a high school diploma to obtain employment and care for a family of two or more, it makes staying above the poverty line difficult if not impossible. However, with a college education to elevate wages, raising a child becomes more economically feasible. Results from a Brown University study showed that single mothers, compared with married mothers, reported substantially lower incomes, higher rates of childhood abuse and more psychiatric

disorders (Hofferth, et al., 2000). These issues undoubtedly affect child development and behavior. Therefore, it is essential to gain insight into understanding and improving the position of single mothers in the workforce today.

The purpose of this study was to discuss economic and social factors that affect low-income single mothers and their children. Economic factors such as sometimes-severe financial hardships, the cognitive development of their children, poverty-level living conditions, and quality child care which affects labor force participation were assessed. Social issues such as receiving little or no support from fathers, children's behavioral problems, and society's misconceptions about single mothers were examined in the related literature.

ECONOMIC FACTORS

For the past two decades, single parent families have escalated while traditional two parent families have been on the decline. For married-couple families, both the poverty rate and the number in poverty increased from 4.9 percent (2.8 million) in 2007 to 5.5 percent (3.3 million) in 2008. The poverty rate and the number in poverty showed no statistical change in 2008 for female-householder-with-no-husband-present families (28.7 percent and 4.2 million) and for male-householder-no wife-present families (13.8 percent and 723,000) (US Census Bureau, 2008). These living situations make it difficult for families to remain healthy and in tact.

Many research studies have been conducted in the area of single mothers. One such study, lead by Aurora P. Jackson in 2000, demonstrated how economic hardships influenced parental psychological functioning and family relationships (Jackson, Brooks-Gunn, Huang, & Glassman, 2000). For example, her study showed that financial strain lead to depressive symptoms. In turn, those depressive symptoms disrupted effective parenting skills and, subsequently, children's behavior. The mothers tested in Jackson's study experienced several factors associated with economic hardships little or no monetary support from fathers, low wage jobs, and no education beyond high school (Jackson et al., 2000). These risks contributed to the mother's level of financial strain. Single mothers have a higher level of financial strain because, basically, they are the sole caretaker and the only source of income; therefore, depression is the result. Depression is a psychological function that is a direct result of financial strain. As economic hardships influence single mothers psychological functioning, these difficulties become predictors for single mother's children's cognitive and social development (Jackson et al., 2000).

Financial strain was shown in Jackson's study to have adverse effects on children's development. For example, preschoolers displayed learning disabilities in addition to other behavioral problems (Jackson et al., 2000). To confer with Jackson's evidence, University of Michigan research scientist Sandra Hofferth et al (2000) argued that low-income parents simply do not have enough money to invest in books, educational activities, toys, and other advantages that require financial resources. The result is that their children's cognitive skills are lower, leading to

lower levels of completed school; therefore, their children's achievement level correlated with their income level. The lower the household income, the lower the achievement levels for those children. Robert Rector (2001), Heritage Foundation Policy Analyst, gave congressional testimony that supported Jackson's claim. In his research, he found that single parenthood had significant deleterious consequences on children's development, which impeded their ability to become successful members of mainstream society (Rector, 2001). These harmful effects were more prevalent for males with female head of householders than female children. Jackson's et al (2000) study showed that problematic behaviors are dependent upon a child's gender. The mother's depressive symptoms contribute to the child's behavioral problems as well, which in turn hinder family relationships from strengthening (Jackson et al., 2000).

As noted earlier in Jackson's study (Jackson et al., 2000), depression was caused by economic hardships. University of Kansas Assistant Professor Sondra G. Beverly (2001) acknowledged that economic hardships were most prevalent among single mothers even when the economy is booming (Beverly, 2001). She also pointed out that low-income single mothers live and cope with sometimes-severe economic hardships daily.

A second study by Peter D. Brandon and Gene A. Fisher (2001) stated that insufficient income as a family stressor could affect the quality of care given to children. In addition, evidence exists to suggest that insufficient child care options could be a strong barrier to labor force participation and more of an employment barrier for public-housing residents and single parents (Kimmel, 1998). Author Elisabeth Porter (2001) of The Journal of Gender Studies, stated that poverty is due to women's lack of earning power, inadequate job skills, and scanty access to decent childcare. Thus, women are better off on welfare than in low-paying jobs (Porter, 2001). In contrast, Washington Post columnist Dan Froomkin (1998) wrote that economic hardships were not an excuse for people to live off government checks or for them to avoid unemployment. In a study conducted by Alexis J. Walker (2000), Aemployed@ mothers actually found it more difficult to meet their everyday expenses. Because of expenses incurred because they had jobs, single mothers had little or no time to take on additional jobs (Walker, 2000). Many single mothers find themselves in a Catch-22 situation.

Author Mulroy found that many single mothers want to work and not be dependent on the government for help, but society sends them mixed messages: middle class women should stay at home with their children, but poor women should leave their children and go to work (Lockwood-Rayermann, 2000). Because of the imbalance of working mothers and stay-at-home mothers, single mothers often experience role strain from attempting to balance being a wage earner and having parental responsibilities (Kerka, 1988). An emotional struggle ensues between being a good parent and being a good, although, employed parent. Researchers Jo Anne Youngblut, et al., (2000) added that media stereotyping suggested that single mothers often engage in behaviors to avoid employment. In addition, Froomkin (1998) wrote that government assistance was responsible for a permanent underclass of people who had absolutely no incentive to seek employment.

However, in contrast to Froomkin's claim, LaShunda Hall, government assistance recipient, proved critics wrong when she successfully completed Wisconsin Works Program (Hall, 2001).

LaShunda Hall (2001), single mother of two, gave congressional testimony about her entrance into mainstream society. Once faced with continuous economic hardships, this single mother was able to overcome barriers and become self-sufficient. She participated in the Temporary Assistance for Needy Families (TANF) funded program, Wisconsin Works. Hall was provided counseling and a case manager. These two people enabled Hall to get her GED and to enroll in a four-year college, happily pursuing a Bachelor's of Science degree in Criminal Justice (Hall, 2001). Single mothers have the daunting task of providing for their families with only one source of income. This places an incredible strain on the emotional welfare of the child as well as the parent. Furthermore, single parents have to be watchful of how economics can affect their children and adopt ways of making financial strain more tolerable.

A study by researcher Linda McCreary (2000) stated that communication was a behavior associated with effective families and that this trait carried forward throughout adulthood. Effective family structure leads to well-behaved children at home as well as at school (Hofferth, et al., 2000). Additionally, single parents that participate in school activities help raise their children's achievement level, and it also strengthens the parent child bond (Sanson, 2001).

SOCIAL FACTORS

The emergence of the divorce and marriage dichotomy in America creates a host of other social problems. The breakdown of marriage in working-class and poor communities has played a major role in fueling poverty and inequality. Isabel Sawhill, a nationally known budget expert who focuses on domestic poverty and federal fiscal policy at the Center on Children and Families at the Brookings Institution, has concluded that virtually all of the increase in child poverty in the United States since the 1970's can be attributed to family breakdown (Wilcox, 2009).

In addition to financial strain, single mothers are tested by their children's behavior or lack thereof. To make matters worse, single mothers are raising their children without support from their children's fathers. Many fathers have chosen not to be an active part of their children's lives. This decision has hardened the hearts of many single mothers.

Numerous children under the age of 18 will grow up without having their biological father or a father figure in their lives. Author Nancy Darling (1999) stated that uninvolved parenting could have detrimental effects on childhood development and could continue throughout adolescence and pre-adulthood (Darling, 1999).

Single mothers are faced with the dilemma of having the dual role of being sole family breadwinner and the sole resident care giving parent (Lockwood-Rayermann, 2000). When fathers are not around to share the child care, the full responsibility falls to the mother, increasing her sense of overwhelming obligation (Youngblut, et al., 2000).

Most children want their fathers involved in their lives. The amount of interaction between fathers and their children is very important. Children need their fathers in order to form a stronger definition of self.

Growing up in female-headed households can produce children that have difficulty adjusting in school and society (Jackson et al., 2000 & McCreary, 2000). Family structure plays a significant part in adolescents' grades and attendance according to some research findings. They found that adolescents from intact homes perform better academically and maintain better school attendance than do those students from either single-parent or remarried homes (Ham, 2004).

There have been conflicting studies showing whether children of single parents experience more behavioral problems than those growing up in two-parent households. Single parents and their children live in a society that views their families as >broken,= >abnormal,= >deviant,= and >doomed to fail=@ (Rhodes, 2000). Single mother is a phrase that conjures up poor, lazy individuals unwilling to be self-sufficient, and society should be especially wary of her children because they will never amount to anything.

Children are stigmatized and stereotyped by society because of the status of their mothers and society's perception of them. Author Carolyn Rogers (2001) wrote that children in single parent families tend to face more disadvantages than children in two-parent families. She added that single parent children might receive less attention and care from their parents. Additionally, these children tend to have more school related health and behavioral problems which could lead to completing fewer years of schooling (Rogers, 2001).

Cornell University Professor Henry Ricciuti (1999) conducted a study that focused on 1,700 six- and seven-year old children residing in single mother households. He found that potentially adverse behavior of single parent children might not surface until later in childhood (Ricciuti, 1999). It is possible for children to perform and behave very well in school during the early years. However, as they grow and develop, conditions exist for them to react adversely to their home life—especially if that home life is filled with strife and instability. For example, before LaShunda Hall (2001) turned her life around, she was fiercely painting a path of destruction. She is an example of how economic and social issues can adversely affect the children of single parent—especially single mothers. Professor Ricciuti (1999) suggested that steps be taken when children are young before possible harmful effects of single parenthood emerge. These battles add to the war single mothers fight every day.

Behavioral problems and absent fathers add to single mothers' burdens. Additionally, single mothers must cope with some of society's negative perception of them. They have to cope with depression, low self-esteem, and the myths that society has generated about them and their children (Van Horn, 1999). With unlimited barriers, many single mothers still manage to persevere as in the case of LaShunda Hall (2001). Single parents must have the fortitude to endure the difficulty of raising children alone.

SUMMARY

The purpose of this study was to discuss economic and social factors that affect low-income single mothers and their children. The first objective of this study was to discuss economic factors that affect low-income single mothers and their children. Researcher Jackson et al (2000) identified financial strain as a precursor to depression. Once depressive symptoms emerged, single mothers exhibited ineffective and potentially harmful parenting skills (Jackson et al., 2000). Additionally, economic hardships were magnified when single mothers had to contend with little or no monetary support from fathers and low paying jobs (Jackson et al., 2000). These issues disrupted single mothers' children=s cognitive and social development (Jackson et al., 2000).

Research scientist Hofferth, et al (2000) argued that low-income single parents do not have the resources to provide educational tools necessary for their children=s development. Inadequate supply of financial resources leads to children completing only lower levels of school (Hofferth, et al., 2000). Financial strain was shown to have unhealthy effects on single mothers and especially on their children.

Researchers Brandon and Fisher (2001) stated that insufficient income affected the quality of care given to children. Kimmel (1998) added that single mothers often find insufficient income as a barrier to employment.

Researcher Walker (2000) found in her study that many working single mothers had difficulties meeting everyday expensesBexpenses they would not have if they were unemployed. Author Mulroy found that single mothers often find themselves in a quandary: They can=t afford to work. This state of perplexity propels single mothers to indulge in stress relievers (Lockwood-Rayermann, 2000).

The second objective of this study was to discuss social factors that affect low-income single mothers and their children. Absent fathers, below-level status, and possible behavioral problems were some social issues discussed. Columnist Wade Horn (1998) suggested that absent or non-involved fathers could have a detrimental effect on children. In addition, Ricciuti (1999) found that possible adverse behaviors might not surface until later in childhood.

Children of single parents often have behavioral problems (Jackson et al., 2000). Single parents, whether mothers or fathers, have a difficult time raising their children to be healthy, well-adjusted, respectful, and successful adults. Coupled with economic hardships and social issues, single parents, mothers or fathers, often find themselves at the end of their rope. However, many single parents find the support and guidance needed to overcome their present situations.

REFERENCES

Amato, P. R., Booth, A., Johnson, D. R., & Rogers, S. J. (2007). *Alone together: How marriage in America is changing*. Boston, Mass: Harvard University Press.

Beverly, S. G. (2001, September). Material hardship in the United States: Evidence from the survey of income and program participation. *Social Work Research, 25*(3), 143. Retrieved from Academic Search Premier Database.

Brandon, P. D. & Fisher, G. A. (2001, March). The dissolution of joint living arrangements among single parents and children: Does welfare make a difference? *Social Science Quarterly, 82*(1), 1+. Retrieved from EBSCO database.

Cherlin, A. J. (2009). *The marriage-go-round: The state of marriage and the family in America today*. Knopf Doubleday Publishing Group.

Darling, N. (1999). *Parenting style and its correlates* (ERIC Document Reproduction Service No. ED 427896). Washington, DC: U.S. Government Printing Office.

Feinman, J. (2001). Church attendance, family structure, parenting style and antisocial behavior of Black and Latino urban adolescents. *Dissertation Abstracts Online, 63*(03B), 1615.

Froomkin, D. (1998, July 23). Welfare=s changing face. *Washington Post*. Retrieved from http://washingtonpost.com/wp-srv/politics/ special/ welfare/welfare/htm.

Grall, T. (2009, November). Custodial mothers and fathers and their child support: 2007. *Current Population Reports*. Retrieved from http://www.census.gov/prod/2009pubs/p60-237.pdf

Hall, L. (2001, October). *Changes in the welfare system*. Retrieved from http://edworkforce.house.gov/hearings/107th/21st/welfare 101601/hall.htm.

Ham, B. D. (2004). The effects of divorce and remarriage on the academic achievement of high school seniors. *Journal of Divorce & Remarriage*, 42, 159-179.

Hetherinton, E. M, & Kelly, J. (2002). *For better or for worse: Divorce reconsidered*. New York, New York: W. W. Norton & Company, Inc.

Hofferth, S. L., Smith, J., McLoyd, V. C., & Finkelstein, J. (2000). Achievement and behavior among children of welfare recipients, welfare leavers, and low-income single mothers. (Statistical Data Included). *Journal of Social Issues*, *56*(4), 747-774.

Horn, W. F. (1998, November).There is no substitute for parents.*USA Today* (Society for the Advancement of Education). Retrieved from http://findarticles.com/p/articles/mi_m1272/is_ 1998_Nov/ai_54879234/

Jackson, A.P., Brooks-Gunn, J. Huang, C., & Glassman, M. (2000, October). Single mothers in low-wage jobs: Financial strain, parenting, and preschoolers= outcomes. *Child Development, 71*(5), 1409-1423. Retrieved from EBSCO database.

Kerka, S. (1988, January). Single parents: Career-related issues and needs. *ERIC Digests*, 75. Retrieved from ERIC database.

Kirby, J. (n.d.). Single-parent families in poverty. Retrieved from http://www.hec.ohio-state.edu/ famlife/bulletin/volume.1/bullart1.htm.

Kimmel, J. (1998). Child care costs as a barrier to employment for single and married mothers. *The Review of Economics and Statistics*. Retrieved from Academic Search Premier database.

Lockwood-Rayermann, S. (2000). The new uprooted: Single mothers in urban life (Book Review). *Journal of Urban Affairs, 22*(3), 356. Retrieved from Academic Search Premier database.

McLanahan, S. & Sandefur, G. (1994). *Growing up with a single parent: What hurts, what helps*. Cambridge, Mass: Harvard University Press.

McCreary, L. L. (2000). Components of family functioning in low-income African American single-parent families of young children. *Dissertations Abstracts Online, 61*(07B), 3509.

Moss, J. (2009, March 8). The erosion of civilization=s foundation. Associated Content. Retrieved from http://www.associatedcontent.com/article/1545453/ the_erosion_of_civilizationsfoundation_pg2. html?cat=9

Porter, E. (2001, March). Interdependence, parenting, and responsible citizenship. *Journal of Gender Studies, 10*(1), 5. Retrieved from Academic Search Premier Database.

Rector, R. (2001, March). Welfare overhaul effects. FDCH Congressional Testimony. House Ways and Means Committee. Retrieved from Academic Search Premier Database.

Rhodes, R. & Johnson M. N. (2000, Fall). Students= perception of single parents and social justice: A women=s issue. *Journal of Women and Social Work, 15*(3), 434. Retrieved from Academic Search Premier Database.

Ricciuti, H. N. (1999). Single parenthood and school readiness in White, Black, and Hispanic 6- and 7-year-olds. *Journal of Family Psychology, 13*(3), 450 - 465.

Rogers, C. (2001, May August). A look at America=s children and their families. *Food Review, 24*(2), 2. Retrieved from Academic Search Premier Database.

Sanson, A. & Lewis, V. (2001, Winter). Children and their family contexts. Australian Institute of Family Studies, *Family Matters,* 59. Retrieved from http://www.aifs.gov.au/institute/pubs/ fm2001/fm59/as.pdf

US Census Bureau. (2008). Income, poverty and health insurance Coverage in the United States: 2008. *2009 Current Population Survey (CPS) Annual Social and Economic Supplement (ASEC)*. Retrieved from http://www.census.gov/hhes/www/p60_236sa.pdf.

Van Horn, J. (1999, January). Coping as a single parent-overview. Retrieved from http://www.penpages.psu.edu/ penpages_reference/ 28507/ 2850780.html.

Walker, A. J. (2000, August). Refracted knowledge: Viewing families through the prism of social science. *Journal of Marriage and Family, 62*(3), 595. Retrieved from Academic Search Premier Database.

Wilcox, W. B. (2009). The evolution of divorce. National Affairs. Retrieved from www.nationalaffairs.com.

WomenWork. (2005). The national network for women=s employment. Retrieved from http://www.womenwork.org/pdfresources/chutes-ladders_ recs.pdf

Wurzel, B. J. (n.d.). Growing up in single parent families. Retrieved from http://ohioline.osu.edu/hyg-fact/5000/5291.html.

Youngblut, J. M., Brady, N. R., Brooten, D., & Thomas, D. J. (2000, March). Factors influencing single mother=s employment status. *Health Care for Women International, 21*(2), 125. Retrieved from Academic Search Premier Database.

THE INCLUSION SKILLS MEASUREMENT PROFILE: VALIDATING AN ASSESSMENT FOR IDENTIFICATION OF SKILL DEFICIENCIES IN DIVERSITY AND INCLUSION

Helen Turnbull, Nova Southeastern University
Regina Greenwood, Nova Southeastern University
Leslie Tworoger, Nova Southeastern University
Charles Golden, Nova Southeastern University

ABSTRACT

The first phase of an instrument to measure diversity and inclusion at the individual, group, and organizational levels is described. The Inclusion Skills Measurement (ISM) Profile was designed to assist in recognizing the skills gaps that exist in organizational members; such gaps must be recognized and addressed if inclusion is to be successfully embedded within organizations. Phase 1 involved the validation of the self-assessment tool which is designed to help individuals explore their values, beliefs and behaviors around diversity and inclusion. One hundred and ten working adults were surveyed using the ISM Profile and the data was analyzed, indicating concern with some items. Revision of the instrument based on the analysis is discussed. The dimensions of inclusion are described and future research is proposed.

INTRODUCTION

The U. S. Census Bureau expects that the United States will not be a Caucasian dominated country by 2050. These shifting demographics emphasize the business imperative for moving past diversity management to inclusion in order to be competitive in the global economy. A diverse organization realizes benefits from its ability to retain talent, to be in tune with market conditions, to work creatively and to innovate; such capabilities may be related to enhanced performance (Allen, Dawson, Wheatley, & White, 2008). Even though the imperative is recognized and desirable, in reality companies spend money and time on training for diversity, yet the organizational outcomes are less than expected (Chavez & Weisinger 2008). According to Sayed and Kramar (2009) both affirmative action and diversity management have fallen short of their objectives; if the broader benefits of diversity can be achieved, it will only happen with a multilevel approach to diversity. This multilevel approach will include not only the national, but also the organizational and individual levels.

Policies and procedures related to diversity have previously been the focus of many workplace diversity initiatives, yet less time is spent on the "norms and values" that can assist in embedding inclusiveness in the organization (Pless & Maak, p. 129) The Inclusion Skills Measurement (ISM) Profile was designed to assist in recognizing the skills gaps that exist in organizational members; such gaps must be recognized and addressed if inclusion is to be successfully embedded within organizations. The instrument consists of seven scales each of which addresses an aspect of inclusion. The first phase of the validation of the instrument is described below and further research is proposed.

JUSTIFICATION FOR THE STUDY

Corporations spend millions of dollars every year training their employees to drive behavioral change. Employees are told in a myriad of ways what behavior is expected of them, from technical, professional and soft skills perspectives. Everything from policies and procedures, employee handbooks, management directives, training programs etc. are designed to ensure employees integrate the messages of the corporate culture and behave accordingly.

Appropriate behavior is therefore an implicit and explicit part of the employer/employee contract. When addressing the subject of global inclusion and diversity however, the result of this training investment is often compliance and political correctness rather than true commitment to behavior change. There is not always congruence between an individual's values and beliefs and the behaviors they are being asked to demonstrate at work. For example, on the subject of sexual orientation it is quite common to hear people speak of their religious values and beliefs and their discomfort at being asked to "accept" openly gay people in the workplace. They will default to a reluctant acceptance that the company requires them to behave appropriately while insisting that they will not change their values or beliefs on the topic. While it may not be possible to change a person's values it is however imperative that individuals seeking to change the organizational culture and embed inclusion in their organizations more fully understand the values and beliefs that are at the root of any resistance to change.

The ISM profile seeks to explore values, beliefs and behaviors and to raise to consciousness some of the more hidden challenges. The ISM Profile has a balance of items addressing both topics. Based on the literature we propose the following assumptions:

Assumption 1

Individuals have skills gaps in their diversity awareness, sensitivity and interpersonal skills of which they   may or may not be aware.

Individual behaviors have significant impact on the perception of an inclusive environment. Employees who are not consciously aware of their diversity competences are capable of saying or doing something that will negatively impact the work environment. Individual ego, the halo effect and the concept of unconscious incompetence are present to some degree in all individuals. Prior to embedding an inclusive environment, the organization is operating from an assimilation model where all employees work to fit in with the operating norms of the dominant culture(s). The first stage on the Diversity and Inclusion Journey is a state of oblivion where people do not realize that there is a need to be more sensitive. Skills gaps in all areas of diversity awareness are higher than people anticipate and require increased awareness and an ongoing commitment to personal growth. Individuals need to be open to learning about other cultures and to be sensitive to the micro-inequities that they may be perpetrating on others. Identification of these skills gaps is an essential part of the change process.

Assumption 2

Teams and groups acknowledge diversity while failing to fully capitalize on the richness that authentic diversity and inclusion can offer.

While much has been written on the benefits of diverse teams, the reality remains that teams function from an assimilation model and not a diversity model. Therefore, they fail to fully utilize the richness of diversity at their disposal.

A clear hierarchy of diversity issues exists ranging from topics that are non-contentious and not controversial, such as "diversity of thought," to topics that are contentious, sensitive and often controversial, such as sexual orientation and race. Diverse groups may be well intentioned and believe they are utilizing all the diverse talent but often than not they are operating from an assimilation model that requires group members to comply with the norms set by the dominant culture. For example, women may adopt the male model for work styles in order to fit into the dominant group and People of Color will tend towards the Caucasian style of communicating.

Assumption 3

Organizations spend time and resources on diversity but often fail to create supportive systems necessary for authentic inclusion.

Much has been written about the money spent by corporations in an attempt to value diversity and change the organizational culture to one that values differences. Awareness and sensitivity workshops and skills/competency based training programs abound and some progress has been made. Resistances to change and to accepting differences are key factors in the struggle to

truly embed inclusion. For authentic inclusion to be achieved, the organization must provide a supportive culture where there is congruence between values, beliefs and behavior. It is crucial that each level of the organization sees globalization and Inclusion as a business imperative and not just something nice to do. There must be congruence of thought and actions and consistency in the message; it will not work if, for example, you have the senior leadership and HR stating that diversity matters, the lower levels of the organization knowing at a visceral level that they want diversity to matter and the mid-level managers expressing not only resistance, but displaying behaviors that are not supportive. The "frozen middle" can and often does, create the barrier to embedding an inclusive environment. If there is lip service at the top and resistance in the middle, then all of the dollars spent on training will not accomplish the stated goal of embedding inclusion. The organization must, in addition to training, build a diversity infrastructure by providing strategic support, including a Diversity Council, Diversity champions and advocates drawn from senior leadership ranks and Employee Affinity groups

ISM PROFILE DIMENSIONS OF INCLUSION

To become inclusive and reap the benefits of diversity, organizations must embed Inclusion in all levels of the system: individual (intra-personal and inter-personal), groups/teams and organization. The seven constructs comprising the ISM Profile each focus on a specific organizational level, as shown in Figure 1.

Figure 1	
INDIVIDUAL and ORGANIZATIONAL LEVELS	DIVERSITY COMPETENCIES
Intra-personal	Diversity Sensitivity Integrity with Difference
Inter-personal	Interacting with Difference Valuing Difference
Group	Team Inclusion Managing Conflict over Difference
Organization	Embedding Inclusion

Turnbull, Greenwood, Tworoger and Golden (2009) explain that each scale of the ISM Profile has a set of key diversity competencies and a series of items designed to explore the values, beliefs and behaviors of the individual. Each competence and the related items on the ISM Profile follow. Each item is also identified as focused on belief or behavior. The first two categories, Diversity Sensitivity and Integrity with Difference, address intra-personal competence and are devoted to providing measurement and feedback on how well individual are doing in the area of their own personal development (Turnbull et al 2009).

Diversity Sensitivity and key competencies measured:

Monitors own diversity sensitivity and impact on others
Makes a conscious effort to learn about those who are different
Pro-active in exposing self to a range of experiences with those who are different
Takes steps to improve own diversity awareness

Item	Belief or Behavior/ Action
I ask for feedback on the impact of my behavior when interacting with those who are different to me	Behavior
I show respect for the values and ethics of others, even though they may differ from my own	Belief
I consider how my background impacts on my attitude to work and how this may differ from others	Belief
I am inclined to stereotype those who are different	Behavior
I am aware when I have upset or offended someone of difference	Behavior
I can show respect for other people's differences without having to behave like them	Belief
When I am with a person who is different to me, as a mark of respect I try to accommodate their style	Behavior
I am wary of making assumptions about those who are different to me	Belief
I am aware of advantages I/others may enjoy simply by virtue of belonging to a particular group (e.g. gender or an ethnic group)	Belief
I make efforts to consider the diverse needs of others and balance them with my own	Behavior
I look for ways to learn about people who have different world views to my own	Behavior
I invest time in analyzing what I do when interacting with those who are different	Behavior
	5 beliefs, 7 behaviors

Integrity with Difference and key competencies measured:

Aware of personal attitudes and beliefs about members of own social identity group
Vigilant about the tendency to discount self and members of own social identity group due to internalized oppression
Able to encourage those from own social identity group(s) to acknowledge and own the merits of their difference while honoring the diversity in others

Item	Belief or Behavior
I am uncomfortable working for someone of my own ethnicity/race	Belief
I overcome any negative views others may communicate about the group with which I identify	Behavior
I resent people from the group with which I identify who continually require their difference to be acknowledged and/or accommodated	Belief
I am uncomfortable working for someone of my own gender	Belief
I promote other people's difference, but not my own	Behavior
I prefer to fit in with the majority and not emphasize my difference	Belief
When someone from the group with which I identify gets promoted I worry that they will fail and reflect badly on me	Belief
I encourage people from the group with which I identify to be true to who they are	Behavior
When someone from the group with which I identify is successful, I am among the first to congratulate them	Behavior
	5 beliefs, 4 behaviors

The second level of competence is in the area of inter-personal skills and the scales responding to these skills are: Interacting with Difference and Valuing Difference. These two scales address inter-personal competence and are devoted to providing measurement and feedback on how well individuals are relating to others (Turnbull, et al., 2009).

Interacting with Difference and key competencies measured:

Listens actively for other frames of reference and does not prejudge
Seeks to understand and adapt to different styles when working with those who are different
Treats others as they wish to be treated
Shows a readiness to change the way he/she does things to meet the needs of those from diverse backgrounds

Item	Belief or Behavior
I show a readiness to accommodate difference, rather than ignore it	Belief
I am willing to change my way of doing things in the workplace to suit other groups	Behavior
I believe that to be successful in the organization, one should conform to "the way we do things around here"	Belief
I treat others as individuals not just as members of the group to which they belong	Behavior
I demonstrate how to give and take in the workplace, by accommodating my team members' diverse needs	Behavior
I am aware that with rights come obligations to others in the workplace	Belief
I am aware that the way people engage differs for people from different backgrounds	Belief
I treat others as they wish to be treated knowing this may differ to how I wish to be treated myself	Behavior
I listen deeply to people from different backgrounds to understand their perspective(s)	Behavior
When I am asked to accommodate cultural/religious differences, it is like asking me to sacrifice my own values and who I am	Belief
I use language in the workplace that is non-racist, non-sexist and free of terminology that stereotypes others	Behavior
	5 beliefs, 6 behaviors

Valuing Difference and key competencies measured:

Encourages innovation and creativity in the workplace
Embraces diversity as a resource to benefit the organization & its members
Treats diversity as an asset, not a liability
Supports systems, procedures and practices which promote diversity in the workforce
Leverages the benefits differences can add

Item	Belief or Behavior
I actively seek advice or ideas from people with a different perspective	Behavior
Making allowances for those who are different in the workplace tends to compromise efficiency	Belief
I look for solutions that incorporate all points of view	Behavior
I work on creating an environment comfortable for all so that everyone can express themselves	Behavior
I expect those who are different to behave the way the majority do	Belief
I encourage those who are different to focus on the value that their difference brings to the workplace	Behavior
We can adapt to new things without sacrificing who we are	Belief
Encouraging differences in the way people perform will lead to innovation and creativity in the workplace	Belief
	4 beliefs, 4 behaviors

The third category, which is crucial in the understanding of how to embed inclusion, is groups/teams. The two scales related to this topic are: Team Inclusion and Resolving Conflict over Difference. These two scales are devoted to providing measurement and feedback on how well diverse groups and teams are doing (Turnbull, et al 2009).

Team Inclusion and key competencies measured:

Team Inclusion and key competencies being measured:
Takes every opportunity to ensure that project teams and work groups are diverse
Encourages and capitalizes on the diverse contributions and strengths of team members
Practices inclusive behaviors in groups and intervenes sensitively when exclusionary behaviors occur.

Item	Belief or Behavior
When people in the team are being left out, I make an effort to include them	Behavior
I am frustrated at having to take account of every team member's differences	Belief
I do everything possible to choose people from diverse backgrounds or with diverse styles when forming teams	Behavior
It is better to get on with the job than to waste time talking about the behavior of team members from different backgrounds	Belief
Teams become dysfunctional if the members are too different from one another	Belief
I react negatively to people on teams who want to be different	Behavior
Merging different thinking styles in a team is more of a hindrance than a help	Belief
When forming/joining a team I bear in mind that diverse teams provide a competitive advantage	Behavior
	4 beliefs, 4 behaviors

Resolving Conflict over Difference and key competencies measured:

Takes a conscious effort to learn about different styles of conflict resolution
Has insight into and monitors own preferred conflict management style and its impact on others
Is pro-active in managing conflict over difference when it arises rather than avoiding it
Actively creates the space for people to use different forms of conflict resolution

Question	Belief or Behavior
I feel free to discuss conflicts over differences as they arise	Behavior
I am frustrated by people who try to resolve conflict in an indirect manner	Belief
I handle conflict in a manner that allows others to be heard and understood	Behavior
I do not require people to resolve conflict in my way if this does not sit well with them	Behavior
It is better to be politically correct than to express your true feelings when faced with conflicts over difference	Belief
I am more comfortable providing feedback to people who are most like me	Behavior
When angry, I express it to people irrespective of their gender, race or culture	Behavior
People should be allowed to express themselves in their own way when trying to resolve conflict over differences	Belief
I am frustrated by people who mask their emotions to maintain harmony when dealing with disagreement	Belief
	4 beliefs, 5 behaviors

The final level, which is important to the change management process, is the Organization (impact of culture on organizations and organizations on culture) and the scale dedicated to this topic is: Embedding Inclusion. This scale is dedicated to providing measurement and feedback on how well the overall organization is doing in its attempts to embed an inclusive environment and cause culture change (Turnbull, et al 2009).

Embedding Inclusion and key competencies measured:

> *Is actively involved with organizational issues that promote diversity awareness*
> *Constantly seeks out opportunities to lobby influential individuals and groups on issues of diversity and inclusion*
> *Challenges prejudice and injustice, when confronted with evidence of it in the workplace, directly or indirectly*
> *Is an active advocate of treating people fairly and accommodating difference in all spheres of life i.e. personal, professional and the wider community*

Item	Belief or Behavior
I respect people's differences, rather than treating them all the same	Belief
My actions enable all employees to actualize their full potential	Behavior
I notice whether marginalized groups are being included	Behavior
I raise awareness of the importance of diversity and inclusion whenever I can	Behavior
I challenge insensitive/inappropriate remarks whenever I hear them	Behavior
I seek to join special interest groups/initiatives which promote an inclusive workplace	Behavior
I intervene on behalf of others when I witness unfair treatment taking place in my organization	Behavior
I take the opportunity to mentor and counsel individuals from minority groups in my organization	Behavior
I challenge people's opinions when they dispute the benefits of different outlooks	Behavior
My actions in the workplace support fairness in recruitment, promotion and pay	Behavior
	1 belief, 9 behaviors

VALIDATION OF THE INSTRUMENT

Subjects

During Phase I, one hundred and ten currently employed adults were asked to take the ISM Profile questionnaire. All were over the age of 18 and asked to volunteer without compensation. Students with full time jobs who attend graduate business school weekend classes were asked to participate. The sample consists of 63 females and 47 males. When asked to self identify race, the largest groups were Hispanics (33%), African-Americans (27%), and Caucasians (24%). Forty-two percent of the sample identified themselves as being born in the US, with the remaining sample coming from over 30 different countries. Thirty-six percent of the sample idenified themselves as Catholic and 39% as Christian. Ninety-seven percent of the sample reported themselves as Heterosexual

Procedure

After subjects volunteered, they were asked to sign a consent form and then given a paper copy of the questionnaire to fill out. The individuals rated themselves on a variety of questions related to the topic of attitudes towards diversity. The completed questionnaire answers were entered into the Statistical Package for the Social Sciences (SPSS, 2010) by student employees. The data was analyzed to insure the reliability of the questions, determine the ideal length of the test, and

determine whether all scales are necessary in the final instrument. The instrument will be revised based on the statistical data analysis and future analysis.

RESULTS

Phase I data was analyzed using SPSS 17. Data for each of the scales was analyzed for intenal reliability and determination of the optimal number of items for each scale. Item inter-orrelations across and within the scales were used to determine which items to eliminate. Reliability data was used to eliminate items that showed unacceptable levels of test-retest reliability. Scale inter-correlations were used to determine if scales were redundant or actually measuring different things. Using this information, revisions to the questionnaire will be made with the goal of retaining the maximum information while reducing the overall number of items.

The scales overall were multi-dimensional, with average correlations among the items at approximately .30. Cronbach' alpha for the scales were low ranging from .45 to .66 with the exception of Resolving Conflict at .01, indicating that the scale as written performed randomly with no common material or concept. Item correlaions with each scale total showed that 60 of the 73 items were placed on the correct scale with the major exceptions being the nine Resolving Conflict items. Table 1 presents the intercorrelations among the scales. Overall, the scales correlated moderately, with the Diversity Sensitivity scale showing the highest correlations.

DISCUSSION

The results of the validation process indicate that inclusion skills can be measured reliably. The seven scales are: Diversity Sensitivity, Integrity with Difference, Interacting with Difference, Valuing Difference, Team Inclusion, Managing Conflict over Difference, and Embedding Inclusion. Six of the seven scales associated with Inclusion exhibit acceptable reliability and one scale, Diversity Sensitivity, has good reliability. In general, complex constructs such as these will yield low Cronbach's alpha scores. However, a Cronbach's alpha of .01 for the scale Resolving Conflict indicates unacceptably low reliability. The entire scale and the items associated with it must be intensely examined, rewritten, and further tested.

Based on results of the intercorrelations across and within scales, the following items will be removed from the instrument. By removing the items below, the reliability of the related scale will be improved.

Relevant Systems Level	Relevant Scale	Original items to be removed from final version
Group	Team Inclusion	If someone on the team has something to say, it is up to them to make themselves heard.
Inter-Personal	Valuing Differences	It is best when working with diverse people to focus on their similarities rather than their differences.
Organization	Embedding inclusion	I avoid talking about gossip that separates diverse groups in the workplace.
Inter-Personal	Interacting with Difference	I demonstrate to others how to give and take in the workplace, by accommodating my team members' diverse needs.
Organization	Embedding Inclusion	I act on the basis that prejudice is part of reality and there is no point in fighting it.
Group	Team Inclusion	I create rules around team discussion to allow everybody to be heard.

The scale Resolving Conflict over Differences showed the weakest results in the original reliability testing, therefore we will add the following list of new items to the second phase test.

Original Items	New Items
I feel free to discuss conflicts over differences as they arise	I am not afraid to discuss diversity issues when there is disagreement that arise over diversity issues
I am frustrated by people who try to resolve conflict in an indirect manner	I prefer people to be direct rather than indirect when dealing with diversity issues.
I handle conflict in a manner that allows others to be heard and understood	I try to listen to all sides of the argument when faced with conflict over diversity issues
I do not require people to resolve conflict my way if this style does not sit well with them	I allow people to deal with conflict in a way they find comfortable and culturally appropriate
It is better to be politically correct than to express your true feelings when faced with conflict over diversity	I prefer to remain politically correct when it comes to diversity problems.
I am more comfortable providing feedback to people who are most like me	I am uncomfortable providing negative feedback to people from other diverse groups
When angry, I express it to people irrespective of their gender, race or culture	I do not let a person's race, gender or culture stop me from expressing appropriate anger
People should be allowed to express themselves in their own way when trying to resolve conflicts across diversity	The ways in which people deal with conflict are strongly influenced by a person's race, gender and culture
I am frustrated by people who mask their emotions to maintain harmony when dealing with a disagreement	I am frustrated by people who will not be direct when dealing with a diversity conflict

Results from Phase I indicated a need to do further analysis of the revised data. A further sample of 400 participants will be analyzed with the end goal of utilizing factor analysis to determine if the changes made to this instrument will then provide better reliability and validity for the self-assessment portion of the instrument.

LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

The limitations cited by Turnbull et al (2009) such as personal bias, the halo effect, frame of reference, perceptions, organizational morale, and the utilization of the instrument by each organization are still relevant. There are a number of additional limitations that should be noted.

We are aware that using adult students from a weekend MBA program may have impacted the results. The actual assessment will be used in corporations where employees will be asked to take it and will perhaps have different motivations for their answers. It is possible that some of the data has been skewed by the voluntary nature of the study and also by the fact that the respondents in this situation had no real commitment to the results of the research. This may have positively or negatively skewed the results as in some cases it will have freed people to tell their truth and in other cases there may have been a laissez faire approach to completion. As always, the problems of self-report exist in our study.

Prior to conducting Phase II of the research which addresses the peer review feedback section, we will undertake Phase IA, where we will seek 400 respondents to take a revised version of the self assessment section. We will include the nine new questions from the Resolving Conflicts scale at the end of the survey list, and we will not, for now, remove the six questions that have been identified as not showing significant differentiation. The results of this second study will be examined using factor analysis to gain further insight about the validity and reliability of the ISM Profile instrument.

REFERENCES

Allen, R., G. Dawson, K. Wheatley & C. White (2008). Perceived diversity and organizational performance. *Employee Relations,* 30(1), 20-33.

Chavez, C.I. & J.Y. Weisinger (2008). Beyond Diversity Training: A social infusion for cultural inclusion. *Human Resource Management,* 47(2), 331-350.

Pless, N. & T. Maak (2004). Building an Inclusive Diversity Culture: Principles, Processes and Practice. *Journal of Business Ethics* 54, 129-147.

Sayed, J. & R. Kramar (2009). Socially responsible diversity management. *Journal of Management and Organization,* 15(5), 639-651.

Turnbull H., R. Greenwood, L. Tworoger & C. Golden (2009). Developing an instrument for the identification of skills deficiencies in diversity and inclusion in an organization. *Journal of Strategic Management, (In Press)*

Table 1: Correlations Between Scales						
	Diversity	Integrity	Interaction	Valuing	Team	Resolving	Embedding
Diversity						
Integrity	.421**					
Interaction	.574**	.394**				
Valuing	.429**	.393**	.425**			
Team	.502**	.345**	.488**	.485**		
Resolving	.374**	.325**	.370**	.284**	.209**	
Embedding	.591**	.251**	.469**	.401**	.441**	.367**
df=108* p<.05						

DOES AGE MATTER IN JOB SATISFACTION?
THE CASE OF U.S. INFORMATION TECHNOLOGY PROFESSIONALS

Issam Ghazzawi, University of La Verne

ABSTRACT

Many studies have examined the relationship between age and job satisfaction. These studies have revealed conflicting results. While some concluded that such relationship is positive and linear, others have concluded negative non-linear, U-shaped, or J-shaped, or no significant relationship. This study is to further investigate the impact of age on job satisfaction in a profession that has received less attention from researchers- that of information technology. A survey of 132 IT professionals in various Southern California organizations were conducted using the Minnesota Satisfaction Questionnaire "MSQ" short form to examine the effects of age on job satisfaction. This study accepted its null hypotheses that age does not play a role in job satisfaction among IT professionals in the United States. Suggestions for future research are also provided. This research contributes to job satisfaction literature by providing empirical findings regarding the relationship of age and job satisfaction.

INTRODUCTION

Job satisfaction literature is a rich one. It has been enriched with numerous empirical and meta-analysis study research. It is considered one of the most studied work related attitudes by many researchers in the fields of organizational behavior and human resources in private and public sectors (Bedeian, Ferris, & Kacmar, 1992; Clark 1997; Durst & DeSantis, 1997; Ellickson & Logsdon, 2001; Jung & Moon, 2007; Lewis, 1991; Ting, 1997; Wright & Kim, 2004). It is no surprise that more than 12,000 job satisfaction studies were published by the early 1990s (Kinicki, McKee-Ryan, Schriesheim, & Carson, 2002; Kreitner & Kinicki, 2007). However, very few researchers have studied the role of age in job satisfaction in the information technology industry in the United States or in other countries. Literature on the subject of age and job satisfaction has been general and not industry specific. This paper is focused on studying the role of age on job satisfaction of IT professionals out of a belief that every industry has its own particulars and specificity that differentiates it from other industries.

Information technology professionals have not been a major focus of study as it pertains to the subject of job satisfaction (Ghazzawi, 2008a). According to Ghazzawi (2008a), today's literature provides few insights on the subject of job satisfaction in an industry that controls important aspects

of our lives. The IT profession employs millions of people from all ages and in various positions and capacities with a mission to cope with the challenges of this borderless 24 hour a day world.

The study is based on data collected from 132 IT professionals from various organizations in Southern California, using the Minnesota Satisfaction Questionnaire "MSQ" (the general satisfaction scale-the short form); the study tested the age role in job satisfaction through the use of descriptive statistics.

The Purpose of this Study

While many attempts to determine the age-job satisfaction relationship have been established and provided conflicting results, no study has examined the age-job satisfaction relationship and shape in the information technology. Therefore the purpose of the present study is to determine whether a relationship exists between age and job satisfaction and what type of relationship exists. As mentioned earlier, the reason age and gender of IT professionals were the purpose of this study; is that this subject has received scant attention from researchers, despite the importance of this group's contribution to today's organization.

THEORETICAL FOUNDATIONS OF THE STUDY

Over the years, many reports on workplace satisfaction based on a representative sample of 5,000 U.S. households have been published by *The Conference Board* ("Job Satisfaction Declines", 2007). These reports revealed that American employees are growing increasingly unhappy with their jobs ("Job Satisfaction Declines", 2007; *The Conference Board*, 2003; Olian, 2003; Shea, 2002; Stafford, 2007; "U.S. job satisfaction hits record low, 2003; "U.S. Job Satisfaction Keeps Falling", 2005). In 2007, less than 50% of workers said they were satisfied with their jobs, down from 61% two decades ago ("Job Satisfaction Declines", 2007). Less than 39% of workers under the age of 25 are satisfied with their jobs ("Job Satisfaction Declines", 2007). The director of The Conference Board's Consumer Research Center, Lynn Franco, commented there is a widespread feeling among many American workers that times have changed, and their jobs aren't providing the satisfaction they once did. This is a growing concern for management (Shea, 2002).

It is no secret that in today's economy, employees' choices of employment opportunities and job mobility are limited in comparison to a few years ago. America's labor market has lost 4.4 million jobs since the recession began in December 2007, ("The jobs crisis," 2009). According to the Economist magazine, "an American who losses his job today has less of a chance of finding another one than at any time since records began half a century ago… but it is already clear that unemployment will strike hard beyond America and Britain ("The jobs crisis," 2009, p. 11). The news is not good for American workers who see and believe the American Dream today is very different from decades ago. While about 65% of U.S. workers continued to believe that the

American Dream is still a reality, they also feel that it is under attack ("Change to Win," 2009). Due to this great economic distress and feelings of anxiety, 52% of Americans today fear that someone in their family or a friend will lose their health insurance in the next year ("Change to Win," 2009). A greater number of Americans (more than 58 percent) are afraid that a family member or friend will lose their job. Additionally, 66% believe that it will be harder for the next generation to achieve the "American Dream" ("Change to Win," 2009).

Job Satisfaction

According to George and Jones (2008), job satisfaction is "the collection of feelings and beliefs that people have about their current jobs. People's levels or degrees of job satisfaction can range from extreme satisfaction to extreme dissatisfaction" (p. 84). Simply stated, job satisfaction is the extent to which someone likes his or her job (Kreitner & Kinicki, 2007). Others have broadly defined job satisfaction as "a positive feeling about a job resulting from an evaluation of its characteristics" (Robbins & Judge, 2009, p. 83), Nelson and Quick (2009) defined it as "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences" (p. 56). Many argued that job satisfaction is the opposite of job dissatisfaction (Beam, Kim, & Voakes, 2003; Ewen, Hulin, & Smith, 1966). Ewen et al. (1966) explained that if the presence of a factor leads to satisfaction, then absence of this factor will eventually lead to dissatisfaction.

Herzberg, Mausner, and Snyderman (1959) developed the "Two-Factor Theory of job satisfaction". Accordingly, they suggested that job satisfaction was related to outcomes associated with the work itself including: Achievement, chance for personal growth, recognition, responsibility/stimulating work, and promotion opportunities (Herzberg et al., 1959). Since it was associated with strong levels of job satisfaction, Herzberg et al. (1959) labeled it as "motivators." Contrary to that, job dissatisfaction was associated primarily with factors surrounding the job that include: physical working conditions, job security, company policies, quality of supervision, salary, and relations with others (Gordon, 2002; Herzberg et al., 1959; Herzberg, 1987; Herzberg, 2003). Suggesting they are not motivational, Herzberg et al. (1959) labeled them as hygiene (maintenance) factors. Employees who satisfy their hygiene factors could reduce their job dissatisfaction with their working conditions (Herzberg et al., 1959, Herzberg, 1987, Herzberg, 2003). A few studies on job satisfaction concluded that extrinsic factors have a major impact on employee turnover, while intrinsic satisfaction has even more impact and plays an even greater role in employee turnover behavior (O'Reilly & Caldwell, 1980; Randolph, 2005; Tang, Kim, & Tang, 2000; Udechukwu, 2007).

Based on the aforementioned definitions and explanations, someone's job requires continuous interactions with others, namely coworkers, superiors, and subordinates. It also requires adhering to organizational policies, rules, and operating procedures; meeting performance standards; and coping with the work conditions and its environment to name a few (Robbins & Judge, 2009;

Griffin & Moorhead, 2009). As consequences of these work variables, the assessment of employees' job satisfaction becomes a tedious mission for management (Ghazzawi, 2008b). Low employees' turnover is a consequence of satisfied employees, which in turn translates into more organizational success (Dalton, 2004; Grant, 1998; Greenberg & Baron, 2008; Grugulis, 2007; Kent, 2005; Phifer, 1978; Stammen, 2003). Happy employees tend to be more motivated, engaged, committed, and loyal to their organizations as compared with unhappy (unsatisfied) employees ("Happiness Research," 2007).

What causes satisfaction could be summarized as follows: (1) personality-dispositional/genetic; (2) values-extrinsic and intrinsic; (3) work situation; (4) social influence; and (5) life satisfaction (Andre, 2008; George, 1992; George & Jones, 2008; Ghazzawi, 2008b; Ghazzawi & Smith, 2009; Greenberg & Baron, 2008; Judge & Locke, 1993; Staw & Ross, 1985; Staw & Cohen-Charash, 2005; Watson & Slack, 1993). However; the consequences of job satisfaction could be summarized in the following categories: (1) organizational commitment, (2) organizational citizenship behavior (OCB), and (3) employee well-being (George, 1992; George & Jones, 2008; Ghazzawi, 2008b; Ghazzawi & Smith, 2009; Judge & Locke, 1993; Robbins and Judge, 2009; Rue & Byars, 2005). On the other hand; the consequences of job dissatisfaction are (1) absenteeism, (2) turnover intentions, and (3) turnover (George, 1992; George & Jones, 2008; Ghazzawi, 2008b; Ghazzawi & Smith, 2009; Judge & Locke, 1993; Robbins and Judge, 2009).

AGE AND JOB SATISFACTION

Age is a factor in job satisfaction or dissatisfaction (Eichar, Brady, & Fortinsky, 1991; Weaver, 1980). Older workers tend to be more satisfied with their jobs than younger workers (Melvin, 1979). Lahoud (2006) concluded that a positive linear relationship existed between age and job satisfaction among network administrators. Lahoud also concluded that job satisfaction is correlated positively with person's education and experience (2006). DeSantis & Durst (1996) suggested that while job satisfaction in initial stages decreases, it rises as employees get older. Such positive relationship between age and job satisfaction was tested and explained through the argument that older employees tend to have more realistic expectations than younger employees about their jobs and have better sense of achievement (DeSantis & Durst, 1996; Durst & DeSantis, 1997; Rhodes, 1983).

According to Robinson (2002), overall job satisfaction among workers in the U.S. slightly increases with age; however, it fails to go above 49% regardless of the age group. An important key point here is that older employees are more satisfied with their bosses: Perhaps, according to Robinson (2002), they have become bosses themselves. A meta-analysis research which involved 21 independent studies and over 10,000 employees to determine which demographic differences attribute to job satisfaction revealed that only age and organizational tenure correlated positively with job satisfaction (Brush, Moch, & Pooyan, 1987). Among other studied variables were

education, job tenure, race, and gender (Brush et al., 1987). Bedian, Ferris, and Kacmar (1992) also concluded that tenure was a more stable predictor of job satisfaction than chronological age.

On the other hand, Eichar et al. (1991) argued that individuals become more satisfied with their jobs during their thirties as their careers become more defined. This satisfaction levels off as these workers enter their forties, due in part to disenchantment with their careers. Finally, as these workers enter their fifties and resign themselves to their lot in life, job satisfaction rises once again (Eichar et al., 1991). This conclusion was supported by Clark, Oswald, and Warr (1996) who studied a large sample of British employees and found a strong U-shaped relationship between age and job satisfaction. Supporting this argument, Hunter (2007) concluded that satisfaction followed a U-shaped relationship. While employees 55 years and older reported the highest satisfaction scores in the workplace, younger employees (ages of 26-35 years) expressed lower satisfaction, followed by employees in the age group of 36-45. Employees in the age group of 18-25 reported higher satisfaction than the former group (i.e. 36-45) and helped create the U-shaped relationship (Hunter, 2007). Satisfaction started to rise at the age of 46 and maintained relative stability thereafter (Hunter, 2007).

On the contrary, other studies suggested that older employees are less satisfied than younger employees for reasons including their tendency to be burned out and experience loss of excitement about work as they become used to their work (Bern, Snyder, & McDaniel, 1998; Clark, Oswald, & Warr, 1996; Oshagbemi & Hickson, 2003). Studies on job satisfaction in institutions of higher education revealed that research and teaching satisfaction are negatively correlated with increasing age and length of service (Oshagbemi & Hickson, 2003; Hickson and Oshagbemi, 1999). Similarly, in an empirical study Luthans and Thomas (1989) concluded that while job satisfaction tends to be moderately high for supervisors approaching their mid to late 30s, it is highest for those who are currently in their 40s, and lower for supervisors who are in their 50s and 60s.

When comparing satisfaction based on sectors (i.e. public versus private), Jung and Moon (2007) concluded that no substantive age effect on job satisfaction existed among public sector and nonprofit employees; however, they found a statistically significant difference in job satisfaction among the employees of the private sector as related to their age. Such relationship is a negative one. "Compared to their older colleagues, young private employees appear to be relatively satisfied with their jobs, probably because of their positive expectations. Unfortunately, the job satisfaction of private employees declines later in their careers" (Jung & Moon, 2007, pp. 142-3).

Other studies found that age has a non-linear association (no impact) on job satisfaction (Sarker, Crossman, & Chinmeteepituck, 2003: Sharma & Jyoti, 2005, 2009; Tu, Plaisent, Bernard, & Maguiraga, 2005) or rather statistically insignificant impact (Bos, Donders, Bouwman-Brouwer, & Van der Gulden, 2009; Bernal, Snyder, & McDaniel, 1998). Some studies concluded that as a chronological variable, age is not a predictor of job satisfaction (Bernal, Snyder, & McDaniel, 1998).

A study by Leadership IQ (a leadership training and research company) titled "Younger workers least happy" (Katz, 2008), indicated that the youngest workers are the least satisfied. In the same study, 30% of workers ages 21-30 would strongly recommend their organization as a good place to work compared to 47% of workers ages 61-70. According to Katz (2008), the older the workers are, the more likely they are to have a high opinion of the organization. Accordingly, age is positively correlated to workplace satisfaction. For instance, Kalleberg and Loscocco (1983) concluded that the relationship between age and employees' job satisfaction could be partially explained through cohort membership. A positive relationship with other co-workers, partially contributes to satisfaction. An Oklahoma City study indicated that age affects job satisfaction among government employees and that the dissatisfaction with career opportunities and job content is the driver of turnover for employees' under the age of 40 (Survey shows age difference in government job satisfaction, 2008). A study by ComPsych argued that older workers who are in their fifties and sixties are more likely to exercise regularly, follow healthy diets, and be less stressed than younger workers in their thirties (Wolgemuth, 2008).

According to the Conference Board report, less than 39% of workers under the age of 25 are satisfied with their jobs ("Job Satisfaction Declines", 2007). Additionally and according to the same study, workers aged 45 to 54 are the second most dissatisfied group in the study sample ("Job Satisfaction Declines", 2007).

In an empirical study on over 3,000 technical professionals, Finegold, Mohrman, and Spreitzer (2002) concluded that older employees' satisfaction with job security is strongly correlated with factors related to job and to employees' desire to remain with their organization as compared to those under 30 years of age. Contrary to that, same research concluded that satisfaction with work-life balance is more strongly related to those under age 30 than those over 30 (Finegold, Mohrman, and Spreitzer, 2002). In addition, satisfaction with opportunities to develop employee's technical skills and pay and its linkage to individual performance has a more negative correlation with employees under the age of 30 than those who are over the age of 45 (Finegold, Mohrman, and Spreitzer, 2002).

Based on an empirical study to determine the attitudes toward work of generation Y students, Josiam, Crutsinger, Reynolds, Dotter, Thozur, and Devine (2009) argued that positive work attitude was enhanced with increasing age and work experience, while negative work attitude was reduced. Finally, a study by Sarker, Crossman, & Chinmeteepituck (2003) concluded that employees' overall job satisfaction level is not significantly associated with age, but with tenure at the job.

INFORMATION TECHNOLOGY AND JOB SATISFACTION

According to the U.S. Department of Labor-Bureau of Labor Statistics (2009a), as the use of technology and the high demand for technical workers is increasing in the workplace, the employment growth in the technology sector is projected to be faster than average growth for all

occupations. Accordingly, the employment of computer and information systems managers is projected to grow 16 percent over the 2006-16 timeframe, which is faster than the average (U.S. Department of Labor, 2009b). The employment of computer systems analysts is projected to grow by 29 % over the 2006 to 2016 time period, and the employment of computer software engineers is also projected to grow by 38 % over the same time period (U.S. Department of Labor, 2009a). However, as a result of systems and applications consolidation and centralization, the advances in programming languages and tools, and the increased ability of users to design and write more of their own programs, the employment of computer programmers is expected to decrease by 4 percent from 2006 to 2016 (U.S. Department of Labor-Bureau of Labor Statistics, 2009b).

According to Roman Habtu (2003), younger generations were attracted to careers in information technology. In 2001, the average age of workers in the Canadian information technology professions was 36, as compared to 39 for all occupations and 38 for natural and applied sciences (Habtu, 2003). According to Habtu (2003), "Specific occupations had even younger age profiles. For example, nearly 7 in 10 web designers were under 34 with an average age of 32" (para.7). However, the average age of an information professional in the U.S. is 37.9 for a male IT professional and 39.9 for a female professional as compared to 41 for all occupations for both genders (Rosenbloom & Ash, 2005).

According to Cummings (2007), IT professionals' top satisfiers were: (1) the working conditions and corporate culture; (2) their peers; and (3) the challenge they got from the job itself. However, their sources of frustration (dissatisfaction) were: (1) working long hours to resolve technical issues or to complete an implementation, (2) being placed on call to take care of technical issues at anytime; and 93) dealing with politics and red tape when a fast decision is needed. In a similar study, Ghazzawi (2008a) concluded that IT pros are generally satisfied. Their key sources of satisfactions factors are: (1) ability to keep busy all the time; (2) ability to do things that don't go against their conscience; (3) employment security; (4) the chance to work alone on the job; (5) the chance to try their own methods of doing the job; (6) supportive co-workers; and (7) the working conditions. On the other hand, their key sources of dissatisfaction stemmed from: (1) company policies and practices; 2) the chances for advancement; and (3) their pay and the amount of work (Ghazzawi, 2008a).

RESEARCH METHOD

This study investigates the factors contributing to job satisfaction and dissatisfaction among different age groups in information technology professionals in the United States. This research paper attempts to answer the questions of whether age has an impact on job satisfaction. The research method for this study was based on an empirical study and descriptive statistics using the Chi-Square test with 95% confidence level to determine if differences in job satisfaction are impacted by IT professionals' age and what are the factors that moderate such differences.

The major part of the study included a survey of 132 IT professionals from various U.S. Southern California organizations. Of the nearly 165 participants solicited from these organizations or their branches, 132 individuals volunteered to participate in the current study and actually completed and returned the survey (response rate of 80%). Participants represented a diverse age group whose ages varied from 25 and under to 56 or older (please refer to Table 1).

Data were collected using the Minnesota Satisfaction Questionnaire "MSQ", the general satisfaction scale "the short form." MSQ's short form was used with a permission of Vocational Psychology Research, University of Minnesota. The aforementioned general satisfaction scale consists of 20 items, one item from each of the original 20 scales (Lester & Bishop, 2000; Weiss, Dawis, England, & Lofquist 1967).

IT Professional: An Empirical Definition

Ghazzawi (2008a) defined an IT professional as any employed person who is involved in technical service and support, IT management, IT networks, system integration and development, application development, web design, project management, IT procurement, technical end-user support, IT solutions implementation, IT infrastructure, Internet Protocol, or IT solutions sales and support.

Procedure

Participation in this study was voluntary and survey responses were confidential. Study participants were asked to sign a consent form acknowledging their understanding of the purpose of the study, indicating their awareness that their participation was voluntary, and knowing they had the right to withdraw at any time without consequences of any kind. Afterward, participating IT professionals were given the Minnesota Satisfaction Questionnaire "MSQ" short form containing the 20 question-general satisfaction scale to indicate their satisfaction or dissatisfaction with research variables along a five-point scale. In addition to that, participants were asked to identify their age group.

Participants returned their completed survey to the researcher in person or in a provided envelope. To insure the validity and the confidentiality of the collected information, participants were guaranteed that all information would remain confidential and would be disclosed only with participant's permission or as required by law. Confidentiality was maintained by means of separating the consent forms from survey questionnaires.

Participants and Setting

The sample included 33 women (25% of the survey samples) and 99 men (75% of survey samples). Fifty-six percent of the participants (n=74) work for technology organizations, while the remaining forty-four percent (n=58) work in IT departments in non-IT organizations that include manufacturing, higher education, financial, non-profit, and service organizations. Respondents' age distributions were as follows: (1), 11% (n=15) 25 or under; (2), 34% (n=45) 26-35; (3), 26% (n=34) 36-45; (4), 23% (n=31) 46-55; (5), 5% (n=6) >55; and (6), 1% (n=1) did not specify age.

Respondents' title included service managers, technical support personnel, IT administrative support, engineers, system engineers, senior IT managers and directors, webmasters, program analysts, IT sales personnel, IT customer service personnel, application developers, system analysts, and IT procurement personnel. The median number of years respondents had worked for their organizations was 5.5 years. Table 1 summarizes the sample characteristics.

Table 1: Characteristics of Sample (N= 132)					
Variable	Frequency	Percentage %	Variable	Frequency	Percentage %
Age			Organizational Size		
25 and under	15	11	<100 employees	17	13
26 to 35	45	34	100-999	72	54
36 to 45	34	26	1,000-4,999	10	8
46 to 55	31	23	5,000-9,999	16	12
56 and over	6	5	>10,000	16	12
No response	1	1	No response	1	1
TOTAL	132	100%	TOTAL	132	100%
Gender					
Male	99	75			
Female	33	56			
TOTAL	132	100%			
Position			Organizational Type		
Service manager	7	5	Technology	74	56
Tech. support	21	16	Education	15	11
IT. Admin. Support	17	13	Non-profit	11	8
Engineer/Sys. Eng.	38	29	Service	16	12
Sr. IT manager/Dir.	11	8	Manufacturing	5	4
Other IT titles	38	29	Other	11	8
TOTAL	132	100%	TOTAL	132	100%

CONSTRUCTS AND MEASURES

Scaling

Respondents to this study were asked to indicate their satisfaction or dissatisfaction along a five-point scale: Very dissatisfied = 1; dissatisfied = 2; neither satisfied or dissatisfied = 3; satisfied = 4; and very satisfied = 5. All sub-scales of the Minnesota Satisfaction Questionnaire "MSQ." were used with their actual words.

Questionnaire Reliability

While the Minnesota Satisfaction Questionnaire "MSQ" is one of the most popular and frequently used instruments for measuring job satisfaction (Lester and Bishop, 2000), its 20-item form "general satisfaction scale" was created via taking the item with the highest correlation from each of the original 20 scales (Lester & Bishop, 2000; Weiss, Dawis, England, & Lofquist 1967). This survey is based on an MSQ that has the Hoyt reliability coefficients for 27 normative groups ranging from 0.93 in advancement and recognition to 0.78 in responsibility (Lester & Bishop, 2000; Weiss, Dawis, England, & Lofquist 1967).

Validity

According to Lester and Bishop (2000), the concurrent validity was established through studying group differences in satisfaction. "Group differences were statistically significant at the 0.001 level for both means and variances on all 21 MSQ scales" (Lester and Bishop, 2000, p. 154). Important to note here that while participation in the study was voluntary, participating professionals were randomly selected from several Southern California organizations.

RESEARCH HYPOTHESIS

Based on the aforementioned theoretical foundation, the current research proposes the following three research hypothesis:

Hypothesis 1

Null Hypothesis H0: There is no relationship between intrinsic job satisfaction and age among information technology professionals. IT professionals regardless of their age have same intrinsic job satisfaction.

Alternative Hypothesis H1: There is a relationship between extrinsic job satisfaction and age among information technology professionals. Age plays a factor in intrinsic job satisfaction for IT professionals.

Hypothesis 2

Null Hypothesis H0: There is no relationship between extrinsic job satisfaction and age among information technology professionals. IT professionals regardless of age have same extrinsic job satisfaction.

Alternative Hypothesis H2: There is a relationship between extrinsic job satisfaction and age among information technology professionals. Age plays a factor in IT professionals' extrinsic satisfaction.

Hypothesis 3

Null Hypothesis H0: There is no relationship between overall job satisfaction and age among information technology professionals. IT professionals regardless of their age have same overall job satisfaction.

Alternative Hypothesis H3: There is a relationship between overall job satisfaction and age among information technology professionals. Age plays a factor in IT professionals' overall job satisfaction.

FINDINGS

The present study utilized the chi-square test of independence with a 95% confidence level $(p<0.05)$ to test the statistically significant relationships between job satisfaction and various groups' ages. See also Table 2 for MSQ factors in relation to various age groups. The followings are the study findings:

Table 2: Mean of MSQ Factors Based on Age						
MSQ Factors	Age <25	Age 26-35	Age 36-45	Age 46-55	Age >55	Total
Q.1	4.733	4.733	4.235	4.355	3.667	4.466
Q.2	4.600	4.600	3.882	4.677	3.667	4.389
Q.3	4.333	4.156	3.706	4.484	3.333	4.099
Q.4	3.800	3.622	3.471	4.333	3.333	3.754

MSQ Factors	Age <25	Age 26-35	Age 36-45	Age 46-55	Age >55	Total
Q.5	3.800	3.667	3.059	3.645	3.667	3.519
Q.6	4.067	3.889	3.176	3.903	4.000	3.733
Q.7	3.933	4.333	4.529	5.000	4.333	4.496
Q.8	4.286	4.689	4.235	4.097	4.000	4.354
Q.9	4.867	4.156	3.882	4.484	4.333	4.252
Q.10	4.067	3.756	3.588	4.032	4.000	3.824
Q.11	3.933	4.022	4.176	4.200	3.667	4.077
Q.12	3.533	2.822	2.697	3.581	3.333	3.077
Q.13	3.267	2.911	3.294	3.903	4.333	3.351
Q.14	3.133	3.178	2.824	3.194	3.333	3.092
Q.15	4.333	4.022	3.824	4.419	3.333	4.069
Q.16	4.733	4.333	4.000	4.290	3.667	4.252
Q.17	4.867	4.333	3.824	4.097	4.000	4.191
Q.18	4.867	4.378	4.235	4.548	4.000	4.420
Q.18	3.667	3.667	3.353	3.839	3.667	3.626
Q.20	3.800	4.022	4.059	4.226	3.333	4.023

Table 2: Mean of MSQ Factors Based on Age

Despite their Age Differences, IT Professionals are Intrinsically Satisfied

Generally speaking, IT professionals, regardless of their age, are intrinsically satisfied. More than 50% of all the study respondents are either satisfied or very satisfied. The only exception is the low satisfaction in response to the question on whether the respondents are satisfied with the chance to tell people what to do. On this measure, while it was less than 50% for age groups 26-35 and 36-45, both groups were neutral on this measure (49% and 35% respectfully). As shown in figure 1, this study found no consistent and significant age-based differences between age and intrinsic job satisfaction factors (i.e. MSQ questions 1,2,3,4,7,8,9,10,11,15,16, and 20). Results among age groups are overlapping and inconsistent. While it also shows that age has a weak correlation with job satisfaction, no linear relationship exists.

Figure 1: IT Professionals Intrinsic Satisfaction by Age Group
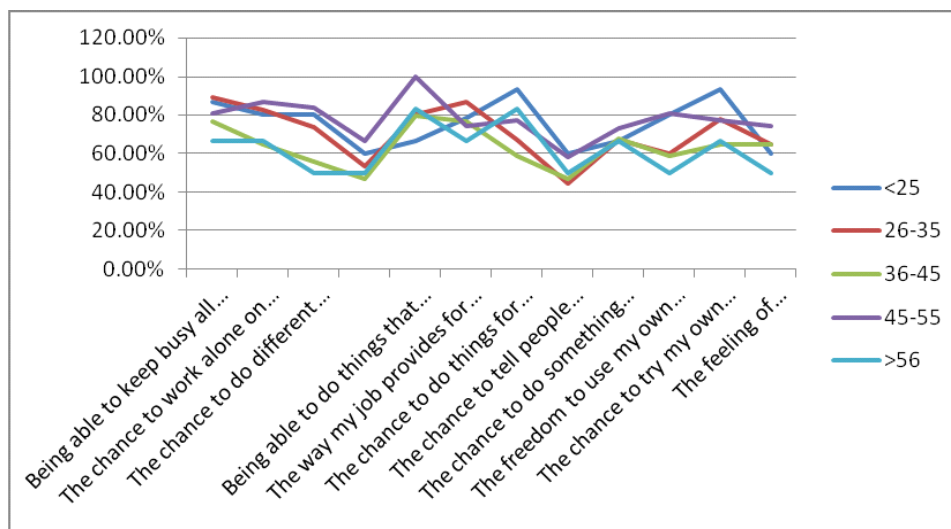
Using Chi-Square = 26.296, with a 95% confidence level, and a degree of freedom = 16, the present study revealed that the only four significant intrinsic based satisfaction as related to age differences were with the following four MSQ categorical factors: 1) Being able to keep busy all the time (Q.1), 2) the chance to work alone on the job (Q.2), 3) the chance to do different things from time to time (Q.3), and 4) being able to do things that don't go against my conscience (Q.7). These significant statistical differences will be further discussed with more details in the section titled discussions.

Despite their Age Differences, IT Professionals are Extrinsically Satisfied

To determine extrinsic satisfaction, the following six MSQ factors were used: 1) the way the boss handles workers, 2) the competence of supervisor in making decisions, 3) the way company policies are put into practice, 4) the pay as related to the amount of work, 5) the chances for advancement on the job, and 6) the praise people get for doing a good job (i.e. MSQ questions 5, 6,12,13,14, and 19). The study concludes that IT professionals, regardless of their age, are extrinsically satisfied.

However, utilizing chi-square test of independence among study age groups and its extrinsic factors with a 95% confidence level *(p<0.05)* to test statistically significant relationships between job satisfaction and various age groups revealed that the only significant differences with relation to age were with the followings two MSQ categorical extrinsic factors: 1) The way the boss handles workers (Q.5), and 2) my pay and the amount of work I do (Q.13). Please see figure 2. These

significant statistical differences will be further discussed with more details in the section titled discussions.

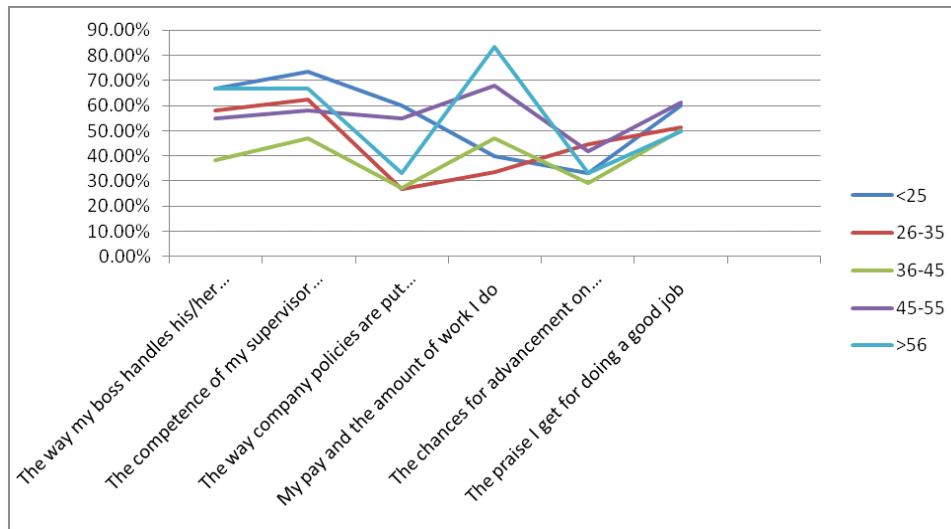**Figure 2: IT Professionals Extrinsic Motivation by Age Group**

Despite their Age Differences, IT Professionals are Generally Satisfied

Based on the review of questions 1 through 20, the study concluded that IT pros are generally satisfied. Fifty three percent (53%) of respondents indicated their overall satisfaction by responding as very satisfied or satisfied to factors included in this study. The top study satisfiers were: 1) Being able to do things that don't go against my conscience (83%), 2) being able to keep busy all the time (82%), 3) the way the job provides for steady employment (79%), 4) the chance to work alone on the job (78%), 5) the way my co-workers get along with each other (77%), 6) the chance to try my own methods of doing the job (76%), 7) the working conditions (73%), 8) the chance to do things for other people (72%), 9) the chance to do different things from time to time (71%); and 10) the chance to do things for other people (71%).

The key sources of job dissatisfaction experienced by IT professionals regardless of their age groups are: 1) The way company policies are put into practice (38% expressed that they are satisfied or very satisfied, 28 were neutral, and 34% expressed that they were dissatisfied or very dissatisfied); 2) the factor related to the chances for advancement on the job tied their top dissatisfaction list for the first spot (38% expressed that they were either satisfied or very satisfied, 28% were neutral, and 34% expressed that they were dissatisfied or very dissatisfied); and finally 3) IT Pros listed the pay as compared to the amount of work as their third ranked source of

dissatisfaction. Consequently, 48% expressed they were either satisfied or very satisfied, 21 were neutral and 31% felt they were dissatisfied or very dissatisfied.

Does Job Satisfaction Differ with Age?

Using the chi-square test of independence with a 95% confidence level *(p<0.05)* to test the statistically significant relationships between an overall job satisfaction and its relationship to age confirms that age does show a weak linkage to job satisfaction in most categories. The most significant factors are grouped in Table 3 and Figure 3.

Table 3: General Satisfaction (Significant Factors) and Age					
MSQ Factor: Age	<25	26-35	36-45	46-55	>55
Able to keep busy all the time	87%	90%	76%	81%	67%
The chance to work alone	80%	82%	65%	87%	67%
The chance to do different things	80%	73%	56%	84%	50%
Do things that don't go against my conscience	67%	80%	79%	100%	83%
The way the boss handles workers	67%	58%	38%	55%	67%
Pay as compared to work	40%	30%	47%	68%	83%

Figure 3: General Satisfaction (Significant Factors) and Age
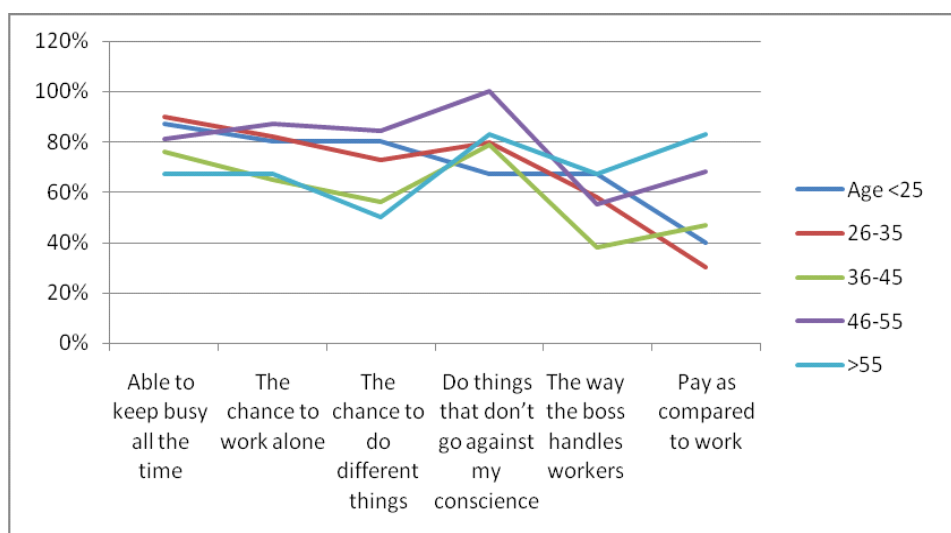
DISCUSSION

While many studies attempted to find an age-job satisfaction relationship, no conclusive evidence has yet been established (Bernal, Snyder & McDaniel, 1998). The primary focus of this study was to determine whether a pattern of association exists between age and IT professionals' job satisfaction. This study examined the age-job satisfaction relationship utilizing the MSQ's 20 categorical variables that test intrinsic, extrinsic, and general job satisfaction.

The Significant Differences in Intrinsic Satisfaction and Age

The measure of intrinsic job satisfaction derived from respondents' responses to questions 1,2,3,4,7,8,9,11,15,16, and 20 of the study, These questions covered the following dimensions: (Q.1) Being able to keep busy all the time; (Q.2) the chance to work alone on the job; (Q.3) the chance to do different things from time to time; (Q.4) the chance to be "somebody" in the community; (Q.7) being able to do things that don't go against my conscience; (Q.8) the way my job provides for steady employment; (Q.9) the chance to do things for other people; (Q.11) the chance to do something that makes use of my abilities; (Q.15) the freedom to use my own judgment; (Q.16) the chance to try my own methods of doing the job; (Q.20) the feeling of accomplishment I get from the job. Please refer to Table 2 and figure 1.

Accordingly, the only four significant intrinsic satisfaction differences as relate to age in this study were with the following MSQ intrinsic categorical factors:

1.   Being able to keep busy all the time (MSQ's Q.1). On this question, Pearson Chi-Square = 29.313 > critical chi-square (26.296). Accordingly, satisfaction levels are better in the younger age groups than in the older age groups as far as the factor related to being able to keep busy all the time. The highest satisfaction was for ages 26-35 (89%), followed by 25 or younger (87%). Satisfaction level relatively goes down for age group 36-45 (76%) then rose up to 81% for age group 46 to 55. However, only 66% of age group 55 and over were satisfied. Please see Figure 4.

Figure 4: Satisfaction with Being Able to Keep Busy all the Time
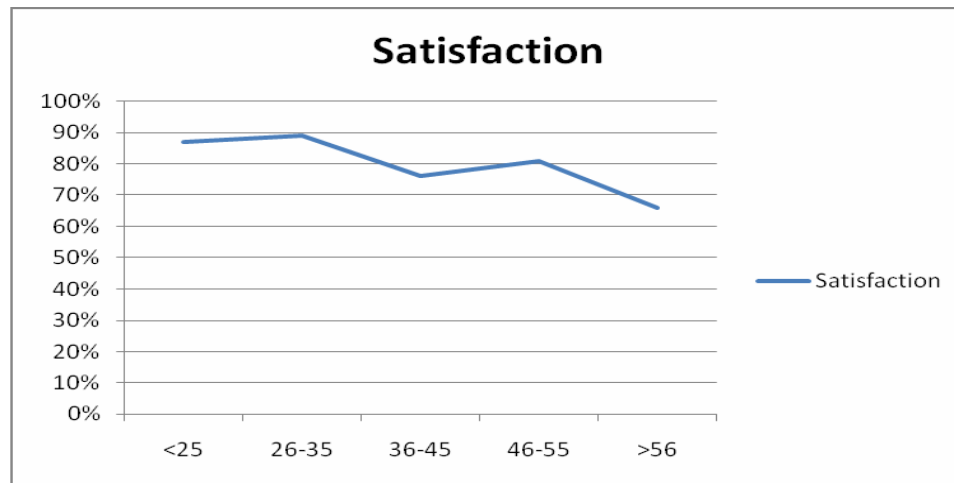
2.   Another statistically significant difference was with the factor related to the chance to work alone on the job (MSQ's Q.2). On this question, Pearson Chi-Square = 38.654 > critical chi-square (26.296). Consequently, the study concluded that while IT professionals in the age group of 36-45 have the lowest relative satisfaction level (64%), age group 55 and over who reported a 67% of being satisfied (but 0% of being very satisfied). Additionally, the same age group (i.e. 55 and over) reported the highest combined percentage of being either very dissatisfied or dissatisfied (34%). The highest satisfaction was reported in the age group 46-55 (87%) followed by age groups 26-35 and 25 or less (82% and 80% respectfully). Please see Figure 5.

Figure 5: Satisfaction with the chance to work alone on the job
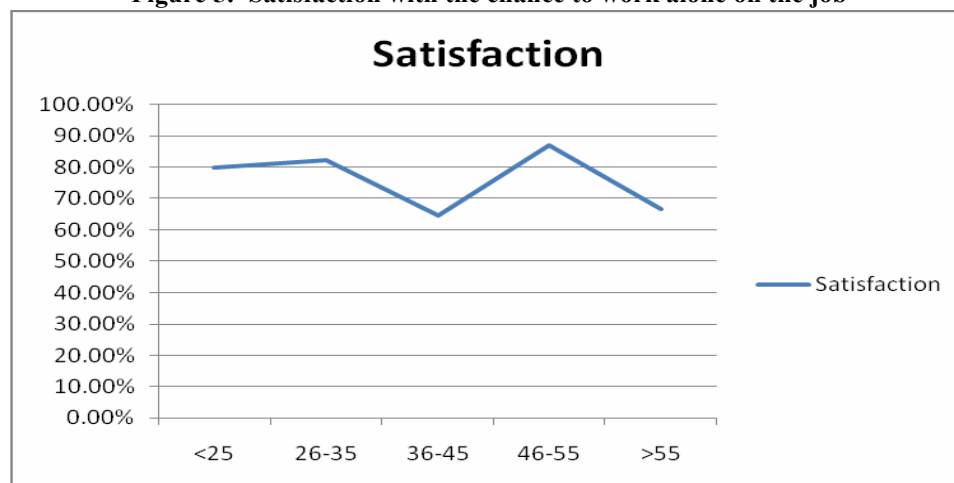
3.   The chance to do different things from time to time (MSQ's Q.3) was another significant difference. On this question, Pearson Chi-Square = 39.404 > critical chi-square (26.296). The most satisfied group was in ages 46-55 (84%), followed by 25 and under (80%), then 26-25 (73%), and 36-55 (56%). The least satisfied was the group of 55 and over (50%). See Figure 6.

Figure 6: Satisfaction with the chance to do different things from time to time

Figure 7: Satisfaction with the chance to do things that don't go against my conscience

Finally, a significant difference revealed by this study as related to age and job satisfaction is with being able to do things that don't go against my conscience (MSQ's factor 7). On this
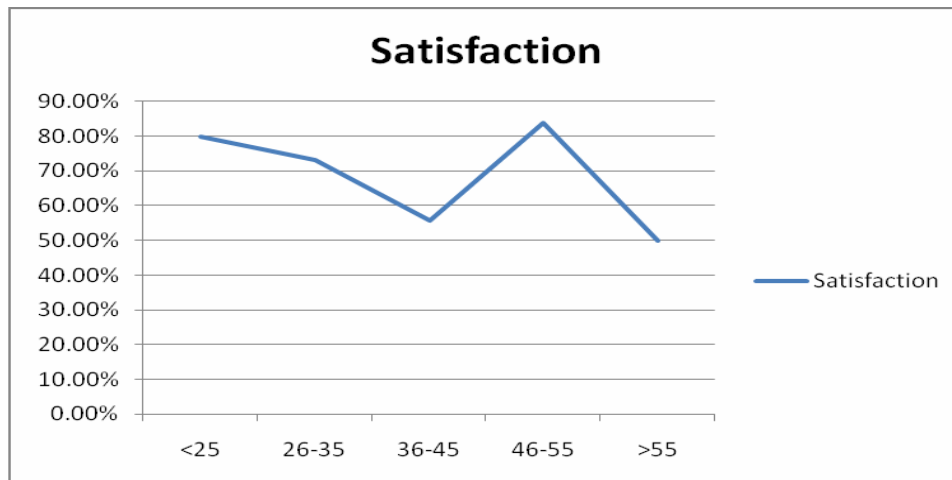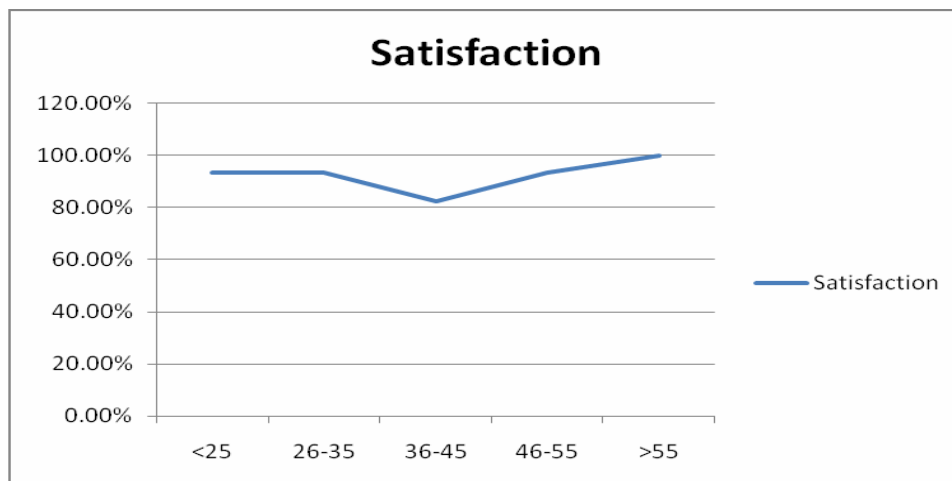
question, Pearson Chi-Square = 30.719 > critical chi-square (26.296). As clarified in figure 5, while the highest satisfaction came from the age group 55 and older (100%), the lowest satisfaction came from the age group 36-45 (82%). All other groups (i.e. 25 or under, 26-35, and 46-55) reported the same high satisfaction level (93%). See Figure 7.

An interesting finding of this study was that IT professionals' lowest intrinsic satisfaction was related to the question of whether IT pros are satisfied with the chance to tell people what to do (question #10). On this measure 60% (age less than 25 years of age), 44% (26-35 years), 47% (36-45 years), 58% (46-55 years), and 50% (over 55 years old) were either satisfied or very satisfied. Another observation is that 44% of respondents age 36-45 and 47% of ages 46-55 were neutral on the question of whether the respondent is satisfied with the chance to tell people what to do. According to Ghazzawi (2008a), this high percentage is not surprising and could be explained by the fact that the majority of the study respondents do not hold supervisory positions.

Finally, the overall highest percentage of IT intrinsic satisfaction came from question 7 "the ability to do things that don't go against their conscience". Age groups reactions were as follows: 67% with age that is less than 25; 80% of respondents 26-35 years old; 79% of respondents 36-45; 100% of respondents in the age group 46-55; and 83% of older than 55 group were either satisfied or very satisfied. This suggests that ethics and ethical behavior is important to IT pros and also suggests that IT organizations are practicing ethics. The second highest satisfaction factor was with being able to keep busy all the time (MAQ's Q. 1). On that factor, younger IT pros were the most satisfied. 87% and 89% for age group less than 25 and 26-35 respectfully, 76%, 81%, and 67% for age groups 36-45, 46-55, and older than 55 respectfully. Older employees (i.e. > 55) were relatively less satisfied.

Accordingly, the study accepts its null hypothesis stating that "there is no relationship between intrinsic job satisfaction and age among information technology professionals. IT professionals regardless of their age have same intrinsic job satisfaction".

It is important to note here that while the study is not finding a consistent intrinsic job satisfaction differences associated with specific age group(s), the study does not provide explanations for such differences. However, this study suggests that some of the variance in sample correlations may be associated with variables not considered in the present study (organizational tenure, organizational type, and other demographics factors).

Significant Differences in Extrinsic Satisfaction and Age

The measure of the extent of IT professionals' extrinsic job satisfaction was based on their responses to questions 5, 6,12,13,14, and 19 were used, and are presented in Table 2 and figure 6. These questions are: (Q.5) the way my boss handles his/her workers; (Q.6) the competence of my supervisor in making decisions; (Q.12) the way company policies are put into practice; (Q.13) my

pay and the amount of work I do; (Q.14) the chances for advancement on this job; and (Q.19) the praise I get for doing a good job.

According to this study results, the only two significant intrinsic based satisfaction differences as related to age were with the following MSQ categorical factors:

1.   There is a relationship between the way the boss handles his/her workers and age distribution (Q.5). With a 95% confidence level and with a degree of freedom =16, Pearson Chi-Square = 26.782 > Critical Chi-Square (i.e. 26.296), satisfaction took an imperfect V shape. It started as very high satisfaction (67%) for the group under 25; dropped to 58% for ages 26-35; further dropped to 38% for ages 36-45; it rose back to 56% for age 46-55; and finally went back to its highest level (67%) for the age group over 55. Please see figure 8.

Figure 8: Satisfaction with the way the boss handles his/her workers

2.   Additionally, there is a relationship between pay as compared to the amount of work performed and age distribution (Q. 13). Accordingly, Critical chi-square =26.296 with 95% confidence level and with a degree of freedom =16. Pearson Chi-Square = 26.535 > Critical Chi-Square. 40% for the group under 25 reported satisfaction. This dropped down sharply to 33% for ages 26-35, rose sharply to 48% for age 36-45, further rose to 68% for ages 46-55, and finally rose to its highest satisfaction level (over 83%) for the age group over 55. The shape becomes linear starting in the age group 26 and over. Older employees (over 36) are the most satisfied. Please see figure 9.

The evidence suggests a V shaped relationship. Therefore, younger employees (under 25) and the most senior employees (older than 55) are the most satisfied with the way the boss handles workers. A possible explanation is that younger employees may be more tolerant and are happy to be working. Additionally, older employees may be used to the boss's managerial style or they may be getting special treatment. However, the study can't provide a conclusive explanation of this difference.

Figure 9: Satisfaction with the pay as compared to the amount of
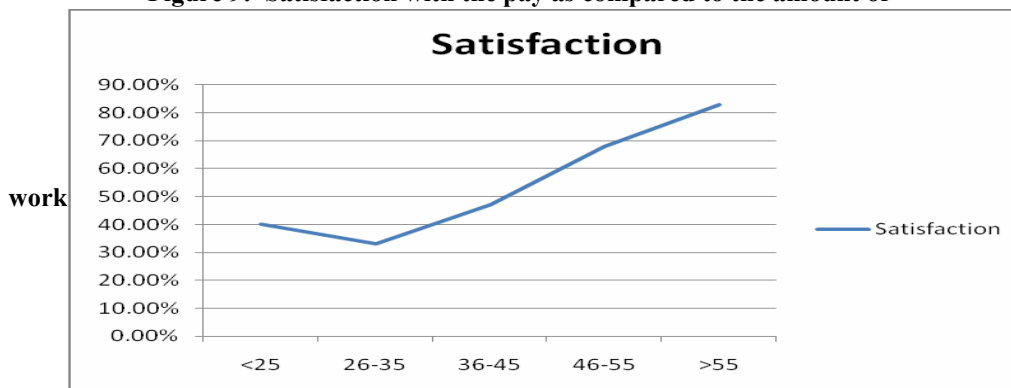
Another interesting observation is that with the exception of the 26-35 age group, a positive linear correlation exists between age and job satisfaction. Older employees are more satisfied with pay than their younger cohorts. A possibly explanation is that older employees tend to have more experience (tenure) on the job and get higher compensation for their experience.

It is important to note again that the study is not finding consistent differences based on the aforementioned extrinsic variables and age group(s). However, this study suggests that some of the variance in sample correlations may be associated with variables not considered in the present study (organizational tenure, organizational type, and other demographics factors).

Accordingly, the study accepts its null hypothesis stating "there is no relationship between extrinsic job satisfaction and age among information technology professionals. IT professionals regardless of their age have same extrinsic job satisfaction".

Significant Differences in Overall Satisfaction and Age

Finally, to measure their overall job satisfaction, all aforementioned moderators (intrinsic and extrinsic ones), in addition to factors affecting the working conditions and co-worker relationships, were used (i.e. questions 1 thru 20). For details, refer to Table 2 and figure 8.

Age does show a weak linkage to job satisfaction in all statistically significant categories that were correlated with age. All groups correlated differently. No consistency was found to connect

any age group with all satisfaction categories to draw a conclusive result. Overall age group 46-55 showed relative higher satisfaction in intrinsic categories related to the chance to work alone, the chance to do different things from time to time, and the chance to do things that don't go against my conscience. On the other hand, the age group of over 55 was the most satisfied with their pay and with the way the boss handles workers. Finally, age group 26-25 had the highest satisfaction on the factor related to the ability to keep busy all time.

A finding worth mentioning is that individuals who are in the age group of 36-45 are the most dissatisfied with company policy (42% very dissatisfied or dissatisfied & 30% neither satisfied nor dissatisfied). The same age group of 36-35 is the most dissatisfied with their pay (37% very dissatisfied or dissatisfied and 29% neither satisfied nor dissatisfied). Finally, people from the age group 26-35 are the most dissatisfied with the chance for advancement (37% very dissatisfied or dissatisfied and 29% neither satisfied nor dissatisfied) followed by the age group 26-35 (31% very dissatisfied or dissatisfied and 21% neither satisfied nor dissatisfied).

Results testing the hypothesis that the overall job satisfaction is positively influenced by an individual's age failed. This research concluded that no significant relationship exists between an IT professional's age and job satisfaction.

Accordingly, the study accepts its null hypothesis stating that "there is no relationship between an overall job satisfaction and age among information technology professionals. IT professionals regardless of their age have same overall job satisfaction".

The existent (inconsistent) differences based on age with relation to job satisfaction should be treated with caution. A possible pattern of correlation could be attributed to other variables such as tenure, education, and work experience. Therefore, this current study suggests that future studies should take into account other variables that could be associated with age and job satisfaction (namely, education, experience, and tenure). It is important to note the small sample of our study tends to limit the generalizability of its results.

CONCLUSIONS AND MANAGERIAL IMPLICATIONS

The primary purpose of this study was to contribute to the literature on the effect of age on job satisfaction relationship (intrinsic, extrinsic, and general satisfaction) in the U.S. Through the use of the Minnesota Satisfaction Questionnaire "MSQ", the general satisfaction scale "the short form," this research examined the factors purported to influence job satisfaction in the technology industry.

Based on the use of a Chi-Square with a 95% confidence level and drawing an inter-correlation of this study variable (i.e. age) to all the 20 MSQ questions, the present study does not reveal conclusive and statistically significant results related to the role of age in job satisfaction. The findings do not support its hypotheses and concluded that age does not play a role in the outcomes of this study. Therefore, the study accepted all of its null Hypotheses stating there is no relationship

between intrinsic, extrinsic, and overall job satisfaction and age among information technology professionals.

While the study showed that IT professionals regardless of their age groups are generally satisfied in their jobs, age may play a role on some but not on all factors. The present research agrees with other studies' findings that categorical differences suggest other moderators (demographic individual differences and other organizational factors) must be investigated to determine their contributions to job satisfaction (Brush, Moch & Pooyan, 1987: Brush & Owens, 1979; Owens, 1976; Owens & Schoenfeldt, 1979; Seashore & Taber, 1965).

This paper has several practical implications for managers in general and for those who work closely with information technology personnel. Managers can use data presented in this research paper showing age differences in job satisfaction to help improve the work environments of their organizations. The following are the research implications:

First, management should be aware of the age dissimilarities within their areas and must take steps to bolster older employees' need to feel they are valued organizational members (Armstrong-Stassen & Lee, 2009).

Second, it is apparent in this study that younger age groups are generally more satisfied than the older ones on some factors while it is the opposite (older are more satisfied on other factors). Based on that, managers should address this issue by offering training, professional, and personal development to employees regardless of their age or tenure. Doing that ensures that employees are up to-date with their knowledge (i.e. not obsolete) and, therefore, well utilized. Being up-to date and well utilized create a sense of worth.

Third, to reduce dissatisfaction with the way bosses handle their workers, flexible working practices are very helpful to employees (Hamilton, 2009). Additionally, managers need to be consistent and ethical in applying rules and policies, and carry their decisions in an unbiased way (Ghazzawi, 2009).

Finally, to reduce dissatisfaction with pay as compared to the amount of work, management should be very open on their expectations from employees, discuss performance goals, and identify clearly the amount of work employees need to perform (Ghazzawi, 2007; Ghazzawi, 2008a). Managers should involve employees when formulating theses goals as these goals directly affect their performance (Ghazzawi, 2007; Ghazzawi, 2008a; Greenberg & Baron, 2008).

LIMITATION AND SUGGESTIONS FOR FUTURE RESEARCH

As this study is attempting to contribute to the knowledge of age-job satisfaction relationship, it has some limitations. The current study is limited by its focus on the information technology profession. Thus, caution is in order when generalizing results to other professions. Future research and meta-analysis studies among various professions are needed to offset such limitations. Another limitation of the study was that its sample was limited to regional IT

professionals (i.e. in Southern California) who work in private U.S. organizations. Therefore, future comparative research is needed across sectors (private and public) on the national level and possibly in other countries in order to access its applicability to the general population of IT professionals.

A major limitation of this study was its use of a small sample (N = 132). Future research needs to include a larger sample in order to minimize the effect of random sampling error in the findings.

Finally, the study recommends that qualitative based studies and semi-structured interviews with focus IT professionals groups be conducted to examine the causal relationship between job satisfaction, age, and perhaps other demographic factors.

ENDNOTE

An earlier research article titled "Job satisfaction among information technology professionals in the U.S.: An empirical study" was published in the *Journal of American Academy of Business*, Cambridge (Ghazzawi, 2008a). While this research is a continuation of the aforementioned paper, it provides more explanations and analysis of the subject of job satisfaction in the information technology profession as it relates to age.

The author extends his deepest appreciation to external reviewers of this research who offered instructive criticism and advice. The paper has benefitted by incisive comments from Bob Trodella and Steve Kinzie of the University of La Verne.

REFERENCES

André, R. (2008). *Organizational Behavior: An Introduction to your Life in Organizations*. Upper Saddle River: New Jersey, Pearson Prentice Hall.

Armstrong-Stassen, M., & Lee, S. (2009). The effect of relational age on older Canadian employees' perceptions of human resource practices and sense of worth to their organization. *The International Journal of Human Resource Management*, 20(8), 1753.

Beam, R.A., Kim, E., & Voakes, P.S. (2003). Technology-induced stressors, job satisfaction and workplace exhaustion among journalism and mass communication faculty. *Journalism & Mass Communication Educator*, 57(4), 335-351.

Bedeian, A., Ferris, G., & Kacmar, K. (1992). Age, tenure, and job satisfaction: A tale of two perspective. *Journal of Vocational Behavior*, 40, 33-48.

Bernal, D., Snyder, D., & McDaniel, M. (1998). The age and job satisfaction relationship: Does its shape and strength still evade us? *Journal of Gerontology: Series B-Psychological Sciences and Social Sciences*, Vol. 53, pp. 287-293.

Bos, J., Donders, N., Bouwman-Brouwer, K., & Van der Gulden, J. (2009). Work characteristics and determinants of job satisfaction in four age groups: university employees' point of view. *International Archives of Occupational and Environmental Health*,82(10), 1249-1259.

Brush, D.H.; Moch, M.H. & Pooyan, A. (1987). Individual demographic differences and job satisfaction : Summary. *Journal of Occupational Behavior* (1986-1998), 8(2), 139.

Change to Win, (2009). Working American Dream: Foundation for the New Progressive Majority. (2009, June). *Managed Care Weekly Digest*,47.).

Clark, A. E. (1997). Job satisfaction and gender: Why are women so happy at work? *Labour Economics*. Vol. 4, pp. 341-372.

Clark, A., Oswald, A., & Warr, P. (1996). Is job satisfaction U-shaped in age? *Journal of Occupational and Organizational Psychology*, 69, 57-81.

Cummings, J. (2007). The best and worst of working in IT. *Network World*. Framingham. Vol. 24, Iss. 6, p. 37.

Durst, S.L., & DeSantis, V.S. (1997). The determinants of job satisfaction among federal, state, and local government employees. *State and Local Government Review*, Vol. 29, Iss. 1, pp. 7-16.

Ellickson, M., & Logsdon, K. (2001). Determinants of job satisfaction of municipal government employees. *State and Local Government Review*, Vol. 33, Iss. 3, pp. 173-184.

Eichar, D.M.; Brady, E.M.; & Fortinsky, R.H. (1991). The job satisfaction of older workers. *Journal of Organizational Behavior,* Vol. 12, Iss. 7, pp. 609-620.

Ewen, R., Hulin, C. & Smith, P. (1966). An empirical test of the Herzberg Two-Factor Theory, *Journal of Applied Psychology,* Vol. 48, pp. 544-550.

Finegold, D., Mohrman, S., & Spreitzer, G.M., (2002). Age effects on the predictors of technical workers' commitment and willingness to turnover. *Journal of Organizational Behavior*, 23(5), 655-674

George, J.M. (1992). The Role of Personality in Organizational Life: Issues and Evidence. *Journal of Management.* Vol. 18, No. 2, pp. 185-213.

George, J.M., & Jones, G.R. (2008). *Understanding and Managing Organizational Behavior.* Fifth Edition. Upper Saddle River: New Jersey, Pearson Prentice Hall.

Ghazzawi, I. A. (2007). Motivation Through Setting Goals: Lessons Learned From a Technology Organization. *The Journal of the Academy of Business Administration* (ABA), Spring/Fall 2007, Vol. 12, No. 1&2.

Ghazzawi, I. A. (2008a). Job Satisfaction Among Information Technology Professionals in the U.S.: An Empirical Study. *Journal of American Academy of Business*, Cambridge, 13(1), 1-15.

Ghazzawi, I. A. (2008b). Job Satisfaction Antecedents and Consequences: A New Conceptual Framework and Research Agenda. *The Business Review,* Cambridge, 11(2), 1-10.

Ghazzawi, I. & Smith Y. (2009). Crafting the Whole Employee: Job Satisfaction, Job Commitment, and Faith-A New Conceptual Framework and Research Agenda. *The Business Review,* Cambridge. Vol. 12, Num. 2, pp. 300-309.

Ghazzawi, I. (2009). Gender Role in Job Satisfaction: The Case of the U.S. Information Technology Professionals. Allied Academies International Conference, Las Vegas, NV. Forthcoming in the Journal of Organizational Culture, Conflict and Communications (JOCCC).

Gordon, J.R. (2002). *Organizational Behavior: A diagnostic approach*. Seventh Edition. Upper Saddle River: New Jersey, Pearson Prentice Hall.

Grant, L. (1998, January). Happy workers, high returns. Fortune, 137(1),81. Retrieved June 16, 2009, from ABI/INFORM Global database. (Document ID: 24908686).

Greenberg, J. & Baron, R. A. (2008). *Behavior in Organizations.* Ninth Edition. Upper Saddle River: New Jersey, Pearson Prentice Hall.

Griffin, R. & Moorhead, G. (2007). *Organizational Behavior: Managing people and organizations.* Eighth Edition

Grugulis, I. (2007, June). Emotional demands exact a toll on satisfaction and women;s career prospects. *People Management*, 13(12), 50.

Habtu, R. (2003). Information Technology Workers. Perspectives on Labour and Income. *The Online Edition*, Vol. 4, No. 7.

Hamilton, N.. (2009). EHRC/TAEN conference: age diversity in the downturn: Business benefits of creative approaches to age management, London, UK, 20 March 2009. *Strategic HR Review*, 8(5), 58. Retrieved December 11, 2009, from ABI/INFORM Global database. (Document ID: 1867671951).

Happiness Research: Benefits to make staff happy. (2007, October). *Employee Benefits*,53. Retrieved June 21, 2009, from ABI/INFORM Global database. (Document ID: 1360744331).

Herzberg, F. Mausner, B. & Snyderman, B. (1959). *The Motivation to Work*, New York: Wiley.

Herzberg, F. (1987). One more time: How do you motivate employees? *Harvard Business Review,* Vol. 65 Issue 5, pp. 109-120.

Herzberg, F. (2003). One more time: How do you motivate employees? *Harvard Business Review,* Vol. 81, Iss. 1, pp.86-86.

Hickson, C. & Oshagbemi, T. (1999). The effect of age on the satisfaction of academics with teaching and research. *International Journal of Social Economics,* 26(4), 537-544.

Hunter, D. (2007). Nonlinear Patterns of Job Satisfaction and Age Cohorts in an Industrial Environment. *Journal of American Academy of Business*, Cambridge,11(2), 231-238.

Job Satisfaction Declines, Especially Among Newest Workforce Entrants. (2007, April). *HR Focus,* 84(4), 8.

Josiam, B. M.; Crutsinger, C.; Reynolds, J.S.; Dotter, T., Thozhur, S. Baum, T.; & Devine, F.G. (2009). An empirical study of the work attitudes of generation Y college students in the USA: The case of hospitality and merchandising undergraduate majors. *Journal of Services Research*, 9(1), 5-30.

Judge, T.A. & Locke, R.J. (1993). Effect of dysfunctional thought processes on subjective well being and job satisfaction. *Journal of Applied Psychology*. Vol. 78, Iss. 3, pp. 475-490.

Jung, K. & Moon, M. J. (2007). Do age, gender, and sector affect job satisfaction? Results from the Korean labor and income data panel data. *Review of Public Personnel Administration*. Vol. 27, number 2, pp. 125-146.

Katz, J..(2008, February). The Younger They Are, the Less Satisfied. *Industry Week*, 257(2), 24.

Kalleberg, A.L. & Loscocco, K.A. (1983). Aging, values, and rewards: Explaining age differences in job satisfaction. *American Sociological Review*. Vol. 48, No. 1, pp. 78-90.

Kent, S. (2005, September 6). Happy Workers Are the Best Workers. *Wall Street Journal*, (Eastern Edition), p. A.20. Retrieved June 16, 2009, from ABI/INFORM Global database. (Document ID: 892101411).

Kinicki, A.J.; McKee-Ryan, R.M.; Schriesheim, C.A.; & Carson, K.P. (2002). Assessing the Construct Validity of the Job Descriptive Index: A review and Meta-Analysis," *Journal of Applied Psychology,* Vol. 87, Iss. 1, pp.14-32.

Kreitner, R. & Kinicki, A. (2007). *Organizational Behavior*. 7th Edition. Boston, MA: McGraw –Hill Irwin.

Lahoud, H. A. (2006). Job satisfaction among network administrators in North Carolina: An analysis based on the Minnesota Satisfaction Questionnaire. Ph.D. dissertation, Capella University, United States- Minnesota. Retrieved November 10, 2009, from ABI/INFORM Global.(Publication No. AAT 3229508).

Lester, P.E. & Bishop, L.K. (2000). *Handbook of Tests and Measurement in Education and the Social Sciences.* Second Edition. Lanham: Maryland. The Scarecrow Press, Inc. Technomic Books.

Lewis, G. (1991). Turnover and the quiet crisis in the federal civil service. *Public Administration Review*, 51, 145-155.

Luthans, F. & Thomas, L. (1989). The Relationship Between Age and Job Satisfaction: Curvilinear Results from an Empirical Study - A Research Note. *Personnel Review*, 18(1), 23.

Melvin, E.M. (1979). Job Satisfaction. Work Environment Preference, and Locus of control in a Changing Bureaucratic Setting. Ph.D. Dissertation, Illinois Institute of Technology.

Nelson, D, L. & Quick, J.C. (2009). *Organizational Behavior "ORGB"*. Mason: Ohio, South-Western Cengage Learning.

Olian, J.(2003). The Centre Daily Times, State College, Pa., Business Management Column. *Knight Ridder Tribune Business News* (26 October),1. Retrieved June 14, 2009, from ABI/INFORM Dateline database. (Document ID: 430946991).

Phifer, C. B. (1978). How a Small Manufacturing Plant Dealt with a High Employee Turnover Rate. *Industrial Management*,20(5), 25.

O'Reilly III., C. A. & Caldwell, D. F. (1980). Job Choice: The impact of intrinsic and extrinsic factors on subsequent satisfaction and commitment. *Journal of Applied Psychology*, Vol. 56, No. 5, pp. 559-565.

Oshagbemi,T. & Hickson, C. (2003). Some aspects of overall job satisfaction: A binomial logit model. *Journal of Managerial Psychology*,18(4), 357-367.

Randolph, D. S. (2005). Predicting the effect of extrinsic and intrinsic job satisfaction factors on recruitment and retention of rehabilitation professionals. *Journal of Healthcare Management*. Vol, 50, Iss. 1, pp. 49-60.

Robbins, S.P. & Judge, T. A. (2009). *Organizational Behavior.* Thirteenth Edition. Upper Saddle River: New Jersey, Pearson Prentice Hall.

Rhodes, S. R. (1983). Age-related differences in work attitudes and behavior: A review and conceptual analysis. *Psychological Bulletin*, 93, 328-367.

Robinson, J. (2002, September 10). Does job satisfaction really improve with age? Retrieved June 16, 2009, from: http://www.gallup.com/poll/6778/Does-Job-Satisfaction-Really- Improve-Age.aspx.

Rosenbloom, J. L. & Ash, R. (2005). IT Workforce Composition and Characteristics: Professional Worker Career Survey. Retrieved November 23, 2009, from http://www.ipsr.ku.edu/ITWorkforce/pubs/ITWorkforceOverview.shtml

Rue, L.W. & Byars, L.L. (2005). *Management: Skills and Application* (Eleventh Edition). New York: New York. The McGraw Hill Companies.

Sarker, S.J., Crossman, A. & Chinmeteepituck, P. (2003). The relationships of age and length of service with job satisfaction: an examination of hotel employees in Thailand. *Journal of Managerial Psychology*, Vol. 18, Iss. 7/8, pp.745-758.

Shea, T. F. (2002, October). For many employees, the workplace is not a satisfying place. *HR Magazine,* 47(10), 28.

Stafford, D. (24 February, 2007). Fewer happy with their jobs: In a new survey, only 47 percent express job satisfaction, down from 61.1 percent in 1987. *McClatchy - Tribune Business News*,1.

Sharma, R., & Jyoti, J.(2009). Job Satisfaction of University Teachers: An Empirical Study. *Journal of Services Research*,9(2), 51-80.

Sharma, R.D. & Jyoti, J. (2005). What influences job satisfaction the most? *Business Vision*, 2:1, 1-26.

Stammen, K. (8 November, 2003). Bank One, Hospital Get Psychologically Healthy Workplace Awards in Ohio. *Knight Ridder Tribune Business News*,1.

Staw, B.M. & Cohen-Charash, Y. (2005). The dispositional approach to job satisfaction: More than a mirage, but not yet an oasis. *Journal of Organizational Behavior.* Vol. 26, Iss. 1, pp. 57-78.

Staw, B.M. & Ross, J. (1985). Stability in the midst of change: A dispositional approach to job attitudes. *Journal of Applied psychology*. Vol. 70, No. 3, pp. 469-480.

Tang, L. T., Kim J. K., & Tang, S. D. (2000). Does attitude toward money moderate the relationship between intrinsic job satisfaction and voluntary turnover? *Human Relations*. Vol. 53, Iss. 2, pp. 213-245.

Ting, Y. (1997). Determinants of job satisfaction of federal government employees. *Public Personnel Management*. Vol. 26, pp. 313-334.

The jobs crisis: It's coming, whatever governments do; but they can make it better or worse. (2009, March14). *The Economist,* 390 (8622), 11.

Tu, L., Plaisent, M., Bernard, P., & Maguiraga, L. (2005). Comparative age differences of job satisfaction on faculty at higher education level: China and Taiwan. *The International Journal of Educational Management,* 19(2/3), 259-267.

Udechukwu, I.I. (2007). The Influence of Intrinsic and Extrinsic Satisfaction on Organizational Exit (Voluntary Turnover): Evidence from a Correctional Setting. *Journal of Applied Management and Entrepreneurship*, 12(1), 127-141.

U.S. Department of Labor-Bureau of Labor Statistics. (2009a). *Occupational Outlook Handbook,* 2008-09 Edition. Retrieved June 11, 2009, from http://www.bls.gov/oco/ocos258.htm.

U.S. Department of Labor-Bureau of Labor Statistics. (2009b). *Occupational Outlook Handbook*, 2008-09 Edition. Retrieved June 11, 2009, from : http://www.bls.gov/oco/ocos287.htm#outlook

U.S. Job Satisfaction Keeps Falling. (2005, April). Business Credit, 107(4), 67. Retrieved June 21, 2009, from ABI/INFORM Global database. (Document ID: 822661201).

U.S. job satisfaction hits record low. (2003, November). Workspan, 46(11), 16. Retrieved June 21, 2009, from ABI/INFORM Trade & Industry database. (Document ID: 453892731).

Watson, D. & Slack, A.K. (1993). General factors of affective temperament and their relation to job satisfaction overtime. *Organizational Behavior and Decision Processes*. Vol. 54, No. 2, pp. 181-202.

Weaver, C.N. (1980). Job satisfaction in the United States in the 1970s. *Journal of Applied Psychology*. Vol. 65, Iss. 3, pp. 364-367.

Weiss, D. J; Dawis, R. V; England, G. W; & Lofquist, L. H (1967). Manual for the Minnesota Satisfaction Questionnaire. Minneapolis: MN. Industrial relations Center, University of Minnesota.

Wright, B.E., & Kim, S. (2004). Participation's influence on job satisfaction: The importance of job satisfaction: The importance of job characteristics. *Review of Public Personnel Administration*. 24(1), 18-40.

Wolgemuth, L. (2008, December). The Older-Worker Advantage :10 reasons that seasoned employees can win the job hunt. *U.S. News & World Report,* 145(13), 76.

RISKY BUSINESS OR MANAGED EVENT? PERCEPTIONS OF POWER AND DECEPTION IN THE WORKPLACE

Lisa L. Massi Lindsey, Naval Postgraduate School
Norah E. Dunbar, University of Oklahoma
Jessica C. Russell, Michigan State University

ABSTRACT

The workplace poses unique challenges for liars, especially for deception between supervisors and subordinates. To that end, the current study examined deception in the workplace between supervisors and subordinates to explore perceptions of deception and the relationship between power and deception. Participants were recruited from organizations and universities and reported their perceptions of power in their manager-subordinate relationships, perceptions of deception, and perceptions of the risk involved with a recent lie they told to a supervisor or subordinate. Results indicated that the perceived power difference between supervisors and subordinates was substantial, power impacted perceptions of deception in the workplace and how deceptive messages were crafted, and very few of the reported lies were detected. Theoretical implications of the findings are discussed.

INTRODUCTION

Deception is a part of everyday social interaction. In fact, some scholars argue that deception is a fact of social life rather than an extraordinary or unusual event (Kashy & DePaulo, 1998). Often deception goes undetected, but if a lie is told to an authority figure the repercussions can be serious. Some researchers argue that manipulative ability is a foundation of social power and the ability to lie successfully is an important skill linked to personal and professional success (DePaulo, LeMay, & Epstein, 1991). The motivations and the risks for people deceiving authority figures is likely quite different from the motivations of the deceptive authority figures themselves. Thus, the goals of the current study were to investigate the link between power and deception, understand how deception occurs in the workplace, and identify the impact of deception on power-laden relationships.

Deception Defined

Although definitions abound in the literature, the current investigation conceptualized deception as the successful or unsuccessful deliberate attempt, without forewarning, to create in another a belief which the communicator considers to be false (Vrij, 2000). This definition emphasizes that deception is an intentional, strategic act and does not necessarily require the use of words. Although many consider deception to include only outright fabrications or blatant lies, deception can take many forms including concealment, omissions, exaggerations, half-truths, misdirection, and even playfulness such as tricking or bluffing (Buller & Burgoon, 1994). Telling literal truths that are designed to mislead should be considered deception, as well. For example, when President Clinton told the American public that he "did not have sexual relations with that woman, Miss Lewinsky" he gave the impression that nothing sexual happened when he meant that they had not had sexual intercourse (Vrij, 2000). Unfortunately, trying to determine what strategy the speaker is using, whether it is omission, fabrication, or deception embedded with truths, requires knowledge of the speaker's intent and his or her existing knowledge. As such, we will follow the example of other scholars and will be using the terms "lying" and "deception" interchangeably through this manuscript (Masip, Garrido, & Herrero, 2004; Vrij, 2008).

The reasons for deception depend greatly on the situation and the motives of the deceiver. In a pair of diary studies of lying in everyday life, people admitted telling between 0 and 46 lies a day (DePaulo, Kashy, Kirkendol, Wyer, & Epstein, 1996). DePaulo and colleagues (DePaulo & Bell, 1996; DePaulo & Kashy, 1998; Kashy & DePaulo, 1996) differentiate between self-oriented lies that benefit the deceiver and other-oriented lies that are told for another person's benefit. In addition, Vrij (2000) further elaborated on the motives for deception which include deceiving in order to make a positive impression on others, protecting themselves from disapproval or embarrassment, obtaining an advantage, making others appear better or to benefit others in some way, or protecting a social relationship. Some of these motives may be both self- and other-oriented such as when you are dishonest about an embarrassing topic to save your own face and prevent embarrassment on the part of the interaction partner. The power relationship between the two interactants is one situational variable that might greatly influence the type of deception used and the reason for the deception. The motives for deception change when speaking to someone who differs in status.

Power and Deception

Dominance and power have been regarded for some time by sociologists, psychologists, anthropologists, and communication scholars as one of the fundamental dimensions of interpersonal relationships (e.g., Burgoon & Hale, 1984). Power influences how people in relationships interact with each other, both verbally and nonverbally, and determines whether they engage in or avoid

conflict. Also, power influences what types of messages will be used when attempting to reconcile incompatible goals in conflict situations. Power is a social concept that involves a relationship between two parties that goes beyond the individual (Dunbar & Burgoon, 2005; Langner & Keltner, 2008). A definition of power is elusive, but despite the many definitions of power that exist in the literature, scholars from diverse fields are converging on the definition of power generally as the capacity to produce intended effects, and in particular, the ability to influence the behavior of another person (see Berger, 1994 for a more thorough review of definitions of power in social interaction).

Power is often derived from certain power bases which are resources such as rewards or knowledge possessed by individuals that form the basis for control over others. French and Raven (1959) identified five power bases that have been used extensively in the communication literature. The five bases include reward power and coercive power which represent, respectively, a person's right to reward and punish; legitimate power, which is power that comes from holding a high status position that is sanctioned by society; referent power, which is the power that results when others admire and emulate a person; and expert power, which is derived from having expertise in a needed field. Other scholars have since added additional power bases such as informational power which stems from the ability to persuade another (Raven, Centers, & Rodrigues, 1975) and credibility (Aguinis, Simonsen, & Pierce, 1998). Additionally, supervisors in the workplace may also have personality traits or leadership qualities that have lead them to their more powerful position and on which they draw when they need to influence or control others (Schmid Mast & Hall, 2003). Although supervisors typically have access to most, if not all, of these power bases, deception is a way to manipulate information and thus may be used by any party to increase informational power over another. Buller and Burgoon (1994) argued that deceptive individuals strategically manipulate their messages in four ways through the use of: (1) uncertainty and vagueness, (2) nonimmediacy, reticence, and withdrawal, (3) disassociation, and (4) image- and relationship-protecting behavior. The particular strategy one chooses might depend on the power relationship between the interactants.

Deceptiveness is a particularly important influence strategy when considering power differences because power is not always salient in every interaction. Komter (1989) distinguishes between manifest power and latent power. Manifest power concerns the visible outcomes of power such as open conflicts or direct verbal and nonverbal strategies used to achieve certain ends. Latent power is identified when the needs of the powerful person are identified or conflicts are avoided due to fear of retaliation by the powerful partner. According to dyadic power theory (DPT; Dunbar, 2004; Dunbar & Burgoon, 2005), dyads with high power differences, such as those in the supervisor-subordinate relationship in the workplace, are more likely to use latent power strategies than those who are relatively equal in power. Extremely powerful individuals do not need to make their influence attempts manifest because by virtue of their powerful position; they may maintain control without even appearing dominant. By the same token, powerless individuals are unlikely to

express their grievances if they fear that retaliation, termination of the relationship, or other negative relational consequences will result from their control attempt (Dunbar, 2004). These individuals weigh the potential gain or loss of engaging in conflict and find that tolerating or accommodating a conflict at a minor cost is more beneficial than running the risk of pursing the conflict and disrupting the relationship (Leung, 1988). Dunbar does not make specific predictions about the types of strategies power-unequal dyads will use in place of overt dominance but because of its surreptitious nature, deception is necessarily a latent strategy and is consistent with the power use strategies of those either high or low in power in the workplace. For example, individuals may use deception to avoid confrontation with a supervisor or subordinate at work or to protect their power position in the workplace if they fear the truth will cause them to lose credibility. On the other hand, supervisors may use deception in order to maintain their informational power over their subordinates by concealing information that would weaken their position.

Research examined the connection between deception and power by examining deception between students and teachers (Kaye, 1991), teachers and administrators (Sweetland & Hoy, 2001), parents and children, (Knox, Zusman, McGinty, & Gescheidler, 2001; Thomas, Booth-Butterfield, & Booth-Butterfield, 1995), doctors and patients (Burgoon, Callister, & Hunsaker, 1994; Fainzang, 2002), social workers and clients (Kagle, 1998), police officers and suspects (Vrij, 1994), supervisors and subordinates in the workplace (Barrick & Mount, 1996), and even researchers and subjects (Korn, 1997). Indeed, Hample (1980) argued that three out of four lies are told to economic or social supervisors. The relationship between power and deception detection, however, is an under-studied topic and warrants further investigation. Previous research suggested that those who are lower in power can detect deception more effectively than others (Bugental, Shennum, Frank, & Ekman, 2001) although this finding contradicts other research that suggested dominant individuals are highly skilled at deception and whose lies are more difficult to detect (Burgoon & Dunbar, 2000; Cody & O'Hair, 1983; Keating & Heltman, 1994). Thus, it is unclear who in the relationship will find it more difficult to detect deception and what tactics they will use to perpetuate deceptive communication.

The motives for deception of those in a position of power differ greatly from those in a position of powerlessness. For example, in the doctor-patient relationship (where physicians' expertise gives them greater power over patients), doctors and patients have different reasons for lying. Fainzang (2002) argued that doctors might lie in order to emphasize the importance of treatment, such as telling alcoholics that even one drink will cause them to relapse into alcoholism when the doctor is aware that moderate consumption of alcohol is possible and has been used successfully by other patients. Patients, on the other hand, might lie to their physicians when they do not take their medication as prescribed or do not tell their physician about prior treatments, such as homeopathic treatments, when they fear disapproval from their doctor (Fainzang, 2002). Burgoon et al. (1994) contend that 32% of patients overtly lie to their doctors and 85% use some form of concealment or equivocation strategy. Also, Kagle (1998) illuminated the use of deception by

patients towards their social workers as a method to establish boundaries, establish and maintain their identities, and address imbalances of power whether real or perceived.

Deception and Power in the Workplace

The workplace is a unique context because the power hierarchies are more formalized than in most interpersonal relationships and deception is often seen as a necessary strategy when climbing the corporate ladder. Although most people see lying in business negotiations as highly unethical, although they might be willing to do so if they have a specific goal or do not foresee any harm that will result from their deception (Aquino & Becker, 2005). In fact, in Robinson, Shepherd, and Heywood's (1998) study of college students, 83% said they would lie in order to get a job and said they believed prospective employers were expecting them to exaggerate their qualities in a job interview. Nearly half of managers interviewed by Strout (2002) suspected their sales representatives had lied to clients in their sales calls. Scholl and O'Hair (2005) argued that the decision to use deception might be a way to react to seemingly uncontrollable circumstances, particularly when the individual lacks the efficacy to deal with them in more honest ways. Indvik and Johnson (2009) argue that lying is more prevalent in the workplace than the home because the workplace is seen as more impersonal. Whatever, the reason, if the workplace is like other contexts, deception is a common occurrence.

When people lie at work, however, it is not without consequence (Indvik & Johnson, 2009). DePaulo et al. (1991) argued that leaders incur large risks because with every lie told they gamble their future credibility. Leaders are motivated, at the very least, by their desire to maintain social power so lying to subordinates can be a dangerous communicative ploy. Logically, deception is dangerous; leaders perceived as deceptive will carry with them an unethical reputation and lose their ability to lead. Trust harmed by deception never recovers fully (Schweitzer, Hershey, & Bradlow, 2006). On the other hand, leaders often have many of the personality traits associated with more frequent lying including Machiavellianism, social adroitness, and sociability (Kashy & DePaulo, 1996). Burgoon and Dunbar (2000) found that the profile of dominant individuals is in many ways isomorphic with those who can deceive and avoid detection.

Additionally, subordinates and less powerful people have motivation to deceive their supervisors. Studies indicated that subordinates often use deception to manage their supervisor's impressions (Barrick & Mount, 1996; Deluga, 1991). Deception on the part of less powerful individuals appears to be a common occurrence but differential power might place subordinates in a dangerous position if their deception is detected (e.g., an employee would get fired for lying to the boss). The result might be an anxiety-inducing situation in which deception detection is most likely (McCornack & Levine, 1990).

Risk is involved for both supervisors and subordinates and both are motivated to appear credible even when being deceptive; however, important differences might exist in the ways these

are perceived by supervisors and subordinates. Therefore, to better understand deception in the workplace, the following research questions were posed:

RQ1: *Do supervisors and subordinates differ in their perceptions of power, risk, willingness to lie, ability to lie, or the acceptability of lying?*

RQ2: *What is the relationship between one's perceived power in the manager-employee relationship and one's willingness to lie, perceived ability to lie, perceived acceptability of being lied to, and perceived risk of deception?*

RQ3: *Do supervisors and subordinates differ regarding the circumstances and topics under which they are willing to use deception?*

It should be noted that this investigation considers *perceived* power differences rather than actual or structural power differences and their effect on deception. Although there is a structural power difference between supervisors and subordinates in the workplace, the interactants must perceive that this power difference is relevant in order for it to control their actions. Cloven and Roloff (1993; Roloff & Cloven, 1990) argue it is "the *perceptions* individuals have of *potential* actions that induces the chilling effect…these expectations may or may not be shared by relational partners, and whether the powerful partner actually or intentionally withdraws rewards to responds aggressively is less important than the perception that he or she might take such action" (p. 201, italics in original). In other words, subordinates lie to their supervisors at work because they fear the repercussions of the truth (why they were late to work or why they broke a rule of the workplace) even if the supervisor would really not punish them for telling the truth. Thus, the perception of powerfulness is more important than the actual power discrepancy dictated by the organizational hierarchy.

Cues to Deception Detection Accuracy

A substantial body of literature explored issues related to deception accuracy and to the identification of specific cues that differentiate liars from truth-tellers (Cody and O'Hair, 1983). Specific nonverbal cues, such as a lack of eye contact or foot tapping, are often thought to be associated with deception; however, few cues are reliable indicators of deception (Zuckerman & Driver, 1985). Despite the depth of this literature, extant research provided inconsistent findings about our ability to detect the deceiver (O'Hair, Cody, & McLaughlin, 1981). A recent meta-analysis by Bond and DePaulo (2006) examined 206 studies and found the average detection accuracy reported is only 54% (not far from what could be expected by chance). Nonverbal cues have been supported in some studies (Cody & O'Hair, 1983), but others argued deception cannot be revealed

in the moment. DePaulo, and colleagues' (2003) meta-analysis of 158 cues to deception revealed that many behaviors showed no discernible links, or only weak links, to deceit. Park, Levine, McCornack, Morrison, and Ferrara (2002) contended, in reality, people do not discover lies for days, weeks, or even months and deception is typically revealed by a third party, making non-verbal cues leaked during the deception quite irrelevant. Verbal cues were only slightly more reliable, and research suggested that deceivers are less forthcoming than those who tell the truth and their lies are less plausible, less likely to be structured in a logical, sensible way, and more likely to be internally discrepant or to convey ambivalence than truthful statements (DePaulo et al., 2003). This body of research led to the following research questions:

RQ4: What strategies do supervisors and subordinates use to make deceptive messages effective?

RQ5: When telling a lie to supervisors or subordinates, on what do people base their deceptive messages (e.g., where does one get the idea to use the particular deceptive message they used)?

STUDY OVERVIEW

The typical deception study takes place in a laboratory setting; unfortunately, the lab might be an intimidating place to deceive. When people enter a research setting, they instantly know they are being evaluated which might alter their natural behavior. In addition, it is difficult to account for motivation in a lab setting. Ekman (1985) argued that lies in contrived laboratory settings do not have the same repercussions as real-life lies, which results in lower motivation to lie successfully. DePaulo et al. (2003) argued that cues to deception are more pronounced when people are motivated to succeed, especially when the motivations are identity-relevant rather than monetary or material. The current investigation's interest in motivation for the deception means that experimental methods were not preferred; therefore, a quasi-experimental design was used to ask participants about their real experiences with deception in situations with a power differential, the workplace.

The current study was quite different from the types of research most other scholars have conducted in the area of deception. It was modeled on the Park et al. (2002) study because we asked participants to recall real instances of deception and describe how and when the deception was detected (if in fact it was detected) and what messages were used to create credible impressions. Whereas Park et al. were interested in the perceptions of the deception recipients, this study is interested in the perceptions of the lie perpetrators because there are likely many instances where deception occurs but is not detected.

METHOD

Participants

Participants were 214 currently employed individuals, recruited from organizations throughout a Western state and from three universities in the same state (approximately 50% of participants were college students), who reported on their attitudes towards deception. A subset of the sample ($n = 96$) reported on an actual deception incident they recalled. The initial goal was to sample a non-student population by recruiting participants through local organizations, but many organizations were reluctant to allow access to their employees given the sensitive nature of the topic of the current research. Thus, this investigation included employed university students to increase the sample size. Forty-five percent of the respondents reported being a manager/supervisor (55% of the sample was therefore coded as being subordinates), and the number of people managers supervised ranged from 1 to 241 ($M = 25.43$, $SD = 43.45$, median = 10.00).

With regard to place of work, 18.20% identified their company type as corporate, 18.20% were military, 15.90% were retail/sales, 10.30% were food service, 6.50% were education, 4.70% were real estate and mortgage, 4.20% were medical and dental, 4.20% were civil servants (e.g., local and state government), and the remaining participants reported myriad other company types (e.g., construction, non-profit, legal profession). Thirty-five percent of respondents indicated their place of work was a national organization, 22.40% were small business, 16.40% were local/regional business, 14.00% were global/international organizations, 10.30% were statewide organizations, and 1.90% did not indicate the type of organization. The number of employees who worked at the same physical locations as the respondents ranged from 1 to 6,000 ($M = 280.87$, $SD = 861.48$, median = 35.00).

Participants ranged in age from 18 to 73 years old ($M = 27.50$, $SD = 8.83$, median = 24.00). Ninety-eight participants (45.80%) were male, 49.50% were female (4.70% declined to state their sex); 59.30% reported their race/ethnicity as Caucasian, 10.70% were Hispanic, 9.30% were Asian, 4.70% were African American, 3.70% were Hawaiian or Pacific Islander, 2.80% identified their race/ethnicity as Middle Eastern, 0.50% were Native American, and 8.90% declined to state their race/ethnicity. Respondents' annual income ranged from under $30,000 to over $100,000 (median = $30,000).

Procedure

Survey data were collected to answer the proposed research questions. Respondents first read and signed a consent form assuring them that their participation would be anonymous and confidential, and that the data would only be reported in aggregate form. Second, participants were asked to provide information regarding their place of work (e.g., type of company, how many

employees work at the respondent's primary work location). Next participants were asked, "Thinking about your primary role at work, do you consider yourself a **supervisor** or **manager**." Respondents who answered "yes" were coded as supervisors and completed the supervisor survey. Participants who answered "no" were coded as subordinates and were asked to skip to the subordinate survey. Both surveys were identical (e.g., same items) with the exception that each item was worded to ask about respondents' supervisors or subordinates, depending on the primary role they self-identified. Supervisors were informed, "In the questions that follow, 'subordinates' refers to any or all people you supervise, manage, or work under you." Subordinates were informed, "In the questions that follow, the term 'supervisor,' refers to your 'boss' or 'manager' or any people who supervise or monitor your work."

After describing their places of work and identifying their primary role at work, all respondents completed a series of scales to assess their willingness to engage in deception with their supervisor/subordinates. Next, they answered an open-ended item asking them to explain the circumstances under which they would be willing to deceive the people they supervise (subordinates were asked about deceiving their supervisors). Subsequently, all participants completed scales to assess their perceived ability to lie, their subordinates'/supervisors' ability to lie, and their perceptions of power in the supervisor-subordinate relationship.

Next, respondents were instructed, "Now we would like you to think of **a recent situation where you lied to your supervisor(s) [subordinate(s)]**. When you answer each of the following questions, please keep this incident in mind and answer each question **as completely as possible**." Participants were told that if they had never lied to a supervisor/subordinate, they should skip to the demographic section on the last page of the survey (*n* = 118). Those respondents who did report a recent deception event (*n* = 96) were asked a series of open-ended items regarding that event (e.g., the topic on which they lied, the setting in which they lied, what they said, how the supervisor/subordinate discovered the lie, if at all). Finally, all participants answered a series of demographic items.

Instrumentation

Except where noted, measures were comprised of seven-point, Likert-type items on a scale ranging from one (very strongly disagree) to seven (very strongly agree), and were scored such that higher scores indicated greater perceptions of the construct being measured. Given that certain items were specified a priori to measure specific factors, confirmatory factor analysis was employed to test the measurement model (Anderson, Gerbing, & Hunter, 1987; Hunter & Gerbing, 1982; Levine, 2005). The data were found to be consistent with the proposed factors. Specifically, internal consistency tests showed that (a) inter-item correlations were substantial – mean inter-item correlations ranged from .78 to .92, and (b) the errors calculated between items measuring the same construct were within sampling error of zero (all were ≤ |.07|). Likewise, the parallelism test

indicated that the errors calculated between items measuring different constructs were within sampling error of zero (all were ≤ |.09|).

Power

A seven-item scale (Dunbar & Burgoon, 2005) was used to measure participants' perceptions of power in the subordinate-supervisor relationships on which they were reporting in the study (e.g., "In general, who has more power in this relationship?"). Power was measured on a seven-point scale such that higher scores indicated greater perceptions of the participants' own power in the relationship (i.e., 1 = my subordinate/supervisor, 4 = both equally, 7 = me). Respondents' perceptions of relational power had a mean of 3.86 (SD = 1.59, skewness, = 0.12, kurtosis = -1.36, α = .88).

Perceived risk of deception

Among those participants who reported using deception, five items were used to measure their perceptions of the risk involved with the deception and included statements such as "Before I lied, I knew that there were serious consequences if I was caught lying." Perceived risk had a mean of 3.80 (SD = 1.49, skewness, = 0.28, kurtosis = -0.39, α = .83).

Willingness to lie to supervisor/subordinates

All respondents' willingness to lie was measured in two ways. First, four items were employed to measure the degree to which participants were willing to engage in deception generally and included items such as "*In general*, I would feel comfortable lying to [the people I supervise *or* my supervisor]." Generalized willingness to lie had a mean of 2.26 (SD = 1.48, skewness, = 1.29, kurtosis = 0.84, α = .95). Second, four items were employed to measure the degree to which participants were willing to engage in deception when they perceived it was necessary and included items such as "I am willing to lie to [the people who work for me *or* my supervisor] *when a situation calls for it*." Respondents' willingness to lie when necessary had a mean of 3.46 (SD = 1.93, skewness, = 0.24, kurtosis = -1.24, α = .96).

Ability to lie

All participants' ability to lie was measured in four ways. The first two scales related to participants' perceptions of their own ability to deceive. First, four items measured respondents' ability to lie in general and included items such as "*In general*, I think I am a good liar." Generalized self ability to lie had a mean of 3.58 (SD = 1.88, skewness, = 0.18, kurtosis = -1.22, α = .97).

Second, four items measured participants' ability to lie to their supervisor/subordinates. For example, items were worded such that supervisors were asked about their ability to lie to their subordinates (example item: "*When I lie to [the people I supervise* or *my supervisor]*, I can get away with the deception"). Respondents' ability to lie to their supervisors/subordinates had a mean of 3.27 (*SD* = 1.78, skewness, = 0.23, kurtosis = -1.11, α = .95).

The next two scales related to participants' perceptions of their supervisor's/subordinate's ability to deceive them. Four items measured subordinates' perceptions of their supervisor's ability to lie *in general* (or supervisor's perceptions of their subordinates' ability to lie *in general*). This scale included items such as. "*In general*, [my subordinates are *or* my supervisor is] good at lying." Respondents' perceptions of their supervisors'/subordinates' ability to lie *in general* had a mean of 3.38 (*SD* = 1.51, skewness, = 0.30, kurtosis = -0.35, α = .94). Finally, three items measured subordinates' perceptions of their supervisor's ability to lie *to them* (or supervisor's perceptions of their subordinates' ability to lie *to them*). This scale included items such as. "[The people I supervise *or* My supervisor] can lie well *to me*." Participants' perceptions of their supervisors/subordinates ability to lie to them had a mean of 3.01 (*SD* = 1.48, skewness, = 0.41, kurtosis = -0.29, α = .97).

Acceptability of being lied to by supervisor/subordinates

Among all respondents, three items were used to measure the degree to which they believed it was acceptable for somebody to deceive them and included statements such as "*In general*, I think it is ok for [the people I supervise *or* my supervisor] to *lie to me*." Perceptions of deception acceptability had a mean of 1.62 (*SD* = 1.07, skewness, = 2.48, kurtosis = 7.37, α = .87).

Open-ended items

To answer five of the research questions, participants were asked to answer a series of open-ended questions (each is reported in the results section with the analysis of its respective RQ). Two coders worked independently to develop a precise coding scheme for each research question, save some codes that were developed a priori by the researchers based on previous research. After roughly 35% of the responses to each question had been coded, the coders met with one of the authors to review the codebook. After the categories were reviewed and any discrepancies were resolved, each of the coders worked independently to code the remaining data (all responses were coded independently by both coders). Overall, coders spent approximately 70 hours coding participant responses. Cohen's kappa was used to calculate inter-coder reliability on the final coding scheme as it compensates for agreements by chance (Cohen, 1960). Strong reliability was established from 100% of the data (Cohen's Kappa = .92).

RESULTS

Overview

Ninety-six participants (44.86% of the total sample) reported using deception in the workplace. Specifically, 51.28% of subordinates reported deceiving their supervisors, and 37.11% of supervisors reported deceiving their subordinates. It is important to note that because the current study was interested in power and deception in the subordinate-supervisor relationship, the study did not ask respondents to report deception among their peer groups (e.g., managers deceiving other managers). Although these data appear to indicate that subordinates are more likely to deceive their supervisors than managers deceiving their subordinates, a chi-square test indicated the difference was not statistically significant, $\chi^2(df = 1, N = 214) = 3.81, p = .051$. Each of the research questions, unless otherwise noted, was answered by examining the data of only those supervisors and subordinates who reported an incident in which they used deception in the workplace.

Of those participants who reported using deception, the two most common settings for the deception were face-to-face conversations (including group meetings; 77.80% for supervisors, 54.20% for subordinates) and phone conversations (including leaving a voicemail; 8.30% for supervisors, 33.90% for subordinates). Other settings identified only by subordinates included email, text messaging, and written notes; only supervisors reported using loudspeaker announcements. Both groups had participants who reported more than one of these methods (8.30% of supervisors, 5.10% of subordinates). The settings in which the reported deception occurred differed significantly between supervisors and supervisors $c^2(df = 9, N = 94) = 23.03, p = 006$.

Supervisors and subordinates were asked how their lies were detected. First, respondents were asked, "Did your subordinate(s) [supervisor(s)] ever find out that you lied?" Of the 96 participants who reported using deception, only 8 (or 8.33%) reported that the deception was discovered. Given that so few lies were uncovered (to the knowledge of the participants), the subsequent results should be viewed with caution.

The eight participants who reported that their deception had been discovered were asked, "When did your subordinate [supervisor] find out that you lied? (In other words, how long did it take for your subordinate [supervisor] to find out that you lied?). A total of five supervisors reported that their deception was discovered by their subordinates. Three supervisors reported that deception was discovered within 24 hours (but not immediately), one reported that it was discovered within a week, and one supervisor reported it was discovered a while afterwards, but did not specify a timeframe. A total of three subordinates reported that their deception was detected. One subordinate indicated that the deception was discovered within 24 hours (not immediately following the lie), and the other two subordinates did not specify a time frame.

These eight participants were asked, "How did your subordinate(s) [supervisor(s)] find out that you lied?" Three supervisors reported that they confessed to the lie, one supervisor said the

subordinates uncovered evidence of the lie, and one supervisor indicated he/she was caught "red handed" by the subordinates (i.e., the manager took a valet tip and pocketed it rather than sharing with other valets, and the employees saw it and confronted the manager about the tip money). Only one subordinate provided an answer to this question. He/she indicated that the supervisor found evidence of the lie.

Research Questions

The first research question asked about differences between supervisors' and subordinates' perceptions on a variety of outcomes in their manager-subordinate relationships. On the perceived power difference, results indicated that supervisors perceived themselves to have significantly more power in the manager-subordinate relationship than subordinates perceived themselves to have , $t(205) = 22.61, p < .001, r = .85$. For those participants who reported using deception, results showed that supervisors and subordinates did not differ with regard to how risky they perceived the deception to be, $t(91) = -.27, p = .79, r = -.03$. The means for these and other variables comparing superiors and subordinates can be found in Table 1.

Table 1: Means and Standard Deviations for Subordinates and Superiors						
	Subordinates			Superiors		
	N	*Mean*	*SD*	*N*	*Mean*	*SD*
Power	115	2.66	.89	92	5.36	.80
Lie Risk	57	3.83	1.46	36	3.74	1.56
Generalized Willingness to Lie	117	2.41	1.52	97	2.07	1.41
Acceptability of Being Lied To	117	1.77	1.18	97	1.43	.88
Willingness to Lie *When Necessary*	117	3.63	1.93	97	3.26	1.92
Self Ability to Lie *in General*	116	3.90	1.83	96	3.20	1.88
Self Ability to Lie *to Superior/ Subordinate*	113	3.47	1.73	97	3.03	1.81
Superior/ Subordinate Ability to Lie *in General*	114	3.63	1.58	96	3.09	1.36
Superior/ Subordinate Ability to Lie *to Me*	114	3.20	1.59	96	2.78	1.30

In terms of willingness to tell a lie, we assessed participants' willingness to lie *in general*, and their willingness to lie *when necessary*. Results indicated that supervisors and subordinates did not differ in their willingness to use deception in general, $t(212) = -1.66, p = .10, r = -.11$. Similarly, supervisors and subordinates did not differ in their willingness to use deception when they deemed it necessary, $t(212) = -1.43, p = .16, r = -.10$. A independent samples *t*-test indicated that all participants' willingness to lie out of necessity ($M = 3.46, SD = 1.93$) was significantly greater than

their willingness to lie in general (*M* = 2.26, *SD* = 1.48), *t*(213) = -13.83, *p* < .001, *r* = -0.69. It is important to note here, however, that respondents' mean willingness to use deception is below the midpoint of the scale regardless of the perceived necessity of the lie.

The participants' ability to tell a lie was assessed four ways. First, results indicated that supervisors perceived their own ability to lie *in general* was lower than subordinates' perceived ability, *t*(210) = -2.73, *p* < .01, *r* = -.19. Second, the data showed that supervisors perceived their own ability to lie *to their subordinates* did not differ significantly from subordinates' perceived ability to lie *to their supervisors*, *t*(208) = -1.83, *p* = .07, *r* = -.13. Third, results indicated that supervisors perceived their subordinates to be less able to lie *in general* than subordinates' perceived their supervisors' ability to lie *in general*, *t*(208) = -2.63, *p* < .01, *r* = -.18. Finally, the data showed that supervisors perceived their subordinates to be less able to lie *to them* than subordinates' perceived their supervisors' ability to lie *in general*, *t*(208) = -2.07, *p* = .04, *r* = -.14 (see Means in Table 1). Also, a independent samples *t*-test indicated that participants' perceived ability to lie to their supervisors/subordinates did not differ significantly from their perceptions of their supervisors'/subordinates' ability to lie to them *t*(208) = 1.77, *p* = .08, *r* = 0.12. As with participants' willingness to lie, their perceived ability to lie was below the midpoint of the scale.

Finally, we examined whether differences existed between all supervisors' and subordinates' perceived acceptability of lies. Results indicated that supervisors believed it was less acceptable to be lied to by their subordinates than subordinates being lied to by their managers *t*(212) = -2.32, *p* = .02, *r* = -.16; however, the means for both groups neared a floor effect. This indicated that both supervisors and subordinates believed that being deceived in the workplace was unacceptable.

The second research question asked to what degree one's perceptions of power in the manager-subordinate relationship were related to one's willingness to use deception, perceived ability to lie, the acceptability of being lied to, and perceptions of risk associated with the lie. Results indicated that the power people perceived themselves to have was not related to how willing they were to lie *in general* (*r* = -.06, *p* = .36), how willing they were to lie *when necessary* (*r* = -.05, *p* = .47), their perceived ability to lie to their subordinate/supervisor (*r* = -.07, *p* = .31), or how risky they perceived the lie (*r* = -.08, *p* = .44). On the other hand, as one's perceptions of power increased, their perceptions of their supervisors'/subordinates' ability to lie *in general* (*r* = -.19, *p* = .005) and lie *to them* (*r* = -.17, *p* = .014) decreased, and the less acceptable they thought it was to be lied to by their supervisor/subordinate (*r* = -.16, *p* = .02).

The third research question asked if differences existed between supervisors and subordinates with regard to the circumstances under which they would use deception. All participants were asked to "please explain under what circumstances you are willing to deceive the people you supervise" (or "your supervisor"). It is important to note that 67.80% of all supervisors and 62.10% of all subordinates did not provide an answer to this question. Of those who did answer the question, managers' most common response was an unwillingness to lie under any circumstances (17.40%), 15.90% cited the necessity of omitting information (e.g., for confidentiality purposes; to deny how

much they know about a work situation, such as why somebody quit), 13.00% reported job performance reasons (e.g., to ensure tasks get completed, to change employee behavior), 11.60% reported information control (e.g., for security reasons), 5.80% said they were willing to use deception to protect others, 5.80% cited the company's best interest/success, and 15.90% reported two or more reasons. The remaining managers reported myriad circumstances such as avoiding personal questions, to save face, and to protect their own self interest (e.g., to make personal gains at work).

Subordinates' most common response was a willingness to use deception to get time off (19.80%), 13.60% said they were not willing to use deception under any circumstance, 11.10% cited protecting others, 9.90% would lie to protect their own interest, 8.60% to avoid personal questions, 7.40% to impact work product (e.g., buy more time on a task, avoid work duties), 6.20% to stay out of trouble, and 8.60% reported two or more reasons. The remaining subordinates indicated they would be willing to use deception for other reasons such as saving face, if they had negative perceptions of their boss (e.g., did not respect the boss, the supervisor lied to them previously), and if they perceived a work policy or decision to be unreasonable. These data indicate that respondents varied with regard to the circumstances under which they would be willing to deceive their supervisors/subordinates, χ^2 ($N = 149$, $df = 17$) $= 68.94$, $p < .001$.

With regard to the topics for which they reported using deception, those participants who reported using deception were asked, "Now please tell us what you lied about. Please be as specific as possible." Supervisors reported many, varied topics. The most common were 9.70% who lied about knowing specific information (e.g., denying knowledge such as downsizing or why an employee was fired), 9.70% lied about employee performance (e.g., telling an employee that an evaluation rating was based on needing more education rather than saying honestly that it was due to overall job performance), 9.70% lied about the reasons for following a required procedure (e.g., why an employee was required to go to a different location), 9.70% lied about employee schedules (e.g., when an employee was scheduled to work next), 6.50% lied about the urgency/amount of work that needed to be done (e.g., falsely claiming work as urgent to ensure the task is completed by a deadline), 6.50% lied about the status of paychecks, 6.50% lied about meeting with higher authorities about employees concerns (e.g., the supervisor told subordinates that their desires/needs were brought to the supervisor's boss to resolve subordinates' concerns), 6.50% lied about the status of work (e.g., claiming tasks were completed that were not), and 6.50% lied about their personal relationships (e.g., denying they were actually dating someone at work, denying they were going through a divorce). The remaining managers reported myriad topics such as keeping money, the urgency of tasks, and withholding information about spying on their subordinates.

Subordinates, on the other hand, reported few topics. The most common topic was getting time off (55.60%; exactly half of these were subordinates who called in sick when they were not), 22.20% lied about the status and quality of work (e.g., claiming that projects were advanced farther than actuality), 11.10% lied about promptness (e.g., why they were late for work), 7.40% denied

knowledge of an event (e.g., avoided revealing information that would get themselves or others in trouble, such as eating in the backroom when it was forbidden), and 3.70% used deception to mask their true emotion (e.g., pretending to be happy in their position, pretending to like the boss or a coworker). These data indicated that supervisors and subordinates differed significantly with regard to the topics about which they reported lying, $\chi^2(N = 85, df = 19) = 58.95, p < .001$.

The fourth research question asked about the messages supervisors and subordinates used to make their deceptive messages effective. This question was answered by focusing on three different questions. First, participants were asked, "What did you say to make your supervisor(s) [subordinate(s)] think you were telling the truth? In other words, how did you create the message to be certain your boss [subordinate] would believe you?" Supervisors most commonly reported using their credibility (17.10%, e.g., claiming their authority/credibility spoke for them and nothing else was required), 17.10% tried to relate to their subordinates (e.g., coming across as an equal to the subordinate, downplaying the power difference), 16.20% reported using nonverbals (instead of reporting what they actually said, e.g., they made sure they "acted the part" or used direct eye contact), 14.30% used their authority to make threats, and 8.60% lied by omission (e.g., told the truth but omitted pieces to lead subordinates to a false conclusion). The remaining supervisors reported using other messages such as falsely referencing documents/evidence, creating a false sense of urgency, and using vague language. Subordinates most commonly reported relying on nonverbals rather than reporting what they actually said (31.60%), 22.20% reported that they made up a whole story around the lie, 14.80% added details and embellished the lie, whereas 7.40% reported avoiding details and making the lie short. Subordinates reported saying various other messages such as ensuring consistency, referencing physical evidence, and using a partial truth. These data indicate that supervisors and subordinates differ significantly with regard to what they say, or how they create their deceptive messages, $\chi^2(N = 88, df = 15) = 50.86, p < .001$.

Second, respondents were asked, "Other than what you actually said, did you do anything else to make yourself appear truthful?" Supervisors most commonly reported "no," indicating they did not do anything else (55.90%), 14.70% used nonverbals (e.g., using direct eye contact and "showing emotions"), and 8.80% reported they were unsure if they had done anything else. Managers reported additional ways they made themselves appear truthful such as being backed by other supervisors, using persistency/repetition, and staying positive. Subordinates most commonly reported "no," indicating that they did not do anything else (36.00%) and 32.00% reported relying on nonverbals (e.g., using direct eye contact). The remaining subordinates noted they made themselves appear truthful using strategies such as relying on and playing up their own credibility, changing the subject quickly, and preparing for the lie in advance. Chi-square analysis indicated that supervisors and subordinates differed significantly as to what other strategies they used to ensure they appeared truthful, $\chi^2(N = 83, df = 15) = 29.83, p = .013$.

Third, participants were asked, "What do you think was the most persuasive part of your lie? In other words, what part of your lie do you think was most influential in making your subordinate

[supervisor] think you were telling the truth?" The most common response from supervisors was the simple "believability" of the lie (28.10%), 18.80% cited their own leverage/power as an authority, 12.50% indicated their ability to remove the power distance and act as a friend rather than a boss, 12.50% cited their credibility (deception was uncharacteristic of them), and 6.20% indicated their nonverbals were the most persuasive part of the deception (e.g., their tone of voice, eye contact). Supervisors reported other reasons such as their lies being rational, using documentation, and being consistent. On the other hand, subordinates indicated that their nonverbals were the most persuasive part of their deception (23.10%, e.g., tone, eye contact, "playing the part"), 15.40% cited the actual content they used (e.g., relying on medical or school excuses), 13.50% reported their use of emotion (e.g., making emotional appeals based on family), and 13.50% cited their own credibility. Subordinates reported other reasons, as well, such as the lie being simple (e.g., short, not complicated), the use of physical evidence to support the lie, and calling (to lie) when the supervisor would be busy and unable to answer the phone. These data indicates that significant differences were present with regard to what supervisors and subordinates believed was the most persuasive part of their deception, $c^2(N = 83, df = 17) = 55.91, p < .001$.

The fifth research questions asked what served as the motivation for the specific deception used by supervisors or subordinates in the workplace. Specifically, participants were asked, "Please explain where you came up with the idea for the lie. In other words, please tell us what gave you the idea to use the specific lie you employed." Managers reported that they "just came up with it" (16.10%), 16.10% used a standard procedure or company norm, 16.10% based their deception on a previous experience (e.g., saw someone else use the same deception successfully), 9.70% reported it was a "logical" lie, and 9.70% reported it was an "easy way out." Supervisors provided other ideas for the deception such as its simplicity or being told by their own supervisors to use the specific deception. Subordinates reported that they used their work situation (e.g., disliking the boss, not caring about the job) as motivation for the lie (18.50%), 16.70% said they simply "came up with" the idea, 14.80% reported their lie was a commonly employed excuse (e.g., calling sick when one wants time off for other reasons), 14.80% reported it was "the easy way out" to avoid conflict, 7.40% based their lie on an actual truth (e.g., using a partial truth and lying by omission), and 7.40% relied on a coworker or other third party to help devise the lie. The data reported here indicated that supervisors and subordinates differed significantly with regard to how they "came up" with the idea for their deceptive message, $c^2(N = 84, df = 18) = 46.86, p < .001$.

DISCUSSION

Perceptions of Power and Deception

Power is an important situational and relational variable in the workplace and has important implications for the study of deception in this context. Dunbar's (2004) dyadic power theory

suggests that power is derived both from differences in the access to resources and the legitimate authority to use those resources. In the workplace, supervisors have an advantage in both areas, which impacted the substantial perceived differences (effect size = 0.85) in power between supervisors and subordinates in the current study. These perceived power differences translated into differences in their use of deceptive messages, as well. Whereas supervisors reported using their power to create their deceptive messages and make their lies more believable (using their own leverage/power as an authority, removing the power distance by acting as a friend rather than a boss, or relying on their own credibility), subordinates did not have access to those resources and thus relied most heavily on their ability to manipulate their own nonverbal behavior, emotional displays, and story telling.

Interestingly, managers relied on the very latent resources (e.g., credibility) that DePaulo et al. (1991) and Schweitzer et al. (2006) argued are risky for people in a powerful position to use. If deception is dangerous for supervisors because they are gambling with their future credibility, and trust harmed by deception never recovers fully, managers are taking a large risk by leveraging their credibility and authority to engage in deception with their subordinates. Subordinates who use deception might be placing themselves in a dangerous situation, as well, if the lie is detected (e.g., being fired, demoted, punished). Results related to perceptions of the risk associated with the deception were therefore surprising. Managers and subordinates did not differ with regard to how risky their deception was, and their perceptions of risk were lukewarm at best. This might be due to respondents' choices to report less-risky deception, or the fact that perhaps people engage in deception primarily when they perceive the risks are low (e.g., to avoid the consequences noted above). Also, this result might reflect that most respondents "got away" with their deception and therefore hindsight tells them there was little risk involved with the particular lie they reported in this study.

In addition to perceptions of risk, supervisors and subordinates were similar in other areas. They exhibited no differences with regard to their (un)willingness to use deception in the workplace *in general* and *when necessary* and both supervisors and subordinates indicated a reluctance to engage in deception in the workplace under any circumstance. This finding is consistent with previous studies demonstrating a general unwillingness to deceive in the workplace (e.g., Aquino & Becker, 2005). Given that managers' and subordinates' willingness to lie was low overall, it was not surprising to note that all respondents reported a greater willingness to lie out of necessity than in general. Also, supervisors and subordinates reported similarly low abilities to deceive each other in the workplace, and findings indicated that all participants' perceived ability to lie to their supervisors/subordinates did not differ significantly from their perceptions of their supervisors'/subordinates' ability to lie to them.

Despite the similarities among managers and subordinates, a number of differences existed. Dunbar (2004) predicts that power-unequal dyads will demonstrate less overt dominance than power-equal dyads but the theory does not make specific predictions about the types of strategies

that power-unequal dyads will use in place of overt dominance. Our results revealed that subordinates believed it was more acceptable to be lied to by their managers (compared to how acceptable managers found it to be lied to by their subordinates) suggesting that the power difference likely played a role – it is less acceptable for a less powerful person to lie to us, compared to a more powerful person deceiving us. It is important to note here, however, that the acceptability of deception was very low overall. Also, although subordinates had greater perceptions of their own ability to lie in general when compared to managers' own perceived ability to lie in general, subordinates perceived that their supervisors were better able to lie, both in general and to them specifically (compared to supervisors' perceptions of subordinates' ability to lie).

One's perceived power in the managerial-subordinate relationship was related negatively to their perceptions of their supervisors'/subordinates' ability to lie to them, to lie in general, and the acceptability of being lied to by their supervisor/subordinate. Therefore, more powerful people believe it is less acceptable to be lied to, and believe subordinates to have a lesser ability to use deception and get away with it. This is consistent with other findings by Dunbar and her colleagues (Dunbar & Abra, 2008; Dunbar, Bippus & Young, 2008) suggesting that although power-unequal dyads display less overall dominance than their power-equal counterparts, the subtle dominance displays by those in power "leak" out to their subordinates and reaffirm their powerful position.

Deception Reported in the Workplace

Perhaps of most interest were the findings that surfaced with regard to the actual deception reported by managers and subordinates. First, subordinates lied about very few topics. The vast majority of subordinates lied either to get time off of work (or to explain being late to work) or to impact their managers' perceptions of the status/quality of their work (e.g., to buy more time to complete tasks). Also, many of the lies centered on managing supervisors' impressions, consistent with previous research (e.g., Barrick & Mount, 1996; Deluga, 1991). Supervisors, on the other hand, lied to subordinates about a wide range of topics from the relatively innocuous (e.g., overestimating the urgency of a task) to the more odious (e.g., spying on subordinates). This range might again reflect the power differential between supervisors and subordinates in that supervisors have legitimate authority over a wider range of workplace topics.

The messages supervisors and subordinates created differed with regard to what they said, how they attempted to appear truthful, and what they perceived was the most believable part of the lie. As noted previously, managers relied heavily on their credibility and authority; however, just as many supervisors tried to downplay their legitimate power role to create their messages and make themselves appear more believable. Thus, the very fact that managers had more power in the relationship allowed them to use it as communicative ploy—decreasing the power distance proved important for supervisors. Subordinates most often relied on controlling nonverbal behaviors, or focused heavily on the "stories" surrounding the deception. Although some reported keeping the

stories short by avoiding details, more often subordinates reported embellishing the stories with added details to improve the believability of the lie. The reported focus on the structure of the story was interesting given that (a) embellishment increases the information the deceiver must remember to maintain consistency in future interactions, and (b) previous research indicated that deceptive messages tend to be less plausible and more internally discrepant (DePaulo et al., 2003). The differences uncovered in the current study indicated that powerful people relied on the very nature of the qualities/resources inherent in their position (e.g., credibility and authority) for successful deception, whereas less powerful people relied more often on manipulating their appearance through nonverbal behaviors and story crafting.

Finally, despite the extremely low number of discovered lies in the current investigation, the findings warrant a brief mention here because they emphasize the fact that detecting deception in the "heat of the moment" is not the typical way deception is uncovered (Park et al., 2002). No lies were uncovered through the interpretation of nonverbal cues, rather they were discovered after the fact through evidence or confessions. Therefore, despite the importance placed in the research literature on detecting deception in real time by observing nonverbal cues (e.g., Cody & O'Hair, 1983), both supervisors and subordinates seemed to detect deception using other information.

Limitations and Future Directions

Only 96 people (fewer than half of all participants) reported using deception in the workplace. Although this is consistent with findings that a few prolific liars are responsible for the majority of lies (Serota, Levine, & Boster, 2010) and is consistent with samples sizes of other deception work (e.g. Enis, Vrij, & Chance, 2008), it was somewhat surprising to find so few participants who would admit to lying. One possibility is that despite the anonymity of the survey, participants' social desirability bias or fear that their employers would discover their deception meant that they were reluctant to report that they had been deceptive at work. This was evidenced by the fact that several potential research subjects refused to participate once they heard they would be required to describe their own deceptiveness and some organizations refused the researchers access to their employees once they heard the study was about deception in the workplace. The authors went to great lengths to assure the respondents that their survey could not be connected to them or their organization in any way, but future researchers should be aware of participants' reluctance and guard against self-selection bias. Also, it might be that the wording used to ask participants to describe a "lie" was interpreted narrowly by respondents to mean "fabrication" and were more likely to responded about outright lies rather than omissions or vagueness that could be construed as deception if a more inclusive term was used. Perhaps examples of deception could be provided so that respondents would know exactly what researchers are looking for, However, if it is true that fewer than half of the participants had actually engaged in deception at work, then it may be that so few have used deception because they view it as highly unethical, as evidenced by (a)

many participants' unwillingness to use deception under any circumstances and (b) findings in previous research arguing that workplace deception is generally seen as unethical (e.g., Aquino & Becker, 2005). Also, this finding might be due to the power difference inherent in the types of lies examined in this study. Specifically, fewer lies might happen between managers and subordinates than between equal-status co-workers given that both parties have a great deal to lose (e.g., DePaulo et al., 1991; Schweitzer et al., 2006) if the deception is detected. Perhaps the supervisors in this study fear not only the loss of credibility with their employees but the repercussions from their own supervisors, as well. Also, if previous research is accurate that deception is used frequently in the workplace (e.g., Robinson et al., 1998; Strout, 2002), it might be that deception is used more frequently in relationships with a more equal balance of power. Regardless of the reason for the low number of deceivers in this investigation, future studies should seek to increase the number of deceptive interactions included for examination.

It also is important to note that participants likely chose to discuss deception events in which they were successful, or where the lie had not yet been detected given that Park et al. (2002) reported that deception is often uncovered long after it takes place. Although participants were asked to report a *recent* deception event, increasing the chance that the lie had not been uncovered, the current findings might be inaccurate with regard to the larger picture of deception in the workplace if only successful lies were reported. Also, it is possible that more participants' lies were uncovered but they were not aware of the discovery. For example, the subordinates might be unlikely to confront supervisors with a discovered lie given the reported perceived power differential. Therefore, the results might be biased such that the reported deception was overwhelmingly successful (possibly painting a lopsided portrait of workplace deception) and overwhelmingly undetected.

A final limitation is the fact that the current study relied solely on the participants' recollections of deception, not actual deception as it might occur. This investigation sought to examine how perceptions of power influence the perceptions of deception use and strategies used by deceivers, but these recollections might be tainted by subsequent events, lapses in memory, or even fundamental attribution error. Also, the participants might be unaware of their nonverbal cues that the receivers observed and were able to report only on what they intentionally manipulated rather than what they unintentionally "leaked." The advantages of this method are that it yields insight into the mind of the deceiver and allows us to know when deception has been detected, perhaps weeks later. Despite these advantages, future research should look at actual interactions, whether in the laboratory or the field, so that the nonverbal cues, behaviors of both the deceiver and receiver, and message construction can be examined more closely.

CONCLUSION

Although deception in the workplace might be perceived as unethical (Aquino & Becker, 2005), if the workplace is like the other areas of our lives, it is pervasive. Regardless of its ubiquity

at work, deception can carry serious consequences for supervisors and subordinates alike, especially given the power-laden relationships in which they operate. To that end, the current study was the first step in exploring how deception occurs in the workplace, and the role of perceived power in the deception process. Just as power is an important situational and relational variable in the workplace, it had key implications for how deception is experienced in the workplace. It is our hope that this work can be used to develop theoretical models to more closely examine the intersection of deception and power not only in the workplace but in many other contexts as well.

REFERENCES

Aguinis, H., Simonsen, M. M., & Pierce, C. A. (1998). Effects of nonverbal behavior on perceptions of power bases. *Journal of Social Psychology*, *138*, 455-469.

Anderson, J. C., Gerbing, D. W., & Hunter, J. E. (1987). On the assessment of unidimensional measurement: Internal and external consistency, and overall consistency criteria. *Journal of Marketing Research, 24,* 432-437.

Aquino, K., & Becker, T. E. (2005). Lying in negotiations: How individual and situational factors influence the use of neutralization strategies. *Journal of Organizational Behavior, 26,* 661–679.

Barrick, M. R., & Mount, M. K. (1996). Effects of impression management and self-deception on predictive validity of personality constructs. *Journal of Applied Psychology, 81*, 261-272.

Berger, C. R. (1994). Power, dominance, and social interaction. In M. L. Knapp & G. R. Miller (Eds.), *Handbook of Interpersonal Communication* (pp. 450-507). Thousand Oaks, CA: Sage.

Bond, C. F., Jr., & DePaulo, B. M. (2006). Accuracy of deception judgments. *Personality and Social Psychology Review, 10,* 214–234.

Bugental, D. B., Shennum, W., Frank, M., & Ekman, P. (2001). "True Lies": Children's abuse history and power attributions as influences on deception detection. In V. Manusov & J. H. Harvey, (Eds.), *Attribution, communication behavior, and close relationships* (pp. 248-265) New York: Cambridge University Press.

Buller, D. B., & Burgoon, J. K. (1994). Deception: Strategic and nonstrategic communication. In J. A. Daly & J. M. Wiemann (Eds.), *Strategic interpersonal communication* (pp. 191-224). Hillsdale, NJ: Erlbaum.

Burgoon, M., Callister, M., & Hunsaker, F. G. (1994). Patients who deceive: An empirical investigation of patient-physician communication. *Journal of Language & Social Psychology, 13,* 443-468.

Burgoon, J. K., & Dunbar, N. E. (2000). An interactionist perspective on dominance-submission: Interpersonal dominance as dynamic, situationally contingent social skill. *Communication Monographs, 67,* 96-121.

Burgoon, J. K., & Hale, J. L. (1984). The fundamental topoi of relational communication. *Communication Monographs*, *51*, 193-214.

Cody, M. J., & O'Hair, D. (1983). Nonverbal communication and deception: Differences in deception cues due to gender and communication dominance. *Communication Monographs, 50,* 175-192.

Cloven, D. H., & Roloff, M. E. (1993). The chilling effect of aggressive potential on the expression of complaints in intimate relationships. *Communication Monographs*, *60,* 199-219.

Cohen, J. (1960). A coefficient of agreement for nominal scales. *Educational and Psychological Measurement, 20,* 37-46.

Deluga, R. J. (1991). The relationship of upward-influencing behavior with subordinate-impression management characteristics. *Journal of Applied Social Psychology, 21*, 1145-1160.

DePaulo, B. M., & Bell, K. L. (1996). Truth and investment: Lies are told to those who care. *Journal of Personality and Social Psychology, 70,* 703-716.

DePaulo, B. M., & Kashy, D. A. (1998). Everyday lies in close and casual relationships. *Journal of Personality and Social Psychology, 74,* 63–79.

DePaulo, B. M., Kashy, D. A., Kirkendol, S. E., Wyer, M. M., & Epstein, J. A. (1996). Lying in everyday life. *Journal of Personality and Social Psychology, 70,* 979–995.

DePaulo, B. M., LeMay, C. S., & Epstein, J. A. (1991). Effects of importance of success and expectations for success on effectiveness at deceiving. *Personality and Social Psychology Bulletin, 17,* 14-24.

DePaulo, B. M., Lindsay, J. J., Malone, B. E., Muhlenbruck, L., Charlton, K., & Cooper, H. (2003). Cues to deception. *Psychological Bulletin, 129,* 74–118.Dunbar, N. E. (2004). Dyadic power theory: Constructing a communication-based theory of relational power. *Journal of Family Communication, 4*, 235-248.

Dunbar, N.E. & Abra, G. (2008, May). Observations of dyadic power in interpersonal interaction. Paper presented to the International Communication Association annual conference, Montreal, Canada.

Dunbar, N. E., Bippus, A. M., & Young, S. L. (2008). Interpersonal dominance in relational conflict: A view from dyadic power theory. *Interpersona,* 2(1), 1-33.

Dunbar, N. E., & Burgoon, J. K. (2005). Perceptions of power and interactional dominance in interpersonal relationships. *Journal of Social and Personal Relationships, 22,* 231-257.

Ekman, P. (1985). *Telling lies*. New York: W. W. Norton & Company.

Enis, E., Vrij, A., & Chance, C. (2008). Individual differences and lying in everyday life. *Journal of Social and Personal Relationships, 25*(1), 105-118.

Fainzang, S. (2002). Lying, secrecy and power within the doctor–patient relationship. *Anthropology & Medicine, 9,* 117-133.

French, J. R. P., Jr., & Raven, B. (1959). The bases of social power. In D. Cartwright (Ed.), *Studies in social power* (pp. 150-167). Ann Arbor, MI: Institute for Social Research.

Hample, D. (1980). Purposes and effects of lying. *Southern Speech Communication Journal, 46*, 33-47.

Hunter, J. E., & Gerbing, D. W. (1982). Unidimensional measurement, second order factor analysis, and causal models. *Research in Organizational Behavior, 4,* 267-320.

Indvik, J., & Johnson, P. (2009). Liar! Liar! Your pants are on fire: deceptive communication in the workplace. *Journal of Organizational Culture, Communication and Conflict*, 13(1), 1-8.

Kagle, J. D. (1998). Are we lying to ourselves about deception? *Social Science Review, 72*, 234-250.

Kashy, D. A., & DePaulo, B. M. (1996). Who lies? *Journal of Personality and Social Psychology 70*, 1037-1051.

Kaye, M. (1991). Deception in communication between adult learners and teachers: Implications for research and practice. *Australian Journal of Communication, 18*, 115-131.

Keating, C. F., & Heltman, K. R. (1994). Dominance and deception in children and adults: Are leaders the best misleaders? *Personality and Social Psychology Bulletin, 20*, 312-321.

Knox, D., Zusman, M. E., McGinty, K., & Gescheidler, J. (2001). Deception of parents during adolescence. *Adolescence, 36*, 611-614.

Komter, A. (1989). Hidden power in marriage. *Gender and Society, 3*, 187-216.

Korn, J. H. (1997). *Illusions of Reality: A history of deception in social psychology*. Albany, NY: State University of New York Press.

Leung, K. (1988). Some determinants of conflict avoidance. *Journal of Cross-Cultural Psychology, 19*, 125-136.

Levine, T. R. (2005). Confirmatory factor analysis and scale validation in communication research. *Communication Research Reports, 22,* 335-338

Masip, J., Garrido, E., & Herrero, C. (2004). Defining deception. *Anales de Psicología, 20*(1), 147-171.

McCornack, S. A., & Levine, T. R. (1990). When lies are uncovered: Emotional and relational outcomes of discovered deception. *Communication Monographs, 51*, 129-135.

O'Hair, D. H., Cody, M. J., & McLaughlin, M. L. (1981). Prepared lies, spontaneous lies, Machiavellianism, and nonverbal communication. *Human Communication Research, 7*, 325-339.

Park, H., Levine, T. R., McCornack, S. A., Morrison, K., & Ferrara, M. (2002). How people really detect lies. *Communication Monographs, 69*, 144-157.

Raven, B. H., Centers, R., & Rodrigues, A. (1975). The bases of conjugal power. In R. E. Cromwell and D. H. Olson (Eds.), *Power in Families* (pp. 217-232). New York: Sage.

Robinson, W., Shepherd, A., & Heywood, J. (1998). Truth, equivocation/concealment, and lies in job applications and doctor-patient communication. *Journal of Language and Social Psychology*, *17*, 149-164.

Roloff, M. E., & Cloven, D. H. (1990). The chilling effect in interpersonal relationships: The reluctance to speak one's mind. In D. D. Cahn (Ed.), *Intimates in conflict: A communication perspective* (pp. 49-76). Hillsdale, NJ: Erlbaum.

Scholl, J. C., & O'Hair, D. H. (2005). Uncovering beliefs about deceptive communication. *Communication Quarterly, 53,* 377-399.

Schmid Mast, M., & Hall, J. A. (2003). Anybody can be a boss but only certain people make good subordinates: Behavioral impacts of striving for dominance and dominance aversion. *Journal of Personality, 71*(5), 871-891.

Serota, K. B., Levine, T. R., & Boster, F. J. The prevalence of lying in America: Three studies of self-reported lies. *Human Communication Research, 36*(1), 2-25.

Schweitzer, M. E., Hershey, J. C., & Bradlow, E. T. (2006). Promises and lies: Restoring violated trust. *Organizational Behavior and Human Decision Processes, 101,* 1–19.

Strout, E. (2002). To tell the truth: call it what you like: A fib, an untruth, a fabrication. A new SMM survey reveals that nearly half of all salespeople may lie to clients. Are you creating a culture that promotes deception? *Sales and Marketing Management, 154*, 40-48.

Sweetland, S. R., & Hoy, W. K. (2001). Varnishing the truth in schools: Principals and teachers spinning reality. *Journal of Educational Administration, 39*, 282-293.

Thomas, C. E., Booth-Butterfield, M., & Booth-Butterfield, S. (1995). Perceptions of deception, divorce disclosures, and communication satisfaction with parents. *Western Journal of Communication, 59*, 228-245.

Vrij, A. (1994). Credibility judgments of detectives: The impact of nonverbal behavior, social skills, and physical characteristics on impression formation. *Journal of Social Psychology*, *133,* 601-610.

Vrij, A. (2000). *Detecting lies and deceit: The psychology of lying and the implications for professional practice.* Chichester, England: Wiley.

Vrij, A. (2008). *Detecting lies and deceit: Pitfalls and Opportunities*. Wiley.

Zuckerman, M., & Driver, R. E. (1985). Telling lies: Verbal and nonverbal correlates of deception. In A. W. Siegman & S. Feldstein (Eds.), *Multichannel integrations of nonverbal behavior* (pp. 129–147). Hillsdale, NJ: Erlbaum.

THE INTERRELATIONSHIPS AMONG CULTURE, COMMUNICATION, AND CONFLICT IN A NEWLY FORMED DOCTORAL PROGRAM

Julie Brockman, Michigan State University
Joel A. Colbert, Chapman University
Michael Hass, Chapman University

ABSTRACT

The purpose of the Setting Expectations and Conflict Resolution project was to provide faculty and doctoral students with a professional development program that addressed conflict resolution using an interest-based approach. The program included two days of training focusing on setting expectations, exploring sources of conflict, and designing interventions to address conflict as it occurs. At the end of each day, participants were given a questionnaire to evaluate the usefulness of the training and its impact on their attitudes toward conflict. Focus groups were also held to assess the impact of the program. Preliminary results indicate that the program met or exceeded program objectives, and attendees felt that the training was successful in helping to set expectations and resolve conflict. Both student and faculty attendees reported an increase in their confidence in preventing and managing conflict.

INTRODUCTION

The culture of any group/organization is largely defined by the way that individuals communicate with each other and the ways in which conflicts are resolved. In doctoral education, the lack of explicitly communicated expectations between graduate students and faculty undermines the retention of doctoral students and creates the greatest potential for interpersonal conflict in the graduate education process (Golde, 2000; Lovitts, 2001). The program at Michigan State University (Klomparens, Beck, Brockman, & Nunez, 2008) adopted the interest-based approach to preventing and resolving conflict not only for its adaptability to a variety of contexts but also for its strength in fostering relationships between parties. The interest-based approach to managing conflict is a collaborative strategy that seeks to craft solution(s) which satisfy the interests of the parties involved in the conflict (Fisher & Ury, 1991). The relationship between graduate students and their faculty advisors is critical for progress through the degree program as well as for the long-term success of the graduate student. In the early phases of a student's graduate career, for example, faculty advisors

play a key role in research mentoring, as research is a fundamental requirement for graduate program completion. Over the long term, faculty often assist their former students long after program completion and graduation, through writing letters of recommendation, supportive networking, and providing critical comments on articles and grant proposals.

CHAPMAN UNIVERSITY'S PH.D. IN EDUCATION PROGRAM

Chapman University's College of Educational Studies (CES) Ph.D. in Education is the first and only Ph.D. program on campus. The faculty, under the leadership of the Dean, developed the program over a period of six years. The 57 credit hour program has full-time and part-time pathways in three areas of emphasis: Cultural and Curricular Studies, Disability Studies, and School Psychology. These three areas were chosen due to the need to take advantage of the strengths of Chapman's CES faculty. There are courses in four core areas: foundations, inquiry, emphasis, and dissertation. We accept 18 students per year, six in each emphasis.

There are several innovative aspects of the program. First, as previously mentioned, students are accepted on a part-time as well as a full-time basis. Second, all of the classes are offered in the late afternoon or evening, making it easier for students to have some employment while they are in the program. Third, extensive writing support is offered from the very beginning, with supplemental support provided by faculty whose specialty is writing and rhetoric and by writing fellows (advanced doctoral students who have a strong propensity for writing). Fourth, there are three qualifying exams: a conference presentation, an article submitted for publication, and a grant proposal. We felt that the qualifying exams should approximate what university faculty do in their field. Fifth, faculty and students collaborate on three research forums during each academic year, bringing in some of the best minds in their respective fields to present the latest research. Finally, the faculty decided also to conduct specialized activities such as the Setting Expectations and Conflict Resolution workshops, with funding provided by a small faculty development grant from Chapman's Chancellor's Office. What was different about this program was the inclusion of both faculty members and Ph.D. students.

THE CULTURE OF DOCTORAL EDUCATION

As we noted above, several authors have pointed out that graduate education, especially at the Ph.D. level, is remarkably unsuccessful when one considers how many of those who start a Ph.D. program actually complete it. In one major study, the average completion rate in six fields, including English, history, political science, economics, mathematics, and physics, was only 56.6% at 10 major universities across the country (Bowen & Rudenstine, 1992). These rates were even lower for programs in the humanities and social sciences, which manage to graduate only a little more than one-third of those who begin a Ph.D. program (Damrosch, 1995). Other data suggests

that although smaller programs do somewhat better than this average, their completion rates still only reach about 60 percent (Damrosch, 1995).

What accounts for the finding that, at best, only about half of the students who enter Ph.D. programs finish them? Some clues can be found in descriptions of the culture of graduate education at the Ph.D. level (Adrian-Taylor, Noels & Tischler, 2007; Green & Bauer, 1995; Harnett & Katz, 1977; Nerad & Miller, 1996). Damrosch (1995) characterized academic life as encouraging both solitude and competition. Sociability in general is discouraged, and academics become what Damrosch calls a "community of one" (Damrosch, 1995, p. 100). If academic life is seen as one of isolation and competition, then it is unlikely that many of those who live it will have the skills needed to support junior scholars and resolve the conflicts that are inevitably part of the path to completion of a dissertation.

Although the culture of academic life and the process of graduate education encourage solitary work, completion of a dissertation also involves the paradox of working within an intense and hierarchical social relationship, that of doctoral student and dissertation chair. The power differential between student and advisor is largely one-sided, with the advisor holding all the cards. In such a lopsided relationship, it takes an unusually brave student to initiate a conversation about unmet needs or conflicts. This suggests that many conflicts remain unresolved and become the source of festering dissatisfaction and eventually withdrawal from the program.

COMMUNICATION BETWEEN
GRADUATE STUDENTS AND FACULTY ADVISORS

Research has shown that a better working relationship with faculty is developed for those students who receive useful early information about *program expectations* (Green, 1991). The way that expectations are communicated, set, and aligned between faculty and graduate students is a function of the context and culture of the graduate program. For the graduate student, the experience of graduate education is often vague, and misalignments and the resulting conflict are too often attributed to personal failure on the part of the graduate student. As one graduate student stated, "The doctorate pursuit is frighteningly vague and arbitrary" (Kerlin, 1995, p.15). Another lamented, "Experience with my advisor—I've never felt comfortable in his presence . . . our relationship is stilted—a game with unwritten rules and no mercy" (Kerlin, p. 16).

The culture of graduate education is one in which there are unclear expectations, implicit assumptions (Kehrhahn, 1999) and frequent misunderstandings (Lovitts, 2001) between faculty and graduate students. Kehrhahn found that the lack of clear, realistic expectations about the process, milestones, and timeframe required to complete a Ph.D. was one of the top three issues directly related to how efficiently doctoral students progressed through their program (the other two issues include fragmentation of program phases and the inaccessibility of institutional and program supports for working part-time adult graduate students). Likewise, the more explicit these

expectations, the more graduate students are better able to accommodate to their role as graduate students and the more productive these students are as measured by the number of future publications (Bauer & Green, 1994). Nerad and Miller (1996) reported that personal frustration, resulting from misaligned expectations, is cited as a primary reason for leaving by students who exit within the first two years of graduate study.

In the beginning stages of socialization into graduate studies, students slowly become aware of the explicit behavioral, attitudinal, and cognitive expectations held for them (Weidman, Twale & Stein, 2001). Lovitts (2001) reported that students usually understand the formal expectations but do not have the same understanding of informal expectations. The shared expectations, based upon formal, written policies and rules, serve to communicate explicit institutional requirements. However, such institutional requirements are only a small portion of the expectations that need to be met for successful degree completion. Many of the important behavioral, attitudinal, and cognitive expectations are informal and implicit.

Lovitts (2001) reported that doctoral degree completers identify, among other things, an understanding of informal expectations as an important aspect for successful graduate education. Informal expectations are often understood through trial and error, the departmental grapevine, intuition, and socialization. These strategies for understanding informal expectations are not always effective and are often very risky. An awareness of the importance of informal expectations in graduate education and any intervention that helps make these informal (and implicit) expectations explicit are positive steps in any effort to improve retention of graduate students and their graduate education experience.

Hartnett and Katz (1977) posited that *clarity* about expectations results in more accountability on the part of both graduate students and faculty. Gaining clarity and an explicit understanding of expectations is a positive step. Going one step further, to jointly setting expectations, improves accountability and strengthens the faculty/student relationship. It is within the joint setting of expectations that the interest-based approach provides a unique alternative to developing clear understandings between graduate students and faculty. Further, the setting of mutually explicit expectations between faculty and graduate students, using an interest-based approach, serves to first develop, and later protect, through interest-based conflict resolution, faculty-student relationships.

CONFLICT PREVENTION AND RESOLUTION IN DOCTORAL EDUCATION

Conflict exists when two (or more) people (or groups) perceive their values, actions, or activities as incompatible (Tillett, 1991). Conflict over ideas, research methods, and analysis and interpretation of data advances knowledge and is a fundamental part of academic institutions. New knowledge is created by conflict, thus making conflict both inevitable and necessary in higher education. Conflict itself is neither good nor bad—its value is measured in its outcome. The

outcome is directly related to how the conflict is managed. When interpersonal conflict is not managed well, it can be costly for students, faculty members, and administrators, and it can tarnish the reputation of the department and university. When conflict is managed well, it can lead to constructive outcomes. Managing conflict constructively is a matter of strategic, intentional choice.

Generally speaking, there are five strategies for resolving conflict: competition, avoidance, accommodation, collaboration, and compromise (Thomas & Kilmann, 1974). Because the relationship between graduate students and their faculty advisors is so critical, the collaborative strategy is often the best choice to use in a conflictive situation. One approach within that strategy, which serves to maintain and foster relationships, despite the occurrence of a conflict, is called the Interest-Based Approach (Fisher & Ury, 1991). An interest-based approach to setting expectations and resolving conflict focuses on the underlying interests and concerns of the involved parties, with an emphasis on crafting options that satisfy multiple parties and their multiple interests (Fisher & Ury, 1991; Klomparens & Beck, 2000).

METHODS

The purpose of this study was to gain an understanding of the lived experiences of faculty and doctoral students who attended a professional development activity that consisted of two workshops, one on setting expectations between doctoral students and faculty and the second on resolving conflicts that may emerge. According to Patton (2002), when an investigation deals primarily with the lived experiences of a phenomenon by a group of people, a phenomenological approach is appropriate. Patton stated, "To gather such data, one must undertake in-depth interviews with people who have directly experienced the phenomenon of interest" (p. 104).

This study incorporated a survey that was administered at the conclusion of each workshop as well as in-depth interviews with four focus groups: faculty who attended both workshops, faculty who did not attend either workshop, students who attended both workshops, and students who did not attend either workshop. The focus groups utilized a protocol adapted from Brockman, Basu, and Nunez (2008). The interview protocol is in Appendix B.

A limitation of our design was the constraint that some faculty and students attended one of the workshops but did not attend either both or neither. The resulting number of participants in each focus group was as follows: four faculty members attended both workshops, two faculty members attended neither, three doctoral students attended both, and four students attended neither. Faculty/students who attended neither workshop are heretofore referred to as non-attendees. Similarly, faculty/students who attended both workshops are heretofore referred to as attendees. An evaluation survey was administered at the conclusion of each workshop (Appendix A). Items were constructed by the researchers using a standard format commonly used to evaluate workshops. The reliability of the survey was not assessed. Content validity was determined by asking

colleagues to assess the items for the stated purpose (i.e., conflict resolution workshop evaluation) and revising the survey based on the feedback.

Approximately six months after the workshops, the four focus groups were convened by the faculty members who had initiated the project. Transcripts of the focus group sessions were made, and the content of these transcripts was analyzed for recurring themes and patterns. After first reading the transcripts individually, the authors came together to discuss their observations. This first reading produced a framework of broad categories or themes. These themes were discussed and given preliminary labels. During a second reading, the authors read and labeled the statements individually and then met to discuss and compare their observations. This process was iterative, repeating itself several times until the authors concluded that all themes and patterns were identified.

RESULTS

As noted above, two kinds of data were gathered for this study. Evaluation data was gathered for all participants immediately after the workshops. In addition, focus group data was gathered from both participants and non-participants about six months after the workshops.

Evaluation Survey

Following each session, participants, 14 faculty and 27 students total, completed an evaluation survey (Appendix A). After the first session, which focused on setting expectations, the vast majority of the participants said that they found the workshop very useful and would recommend this kind of training to other doctoral students or faculty. Almost all of the participants reported that the presenters were excellent. The structure of the workshop incorporated lecture, small group interaction, and role-playing with the aid of video-cases that were developed by the presenters. The majority of participants found this style and structure to work well with their own learning style. The most positive feedback, however, was the participants' reported change in confidence levels in dealing with issues between doctoral students and faculty. More than half said that, before the workshop, they felt only somewhat confident in dealing with these situations but that, after the workshop, everyone reported feeling confident or very confident with the skills that they acquired (see Appendix C and Figure 1).

Following the second session, which focused on conflict resolution, an even greater majority of the participants reported finding the workshop to be very useful, and everyone said that they would absolutely recommend this kind of training to other doctoral students and faculty. Video-cases were incorporated into the structure of the workshop to show examples of conflicts that could arise and how to deal with them. The vast majority said the structure of the workshop worked well with their learning style. Additionally, all of the participants rated the presenters as excellent. Before this workshop, most participants reported that they felt confident in dealing with conflict in

the program, but, after the workshop, every participant reported feeling confident or very confident (see Appendix D and Figure 2).

Figure 1: Evaluation Scores for Session One
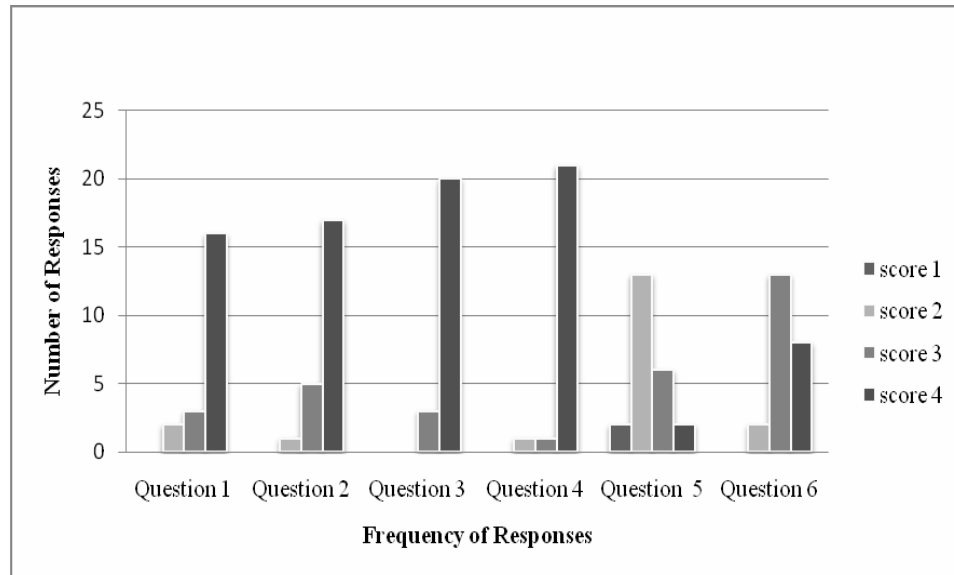
Figure 2: Evaluation Scores for Session Two
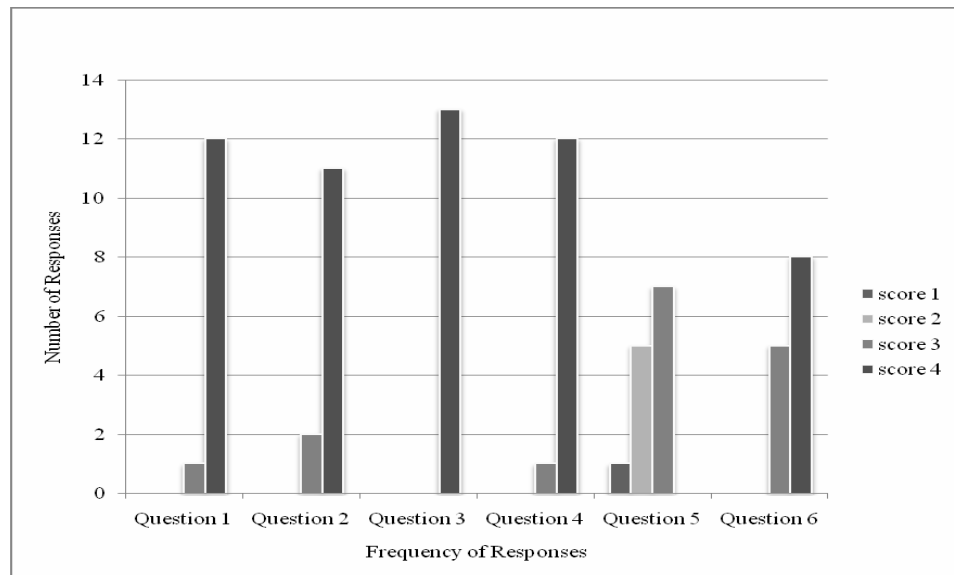
In both workshops, participants indicated learning about alternative approaches to conflict, focus on interests instead of positions, and trust between faculty and students, which they reported are all keys to increasing their confidence in dealing with conflict. Even more importantly, participants realized there is a place for conflict in that it is necessary for learning and growing as long as it is handled and resolved with both parties looking at it from an interest-based approach.

Faculty Focus Groups

Conflict depersonalization

Among faculty members, non-attendees tended to perceive their role in faculty/student conflict in terms of following policies and procedures. They saw conflict as rare, and, when it occurred, their main strategy was to depersonalize conflict. Non-attendees expressed this theme of depersonalizing conflict by frequent references to roles, rules, and institutional processes as a way of dealing with conflict. For instance, a member of the focus group made up of faculty non-attendees described how institutional roles led him to take a hands-off approach to conflict:

> Well, something I've really reflected on recently and confirms what you're saying is that experience of realizing that everyone has their role inside the institution and you have to respect those roles and perhaps not even, intervene or, it's not my place to say this to that person because they are managing it within their own sphere of influence.

As noted above, non-attendees consistently responded to questions by referring to policy, procedures, and a process of depersonalizing conflict. Examples of this theme included the following statements:

> It is not confrontational, it's just presentation of facts: these are the issues, these are the ramifications as I perceive them.

> When you're dealing with people I try to have them identify what the problem is and not personalize it, for example as opposed to saying you are such-and-such, no this is your behavior and tell them what the consequences are and if you continue to do this, this is what's going to happen. So kind of depersonalizing it and keep the behavior.

You know for example there are certain requirements, policy or practice or regulations, you have to work within that framework, and so there is a limit to what you can; there's a limit to the type of solutions.

But let me say first that we have the mechanisms in place, there's an appeals process that's spelled out that they can be referred to and advised to follow step by step.

I tell them [other faculty] is be consistent and don't be arbitrary or capricious in your decision making, they may not like your decisions but at least you'll be consistent and predictable.

Attendees rarely referenced policies and procedures and seemed to see conflict through a more interpersonal lens than the non-attendees did. In contrast to the depersonalized follow-the-rules-and-procedures approach discussed by non-attendees, attendees saw interpersonal engagement, through empathic listening, as an important way of managing conflict.

[The] way I handled it, I felt like I wanted to listen and felt very strong about listening because I believe it was a stressful experience.

It was my main job to listen more so than come up with a plan.

I tried to be kind, I tried to listen, I tried to understand.

Make sure they feel like 'I am hearing you.'

Frequency of conflict

Interestingly, non-attendees also seemed to see conflict as rare, suggesting that they did not see faculty/student conflict as a critical issue in graduate education.

I can't recall a situation with a student . . .

But I'm thinking of over the course of a quarter century there were very few real problems with students.

(Q) Any experiences with student teachers out there? (A) Yes, for example, every once in a while, a great once in a while there's not a good match.

In contrast, faculty attendees saw the prevention of conflict as important and expressed appreciation of the difficulties of managing conflict. This is demonstrated in the following statements:

I think I try to prevent conflict and I think I do that better than I manage conflict.

It's hard for me to manage conflict sometimes.

I really like to prevent it if I can.

This group also emphasized resolving conflict directly rather than passively or indirectly.

I realized that the only way to resolve it was to go in and get one-on-one and say here's the situation so we need to resolve this otherwise it will fester and get worse and get blown out.

I think one would be not to avoid it but to take it head on even though it's painful and tough at times but to deal with it instead of avoiding it.

For this group, this sense of directness as a virtue in resolving conflict appeared to be directly connected to their experience in the workshop. When asked how participation affected them, one participant stated:

You know the thing that stood out for me that you just mentioned is being explicit. They talked a lot about being explicit and you know sometimes I soft-soap things too much . . . so I'm not as direct as I need to be at times and their voicing 'be explicit, be explicit, be explicit' keeps coming back to make it crystal clear what we're talking about instead of trying to soft-soap it a little bit.

Workshop feedback

Attendees also connected listening, empathy, and a more personalized approach to faculty-student relationships to their workshop experiences.

They said a lot about the listening part too, they really hammered that about the listening and I tend to, I like to be a good listener but I have to work at it because I usually want to keep going.

And I like to try to put myself in the student's shoes so that I can see it from their reference point, not from my reference point and that's hard.

In addition, faculty attendees mentioned that their experience with the workshop led them to value directedness in dealing with conflict.

Yeah, I agree, I remember that from some of the videos in particular and one of the things is I tend to be pretty laid back and sometimes that's misinterpreted as I don't care and you can do whatever you want and so when something does come up and I say 'Wait a minute, where is this? Why haven't you done it?' then they're like whoa! So they misunderstand being explicit without being harsh or anything, but I just need to be aware of my own tendency that I created a problem down the road in clearness verses harsh.

Student Focus Groups

Perceived power differential

Students in both focus groups seemed much more aware of the power difference between them, their advisors and instructors than did faculty members. None of the faculty members who participated in the focus groups discussed power differences explicitly, yet it was an important theme for students.

I think just the intimidation factor.

I think that person intimidated me.

Pay-backs are hell.

I felt it was safer to retreat than to have possible retaliation.

But when you know they're gonna be responsible for grading you for half your program, it's, you know it definitely puts you, it's just an unequal playing field I guess.

Sometimes the awareness of power was expressed strategically in that it was important to know who among the faculty had more power and who is was safe to approach.

You know that there are definitely professors in the program that seem to hold a higher power than other professors.

I'd probably say the fact that the school is so small that you have to think before you decide to confront someone, how will this (confrontation) affect me in the future.

Setting Expectations

Failed expectations appear to be at the heart of conflict. Sometimes these involve expectations around assignments and related concerns.

I had submitted a paper for the end of the semester project and I had submitted it early as I had assumed without stating it, I had assumed that because it got in early it would get read early and get back to me early but I didn't articulate that so it didn't get back to me early, it got back to me like two days before the last class.

Others seem to involve broader expectations, such as whether a conversation is confidential or whether information about a person's performance is private.

But I really honestly thought my concerns and frustrations would be confidential not the minute I left the office the person would be on email with the person saying, you know, whatever I had just said. So that really did surprise me, I really did think there was, there should be a level of confidentiality.

I heard something about my paper from someone else, from different sources and so I felt bad because I felt like people were talking about me behind my back.

Strategies to manage conflict

One important strategy that students use to manage conflict is to consult a confidant. Sometimes this is a faculty member, while other times it is their peers. For instance, the person above who was upset about the publicity of her performance on a paper described how she dealt with the conflict thus:

But I did actually speak to someone about it . . . another professor, not the person who actually . . .

Another student described the importance of her advisor as a confidant.

I just tend to talk a lot to my professor or my advisor.

Other students sought out peers and used them as confidants.

> I would say more so if you can find a few peers in the program that you really, really trust, and those you really click with; to use them as a sounding board.

> I think if it wasn't for one or two peers in the program who you know at the same time were going through similar situations, you know, if I hadn't had their support I don't think I would have stayed in the program.

When students have no confidante, students see themselves as especially vulnerable.

> I think I attempted that at the beginning of the program, I tried to, I think I came into the program maybe overly trustworthy, in terms of colleagues as well as faculty members and experienced a backlash in terms of the way I was treated.

> I mean this is a big program, you don't know if you open your mouth or who you speak to if that's going to somehow, you know, affect your future.

When vulnerability sets in, students see themselves as having few options. One clear theme, especially among those students who did not attend the workshop, was avoidance.

> I've done my best to keep my mouth shut and not share my opinions and really be careful about whom I talk to. Across the board in terms of faculty including my advisor.

> So basically it's just keep a low profile and get done.

> Tread softly. For me, tread softly. Be careful with your trust.

Although both focus groups saw power as an important theme, attendees described conflict in terms that were more positive as well as advocated for a more direct approach to dealing with it.

> I would say that conflict is probably part of the process too, so to expect that, and then to address it.

I tend to just not address it, I avoid it. This program is teaching me that it's not a positive thing for me because then I get all worked up.

Workshop Feedback

One student described the benefit of the workshops in this way:

> I think it helped me realize that it just got me prepared to know that this is a common thing whereas in my undergrad and in other graduate work I really hadn't experienced that.

Another described how the workshop changed how she saw her advisor.

> I did feel more comfortable talking to my advisor after the workshop, I don't know why that was, I have a good relationship with my advisor. It kind of was a trigger to say don't just plow on through your program without having a regular consultation with your advisor.

DISCUSSION

Differences were found between those faculty and students who attended the workshop and those who did not. For the *faculty*, the main difference between attendees and non-attendees was their perception of the role that they take in the wake of faculty/student conflict. For non-attendees, the role was described as depersonalized, arms-length, and procedural. For attendees, the role was described as personalized, hands-on, and personally explicit. In addition, the communication skill of listening as a way of managing conflict was quite pronounced in the faculty attendee group, whereas it was not discussed in the non-attendee focus group. Both the qualitative and the quantitative data, along with other research (Adrian-Taylor, Noels, & Tischler, 2007; Zweibel, Goldstein, Manwaring, & Marks, 2008), show that a single intervention in the form of an interactive workshop can increase the use of collaborative strategies and effective communication skills.

For the *students*, similar to faculty, the main difference between student attendees vs. non-attendees was the strategy that they would use in resolving conflict. More often than not, non-attendees used avoidance as a strategy to both prevent and resolve conflict, whereas the attendees advocated for more of a direct approach. Barsky and Wood (2005) recommended that universities must "promote norms of assertiveness, constructive dialogue and other methods of handling conflict more effectively" (p. 262).

Interestingly, differences also exist between faculty and students (both attendees and non-attendees) in that graduate students perceive a power differential between themselves and their

faculty advisors (though graduate student attendees did feel that the workshops decreased this perception). As one student attendee stated in the workshop evaluation report, "(I learned) that we are part of a larger community with equal voice." Another student became aware of the fact that, "in the school setting, it is okay to approach them (faculty) and ask for clarity." Clearly, for this student, the power gap narrowed. Conversely, faculty in both groups did not explicitly discuss a perceived power differential, although those faculty who did attend the workshop seemed to become more aware of the differential, as one faculty member wrote, "Hearing students talking about safety emphasized for me the importance of dealing with conflict which then encourages me to 'deal' whether I am confident or not." The issue of safety is in direct relation to the power differential perception (Barsky & Wood, 2005; Kerlin, 1995). Within this context, safety refers to a relational environment free of risk regarding their graduate student status. The main conflict management strategy used by students within the attendee and non-attendee focus groups was to consult with another person. This strategy is often used when one party perceives itself as being less powerful than the other party. Rubin and Zartman (1995) suggested that "the power of the weaker parties in the cases studied derived from their ability to draw on a broad array of resources . . . perhaps the major source of power . . . was the ability to bring in support from external actors" (p. 361).

The evaluations completed immediately after the workshop coupled with the feedback from focus group participants who attended the workshop suggested that workshop principles had, to some extent, transferred to practice. In fact, both student and faculty attendees reported an increase in their confidence in preventing and managing conflict following the workshop. This newly found confidence could be attributed to this transfer. Zweibel et al. (2008) showed similar results in their study of medical residents and academic health care faculty.

We have demonstrated that our two-part intervention for faculty and students on preventing and resolving conflict increased the confidence levels of workshop attendees in preventing and resolving conflict with faculty/students regarding issues within our newly formed Ph.D. program. Further, workshop attendees' perspectives regarding the strategies that they would use to resolve conflict with one another, as compared to those who did not attend the workshop, were more direct and less avoiding. We believe that, by applying the interest-based approach to the setting of expectations, the frequency and intensity of conflict between graduate students and faculty will be reduced or possibly may be prevented altogether. The implicit nature of expectations within graduate education can easily lead to incomplete or incorrect communication and, hence, conflict between graduate student and faculty. Clearly, the use of an interest-based approach as a strategy for resolving conflicts in graduate education is an important tool for graduate students and faculty alike. Reduction or prevention of conflict between graduate students and their faculty advisors will go far to improve not only the retention of individual graduate students but also the experience of graduate education for both faculty and graduate students alike.

IMPLICATIONS

The interest-based approach makes visible the interrelationships between culture, communication, and conflict in doctoral education. In doing so, it provides a way to mitigate the influence of the existing power differential by focusing on a communication approach that addresses both the prevention and resolution of interpersonal conflict between faculty and doctoral students.

The current economic crisis looming over the nation's higher education system brings with it increased stress on both faculty and graduate students. The visible signs of stress often reveal themselves in the form of interpersonal conflict. Building a system's capacity to recognize and withstand such occurrences is critical to the health of the organization and the faculty and graduate students who must survive and thrive within the organization. Capacity-building for preventing and resolving conflict is critical to any developing organization such as a new doctoral program. Holton (1998), in her book *Mending the Cracks in the Ivory Tower,* stated that, "Direct negotiations, without the intervention of a third party, should be attempted first as they encourage communication and education." (p. 211).

The prevention of conflict requires that behavioral expectations are explicitly communicated from the start of any working relationship. When a new doctoral program is successful in encouraging both faculty and graduate students to develop and commit to explicitly defined expectations, the resulting working relationships will flourish. Results of this study and others make it quite clear that failed expectations between parties increase the occurrence of interpersonal conflict. With doctoral student attrition at unacceptable rates across disciplines, timely education and organizational commitments that increase the likelihood of program success for doctoral students should be embraced as a best practice and shared with the higher education community.

REFERENCES

Adrian-Taylor, S., Noels, K., & Tischler, K. (2007). Conflict between international graduate students and faculty supervisors: Toward effective conflict prevention and management strategies. *Journal of Studies in International Education, 11*(1), 90-117.

Barsky, A. E., & Wood, L. (2005). Conflict avoidance in a university setting. *Higher Education Research and Development, 24*(3), 249-264.

Bowen, W. G., & Rudenstine, N. L. (1992). *In pursuit of the Ph.D.* Princeton, NJ: Princeton University Press.

Brockman, J. L., Basu, A., & Nunez, A. (2008). *An impact assessment of a conflict resolution program for graduate students: a mixed-method analysis*. Unpublished manuscript.

Damrosch, D. (1995). *We scholars: Changing the culture of the university.* Cambridge, MA: Harvard University Press.

Fisher, R., & Ury, W. (1991). *Getting to yes: Negotiating agreement without giving in.* New York: Penguin Books.

Golde, C. (2000). Should I stay or should I go? Student descriptions of the doctoral attrition process. *The Review of Higher Education, 23*(3), 309-332.

Green, S.G. (1991). Professional entry and the advisor relationship: Socialization, commitment, and productivity. *Group and Organization Studies*, 16, 4, 387-407.

Green, S. G., & Bauer, T. N. (1995) Supervisory mentoring by advisors: Relationships with doctoral student potential, productivity, and commitment. *Personnel Psychology, 48,* 537-561.

Harnett, R. T., & Katz, J. (1977). The education of graduate students. *Journal of Higher Education, 48,* 646-664.

Holton, S. A. (1998). *New directions for higher education: Conflict management in higher education*. Boston, MA: Anker.

Keltner, J. W. (1998). Views from different sides of the desk. In S. A. Holton (Ed.), *Mending the cracks in the ivory tower*. Bolton, MA: Anker.

Kehrhahn, M., Sheckley, B.G. and Travers, N. (1999, May). *Effectiveness and Efficiency in Graduate Education: A Case Study*. Paper presented at the Annual Forum of the Association for Institutional Research, Seattle.

Kerlin, S. P. (1995). Surviving the doctoral years- critical perspectives. *Educational Policy Analysis Archives, 3*(17), 1-39.

Klomparens, K., Beck, J., Brockman, J. and Nunez, T. (2008). Setting Expectations and Resolving Conflict in Graduate Education. Washington, D.C.: Council of Graduate Schools Publications.

Klomparens, K., & Beck, J. P. (2000). *Setting expectations and resolving conflict resolution between graduate students and faculty handbook.* East Lansing, MI: Michigan State University.

Lovitts, B. E. (2001). *Leaving the ivory tower: The causes and consequences of departure from doctoral study*. Lanham, MD: Rowman and Littlefield.

Nerad, M., & Miller, D. (1996). Increasing student retention in graduate and professional programs. *New Directions for Institutional Research, 92,* 61-76.

Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage.

Rubin, J. Z., & Zartman, I. W. (1995). Asymmetric negotiations: Some survey results that may surprise. *Negotiation Journal, 21*(4), 349-364.

Thomas, K. W., & Kilmann, R. H. (1974). *Thomas-Kilmann conflict MODE instrument*. Tuxedo, NY: Xicom.

Tillet, G. (1991). *Resolving conflict: A practical approach*. Sydney: Sydney University Press.

Weidman, J. C., Twale, D. J., & Stein, E. L. (2001). Socialization of graduate and professional students in higher education: A perilous passage. *ASHE-ERIC Higher Education Reports, 28*(3), 1-112.

Zweibel, E., Goldstein, R., Manwaring, J., & Marks, M. (2008). What sticks: How medical residents and academic healthcare faculty transfer conflict resolution training from the workshop to the workplace. *Conflict Resolution Quarterly, 25,* 321-350.

APPENDIX A

Opinionnaire

Please respond to the following items by circling your response.

1.   Overall, how would you rate the usefulness of the workshop?

        1 = not useful at all   2 = somewhat useful   3 = useful   4 = very useful

2.   How did the style and structure of today's workshop work for you?
        1 = not at all   2 = somewhat   3 = well   4 = very well

3.   Overall, how would you rate the presenters?

        1 = poor   2 = so so or okay   3 = good   4 = excellent

4.   Would you recommend this type of training to other doctoral students/faculty?

        1 = not at all   2 = maybe   3 = yes   4 = absolutely

5.   Before attending this workshop, how confident did you feel in dealing with conflicts with faculty members?

        1 = not confident at all   2 = somewhat confident   3 = confident   4 = very confident

6.   How confident do you feel now?

        1 = not confident at all   2 = somewhat confident   3 = confident   4 = very confident

7.   If your confidence increased, what did you learn today that increased your confidence?

8.   What should have been different for your confidence to increase (or increase more)?

APPENDIX B

Focus Group Questions

Focus group questions for graduate students

1. Do graduate students attempt to prevent or manage conflict with faculty?

2. Can you describe a conflict you have experienced with your faculty advisor or another faculty member?

3. How did you manage that conflict?

4. Can you describe any barriers you have encountered to managing conflict with your advisor or other faculty members?

5. What advice would you give to new graduate students about how to manage conflict with faculty members?

6. Did participating in the workshop influence how you perceive or handle conflict with faculty members? If so, please explain.

Focus group questions for faculty members

1. Do faculty members attempt to prevent or manage conflict with faculty? Please explain.

2. Can you describe a conflict you have experienced with your advisees or other doctoral students?

3. How did you manage that conflict?

4. Can you describe any barriers you have encountered to managing conflict with your advisees or other doctoral students?

5. What advice would you give to new faculty about how to manage conflict with students?

6. Did participating in the workshop influence how you perceive or handle conflict with students? If so, please explain.

APPENDIX C

Building Relationships through the Setting of Expectations between Faculty and Students

Summary of Survey Responses (1st Session, N=23)

1. Overall, how would you rate the usefulness of the workshop?
    1-Not useful at all- 0
    2-Somewhat useful- 2
    3-Useful- 3
    4-Very useful- 18

2. How did the style and structure of today's workshop work for you?
    1-Not at all- 0
    2-Somewhat- 1
    3-Well- 5
    4-Very well- 17

3. Overall, how would you rate the presenters?
    1-Poor-0
    2-So so or Okay- 0
    3-Good- 3
    4-Excellent- 20

4. Would you recommend this type of training to other doctoral students/faculty?
    1-Not at all- 0
    2-Maybe- 1
    3-Yes- 1
    4-Absolutely- 21

5. Before attending this workshop, how confident did you feel in dealing with conflicts with faculty members/students?
    1-Not at all confident- 2
    2-Somewhat confident- 13
    3-Confident- 6
    4-Very confident- 2

6. How confident do you feel now?
    1-Not at all confident- 0
    2-Somewhat confident- 2
    3-Confident- 13
    4-Very confident- 8

APPENDIX D

Building Relationships through the Setting of Expectations and Resolving Conflict
between Faculty and Students

Summary of Survey Responses (2nd Session, N=13)

1.   Overall, how would you rate the usefulness of the workshop?
        1-Not useful at all-0
        2-Somewhat useful-0
        3-Useful- 1
        4-Very useful- 12

2.   How did the style and structure of today's workshop work for you?
        1-Not at all-0
        2-Somewhat-0
        3-Well- 2
        4-Very well- 11

3.   Overall, how would you rate the presenters?
        1-Poor-0
        2-So so or Okay-0
        3-Good-0
        4-Excellent- 13

4.   Would you recommend this type of training to other doctoral students/faculty?
        1-Not at all-0
        2-Maybe-0
        3-Yes- 1
        4-Absolutely- 12

5.   Before attending this workshop, how confident did you feel about dealing with conflicts with faculty
        members/students?
        1-Not at all confident- 1
        2-Somewhat confident- 5
        3-Confident- 7
        4-Very confident-0

6.   How confident do you feel now?
        1-Not at all confident-0
        2-Somewhat confident-0
        3-Confident-5
        4-Very confident- 8

PROACTIVE PERSONALITY AND GOAL ORIENTATION:
A MODEL OF DIRECTED EFFORT

Steven Brown, Columbus State University
Edward O'Donnell, Columbus State University

ABSTRACT

This paper brings together two disparate areas of literature, namely, proactive personality and learning goal orientation, to examine how proactive personality translates a motivation to learn into actual effort and performance outcomes in teams. This study also examines the relationships of two other personality traits, conscientiousness and neuroticism, with learning goal orientation. This study is a response to a call for research (Deshon, Kozlowski, Schmidt, Milner, & Wiechmann, 2004; Major, Turner, & Fletcher, 2006). In answer, we specifically test a model in which we link conscientiousness and neuroticism to learning goal orientation, and learning goal orientation with proactive personality. In turn, proactive personality is linked to individual effort on a team, which, in turn, is linked with peer-evaluated individual performance on the team. Hypotheses are offered and tested using structural equation modeling.

Key words: proactive personality, learning goal orientation, team performance

INTRODUCTION

Prior research has strongly suggested that a learning goal orientation has positive benefits in the classroom and in the workplace in terms of improving individual performance. Similarly, learning goal orientation has been found to be helpful in teams as well. Similarly, proactive personality has been linked to positive work-related outcomes as well. Proactive personality defines the likelihood of taking personal initiative to get things done. Since both of these constructs have been found to be related to performance outcomes, the primary focus of this research is whether learning goal orientation and proactive personality function together in influencing performance.

Two articles from the *Journal of Applied Psychology*, one by Deshon, Kozlowski, Schmidt, Milner, and Wiechmann, (2004) and another by Major, Turner, and Fletcher (2006) provide the theoretical support for this model. Together, these two studies serve as the theoretical foundation for the structural equation model utilized in this study. The underlying lynchpin for linking these constructs is the concept of applying proactive effort toward learning-oriented directional goals in order to achieve tangible performance results.

Extant research has examined whether the Big Five and learning goal orientation in some combination relate to performance (e.g., Chen, Gully, Whiteman, & Kilcullen, 2000; Zweig & Webster, 2004). However, this is the first study, to the authors' knowledge, that specifically addresses the links between three personality traits (namely, conscientiousness, neuroticism, and proactive personality), learning goal orientation, individual effort in teams, and individual performance in teams.

THE FIVE FACTOR MODEL OF PERSONALITY
AND LEARNING GOAL ORIENTATION

Personality has been defined as both dispositions, such as the Big Five personality traits, and also as interpersonal self-regulatory strategies that fall under the auspices of the social-cognitive approach. The wide variety of personality research, both dispositional based and social-cognitive based, has successfully explained consistent and unique patterns of individual thoughts and behaviors (Hogan, Hogan, & Roberts, 1996).

The Big Five, a five-factor model of personality, has become the most popular conceptualization of personality (Zweig & Webster, 2004). The Big Five include the dimensions of extraversion, openness to experience, emotional stability, conscientiousness, and agreeableness (Goldberg, 1990, 1992; McCrae & Costa, 1999). Two of the five personality traits within the five factor model (e.g. conscientiousness, agreeableness, openness to experience, neuroticism, and extroversion) have been found to be related to motivation to learn. Conscientiousness was found to be positively related, while neuroticism was found to be negatively related, to the motivation to learn (Colquitt, LePine, & Noe, 2000).

Within the social-cognitive approach, goal orientation has become a highly researched forms of self-regulation (Dweck, 1986, 1997). Goal orientation research initially identified two forms of goal orientation that individuals could choose from as self-regulatory strategies in achievement situations—a learning orientation that focuses on increasing one's own abilities, and a performance orientation that focuses on demonstrating one's own abilities. Through further development, goal orientation was extended from a two-dimensional model to a three dimensional model, with a performance orientation being divided into performance prove and performance avoid orientations, the first to gain reward, the second to avoid punishment (c.f. Elliot & Harackiewicz, 1996).

Because of the aforementioned links of conscientiousness and neuroticism to the motivation to learn, the following hypotheses are offered:

> *H1: Conscientiousness is positively related to learning goal orientation. The higher a person's level of conscientiousness, the higher their level of learning goal orientation will be.*

> *H2:*   *Neuroticism is negatively related to learning goal orientation. The higher a person's level of neuroticism, the lower their level of learning goal orientation will be.*

Learning Goal Orientation and Proactive Personality

Proactive personality is defined as a disposition relating to individual differences in people's proclivity to take personal initiative in acting to influence their environments in a broad range of activities and situations (Bateman & Crant, 1993). Individuals with strongly proactive personalities will demonstrate initiative, look for opportunities, take action rather than waiting and reacting, and will persevere until the change has been achieved (Bateman & Crant, 1993). Crant and Bateman (2000) stated that people with proactive personalities influence their environment by employing personal initiative, active problem solving actions and will persevere until achieving their goal. Individuals with low proactive personality are more likely to be more passive in terms of their approach to situation and opportunities. Thus the following hypothesis is offered:

> *H3:*   *Learning goal orientation is positively related to proactive personality. The more learning focused a person is, the greater their proclivity for proactive behavior.*

Proactive Personality and Effort

Since proactive people intentionally create change, influence their environments, and directly affect their situations, their efforts are typically directed toward some performance outcome. For over twenty years, scholars have been identifying specific proactive behaviors that individuals use to increase their performance (e.g., Dutton, Ashford, O'Neill, & Lawrence, 2001). For instance, proactive individuals approach their jobs and careers differently, taking control of them; they are more likely to engage in career management activities (e.g. job seeking, finding organizational information, obtaining sponsorship and career support, conducting career planning and persisting in the face of career obstacles) (Frese, Fay, Hilburger, Leng, & Tag, 1997). They are more likely to identify and pursue opportunities for self-improvement for career developmental purposes, such as acquiring further education or skills needed in the future. Information seeking is also stronger among proactive individuals, since they are often looking for opportunities to improve things and do not wait passively for information and opportunities to come to them (VandeWalle & Cummings, 1997). Thus the following hypotheses are offered:

> H4:   Proactive personality is positively related to effort. The more proactive a person is inclined to be, the more effort they will put into their tasks.

Mediation by Proactive Personality on the relationship of Learning Goal Orientation to Effort

VandeWalle, Cron, and Slocum (2001) discovered that learning goal orientation had a significant positive relationship with effort, self-efficacy, and goal level. According to Latham and Locke's (1991) model of motivation sequencing, individual action and performance are the function of self-efficacy and goals/intentions, and goals control the direction, intensity, and duration of actions. Kuhl (1992) brought attention to the fact that some individuals have goals but do little to achieve them; these people are considered to have a "state orientation." People who rapidly put their goals into action were defined by Kuhl as having an "action orientation." Thus, the following hypotheses are offered:

> *H5:* *Proactive personality will partially mediate the relationship between learning goal orientation and effort.*

> *H6:* *Effort will be positively related to individual performance.*

Figure 1: Theoretical Structure of Structural Equation Model
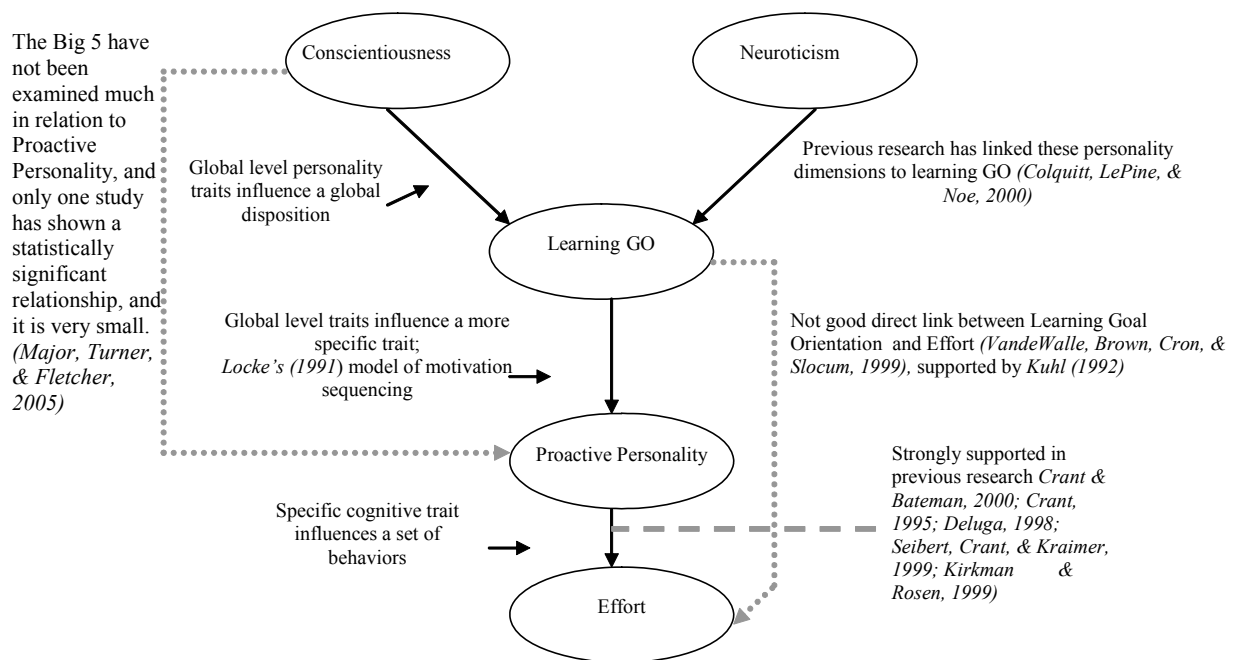
METHOD

Participants and Setting

This study's participants consisted of 438 undergraduate seniors enrolled in a Strategic Management capstone course for all business students who were near graduation. The data was collected at a large Southeastern university from several sections of students over a period of eight semesters. The participants were 63% males and 37% females. The participation rate was over 85% and there were no missing data due to the nature of the web-survey design that required all items on each page to be answered before moving to the next page.

Measures

All measures, with the exception of peer-evaluated performance data were psychometrically-tested, well-established scales published throughout the literature on organizational research. Answers consisted of a 5-point Likert-type response cell format ranging from 1 (very strongly disagree) to 5 (very strongly agree).

Conscientiousness and neuroticism

Conscientiousness and neuroticism were each measured with the 12-item self-report scales contained within the NEO Five-Factor Inventory (NEO-FFI; Costa and McRae, 1992). The test manual reports correlations between the NEO-FFI and NEO-PI scales of between .75 for Conscientiousness and .89 for Neuroticism. The manual presents evidence for the NEO-FFI's construct validity reports that reliability coefficients are .87 for conscientiousness and .92 for neuroticism. For this study, the reliabilities were .86 and .87, respectively. The scale for conscientiousness includes such items as "When I make a commitment, I can always be counted on to follow through." For neuroticism, the scale includes questions such as "I often feel tense and jittery."

Learning goal orientation (LGO)

Learning goal orientation is one of three dimensions on a 16-item instrument that was developed and validated by VandeWalle (1997) for all three goal orientations (performance prove and performance avoid being the other two.) The instrument has three subscales, with six items that measure LGO, including items such as "I often look for opportunities to develop new skills and knowledge." Published reliability for the instrument is .84, while reliability for the present study is .91.

Proactive personality

Proactive personality was assessed with the 10-item shortened version (Seibert, Crant, & Kraimer, 1999) of Bateman and Crant's (1993) 17-item Proactive Personality Scale (PPS). The shortened version of the PPS is comprised of the 10 items with the highest average factor loadings based on results reported by Bateman and Crant (1993). Seibert et al. (1999) presented evidence for the validity and reliability of the shortened scale. Cronbach's alphas across three samples ranged from .87 to .89, while the test–retest reliability coefficient was .72 over a 3-month period, with established convergent, discriminant, and criterion validity. The correlation between the 10-item scale used in this study and the full 17-item scale was .96. Deleting the 7 items had little effect on the reliability of the scale (17-item α = .88; 10-item α = .86). Respondents reported the extent to which they agreed with statements such as "Wherever I have been, I have been a powerful force for constructive change." Reliability for this study is .84.

Effort

Individual effort was measured by modifying the 4-item Teamwork Quality (TWQ) subscale for Effort by Hoegl and Gemuenden (2001). The convergent, discriminant, and criterion validity have been established in existing literature (Hoegl & Gemuenden, 2001). Items were applied to the individual team member level rather than at the team level, and contained items such as "I made the project my highest priority." The reliability is .84.

Peer evaluated individual performance on the team

Individual performance was operationalized as the mean score of computer-scored performance evaluations issued near the end of the course of six rounds of a competitive business simulation. Each team member rated every other member of their team. Ten questions were used for the rating. The mean was taken for each rater and the means of all raters were then averaged to determine the peer-evaluated performance score. There are no published reliabilities within the simulation for this scale, and the reliability for this study was .74.

Results

Table 1 presents the mean, standard deviations and intercorrelations for all the variables, including parceled items. The data was examined, and it contained no missing values, nor any other potential aberrations. Diagnostics were conducted on the raw data to detect potential outliers and to test the model assumptions; all model assumptions were met. Additionally, neither skewness nor kurtosis presented any problems with the data.

Measurement Assessment

Measures were parceled, but all items were used for each of the measures. The factor loadings for the individual items are reported in Table 2.

Factor	Item Label	Unstandardized loadings	Standardized loadings	Cronbach's Alpha
Table 2: Factor Loadings and Internal Consistency Estimates for Scales				
Conscientiousness	Consc 1	1.00	.755	.86
	Consc 2	1.297	.828	
	Consc 3	1.240	.806	
Neuroticism	Neurot 1	1.146	.746	.87
	Neurot 2	1.143	.908	
	Neurot 3	1.00	.903	
Learning goal orientation	LGO 1	1.302	.716	.91
	LGO 2	1.597	.944	
	LGO 3	1.639	.940	
	LGO 4	1.073	.709	
	LGO 5	.955	.666	
	LGO 6	1.000	.603	
Proactive personality	PP 1	1.000	.722	.84
	PP 2	1.085	.720	
	PP 3	1.034	.799	
Effort	Eff 1	1.616	.915	.84
	Eff 2	1.492	.856	
	Eff 3	.817	.594	
	Eff 4	1.000	.637	
** Significant at the .01 level.				

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Conscientiousness	3.77	.48	-														
2. Conscientiousness Parcel 1	3.85	.49	.83**	--													
3. Conscientiousness Parcel 2	3.71	.58	.89**	.60**	--												
4. Conscientiousness Parcel 3	3.76	.57	.89**	.61**	.69**	--											
5. Neuroticism	2.52	.59	-.42**	-.34**	-.41**	-.34**	--										
6. Neuroticism Parcel 1	2.65	.68	-.27**	-.19	-.29**	-.21*	.88**	--									
7. Neuroticism Parcel 2	2.40	.64	-.45**	-.36**	-.44**	-.36**	.92**	.68**	--								
8. Neuroticism Parcel 3	2.50	.64	-.43**	-.38**	-.38**	-.36**	.92**	.69**	.82**	--							
9. Learning goal orient.	3.94	.54	.48**	.54**	.41**	.33**	-.41**	-.30**	-.42**	-.41**	--						
10. Proactive Personality	3.80	.46	.24*	.29**	.14	.21*	-.21*	.00	-.26**	-.32**	.25**	--					
11. Proactive Parcel 1	3.93	.55	.13	.19	.07	.08	-.21*	-.05	-.25**	-.26**	.15	.82**	--				
12. Proactive Parcel 2	3.76	.60	.31**	.36**	.21*	.27**	-.20*	.03	-.25**	-.32**	.21*	.83**	.52**	--			
13. Proactive Parcel 3	3.73	.51	.16	.18	.08	.17	-.14	.02	-.17	-.23**	.26**	.87**	.58**	.57**	--		
14. Effort	3.46	.82	.21*	.18	.12	.25**	-.10	-.02	-.08	-.17	.26**	.41**	.33**	.34**	.36**	--	
15. Performance	15.78	2.25	.04	.07	.07	-.02	-.04	-.03	-.08	-.01	.05	.05	.08	-.02	.06	.12	--

Table 1: Means, Standard Deviations and Zero-Order Correlation Coefficients

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

Factor Analysis

To assess model fit with the data for the proposed model, we used AMOS 5.0 for structural equation modeling (SEM). Following the procedure outlined by Anderson and Gerbing (1988), we followed the two-step approach of: 1) assessing model fit by conducting confirmatory factor analyses, with the appropriate validity assessment, and 2) applying a path analysis to verify all the paths, including the mediation of learning goal orientation by proactive personality on effort.

Using the guidelines prescribed by Little, Cunningham, Shahar, and Widaman (2002), we chose the multidimensional approach in parcel construction, so that each of the three parcels contained items from both factors to reduce the amount of artificial improvement. Learning goal orientation and effort were not parceled since the original measures consisted of only six and four items, respectively. This strategy reduced the number of manifest variables within the model from 45 to 20, providing a subject-to-parameter ratio of a little more than 5:1, thus staying within the range specified by Bentler and Chou (1987). A single-item indicator for performance was used as an observed variable.

Fitting the Structural Equation Model

Variables

Conscientiousness and neuroticism were independent variables in predicting learning goal orientation as a dependent variable. In addition, proactive personality was a mediator of learning goal orientation as a predictor, with effort as the dependent variable. Effort was the predictor variable for performance.

Fit indices

Following the suggestions of Hu & Bentler (1999), we report several relevant tests of model fit. First, we used the chi-square difference test, which is extremely sensitive to sample size (with greater than 3 as a good fit). Second, we used the comparative fit index (CFI), which compares fit of model with null/independence model, in which all correlations equal zero (the cut-off value is .95 according to Hu and Bentler (1999), and .90 according to Kline (2005). Bagozzi and Edwards (1998) have recommended the CFI as particularly useful for small sample sizes because it, unlike the chi-square statistic, operates independently of sample size. Third, we used the root mean square error of approximation (RMSEA), which is one of the most informative criteria in covariance structure modeling (Byrne, 2001). RMSEA has a cut-off value of .06 for a good fit, according to Hu & Bentler (1999) and .05 for a good fit, according to Kline (2005). Forth, we also used Sörbum's root mean squared residual (SRMR), which has a cut-off value of .10. Fifth, we used the Tucker-Lewis fit index, which has a cut-off value of .95.

Mediation

We hypothesized partial mediation by proactive personality on the relationship between learning goal orientation as the predictor and effort as the outcome. We tested this hypothesis for partial mediation using the mediational analyses originally defined by Baron & Kenny (1986), as described by Frazier, Barron & Tix (2004). The procedure involved four steps, performed as three regression equations, in establishing that the mediator mediates relationship between predictor and outcome variable. The first step was to show that a significant relationship exists between the predictor and the outcome. In this case, the relationship was significant ($\beta = .241$, $p = .028$). The second step was to show that the predictor is related to the mediator. Learning goal orientation was related to proactive personality ($\beta = .270$, $p = .027$). The third step was to show that the mediator is related to the outcome variable. Again, this was the case ($\beta = .46,2$ $p = .000$). The final step was to show that the strength of the relationship between predictor and the outcome was significantly reduced when the mediator is added. While only partial mediation had been expected, the results

actually showed full mediation, thus more than supporting hypothesis 5. The relationship between learning goal orientation and effort became non-significant ($\beta = .137$, p = .174).

Model validation

Confirmatory factor analysis validated the model. It should be noted that, due to similarities among three items contained within the learning goal orientation scale, their disturbance terms were correlated for model fit. Those three items are: 1) "I enjoy challenging and difficult tasks at work where I'll learn new skills." 2) "I am willing to select a challenging work assignment that I can learn a lot from." And 3) "I often look for opportunities to develop new skills and knowledge."
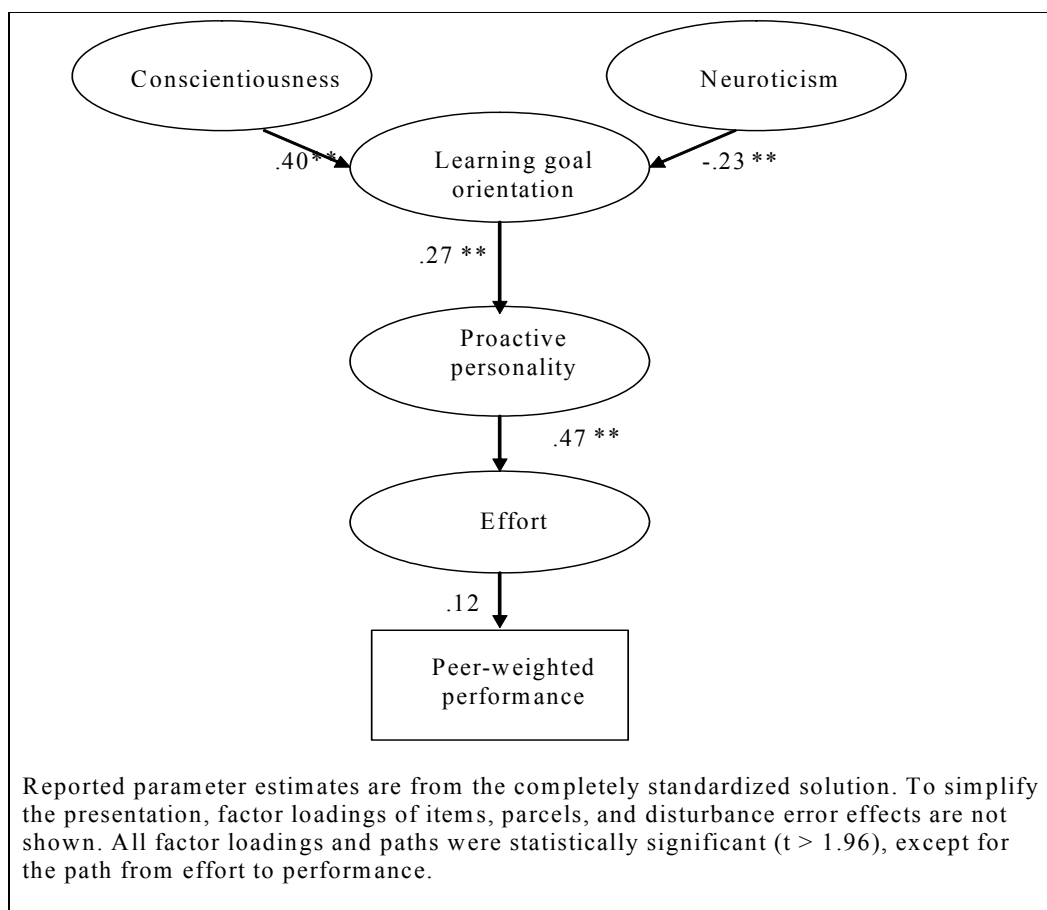
In addition, two of the items were strongly dissimilar to one another, and, thus, the disturbance terms for these items were also correlated. These two items were: "I often read materials related to my work to improve my ability" and "I prefer to work in situations that require a high level of ability and talent."

All hypothesized paths were positive and statistically significant, with the exception of performance, and all indices indicated an acceptable fit: ($\chi2/df = 1.335$, p > .000, CFI = .955, RMSEA = .056, SRMR = .08, and TLI = .95). We thus concluded that the originally-hypothesized model with full mediation of learning goal orientation's relationship to effort by proactive personality is the most accurate representation of the data. Path model results are depicted in Figure 2.

Comparison with other potential models

As suggested by Bentler and Bonnett (1980), we compared this model to other potential models of the data to assess its superiority. We placed proactive personality into the model as a predictor of learning goal orientation, with learning goal orientation as a predictor of effort. This model seems less supported in the literature, and the model fit degraded ($\chi2/df = 1.442$, p > .000, CFI = .94, RMSEA = .064, SRMR = .112, and TLI = .93). In addition, we tried direct paths from conscientiousness and neuroticism to proactive personality, both of which were non-significant. We also tried a direct path from learning goal orientation to performance, which was also non-significant. We also considered other variables not included within this study, which also did not yield better results. (Since data was collected on performance avoid goal orientation and performance prove goal orientation, we attempted to include the data into alternative models and tested them for potential results.) In all cases, the models proved to be weaker fits to the data.

Figure 2: Structural equation modeling results

Reported parameter estimates are from the completely standardized solution. To simplify the presentation, factor loadings of items, parcels, and disturbance error effects are not shown. All factor loadings and paths were statistically significant (t > 1.96), except for the path from effort to performance.

** Indicates significance at the .00 level or greater

The results show support for hypotheses 1 and 2, that conscientiousness and neuroticism are both significant predictors of learning goal orientation (β = .401, p = .002 and β = -.231, p = .041, respectively). In addition, the results show support for hypothesis 3, that learning goal orientation predicts proactive personality (β = .271, p = .019). Hypothesis 4 is also supported, in that proactive personality is a significant predictor of effort (β = .472, p = .000). While hypothesis 5 predicted that proactive personality would partially mediate learning goal orientation, the data actually supports full mediation, as previously stated, which was greater mediation than expected. Finally, hypothesis 6, which stated that effort would predict performance was not supported (β = .271, p = .249).

DISCUSSION

Support was found for hypotheses 1 through 4. For hypothesis 1 and hypothesis 2, Conscientiousness positively, and neuroticism negatively, related to learning goal orientation, just as previous literature supports. For hypothesis 3, a positive relationship was shown form learning goal orientation and proactive personality. Additionally, for hypothesis 4, proactive personality was found to be positively related to effort. Surprisingly, while we predicted partial mediation of learning goal orientation's relationship with effort for hypothesis 5, we actually found full mediation, perhaps indicating the influence of proactive personality on pursuing learning goals is stronger than has been shown previously in the literature. This may also be because of the nature of the activity in which the participants were involved, since proactivity represents understanding "what is going on," and trying to measure market indicators and competitor strategies were very important.

Interestingly, however, hypothesis 6 was not supported. Individual effort on the team was not positively related to performance. This has been accredited to a few influencing factors not included within this study, namely previous experience with the computer simulation, comfort with accounting and Excel (since decisions were entered through an accounting formatted spreadsheet), and the general unpredictability of the simulation.

As previously mentioned, this paper serves as both a conceptual basis and a preliminary empirical effort. Based on the support found for this model, the study's practical implications are noteworthy in terms of studying how the personality of individuals relates to effort within teams through the input, process, and outcome model of team performance. From a theoretical perspective, the contribution into greater insight into the process whereby individual-level constructs influence team-level outcomes will be valuable will hopefully add to a growing body of evidence demonstrating that relevant personality traits predict team-related outcomes through collective alignment of goal orientations, and task and social behaviors that could be considered both self-regulated behavior as well as proactive behavior.

This conceptual and empirical study will hopefully improve our understanding of proactive personality in several ways. First, by using it along with Big Five, we demonstrated the value of learning goal orientation as a predictor of proactive personality. In addition, in keeping with the suggestion of Thompson (2005), this theoretical work and the empirical work to follow will the role of proactive personality within a different context, in this case, within a teamwork setting.

While this nascent model is admittedly still rough in design and in need of much development, (in many ways due to limited published research and a total lack of published research – to my knowledge – directly relating all the constructs), the greatest current contribution rests in thinking about these constructs in a new, interrelated way, so that the theory can be tested in the near future. We should note, that while we attempted a thorough literature review in building the theoretical model, and tried to include as much as possible, the findings of our research are incomplete because of the potential for other moderating and mediating variables in the relationship

between the variables already included. It is more reasonable to start with this smaller model, more parsimonious model and to expand and refine it as other relationships are empirically tested. For instance, cognitive ability is a variable that could be included in attempting to move beyond this preliminary developmental stage. Also, many other team-level constructs relating to social and task functions should be examined, as well as many other self-regulated and proactive behaviors. Thus, future research should investigate this possibility of other potential moderating variables in the relationships supported in this model.

Limitations

Although the pattern of results obtained provides general support for the proposed theoretical framework, a few potential limitations of this study should be noted. Aside from performance data, we used self-report data which has many shortcomings (Podsakoff & Organ, 1986). A related methodological issue exists with goal orientation's domain specificity. Assessment at the global level of learning goal orientation without any reference to context, such as specifically academics or work, provides mixed results since achievement motivation may vary from one domain (area of one's life) to another (Koestner & McClelland, 1990). Individuals may even have domain-specific personality patterns (Dweck, 1986). Thus, it is possible for a person to have a performance orientation in one domain and a learning orientation in another domain. Often only modest or statistically nonsignificant relationships appear in respect to learning and performance goal orientations when assessed at the global level. Future research should examine goal orientation at a more domain-specific level within team research.

Ideally, a longitudinal design would have better tested the hypotheses. While the results are consistent with my model, the cross-sectional design cannot rule out alternative sequences, plus no study can ever preclude the possibility of unmeasured variables creating spurious relationships. However, these issues are being corrected through additional data collection already in the works with the same sample to achieve longitudinal data, as well as effort to increase sample size in order to boost statistical power. This will allow us in the future to use structural equation modeling to test our data. Thus, sample size and cross-sectional design are only temporary issues.

Generalizability is always an important issue; therefore, the composition of the sample is a limitation since our sample consisted of students, and, therefore, the characteristics manifested in the groups within our study are developed through experience within an academic setting and not through experiences common to a work environment. Related to being a student sample is that the teams included in our study were created expressly for the purpose of task completion. It may be that teams created for other purposes could show different relationships, particularly when there are different performance tasks as the dependent variable of interest. In addition, these teams had only existed for a few months when we collected the data. Therefore, results may be very different within long-term, ongoing teams, given the theory of locus of attention.

Although it is impossible to determine what effect this team assignment, plus self-selection on signing up for this professor's course, had on the representativeness of the sample, we feel this procedure resulted in a representative sample, since the professor attempted to create teams that were balanced and equal to one another in terms of the variety of majors on each team. Despite the issues of generalizability, the teams within the sample were stable in terms of membership, and all participants reported that they met in person at least once each week and that they all interacted with one another frequently. Therefore, despite its limitations, it is important to recognize that this study does provide initial supporting evidence for my hypotheses. Clearly, additional research with other designs is needed to disentangle these relationships and extend the findings to different samples.

REFERENCES

Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103, 411–423.

Bagozzi, R. P., & Edwards, J. R. (1998). A general approach for representing constructs in organizational research. *Organizational Research Methods,* 1, 45–87.

Bandalos, D., & Finney, S. (2001). Item parceling issues in structural equation modeling. In G. A. Marcoulides & R. E. Schumacker (Eds.), *New developments and techniques in structural equation modeling* 269–296. Mahwah, NJ: Erlbaum.

Baron R &Kenny D. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173--1182.

Bateman, T. S., & Crant, J. M. (1993). The proactive component of organizational behavior. *Journal of Organizational Behavior*, 14, 103–118.

Bentler, P., & Chou, C. (1987). Practical issues in structural equation modeling. *Sociological Methods and Research,* 16, 78–117.

Briggs, S. R. (1992). Assessing the five-factor model of personality description. *Journal of Personality, 60*, 253-293.

Byrne, B. M. (2001). Testing for multigroup invariance using AMOS Graphics: A road less traveled. *Structural Equation Modeling,* 11*(2)*, 272-300.

Colquitt, J., LePine, J., & Noe, R. (2000). Toward an integrative theory of training motivation: A meta-analytic path analysis of 20 years of research. Journal of Applied Psychology, 85, 678–707.

Costa, P. T. Jr., & McCrae, R. R. (1992). *Revised NEO personality inventory (NEO PI-R) and NEO five-factor inventory (NEO FFI) professional manual*. Odessa, FL: Psychological Assessment Resources, Inc.

Crant, J. M. (1995). The Proactive Personality Scale and objective job performance among real estate agents. *Journal of Applied Psychology,* 80, 532–537.

Crant, J. M., & Bateman, T. S. (2000). Charismatic leadership viewed from above: The impact of proactive personality. *Journal of Organizational Behavior*, 21, 63–75.

Deluga. R. 1998. American presidential proactivity, charismatic leadership, and rated performance. *Leadership Quarterly,* 9: 265-291.

DeShon, R., Kozlowski, S., Schmidt, A., Milner, K., Wiechmann, D. (2004). *A Multiple-Goal, Multilevel Model of Feedback Effects on the Regulation of Individual and Team Performance.* Journal of Applied Psychology, 89(6)1035-1056.

Dutton, J. E., Ashford, S. J., O'Neill, R. M., & Lawrence, K. A. (2001). Moves that matter: Issue selling and organizational change. The Academy of Management Journal, 44(4), 716-736.

Dweck, C. S. (1986). Motivational processes affecting learning. *American Psychologist,* 41, 1040–1048.

Elliot, A.J. & Harackiewicz, J.M. (1996). Approach and avoidance achievement goals and intrinsic motivation: A mediational analysis. *Journal of Personality and Social Psychology 70*(3), pp. 461–475.

Frazier, P. A., Tix, A. P., & Barron, K. E. (2004). Testing moderator and mediator effects in counseling psychology research. *Journal of Counseling Psychology*, 51*(1)*, 115-134.

Frese, M., Fay, D., Hilburger, T., Leng, T., & Tag, A. (1997). The concept of personal initiative: Operationalization, reliability and validity of two German samples. Journal of Occupational and Organizational Psychology, 70, 139–161.

Hackman JR. (1987). The design of work teams. In Lorsch JW (Ed.), *Handbook of organizational behavior* (pp. 315-342). Englewood Cliffs, NJ: Prentice-Hall.

Hall, R. J., Snell, A. F., & Foust, M. S. (1999). Item parceling strategies in SEM: Investigating the subtle effects of unmodeled secondary constructs. *Organizational Research Methods*, 2, 233–256.

Haynes, S. N., Richard, D. C. S., & Kubany, E. S. (1995). Content validity in psychological assessment: A functional approach to concepts and methods. *Psychological Assessment*, 7*(3)*, 238-247.

Hoegl, M., & Gemuenden, H.G. (2001). Teamwork quality and the success of innovative projects: A theoretical concept and empirical evidence. *Organization Science*, 12, 435-449.

Hogan, R., Hogan, J., & Roberts, B.W. (1996). Personality measurement and employment decisions: Questions and answers. *American Psychologist, 51*, 469–477.

Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6, 1–55.

Kirkman, B. L., & Rosen, B. (1999). Beyond self-management: Antecedents and consequences of team empowerment. *Academy of Management Journal*, 42, 58–74.

Kishton, J. M., & Widaman, K. F. (1994). Unidimensional versus domain representative parceling of questionnaire items: An empirical example. *Educational and Psychological Measurement*, 54, 757-765.

Kline, R. B. (2005). *Principles and practices of structural equation modeling*. New York: Guilford Press.

Koestner, R. &McClelland, D. C. (1990). Perspectives on competence motivation. In L. A. Pervin (Ed.), *Handbook of personality: Theory and research* (pp. 527-548). New York: Guilford Press.

Kuhl, J. (1992). A theory of self-regulation: Action versus state orientation, self-discrimination, and some applications. *Applied Psychology: An International Review.* 41: 97-129.

Landis, R. S., Beal, D. J., & Tesluk, P. E. (2000). A comparison of approaches to forming composite measures in structural equation models. *Organizational Research Methods*, 3, 186–207.

Latham, G. P., &Locke, E. A.. (1991). Self-regulation through goal setting*. Organizational Behavior and Human Decision Processes.* 50(2), 212-247.

Little, T. D., Cunningham, W. A., Shahar, G., & Widaman, K. F. (2002). To parcel or not to parcel: Exploring the question, weighing the merits. *Structural Equation Modeling*, 9, 151–173.

Major, D. A., Turner, J. E., & Fletcher, T. D. (2006). Linking Proactive Personality and the Big Five to Motivation to Learn and Development Activity. *Journal of Applied Psychology*, 91(4), 927-935.

McGrath, J. E. (1984). *Group interaction and performance.* Englewood Cliffs, NJ: Prentice Hall.

Podsakoff PM, Organ DW. (1986). Self-reports in organization research: Problems and prospects. *Journal of Management,* 12, 531--544.

Seibert, S., Crant, J., & Kraimer, M. (1999). Proactive personality and career success. *Journal of Applied Psychology*, 84, 416–427.

Steiner, I. D. (1972). *Group process and productivity*. New York: Academic Press.

VandeWalle, D. (1997). Development and validation of a work domain goal orientation instrument. *Educational and Psychological Measurement*, 8, 995–1015.

VandeWalle, D., & Cummings, L. L. (1997). A test of the influence of goal orientation in the feedback seeking process. *Journal of Applied Psychology*, 82, 390–400.

VandeWalle, D., Brown, S. P., Cron, W. L., & Slocum, J. W. (1999). The influence of goal orientation and self-regulation tactics on sales performance: A longitudinal field test.

VandeWalle, D., Cron, W. L., & Slocum, J. W. Jr. (2001). The role of goal orientation following performance feedback. *Journal of Applied Psychology*. 86(4), 629-40.

Zweig, D. & Webster, J. (2004). What are we measuring? An examination of the relationships between the big-five personality traits, goal orientation, and performance intentions. *Personality and Individual Differences, 36*(7), 1693-1708.

AN EMPIRICAL EXAMINATION OF THE IMPACT OF PERFORMANCE ATTRIBUTIONS AND JOB SATISFACTION ON TURNOVER INTENTIONS

Tobias M. Huning, Columbus State University
Neal F. Thomson, Columbus State University

ABSTRACT

This study examines individual biases in the attributions made for a generalized performance related event, and relates those attributional differences, along with job satisfaction, to the individual's turnover intentions. Initial results show that job satisfaction mediates between causality attributions, stability attributions, and turnover intentions. Both theoretical and practical implications are discussed.

INTRODUCTION

"Voluntary turnover" has been one of the most salient topics in management research for at least the last half century (March & Simon, 1958, Hom & Kinicki, 2001). Every year, companies spend significant sums of money replacing employees who voluntarily separate from their organizations. The costs associated with voluntary employee turnover include disruptions of work, loss of knowledge, skills, and organizational memory (Griffeth & Hom, 2001). A key goal for many organizations is to effectively manage voluntary turnover of employees that is caused by dissatisfaction with their jobs or employers. Extant research recognizes that attitudes and intentions explain around 5% and 15% of the turnover variance respectively (Griffeth, Hom, & Gaertner, 2000, Hom & Griffeth, 1995). Since one of the key determinants of turnover is the intention to turnover, a key question becomes "what causes an employee to decide that they want to leave?" The study that follows proposes that a key factor in this process is the style of attributions used by employees to explain their performance successes and failures. To be sure, we test a model which postulates that employees quit their jobs based on attributions they make regarding their performance.

ATTRIBUTION THEORY

Attribution theory has its roots in Heider's (1958) description of the "naive psychologist" who attempts to find causal explanations for events and human behaviors. Several models have been developed from this idea, which attempt to explain the process by which these attributions are made both in the case of self attribution (e.g. Weiner, 1974; Abramson, Seligman & Teasdale, 1978) and

social attributions or attributions made regarding the behaviors and outcomes of others (e.g. Kelley, 1973, Thomson and Martinko, 2004).

Weiner (1974), in his development of the achievement motivation model of attributions, classified causal attributions across two dimensions; the locus of causality, and the stability of the cause. The first, locus of causality, originally proposed by Rotter (1966), is the degree to which the attributed cause is internal to the person, or part of the external environment. Internal attributions might include factors such as low intelligence, or lack of attention. External attributions could include weather conditions, or task difficulty. A second dimension, stability, refers to the degree to which the cause remains constant over time. The example of low intelligence would be stable, where the example of lack of attentiveness, would be unstable. Weiner (1979) and Zuckerman and Feldman (1984) added the dimension of controllability to the achievement motivation model. This dimension focused on whether the cause of an event or behavior is controllable or uncontrollable.

McAuley, Duncan and Russell (1992) expanded the concept of controllability by proposing dual dimensions of personal and external control. For personal control, the attributor indicates that he or she either can or cannot personally control the outcome of the event. The external control dimension measures the degree to which the attributor sees the situation as being controllable by anyone else, such as a supervisor or co-worker. As Vielva and Iraurgi, (2002) point out, a response indicating external control, is different than a response indicating uncontrollability. This paper proposes that type of attribution made by an employee across these dimensions is likely to impact an employee's satisfaction with their job, as well as the likelihood that they will decide that they want to leave their position.

JOB SATISFACTION

Job satisfaction is the most studied variable in organizations. Job satisfaction has been defined as a pleasurable emotional state the results from the appraisal of one's job (Locke, 1976). In other words, job satisfaction describes an affective reaction to one's job as well as attitudes toward the job. This in turn suggests that job satisfaction is formed from affect, cognition, and ultimately will result in satisfaction contingent job-related behaviors. Some of the most commonly studied outcomes of job satisfaction are organizational citizenship behaviors, absenteeism and turnover (Organ & Ryan, 1995; Wegge, Schmidt, Parkes, & van Dick, 2007; Saari & Judge, 2004). Job satisfaction is the central variable in among the central theoretical and empirical contributions in employee turnover.

TURNOVER INTENTIONS

Voluntary turnover refers to an employee voluntarily leaving and organization. Early approaches such as March and Simon's (1958) contributions and inducements model have identified

that job satisfaction determines the perceived desirability of movement, which ultimately determines whether an individual quits the job or not. In March and Simon's model job satisfaction is driven by the match between the job and the self-image, the match between the job and other roles, as well as the predictability of future relationships inside the organization. Additionally, based on the aforementioned dissatisfaction, quitting is contingent on an evaluation of the expected utility of the perceived alternatives.

Furthermore, Mobley (1977) suggested that job satisfaction follows and evaluation of one's existing job, which then triggers a sequences of cognitive and behavioral process leading to the quit/stay decision. It is however, essential to note that Mobley anchors his theory on the experience of job satisfaction-dissatisfaction.

Recent theorizing has included the role of job performance into the employee withdrawal process. Allen and Griffeth (2001) hypothesized and found evidence for the moderating effect of the ease of visibility on the relationship between performance and perceived ease of movement. They also found that rewards moderate the relationship between performance and the desirability of movement. It is important to note that not all voluntary turnover is bad. In fact, it would be desirable to most organizations for weak performers to quit.

Collectively, this leads us to ask whether the quit decision of employees is contingent on their implicit theories about the causes of their performance. In other words, we ask if the attributions employees make regarding their performance determined their levels of job satisfaction and ultimately their intentions to quit or remain with their respective organizations. In the following section we present specific research hypotheses grounded in attribution theory and based on a rich body of knowledge on voluntary turnover.

HYPOTHESES

Past studies have looked at the role of attributions in job satisfaction (McCormick, 1997, Norris and Niebuhr, 1984). Of specific relevance to this study, Norris and Niebuhr (1984) found that individuals who tended to attribute their performance to internal causes also had higher job satisfaction. Based on their findings, we hypothesize the following:

*H1:   Locus of causality will be related to job satisfaction with internal attributions
        leading to higher job satisfaction and external attributions leading to lower
        job satisfaction.*

Additionally, there are numerous studies examining the role of job satisfaction on turnover intentions. Tett and Meyer (2006) provide a meta-analytical examination of past findings in this area and conclude that job satisfaction is very strongly related to turnover intentions, having a greater

effect than organizational commitment. Therefore, based on their meta-analytical examination of 155 studies in the area we hypothesize:

> *H2:   Job Satisfaction will be negatively related to turnover intentions.*

A recent study by Harvey, Harris and Martinko (2008) examined the role of attributions as predictors of job satisfaction, stress and turnover intentions. This was one of the first studies to examine the roles of these variables simultaneously, and specifically to include attributions. While their focus was specifically on hostile attributions, the findings relate to our study as well. They found a relationship between hostile attribution styles and turnover intentions. Hostile attribution style is explained as "blaming others when things go wrong in their lives." (Harvey, Harris and Martinko 2008) This relates to the CDSII dimensions as follows: Blaming others is external LOC, but also high external control and low personal control. Hostile attributions generally also indicate a bias toward high stability, as the "offender" is likely not to change. Based on their finding of a relationship between attributions and turnover intentions, we hypothesize:

> *H3:   External LOC will be related to higher turnover intention*

> *H4.   High stability will be related to turnover intentions*

> *H5.   High external control will be related to higher turnover intention*

> *H6:   Low internal control will be related to higher turnover intention.*

METHOD AND SAMPLE

Participants were 363 students at a regional state university located in the southeastern United States. The sample consisted of graduate and undergraduate students at the university's college of business. We distributed a survey instrument together with a cover letter and consent form. We asked the participants to read the cover letter and sign the consent form, provided they chose to participate. The cover letter explained the study and reiterated the fact that participation was voluntary. We explained that incentives were (or were not) provided at the discretion of the respective course instructor. The participants were also informed that they could discontinue the survey at any time without penalty or loss of reward that they were otherwise entitled to receive. We instructed the participants that they were to treat these questions as they relate to the jobs the currently hold, a job they have held in the past in case they currently did not work, or if they have never worked to treat being a student as their current job. The survey contained the measurement

scales as well as questions on demographics of the participants. The participants took the survey during their respective class periods. 99% of the participants returned a usable survey.

About fifty-one percent (51.2%) of the participants were female, 47.1% were male; 1.7% did not respond to this question. The average age was between 23 and 25 years of age with 9.9% of the sample age 35 or older. 56.5% were white (non-Hispanic), 30% African-American, 4.7% Hispanic, 3.6% Asian, .6% Native American, and 2.2% specified as "other", 43.3% responded that they had high school diplomas, 11.8% indicated they had associate degrees, 38.9% stated they held a bachelors degree, and 3.9% stated that they had master's degrees. .3% suggested they had doctorates. The average work experience of this sample was 6 years and 5 months. 92.4% of the respondents had at least one year of work experience, 83.6% reported work experience of at least 2 years, 46.4% reported 5 years or more, and 14.8% expressed that they had worked for at least 10 years. We believe that this demographic composition of the sample makes a strong argument for the generalizability of the sample to an average "working" population. The average participant also maintained a 2.9 GPA.

MEASURES

Attributions

For the measurement of performance attributions, we used the Causal Dimension Scale II (CDS II), developed by McAuley, Duncan and Russell (1992). The CDS II consists of a 12 questions, which make up 4 scales, with three items per scale, which evaluated the attributional dimensions of (1) locus of causality, (2) external control, (3) stability, and (4) personal control. Reliabilities using the CDS II are generally reported to be high (McAuley, Duncan and Russell, 1992). The reliabilities of the scales in our sample are as follows: Locus of causality $\alpha = .74$, external control $\alpha = .7$, stability $\alpha = .6$, and personal control $\alpha = .83$

Job satisfaction

Job satisfaction was measured with 3 items from Hoppock (1935). Respondents rated the items on a 5-point Likert-type response scale (1 = "Strongly disagree"; 5 = "Strongly agree"). A sample item is, "All in all, I am satisfied with my job." This scale produced a coefficient alpha of .89.

Turnover intentions

Turnover intentions were measured with three items adapted from the scale developed by Hom and Griffeth (1991). The items were rated on a 5-point Likert-type scale ranging (1 = "Definitely not"; 5 = "Definitely yes"). The scale produced a coefficient alpha of .92.

ANALYSIS

We conducted a series of regression analyses to examine the relationships between attribution styles, job satisfaction, and turnover intentions using SPSS. Means, standard deviations, reliabilities, and correlations are reported in Table 1.

Table 1: Means, Standard Deviations, Reliabilities, and Correlations among all Variables								
	Mean	SD	1	2	3	4	5	6
Locus of Causality	6.3	1.46	**(0.74)**					
External Control	5.1	1.53	-.10	**(0.70)**				
Stability	5.3	1.49	.44**	.17**	**(0.62)**			
Personal Control	2.4	1.46	.68**	-.26**	.35**	**(0.83)**		
Job Satisfaction	3.8	0.48	.18**	-.13*	.07	.17**	**(0.89)**	
Turnover Intention	3.1	0.89	-.14**	.01	-.18**	-.1	-.58**	**(0.92)**

Note: Reliabilities (Cronbach's Alphas) are given in parentheses.
**Correlation is significant at the .01 level.
*Correlation is significant at the .05 Level.

The initial results show that, as hypothesized in H1, based on the findings of Norris and Niebuhr (1984) locus of causality is significantly related to job satisfaction at p=.01. The standardized path coefficient for the relationship between locus of causality and job satisfaction was estimated to be β=.20. The remaining dimensions, external control, personal control, and stability were not statistically significant with respect to job satisfaction. However, external control could be described as marginally significant at p=.08 with a standardized path coefficient of β=-.10.

Further, we tested whether the attribution dimensions and job satisfaction were significantly related to turnover intentions. Supporting H3 and H4, the attribution dimensions locus of causality and stability were statistically significant at p=.05 and p=.02 respectively. External control and personal control failed to meet the significance threshold. The standardized coefficients were -.15 for locus of causality and -.14 for stability. This provides some preliminary evidence to the relationship between attributions and turnover intentions.

However, as indicated by H2, we were also interested to determine whether job satisfaction mediated between attributions and turnover intentions. Therefore, we included job satisfaction in the regression analyses and found that locus of stability was no longer statistically significantly related with turnover intentions. This led us to believe that the relationship between locus of causality attributions and turnover intentions is fully mediated by job satisfaction. This result was confirmed with a Sobel-test indicating a one-tailed probability of p <.01. Further, the results of a Sobel test indicated that the relationship between stability attributions and turnover intentions was partially mediated by job satisfaction indicated by the one-tailed probability of p=.01.

H5 and H6 were not supported. There was no significant relationship found between either internal control or external control and turnover intentions.

Table 2: Regression results:				
Regression results with Job Satisfaction as Dependent Variable				
	β*	s.e.	t-value	p-value
Locus of Causality	0.2	0.37	2.54	0.01
External Control	-0.10	0.04	-1.76	0.08
Stability	0.01	0.04	0.12	0.91
Personal Control	-0.02	0.06	-.23	0.82
*Standardized path coefficient				
Regression results with Turnover Intention as Dependent Variable				
	β*	s.e.	t-value	p-value
Locus of Causality	-.15	0.07	-.19	0.05
External Control	0.03	0.05	0.54	0.59
Stability	-.14	0.05	-2.30	0.02
Personal Control	0.06	0.07	0.79	0.43
*Standardized path coefficient				
Regression Results including Job Satisfaction as Mediator				
	β*	s.e.	t-value	p-value
Locus of Causality	-.04	0.06	-.64	0.53
External Control	-.02	0.04	-.46	0.64
Stability	-.14	0.05	-2.65	0.01
Personal Control	0.05	0.06	0.786	0.43
Job Satisfaction	-.54	0.06	-11.52	0.00
*Standardized path coefficient				

DISCUSSION

While past studies have clearly delineated the relationship between job satisfaction and turnover intentions (Tett and Meyer, 2006), very few have looked at attribution styles, and job satisfaction simultaneously as predictors of turnover intentions (Harvey, Harris and Martinko, 2008). This study builds on their findings, which tied hostile attributions to job satisfaction and turnover intentions by looking at more general patterns of attribution styles and relating them to job satisfaction and turnover intentions.

Not surprisingly, we found that job satisfaction was a strong predictor of turnover intentions. We also found that attributional tendencies or styles are a significant influence on job satisfaction. It was interesting to find that while the tendency toward stability attributions had a direct positive effect on turnover intentions, even when job satisfaction was included in the model, the impact of locus of causality attributions appears to be fully mediated through the variable of job satisfaction.

The failure to find the relationships predicted in H5 and H6 suggest an interesting interpretation of these findings. If neither high internal control nor high external control influenced turnover intention, then the remaining conclusion is that uncontrollable causes for performance related failures increase the intent to turnover. In other words, having your performance related outcomes depend on chance, luck or the whim of weather are more likely to cause you to want to leave your job than having your outcomes based on another person such as a supervisor.

This finding poses an interesting contrast to the findings of Harvey, Harris and Martinko, (2008). While hostile attributions would typically imply blaming the supervisor or other co-worker, these findings suggest that voluntary turnover is more likely to be caused by feelings of uncontrollability than feelings that another person controls the outcome.

BIBLIOGRAPHY

Abramson, Lyn Y.; Seligman, Martin E.P.; Teasdale, John D. (1978) Learned Helplessness in Humans: Critique and Reformulation. *Journal of Abnormal Psychology*, 87, 49-74.

Allen, D.G. & Griffeth, R.W. Test of a mediate performance-turnover relationship Highlighting the moderating roles of visibility and reward contingency. *Journal of Applied Psychology*, 2001, 86(5), 1014-1021.

Griffeth, R.W., Hom, P.W., & Gaertner, S. A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests, and research implications for the next millennium. *Journal of Management*, 2000, 26, 463-488.

Griffeth, R.W. & Hom, P.W. (2001). *Retaining Valued Employees*, Thousand Oaks: Sage.

Harvey, Paul ; Harris, Kenneth J. and Martinko, Mark J. (2008) The Mediated Influence of Hostile Attributional Style on Turnover Intentions, *Journal of Business and Psychology*, 22, 333-343.

Heider, F. (1958) *The Psychology of Interpersonal Relations*. New York, Wiley.

Hom, P.W., & Griffeth, R.W. Structural equations modeling a test of turnover theory: Cross-sectional and longitudinal analyses. J*ournal of Applied Psychology*, 1991, 76, 350-366.

Hom, P.W. & Griffeth R. (1995). *Employee Turnover*. South-Western College Publishing, Ohio.

Hom, P., & Kinicki, A. (2001). Towards a greater understanding of how dissatisfaction drives employee turnover. *Academy of Management Journal*, 44, 975-987.

Kelley, H.H. (1973) The Process of Causal Attribution. *American Psychologist*, 28, 107-128.

Locke, 1976 cited in Brief, A. P., & Weiss, H. M. (2001). Organizational behavior: affect in the workplace. *Annual Review of Psychology*, 53, 279-307, p. 282

March, J.G. & Simon, H.A. *Organizations.* New York: John Wiley, 1958.

McAuley, E. ; Duncan, T. E. & Russell, D. W. (1992) Measuring causal attributions: The revised causal dimension scale (CDSII). *Personality & Social Psychology Bulletin*, 18, 566 - 573.

McCormick, John (1997) An attribution model of teachers' occupational stress and job satisfaction in a large educational system. *Work & Stress*, 11(1) 17-32.

Mobley, W.H. Immediate linkages in the relationship between job satisfaction and employee turnover, *Journal of Applied Psychology*, 1977, 62, 237-240.

Norris, Dwight R. and Niebuhr, Robert E. (1984) Attributional influences on the job performance-job satisfaction relationship. *Academy of Management Journal*, 27(2), 424-431.

Organ, D. W., & Ryan, K. (1995). A meta-analytic review of attitudinal and dispositional predictors of organizational citizenship behavior. *Personnel Psychology*, 48, 775-802.

Rotter, J.B. (1966) Generalized Expectations for Internal versus External Control of Reinforcement. *Psychological Monographs*, 801-828.

Saari, L. M., & Judge, T. A. (2004). Employee attitudes and job satisfaction. *Human Resource Management*, 43, 395-407.

Tett, Robert P. and Meyer, John P. (2006) Job Satisfaction, Organizational Commitment, Turnover Intention, and Turnover: Path Analyses Based on Meta-Analytic Findings. *Personnel Psychology*, 48(2), 259-293.

Vielva, I. and Iraurgi I. (2002) Control perception and coping behavior in abstinence in alcoholics. *Salud y Drogas* 2(1), 29-42.

Wegge, J., Schmidt, K., Parkes, C., & van Dick, K. (2007). 'Taking a sickie': Job satisfaction and job involvement as interactive predictors of absenteeism in a public organization. *Journal of Occupational and Organizational Psychology*, 80, 77-89

Weiner, B. (1974) (ed.) *Achievement Motivation and Attribution Theory*, Morristown, NJ: General Learning Press.

Weiner, Bernard (1979) A theory of motivation for some classroom experiences. *Journal of Educational Psychology*, 71, 3-25.

Zuckerman, M. and Feldman, L (1984) Actions and occurrences in attribution theory. *Journal of Personality and Social Psychology*, 3, 541-550.

THE JOINT EFFECT OF PERFORMANCE EVALUATION WINDOWS AND PROJECT RISK ON CONTINUOUS IMPROVEMENT INITIATIVES: EVIDENCE FROM THE BALANCED SCORECARD

Marco Lam, York College of Pennsylvania

ABSTRACT

This paper reports the results of an experiment that tests hypotheses suggesting that people's willingness to undertake risky projects is affected by the performance evaluation window and the level of project risk. The independent variables, project risk (30 percent chance of succeeding or 70 percent chance of succeeding) and evaluation window (one or three year balanced scorecard) are manipulated between subjects. The independent variable is participants' willingness to accept a continuous improvement project that reduces current year profitability, but has the potential to increase future firm profitability. Results suggest that participants' willingness to accept a project is jointly affected by project risk and evaluation window. Specifically, while participants are more willing to undertake the higher risk project when they are evaluated over a three year window as opposed to a one year window, they are equally likely to accept the less risky project across evaluation windows. Hence, in certain situations, longer evaluation windows might be effective in encouraging employees to focus on long-term rather than short-term profitability.

INTRODUCTION

This paper reports the result of an experiment that tests whether people's willingness to undertake risky projects is affected by the performance evaluation window and the level of project risk. Managers constantly are faced with tradeoffs between current and future performance. Through the impact on cash flows, their decisions directly affect firm value (Chang et al., 2002; Merchant, 1997). To align management behavior with corporate strategy, the balanced scorecard is widely used by companies in the US and abroad (Kaplan and Norton, 1992, 1996; Silk, 1998). Its emphasis on long term goals and incorporation of leading (nonfinancial) and lagging (financial) indicators could eliminate myopic management behavior (Kaplan and Norton 1 992, p. 34)[1, 2].

The effectiveness of the balanced scorecard depends upon the extent to which it improves management decisions (Lipe and Salterio, 2000). If the balanced scorecard is effective in communicating the firm's strategy and promoting actions consistent with it, decision makers will take actions (e.g., resource allocation decisions) in accordance with the firm's goals (Malina and

Selto, 2001). Prior balanced scorecard academic research has focused mainly on assessing the effectiveness of the balanced scorecard for evaluations (eg. Roberts et al., 2004; Ittner et al., 2003; Lipe and Salterio, 2002), while practitioner research has focused on balanced scorecard implementation (e.g., Brewer et al., 2005; Kaplan and Norton, 1996).

A recent survey of executives suggests that 80 percent of managers would be willing to reduce their discretionary expenditures (eg. R&D, advertising, and maintenance) to meet earnings targets (WSJ, April 2004). This result is consistent with prior research, both experimental and archival, suggesting that managers, under certain conditions, exhibit myopic behavior. That is, under certain conditions, they choose actions that improve short-term profitability at the expense of long-term profitability (e.g., Bhojraj and Libby, 2005; Libby et al., 2004; Guidry et al,, 1999; Bushee, 1998; Gayer et al., 1995; and Hoithausen et al., 1995).

Myopic behavior often occurs when managers have a different time horizon than the firm (Dikolli 2001)[3]. Consequently, managers could take actions to achieve their own short-term goals (e.g., increase and/or earn a bonus) rather than the firm's long-term goals. Dikolli (2001) argues that contracting at least partially on forward-looking measures, such as customer and employee satisfaction (which often are leading indicators of financial performance), can mitigate managers' tendency to place excessive focus on short-term financial performance. Accordingly, performance evaluations increasingly use nonfinancial measures linked to long-term financial goals (e.g., Said et al., 2003; Banker et al., 2000; Ittner et al., 1998).

By including nonfinancial measures, the balanced scorecard potentially is effective in reducing the weight managers put on short-term financial measures. Two other actions that potentially can reduce the often excessive emphasis placed on short term earnings are setting reasonable targets and increasing the measurement horizon (Merchant, 1997: p. 468). Consequently, an increasing number of companies have started using long-term incentive plans, rewarding managers for meeting three year to six year performance targets (Merchant, 1997). This paper provides evidence related to this issue by keeping the target constant, while basing performance evaluations on multiple years' balanced scorecard evaluation windows, i.e., increasing the horizon.

This paper contributes to the balanced scorecard literature in two ways. First, it considers the impact of the balanced scorecard on management's resource allocation decisions, rather than on subordinate performance assessment decisions. Secondly, it considers an alternative evaluation window (three year rolling) for performance evaluation. The common balanced scorecard has a one year window, meaning that managers' performance is evaluated based on the current year only.

The multiple-years evaluation window proposed in this study potentially combines the advantages of the long and short window. One possible advantage of the long window is that reducing the weight placed on current performance could encourage managers to take forward-looking actions. The short window is important because individuals respond well to specific, short-range targets and prompt feedback (Merchant 1997). Thus, while the balanced scorecard reduces the weight placed on operating income (by including non-financial measures), the multiple years

evaluation window goes even further by reducing the weight that is placed solely on *current* year performance. Hypothesized is that, because of the reduced weight placed on current operating income, balanced scorecards based on longer evaluation windows increase the likelihood that managers accept projects that reduce current year earnings, but potentially increase future earnings.

Prior psychology research reports a positive association between willingness to accept delayed gratification and the likelihood of the expected payoff (e.g., Zettler, 1975; Mahrer, 1956). Using this logic, when the likelihood of positive future cash flows increases, managers are more likely to approve projects that provide them with future benefits. Consistent with this research, it is expected that managers will be more likely to approve low risk projects (than high risk projects) with potential future payoffs (Chang et al., 2002). Lower risk and longer evaluation windows both increase the likelihood that managers will approve risky projects, while higher risk and longer evaluation windows work in opposite directions. Consequently, I hypothesize that longer evaluation windows will cause a larger increase in managers' willingness to undertake high risk projects than low risk projects.

To test the hypotheses, a 2x2 between subjects experiment is designed and conducted. The independent variables are project risk (30 percent or 70 percent probability that the project is successful) and evaluation window (one year or three year balanced scorecard). The independent variable is the likelihood that the participants would approve a new continuous improvement project. The participants are 74 upper division business students. Consistent with the first hypothesis, participants are more likely to accept the project when evaluated with the three year balanced scorecard than when evaluated with the one year balanced scorecard. For the second hypothesis, while participants are equally likely to accept the low risk project regardless of the evaluation window, they are more likely to accept the high risk project with the three year than the one year balanced scorecard. Consequently, the results suggest that resource allocation decisions are jointly affected by project risk and evaluation window.

The findings in this study have implications for the design of performance evaluation systems; in certain situations, using longer evaluation windows might be an effective means to encourage employees to focus on long-term rather than short-term profitability and to undertake risky projects that decrease current financial performance but potentially have positive future payoffs.

The remainder of the paper is organized as follows. Section 2 discusses the background, theory, and hypotheses. Section 3 describes the experiment and Section 4 presents its results. Section *5* discusses the results and implications of the study and suggests directions for future research.

HYPOTHESIS DEVELOPMENT

Prior balanced scorecard research (e.g. Roberts et al., 2004; Lipe and Salterio, 2000) suggests evaluators subjectively place weights on the various performance measures when evaluating

performance, which often reduces the effectiveness of the balanced scorecard (Ittner et al., 2003). For example, when managers evaluate performance of two subordinates, they place excessive weight on common measures and insufficient weight on unique measures (e.g., Roberts et al., 2004; Lipe and Salterio, 2002). The subjectivity of the weights can be mitigated by placing explicit weights on the various measures (Roberts et al., 2004; Ittner et al., 2003).

Placing weights on the various measures in the balanced scorecard is consistent with psychology literature suggesting that an additive model describes decision makers' actions when they combine various information cues or attributes into a composite measure (e.g,. Einhorn and Hogarth, 1975; Slovic and MacPhillamy, 1974; Slovic and Liechtenstein, 1971). The weight a component measure receives depends upon its perceived importance to the composite measure (Einhom and Hogarth, 1975). In the balanced scorecard, operating profit is one of many measures. Its perceived importance will determine the weight it receives in the overall performance assessment. Financial measures are reported first and are the basis of most bonuses (Ittner et al., 1997). Arguably, these practices cause financial measures to be perceived as the most important measures. Therefore, balanced scorecard users likely assign large weights to financial measures.

Because of the multiple measures included in the balanced scorecard, performance on one measure can be offset by performance on another measure. Similarly, when the evaluation includes multiple years, each year's measures will receive weights. Therefore, the advantages of the three year balanced scorecard proposed in this study are that fluctuations in one period can be offset by performance in other periods, and that weights placed on current performance can be somewhat offset by other years' performance.

The smaller weight placed on current year operating income in the three year window relative to the one year window reduces its importance in performance evaluations. Because I predict that the current operating income measure will receive less weight when basing evaluations on three year windows, the likelihood that managers will accept projects that negatively affect current year performance, but have the potential to positively affect future performance will be higher than when a one year window is used. I therefore hypothesize that longer evaluation windows increase the likelihood that managers approve projects that decrease current operating performance but have the potential to increase long-term profitability. The following hypothesis results:

> *H1:* *Managers are more likely to take actions that decrease current profitability measures (but have the potential to increase long-term profitability when they are evaluated with a three-year balanced scorecard than when they are evaluated with a one-year balanced scorecard.*

Figure 1: The Hypothesized Likelihood that Managers Will Approve the Continuous Improvement Project by Project Risk and Balanced Scorecard Window
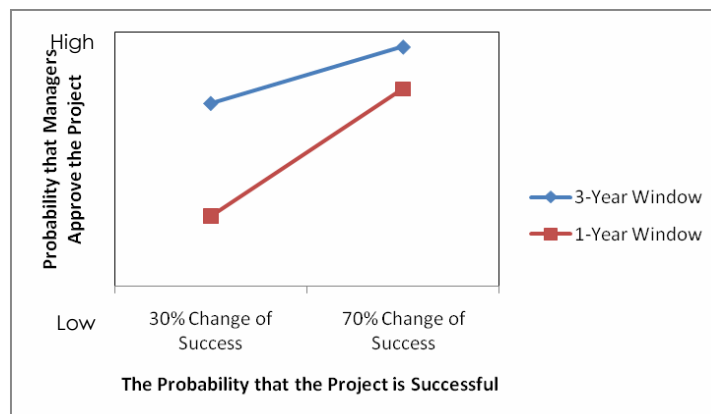
In resource allocation decisions, managers consider project-related factors such as risk and future cash flows (Chang et al., 2002). Psychology research (e.g., Mahrer, 1956; Zettler, 1975) investigates contexts in which participants make decisions that decrease the likelihood of a reward in the current period while increasing the likelihood of a reward in future periods (i.e., delayed gratification). Psychology research suggests that, when the project has a higher probability of succeeding, people are more willing to delay gratification (i.e. delay a reward) as the likelihood of receiving the future reward increases.

In this study's context, managers would be more likely to approve projects that reduce current performance but provide potential future benefits when the project has a high likelihood of succeeding. In other words, when managers evaluate risky projects, they are more likely to approve projects that reduce the likelihood of current benefits (i.e., fail to receive a bonus because current targets are not met) but potentially provide future benefits when the project is less risky. Because managers place weights on the various performance measures in their performance assessments (e.g., Roberts et al., 2004; Lipe and Salterio, 2000), when evaluated over multiple years, weights are placed on each measure in each year. Consequently, the weight placed on current financial performance when evaluated over three years will be smaller than the weight placed on current financial performance when evaluated over one year.

Lower risk and longer evaluation windows both increase the likelihood that managers approve risky projects and their effects therefore are similar. Thus, longer evaluation windows will result in a small increase in the likelihood that managers approve low risk projects. In contrast, the effect of the longer evaluation window will mitigate management's aversion to high risk projects.

The longer window reduces the weight placed on current operating performance and thus reduces the negative effect of accepting the project on overall performance. Consequently, longer evaluation windows will result in a relatively large increase in the likelihood that managers accept high risk projects. That is, longer evaluation windows will have a larger impact on managers' willingness to accept projects for high risk than for low risk projects. Specifically, I hypothesize that longer evaluation windows will increase the likelihood that managers will approve risky projects, but that the impact of the longer window is smaller for the low risk project (see figure 1). The following hypothesis results:

> *H2:*   *The positive impact of a longer evaluation window on the likelihood that managers approve risky projects will be larger for high risk projects than for low risk projects.*

METHOD

To test the hypotheses, I designed and conducted a 2x2 between subjects experiment. The manipulated variables are the reporting window (one-year balanced scorecard vs. three-year balanced scorecard) and the probability that the project is successful (30% chance of succeeding vs. 70% chance of succeeding). Consequently, there are four versions of the research case.

Participants

Participants are 77 upper-division undergraduate students and 36 graduate students from two universities in the eastern United States. The students, recruited in two accounting classes for non-majors and three MBA classes, received extra credit for participating[4]. Three participants did not complete all the questions. Consequently, these observations are removed from the sample, resulting in a final sample of 110 participants[5]. The average age of the participants is 23.9 years (standard deviation 1.83). The participants have an average of 2.7 years (standard deviation 1.71) of full-time and 3.8 years (standard deviation 2.38) of part time work experience. Approximately 35 percent of the sample is female. The majority of the students are Finance (53 percent), MBA students (33 percent) and Operations Management (10 percent) majors. There are no significant differences between the number of females, age, work experience, major, and self reported risk preferences among the four conditions ($p > 0.20$).[6]

Pearson (above the diagonal) and Spearman (below diagonal) pairwise correlations among the dependent variable, demographic variables, and control variables assignment; two students chose to complete the alternative assignment are reported in Table 1. As expected, there is a significant correlation between age and work experience.

<table>
<thead>
<tr><th colspan="9">Table 1: Correlation Matrix[1]</th></tr>
<tr><th></th><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th><th>7</th><th>8</th></tr>
</thead>
<tbody>
<tr><td>1 Likelihood[2]</td><td>-</td><td>-0.04
(0.74)</td><td>-0.05
(0.70</td><td>-0.06
(0.59)</td><td>-0.07
(0.57)</td><td>0.01
(0.96)</td><td>0.09
(0.46)</td><td>**0.31**
(0.01)</td></tr>
<tr><td>2 Gender</td><td>-0.05
(0.65)</td><td>-</td><td>0.20
(0.09)</td><td>**0.27**
(0.02)</td><td>0.07
(0.53)</td><td>0.11
(0.37)</td><td>0.07
(0.57)</td><td>-0.14
(0.23)</td></tr>
<tr><td>3 Age</td><td>-0.08
(0.52)</td><td>0.23
(0.50)</td><td>-</td><td>**0.65**
(0.01)</td><td>**-0.24**
(0.04)</td><td>0.03
(0.80)</td><td>-0.05
(0.71)</td><td>-0.01
(0.92)</td></tr>
<tr><td>4 FT Work Experience</td><td>-0.13
(0.28)</td><td>**0.27**
(0.02)</td><td>**0.30**
(0.01)</td><td>-</td><td>-0.18
(0.13)</td><td>-0.10
(0.38)</td><td>0.00
(0.98)</td><td>-0.08
(0.49)</td></tr>
<tr><td>5 PT Work Experience</td><td>-0.04
(0.73)</td><td>0.08
(0.50)</td><td>-0.17
(0.14)</td><td>-0.18
(0.13)</td><td>-</td><td>-0.10
(0.42)</td><td>-0.12
(0.31)</td><td>-0.06
(0.61)</td></tr>
<tr><td>6 Major[3]</td><td>0.05
(0.66)</td><td>0.11
(0.37)</td><td>-0.09
(0.44)</td><td>-0.12
(0.33)</td><td>-0.09
(0.43)</td><td>-</td><td>-0.22
(0.06)</td><td>0.10
(0.42)</td></tr>
<tr><td>7 Effect on Performance[4]</td><td>0.11
(0.34)</td><td>0.06
(0.59)</td><td>-0.01
(0.94)</td><td>0.07
(0.57)</td><td>-0.12
(0.31)</td><td>-0.22
(0.06)</td><td>-</td><td>0.13
(0.26)</td></tr>
<tr><td>8 Operating Performance[5]</td><td>**0.33**
(0.01)</td><td>-0.20
(0.09)</td><td>0.01
(0.93)</td><td>-0.18
(0.14)</td><td>-0.04
(0.72)</td><td>0.05
(0.69)</td><td>0.14
(0.22)</td><td>-</td></tr>
</tbody>
</table>

[1] Upper right corner are parametric Pearson correlations (significance) and lower left corner are non-parametric Spearman correlations (significance). Correlations significant at the 0.05 level are reported in bold.
[2] Likelihood is the likelihood that participants would approve a new continuous improvement project. The end points of the scale are a labeled "not at all likely" and 10 labeled "very likely"
[3] Major is coded 1 for finance majors and 0 for others.
[4] Item 7 is the reported importance of the effect of the project on current performance on the decision whether to approve the project.
[5] Item 8 is the reported perception of the firm's operating performance.

Case Materials and Procedures

Each participant evaluated a case that describes a hypothetical company's overall business environment and their role in the organization; and then asks a series of questions. The scenario included one of two forms of a balanced scorecard, one of the independent variables. In the one-year window condition, the balanced scorecard shows the department's current year performance against target. The one-year window is consistent with current practice and prior academic research (e.g., Roberts et al., 2004; Malina and Selto, 2001; Lipe and Salterio, 2000). The participants in the three-year condition received a balanced scorecard showing the department's performance in the past two years as well as the department's current year performance against target[7]. They were informed that each year is weighted equally in the performance evaluation. While arguably the last year is more

important and therefore should receive more weight, alternative weighting will affect the magnitude but not the direction of the effect.

Research in psychology suggests that people are unable to process more than seven to nine items simultaneously (Baddeley, 1994; Miller, 1956). To minimize the effect of information overload, while still maintaining the advantages of the balanced scorecard, only seven performance measures across four categories were provided. The seven performance measures chosen are commonly used in balanced scorecards (e.g., Kaplan and Norton 1998, 1996 and 1992). Some of the measures are, or potentially will be, affected by the decision regarding the new project (e.g., new product ROI and market share). For the other performance measures, there is not a direct link between the decision and performance on the measures in current or future years (e.g., training hours and employee suggestions).

The participants were then informed about a new continuous improvement project that could improve the department's future performance. They were told that if they approve the project, then it is not likely that financial targets for the current year will be met. The outlay of the project, $23,000, is approximately five percent of the department's annual operating income. The participants were informed about management's preferences for the success rate of the portfolio of continuous improvement projects (50 percent) and the projected chance of success of the specific project. The projected chance of success, the second independent variable was manipulated between subjects. Participants are assigned to the 30 percent or 70 percent chance of success condition. The case indicated that the Internal Rate of Return (IRR) for the project (16 percent) was higher than management's minimum IRR requirement (12 percent) for projects of this kind. Except for the information directly related to the two independent variables, the design of the experiment held constant all information provided.

After reading the case, the participants were asked to indicate how likely they are to approve the continuous improvement project, as well as various other questions about their decision, the likelihood that participants will approve the new continuous improvement project is the dependent variable. Participants indicated the likelihood that they will approve the project on a ten point scale with 1 labeled "not at all likely" and 10 labeled "very likely" (See the exact wording of the question in the appendix). To control for potential differences among treatment groups, the case included questions to measure participants' perception of current financial performance, the importance of financial measures compared to non financial measures, the perceived negative impact of the project on current period performance, and participants' risk preference.

The participants indicated whether the case was easy to understand. The mean response (mean = 6.99, standard deviation = 1.64 on a 10 point scale with 1 labeled "strongly disagree" and 10 "strongly agree") is significantly greater than the scale midpoint (t = 7.78, p < 0.01), indicating that the participants agree that the case materials were easy to understand.

RESULTS

Preliminary Analysis and Checks

In the case, balanced scorecard evaluation window and project risk were manipulated. Manipulation check questions at the end of the instrument are included to ensure that the manipulations were viewed as intended. Participants' perceived a higher likelihood of success for the low risk project than the high risk project (mean = 7.71, standard deviation = 1.01 and mean = 5.23, standard deviation = 1.58 for the low and high risk projects, respectively, on a 10 point scale with 1 labeled "not at all likely" and 10 "very likely" t = 8.056, p < 0.01). Six of the participants included in the final sample did not answer the evaluation window manipulation check correctly. The number of participants that did not answer the window manipulation check question correctly did not differ among the groups (c^2 = 1.00, p > 0.25)[8].

Participants indicated the relative importance of financial performance measures and non-financial performance measures. The mean response (mean = 6.95, standard deviation = 1.40 on a 10-point scale with 1 labeled "significantly less important" and 10 labeled "significantly more important") is significantly greater than the midpoint suggesting that financial measures are perceived to be more important than non-financial measures (t = 8.90, p < 0.01). There are no significant differences among the four conditions. These results support the conjecture that financial measures are perceived to be more important than non-financial measures.

To control for potential differences in perception of current performance between the two window conditions, participants assessed current operating performance (see appendix for the exact question). There is no significant difference in perception of operating performance across the two window conditions (t = 1.43, p = 0.16).

Table 1 indicates a significant positive correlation between the participants' perception of operating performance and the likelihood that they would approve the project. Although this result is difficult to interpret, it suggests that when participants perceive the operating performance in the current period to be better, they are more willing to accept a project that reduces current period performance. Including this measure as a covariate did not affect the results reported in the next paragraph.

Hypothesis Tests

Analysis of Variance (ANOVA) is used to evaluate the hypotheses. While the residuals are normally distributed (Anderson-Darling A-squared 0.54, p = 0.16), Levene's test suggests there are significant differences in the variances of the dependent variable across the conditions (F = 2.79, p < 0.05). Consequently, I also conducted ANOVA using the rank-ordered data, as suggested by Conover and Iman (1976). Because this non-parametric analysis yields similar results as the

ANOVA on the unranked data, for ease of interpretation, the unranked data results are reported. Each independent variable (project's chance of success and performance window) has two levels. The dependent measure is the likelihood that managers will approve the new continuous improvement project. The results by condition are reported in Table 2. The ANOVA results are reported in Table 3, Panel A and illustrated in Figure 2. The ANOVA results for the rank ordered data are reported in Table 3 panel B.

Table 2:: The Likelihood that Continuous Improvement Project is Approved by Project Risk and Balanced Scorecard Window			
Mean Likelihood of Project Acceptance on a 10-Point Scale[1] (Standard Deviation)[2] [Cell Size]			
	Project Risk		
Window	High Risk (30% Success)	Low Risk (70 Success)	Overall Risk
1 Year Window	5.47 (1.51) [27]	7.71 (0.84) [28]	6.62 (1.64) [55]
3 Year Window	6.61 (1.60) [27]	7.82 (1.23) [28]	7.23 (1.53) [55]
Overall Window	6.04 (1.64) [54]	7.76 (1.04) [56]	6.93 (1.61) [110]
[1] The endpoints of the scale are 1 labeled "not at all likely" and 10 labeled "very likely. [2] Bartlett's test suggest that the variances of the four conditions differ (F = 2.79, p = 0.05). The results for the ranked data are similar. For ease of interpretation, the original results are reported			

Table 3: Test of Between Subject Effect					
A: ANOVA for Unranked Data					
Source	Sum of Squares	df	Mean Square	F	Prob.[1]
Model	3615.97	4	903.99	740.84	0.01
Window[2]	7.15	1	7.15	5.86	0.02
Risk[3]	54.79	1	54.79	44.90	0.01
Window*Risk	4.94	1	4.94	4.05	0.05
R^2 = 0.967 Adj. R^2 = 0.966					

Table 3: Test of Between Subject Effect					
A: ANOVA for Ranked Data[4]					
Source	Sum of Squares	df	Mean Square	F	Prob.[1]
Model	115,104.24	4	28,766.06	125.11	0.01
Window[2]	1,233.07	1	1,233.61	5.36	0.03
Risk[3]	8,894.62	1	8,894.62	38.69	0.01
Window*Risk	971.11	1	971.11	4.22	0.04
$R^2 = 0.840$ Adj. $R^2 = 0.831$					
[1] The window is the balanced scorecard window used for management evaluations. The one-year window is the traditional evaluation window while the three-year window is an alternative evaluation window proposed in this study. [2] Project risk is the probability that the continuous improvement project will be successful [3] The hypotheses are directional, so reported p-values are one-tailed. [4] Blair et al (1987) show that, in the case of a 2x2 factorial design, the ranks show main effects if and only if the original means do (p. 1142)					

**Figure 2:: The Likelihood[1] that Managers Will Approve the Continuous Improvement Project
by Project Risk and Balanced Scorecard Window**
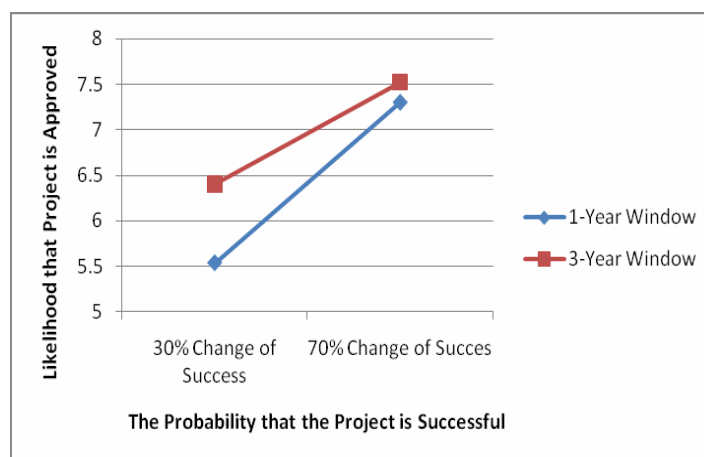
[1] Likelihood is measured on a 10-Point Scale. The end-points are labeled 1 "not at all" and 10 "very likely".

Consistent with prior research (e.g., Chang et al., 2002, Mahrer, 1956), the main effect for "risk" is significant (F = 44.90, p < 0.01), participants are more likely to approve a low risk project than a high risk project (mean = 7.41 and 5.97 on a 10-point scale for the low and high risk project, respectively; the endpoints of the scale are 1 labeled "not at all likely" and 10 labeled "very likely").

The first hypothesis (H1) is supported by the significant main effect for "Window" (F = 5.86, p = 0.02). Specifically, participants are more willing to accept risky projects when they are evaluated using a three-year window as opposed to a one year window (means 6.97 and 6.44, for the three-year and one-year window respective1y).

The second hypothesis (H2), which predicts that longer evaluation windows have a larger impact on participants' resource allocation decisions for high risk projects than for low risk projects, the interaction is significant (F = 4.05, p = 0.05).

Analysis of the simple main effects of window across each level of project risk indicate that there is no statistically significant difference for the low risk project (F = 0.10, p = 0.76) across the two window conditions (mean = 7.52 and 7.31 for the three year and one-year window respectively). However, for the high risk project, the responses across the participants in the - window condition and the one-year window differ significantly (F = 4.84, p = 0.04). Specifically, participants in the three year window condition are more likely to accept the high risk project than participants in the one-year condition (means 6.41 and 5.54, respectively). The results support H2; longer evaluation windows have a larger impact for high risk than for low risk projects. Contrary to expectations however, for the low risk project, the likelihood that participants approve the project is similar across window conditions.

CONCLUSION

In this paper, the joint effect of balanced scorecard evaluation windows and project risk on participants' resource allocation decisions is investigated. The results provide support for the hypothesis that, for high risk projects, participants are more likely to accept the project when evaluated over the longer evaluation window. For low risk projects, the evaluation window does not affect the likelihood that participants approve the project. Consequently, project risk and evaluation window jointly affect the likelihood that managers approve resource allocation projects.

Like all studies, this study has limitations. The participants in this study are 110 upper division business and MBA students. The results of this study therefore might not be generalizable to managers who make these kinds of decisions in practice. Another limitation is that the case in this study dealt with a specific setting a new continuous improvement project. The participants might respond differently if they are asked to approve a different resource allocation project. It is therefore not clear whether the results are generalizable to other settings.

The balanced scorecard used in this paper includes fewer measures than the balanced scorecards used in practice and prior academic research. Hence, managers might respond differently

when they receive more measures. The participants in the three-year window condition were informed that, in the evaluation, all years are weighted equally. The participants might have responded differently if weights were assigned differently, or if they were allowed to assign their own weights.

Finally, the participants had only a limited amount of information. The participants might respond differently when they can use multiple sources to evaluate the performance of the project, are able to compare this project with other projects, and are able to consult with others.

Despite these limitations, the results have a number of practice and research implications. The results suggest that, in certain situations, using longer evaluation windows might be an effective means to encourage employees to focus on long4erm rather than short-term profitability. The longer window could encourage managers to pursue risky projects that decrease current financial performance but potentially have positive future payoffs. Increased willingness to accept risky projects might be desirable in certain industries and settings. The longer evaluation windows could be beneficial in industries, such as pharmaceuticals or high-tech, where managers make decisions that will not have a payoff for many years.

The extant literature has looked at the balanced scorecard usage for performance assessment decisions. Remarkably little research has looked at the effect of the balanced scorecard on resource allocation decisions. Thus, future studies also can examine how the balanced scorecard affects various resource allocation decisions and test whether the results in this paper can be generalized to other settings. I found a positive correlation between the perceived operating performance of the firm and the willingness to accept risky projects. Future research could investigate whether the results hold in situations in which the firm is doing extremely well or extremely poorly. Such research would further our understanding of the potential advantages and disadvantages of longer windows for performance evaluations.

ENDNOTES

[1] The balanced scorecard combines the traditional financial performance measures (e.g. ROE and sales growth) with non-financial performance measures (e.g. lead times and customer satisfaction). While the financial measures are lagging indicators of performance, they are important because they provide accountability for the actions taken in the past.

[2] Myopic is defined as emphasizing short4erm concerns at the expense of long-term concerns. In an accounting example, myopic behavior would involve not incurring current period expenses that would increase future cash flows in order to report higher earnings in the current period.

[3] For example, managers might consider working for the firm for only a short period of time while the firm is looking to maximize long-term return to stockholders. For this and other reasons (e.g., to increase their chances for a bonus in the current year), managers might overemphasize current concerns over long-term concerns.

[4] Students that preferred not to participate were given the option of completing an alternative extra credit

5 The results are similar when the participants that did not complete all the questions are included in the analyses.

6 The analysis with the risk preference included as a covariate yields similar results as the results reported in the paper. The risk preference variable is insignificant (F 0.79, P > 0.25)

7 While three year evaluation windows are not commonly used, several universities assess faculty performance over the last three years.

8 Excluding the participants that missed the manipulation check from the analyses has no impact on the results; therefore the results for the whole sample are reported in the next section.

REFERENCES

Baddeley, A. (1994). The Magical Number Seven: Still Magic after These Years? *Psychological Review* (April): 353-356.

Banker, R.D, G. Potter, and I.D. Srinivasan.(2000). An Empirical Investigation of an Incentive Plan that Includes Nonfinancial Performance Measures. *The Accounting Review* 75 (1): 65-92.

Bushee, B. (1998) The Influence of Institutional Investors on Myopic R&D Investment Behavior. *The Accounting Review* 73 (3): 305-333.

Bhojraj, S. and R. Libby. (2005). Capital Market Pressure, Disclosure Frequency enduced Earnings/Cash Flow Conflict, and Managerial Myopia. *The Accounting Review* 80(1): 1-20.

Brewer, P.C., S. Davis, and T. Albright (2005). Building a Successful Balanced Scorecard Program. *Cost Management* 19(1): 28-37.

Chang, CJ, LLY. Ho, and P. Lin. (2002). Managers' Resource Allocation: Review and Implications for Future Research. *Journal of Accounting Literature* 21: l37.

Conover, W.J. and R.L. Iman. (1976). Rank Transformation as a Bridge between Parametric and Non-Parametric Statistics. *Journal of the American Statistical Association* 35: 124-129.

Dikolli, S.S. (2001). "Agent Employment Horizon and Contracting Demand for Forward- Looking Performance Measures." *Journal of Accounting Research* 39 (3): 481- 494.

Einhorn, H. J. and R. M. Hogarth. (1975). "Unit Weighting Schemes for Decision Making" *Organizational Behavior and Human Performance* 13: 171-192.

Gayer, L J, K. M. Gayer, and J. R. Austin. (1995). Additional Evidence on Bonus Plans and Income Management. *Journal of Accounting and Economics* 19: 3-28

Guidry, F., A. L Leone, and S. Rock. (1999). Earnings-Based Bonus Plans and Earnings Management by Business-Unit Managers. *Journal of Accounting and Economics* 26: 113-142.

Holthausen, R.W., D.F. Larcker, R.G. Sloan. (1995). Annual Bonus Schemes and the Manipulation of Earnings. *Journal of Accounting and Economics* 19: 29-74.

Ittner, C.D., and D.D. Larcker, and M.V. Rajan. (1997). The Choice of Performance Measures in Annual Bonus Contracts. *The Accounting Review* 72(2): 231-256.

Ittner, C. and D. Larcker. (1998). Are Nonfinancial Measures Leading Indicators of Financial Performance? An Analysis ofCustomer Satisfaction. *Journal of Accounting Research* 36 Supplement: l-35.

Ittner, C., D. Larcker. , and M.W Meyer. (2003). Subjectivity and the Weighting of Performance Measures: Evidence from a Balanced Scorecard. *The Accounting Review* 78 (3): 725-759.

Kaplan, R and D. Norton. (1992). *The Balanced Scorecard — Measures that Drive Performance* Harvard Business Review 70 (1): 70-79.

Kaplan, R and D. Norton. (1996). *The Balanced Scorecard: Translating Strategy into Action*. Boston, MA: Harvard Business School Press.

Kaplan, R and D. Norton. (1998). *The Strategy Focused Organization*. Boston, MA.: Harvard Business School Press.

Libby, T, S. Salterio, and R. Webb. (2004). The Balanced Scorecard: The Effects of Assurance and Process Accountability on Managerial Judgment. *Accounting Review* 79 (4): 1075-1094.

Lipe, M. and S. Salterio. (2000). The Balanced Scorecard: Judgment Effects of Common and Unique Performance Measures. *The Accounting Review* 75 (3): 283-298.

Lipe, M. and S. Salterio. (2002). "A Note on the Judgmental Effects ofthe Balanced Scorecard's Information Organization" *Accounting, Organizations and Society* 27: 531-540.

Mahrer, A. R. (1956). The Role of Expectancy in Delayed Reinforcement. *Journal of Experimental Psychology* 52 : 101-106.

Malina, M. and F. Selto. (2001). Communicating and Controlling Strategy: An Empirical Study of the Effectiveness of the Balanced Scorecard. *Journal of Management Accounting Research* 13: 47-90.

Merchant, K. A. (1997). *Modern Management Control Systems: Text & Cases*. Upper Saddle River, NJ: Prentice Hall.

Miller, G. (1956). The Magical Number Seven Plus or Minus Two: Some Limits on Our Capacity for Information Processing. *The Psychological Review* (March): 81-96.

Roberts, M., T. Albright, and A. Hibbets. (2004). Debiasing Balanced Scorecard Evaluations, *Behavioral Research in Accounting* 16: 75-88.

Allied Academies

invites you to check our website at

www.alliedacademies.org

for information concerning

conferences and submission instructions