EXAMINING THE MWEP: FURTHER VALIDATION OF THE MULTIDIMENSIONAL WORK ETHIC PROFILE

A Thesis

by

NATASHA ANTOINETTE HUDSPETH

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

May 2003

Major Subject: Psychology

EXAMINING THE MWEP: FURTHER VALIDATION OF THE MULTIDIMENSIONAL WORK ETHIC PROFILE

A Thesis

by

NATASHA ANTOINETTE HUDSPETH

Submitted to Texas A&M University
in partial fulfillment of the requirements
for the degree of

MASTER OF SCIENCE

Approved as to style and content by:

David J. Woehr (Co-Chair of Committee)	Winfred Arthur, Jr. (Co-Chair of Committee)
Mindy E. Bergman (Member)	John Hoyle (Member)
	Steve Rholes (Head of Department)

May 2003

Major Subject: Psychology

ABSTRACT

Examining the MWEP: Further Validation of the Multidimensional Work Ethic Profile.

(May 2003)

Natasha Antoinette Hudspeth, B.A., Texas A&M University

Co-Chairs of Advisory Committee: Dr. David J. Woehr
Dr. Winfred Arthur, Jr.

This research expands on previous work and provides further validation of the Multidimensional Work Ethic Profile (MWEP) by exploring the relationships among the MWEP dimensions and other common work-related attitude variables: job involvement, job satisfaction, and organizational commitment. Furthermore, this study investigates the extent to which the MWEP dimensions explained variance in the above mentioned variables over and beyond that which could be explained by conscientiousness and need for achievement. Although the MWEP dimensions correlated with the other work-related variables, the MWEP allowed for the evaluation of unique patterns of relationships among these variables and the work ethic dimensions. The results indicated that the MWEP dimensions were significantly related to conscientiousness yet accounted for significant variance in job involvement, organizational commitment, and job satisfaction above and beyond that explained by conscientiousness. Contrary to what was expected, need for achievement was not significantly related to the MWEP dimensions. Implications and suggestions for future research are discussed.

DEDICATION

To my parents, Louis and Betty Jo.

ACKNOWLEDGMENTS

I would like to take this opportunity to acknowledge three people to whom I am eternally thankful. To my team of advisors, Dave Woehr and Winfred Arthur, I would like to express my gratitude for your endless support and guidance throughout this process. I could not have asked for better mentors and friends. You each have been a continual source of inspiration for me, and for that, I offer my sincerest appreciation.

I would also like to thank Mindy Bergman and John Hoyle for serving as committee members. Mindy, you are such an awe-inspiring individual and I am so very grateful that I have had the opportunity to work with you. John, thank you for being so supportive and in tune with the student perspective of graduate school. It truly has been a pleasure to have you serve on my committee.

Thanks again to each of you and I wish you all the very best.

TABLE OF CONTENTS

Page

LIST OF TABLES

INTRODUCTION

Many researchers have investigated the concept of work ethic in terms of its measurement (McHoskey, 1994; Mudrack, 1997; Tang, 1993; Wayne, 1989), relationship to performance (Ganster, 1981; Greenberg, 1977), and relationship to other work-related attitudinal variables (Ali, Falcone, & Azim, 1995; Cohen, 1998; Hackett, Lapierre, & Hausdorf, 2001; Stone, 1975). Although there is overwhelming evidence that work ethic is a multidimensional construct (e.g., see Furnham, 1990b), the majority of research investigating these relationships has used measures that do not fully represent the dimensionality of work ethic and generally tend treat work ethic as a unidimensional construct (e.g., Cohen, 1998; Stone, 1975; see Mudrack, 1997 for a notable exception). Based on the tendency to report overall work ethic composite scores, few studies have actually investigated the differential relationships between the work ethic dimensions and other work commitment and organizational variables (e.g., Hirschfeld & Feild, 2000; Shamir, 1985).

In response to the need for a measure that represents the full work ethic dimensionality, Miller, Woehr, and Hudspeth (2002) introduced and provided preliminary evidence of construct-related and criterion-related validity for the use of a recently developed multidimensional measure of work ethic, the Multidimensional Work Ethic Profile (MWEP). Based on the previous work conducted on the MWEP, one goal of the present research was to reexamine the relationships between work ethic and three

---

This thesis follows the style and format of the *Journal of Applied Psychology*.

commonly researched work-related attitudinal variables: job satisfaction, organizational commitment, and job involvement. The present study also investigated the differential relationships between the MWEP dimensions and these variables. Given that the initial validation efforts of the MWEP revealed positive, moderate, significant relationships between the MWEP dimensions and conscientiousness and need for achievement, a second goal of the present study was to examine whether the MWEP dimensions explained variance in job involvement, organizational commitment, and job satisfaction beyond that explained by conscientiousness and need for achievement. To accomplish these goals a review of the literature related to these relationships has been provided followed by an empirical assessment of the predicted relationships using correlational and hierarchical regression analyses.

Work Commitment

Over the past several decades, organizational researchers have expended extensive efforts in the identification and operationalization of attitudinal constructs that are related to and influential on work behaviors. This developing body of literature has been subsumed under the classification most succinctly referred to as the study of work commitment (Hackett, Lapierre, & Hausdorf, 2001; Morrow, 1983). Within this domain, a multitude of researchers have sought to investigate constructs specifically representative of organizational beliefs and values such as work ethic (Ali & Falcone, 1995; Stone, 1975), organizational commitment (Keller, 1997; Mathieu & Zajac, 1990; Randall & Cote, 1991), job involvement (Brown, 1996; Kanungo, 1982; Paullay,

Alliger, & Stone-Romero, 1994; Rabinowitz & Hall, 1977), and job satisfaction (Iaffaldano & Muchinsky, 1985; Judge, Thoreson, Bono, & Patton, 2001; Sullivan & Bhagat, 1992; Weaver, 1997).

In comparison to other work-related attitudinal variables within this taxonomy of constructs, there has been a lack of recent research devoted to the work ethic construct in the applied psychological literature. As Miller et al. (2002) noted, one potential reason for the lack of recent research devoted to work ethic could be that previously used work ethic measures did not adequately assess the full dimensionality of the work ethic construct. Consequently, the results of previous research might be misleading if researchers relied on measures that lacked the ability to fully measure work ethic in its entirety; this led to the suggestion of the appropriateness of reexamining the relationships between work ethic and other work-related variables.

Miller et al. (2002) began to address the gap in the work ethic literature by introducing and providing preliminary evidence of construct-related and criterion-related validity for the MWEP. These authors define work ethic as a constellation of attitudes and beliefs pertaining to work-oriented behavior. Grounded in this definition, they purport that the MWEP is the first work ethic measurement tool to fully encompass the totality of the work ethic dimensions: Hard Work, Self-Reliance, Delay of Gratification, Morality/Ethics, Centrality of Work, Leisure, and Wasted Time.

The Development of the MWEP

Nearly a century ago, Max Weber proposed the fundamental ideas regarding the principles of hard work in his two-part essay (1904/05) and subsequent book (1958), *The Protestant Ethic and the Spirit of Capitalism*. Weber's central thesis was that the changes in the economic structure during the 16th century (i.e., rise in industrialism and subsequent capitalism) were due to a shift in theological belief (Rose, 1985). Specifically, he proposed that those ascribing to Protestant religious beliefs, which were grounded in principles reflecting the good of work for work's sake (e.g., diligence, punctuality, work predominance), were the catalysts for bringing about the economic growth that coincided with the Protestant Reformation. Even from its ideological inception, the notion underlying the Weberian thesis was multidimensional in scope.

Since the introduction of work ethic as a construct into the discipline of psychology in the 1960s (McClelland, 1961), researchers in the behavioral sciences have attempted to investigate the tenets set forth by Weber. A substantial portion of these research efforts has been devoted to work ethic measurement and the determination of its factor structure (e.g., Blau & Ryan, 1997; Furnham, 1990b; Heaven, 1989; McHoskey, 1994).

Building on the ideas proposed by Weber and on past measures of work ethic (Blood, 1969; Buchholz, 1978; Goldstein & Eichhorn, 1961; Hammond & Williams, 1976; Ho & Lloyd, 1984; Mirels & Garrett, 1971; Ray, 1982), Miller (1997) conducted an exhaustive search and comprehensive synopsis of the history of the work ethic construct and its measurement. Miller's analyses resulted in the development of the

MWEP, a 65-item measure of work ethic that assesses the seven facets or dimensions of work ethic: Hard Work, Self-Reliance, Delay of Gratification, Morality/Ethics, Centrality of Work, Leisure, and Wasted Time. Miller also investigated the construct-related validity of the MWEP by assessing its relationship with measures of personality, needs, and cognitive ability. His results showed the convergent validity of the MWEP scores with scores on conscientiousness and need for achievement, and discriminant validity with cognitive ability scores.

Although Miller conceptualized the MWEP as a multidimensional measure, the preliminary construct-related validity evidence he provided was not reported in a manner consistent with the multidimensionality of the work ethic construct. The proposition here is that it is more meaningful to examine the nature of the specific MWEP dimensions in relation to other work-related variables. For the purposes of this study, the work attitude variables of interest were job involvement, organizational commitment, and job satisfaction.

Work Ethic, Job Involvement and Organizational Commitment

Aldag and Brief (1975) noted work ethic plays an integral role in influencing employee affective responses in the workplace. Given this assertion, work ethic should be correlated with work-related attitudinal variables such as job involvement, organizational commitment, and job satisfaction. Lodahl and Kejner (1965) define job involvement as a component of one's self–esteem that is associated with one's identification with one's job. Organizational commitment is defined as one's pride in

the organization, willingness to invest personal effort as a member of the organization, and desire to remain with the organization (Cook & Wall, 1980). Therefore, organizational commitment concerns an employee's sense of obligation or loyalty to the company. The major distinction between job involvement and organizational commitment involves to what exactly the employee feels attached, either the job or the organization (Morrow, 1983).

Researchers have shown that job involvement is a key component in understanding the relationships among work ethic, other work commitment variables, and individuals' experiences at work in general. For example, Morrow (1993) and Randall and Cote (1991) have presented two competing models of the relationships among forms of work commitment. Morrow's model posits that organizational commitment moderates the relationship between work ethic and job involvement. Randall and Cote's model conversely places job involvement as the moderating variable between work ethic and organizational commitment. Empirical assessment of the two models showed greater endorsement of job involvement, rather than organizational commitment, as being the work-related attitude that links work ethic to other work-related attitudes (Cohen, 1999).

Several authors also have noted the direct relationship between work ethic and organizational commitment. Saks, Mudrack, and Ashforth (1996) studied work ethic as a predictor of temporary employee perseverance and commitment and found that organizational commitment was directly related to one's belief in the work ethic. Morrow and McElroy (1986) found a .42 correlation between Protestant ethic

endorsement and organizational commitment. Others also have noted that higher endorsement of work ethic is related to increased intentions to remain in an occupation (Cohen, 1998). Based on these findings, it was hypothesized that:

> *Hypothesis 1:* The MWEP dimensions will be moderately and positively related to job involvement and organizational commitment.

Although some studies have investigated the relationships between work ethic, job involvement, and organizational commitment, relatively few studies have investigated the relationships between specific work ethic facets and these variables. One exception is the work ethic facet Leisure and its relationship to job involvement (Shamir, 1985). In the work ethic context, Leisure is considered to be valued for its rejuvenating and restorative effects (Miller et al., 2002). Orpen (1982) studied the Leisure/job involvement relationship in a sample of bank clerks and policemen. His results indicated that the more involved the participants were in their jobs, the less importance they placed on non-work (i.e., leisure) activities.

Two other work ethic facets that have received some, although sparse, attention are Self-Reliance and Centrality of Work. Stoeber and Seidenstueker (1997) found that the degree to which an individual was involved with his job was significantly related to the degree of autonomy allowed by the job. In an investigation of general commitment to work, Hirschfeld and Feild (2000) found that Centrality of Work was significantly related to job involvement and organizational commitment. Based on these findings, the following were hypothesized:

> *Hypothesis 2:* Job involvement will be negatively related to the MWEP dimension Leisure and positively related to the MWEP dimensions Self-Reliance and Centrality of Work.

Hypothesis 3: Organizational commitment will be positively related to the MWEP dimension Centrality of Work.

Work Ethic and Job Satisfaction

Not only does the work ethic literature examine the relationship between work ethic and other work-related variables, it also examines the relationship between these variables and individuals' experiences at work. One area that has been investigated is job satisfaction, which is the degree of enjoyment, pleasure, or liking an individual derives from the job. Unlike job involvement and organizational commitment, job satisfaction is not considered a facet of work commitment per se, but is viewed more as an attitudinal variable that is based on work experience. Work ethic has been shown to play a key role in influencing employee affective responses in the workplace (Randall & Cote, 1991) and preference toward and satisfaction in certain jobs (Furnham & Korsitas, 1990). Researchers studying the causal connections among job satisfaction and other work-related attitudes have found that work ethic, mediated by employees' confidence in job and skill competence, was related to increased job satisfaction (e.g., Sekaran, 1989). Based on this prior research, the following hypothesis was made:

Hypothesis 4: The MWEP dimensions will be positively related to job satisfaction.

Unlike the job involvement and organizational commitment literatures, there is extensive research examining the relationship between work ethic facets and job satisfaction. However, the primary relationship examined has been the correlation between the work ethic facet Leisure and job satisfaction. The majority of this research

addresses the assertion that having more non-work, leisure time is associated with greater job satisfaction (e.g., Snir & Harpaz, 2002; Sousa-Poza & Sousa-Poza, 2000; Weinstein & Barber, 1999). Although the preponderance of research has focused on the Leisure/satisfaction relationship, the work ethic facet Centrality of Work has received some attention as well. For example, Mannheim (1983) studied job satisfaction, Work Centrality, and workplace preference and found a significant correlation between Work Centrality and job satisfaction. Based on these findings, the following was expected:

> *Hypothesis 5:* Job satisfaction will be negatively correlated with the MWEP dimension Leisure and positively correlated Centrality of Work.

Conscientiousness and Need for Achievement in the Work Commitment Literature

Researchers studying the relationship between work commitment constructs and personality variables have observed that conscientiousness (Brown, 1996; Fallon, Avis, Kudisch, Gornet, & Frost, 2000; Greenberg, 1977) and need for achievement (Kirkcaldy & Cooper, 1992; Kirkcaldy, Furnham, & Lynn, 1992; Mudrack, 1997) to be conceptually linked to work ethic. For example, Brown (1996) noted that individuals who value hard work and believe in the importance of work for work's sake feel compelled to work to the best of their abilities and put maximum effort into their activities. Miller (1997) provided supporting evidence of the relationship between work ethic and these variables. He reported moderate correlations between a composite score of work ethic and conscientiousness (mean $r = .32$) and need for achievement (mean $r = .31$).

In addition to empirical evidence of the relationship of these variables to work ethic, there is also empirical support for their relationship to each other as well as to other job-related variables such as job involvement and organizational commitment. In studying the relationships among general work and career-oriented beliefs, Holland, Johnston, Asama, and Polys (1993) reported that conscientiousness was positively correlated with beliefs about the importance of success and achievement. Tokar, Fischer, and Subich (1998) found that conscientiousness predicted greater valuing of coworkers and commitment to the organization. Similarly, Brown (1996) reported a positive correlation between conscientiousness and job involvement.

In review, research has shown that work ethic is significantly related to job involvement, organizational commitment, conscientiousness, and need for achievement. In turn, conscientiousness and need for achievement are related to job involvement and organizational commitment. Because recent research has emphasized the relationship between personality factors and work ethic (e.g., Tokar et al., 1998), it is important to determine whether the MWEP dimensions account for unique variance beyond that accounted for by conscientiousness and need for achievement. Due to reported moderate correlations for these relationships, a great deal of variance remains unexplained, some of which may be accounted for by the MWEP dimensions. Therefore, the final hypothesis was as follows:

> *Hypothesis 6:* The MWEP dimensions will account for significant variance in job involvement, organizational commitment, and job satisfaction above and beyond that explained by conscientiousness and need for achievement.

In summary, the purpose of this study is to extend the prior research conducted on the MWEP by examining the differential relationships among the MWEP dimensions and job involvement, organizational commitment, and job satisfaction. A second goal is to examine whether the MWEP dimensions explain variance in job involvement, organizational commitment, and job satisfaction beyond that explained by conscientiousness and need for achievement.

METHOD

Participants

The sample consisted of 174 working individuals recruited from a financial institution ($N = 58$), a car dealership ($N = 89$), and a newspaper ($N = 27$). The average age was 26.1 ($SD = 19.29$, min = 17, max =76). Forty-two percent of the participants were male. In addition, 76% of the participants were White, 19% were Hispanic, 4% were Black, and 1% indicated a racial origin not listed. Twenty-six percent indicated they were high school graduates, 40% indicated they had completed some college, and 27% were college graduates. Seventy percent indicated they had been employed by their current organization for over 2 years. Approximately 300 questionnaire packets were distributed and 174 were returned, resulting in a 58% response rate. Due to the data collection procedures, there were no data about the characteristics of the 42% who did not respond.

Power analyses based on regression procedures were calculated to determine the adequacy of the current sample size to detect the expected effects. The analyses indicated that the current sample of 174 employees was sufficient to detect moderate effects (power = .98, $p < .05$ for a two-tailed test).

Measures

Work Ethic. The MWEP (Miller et al., 2002) was used to measure work ethic. The MWEP is a measure comprised of 65-items and 7 dimensions or components. The dimension Hard Work contains items that assess one's belief in the virtues of hard work

(e.g., “Hard work makes one a better person”). The dimension Centrality of Work assesses the belief in work for work’s sake (e.g., “I feel content when I have spent the day working”). Self-Reliance assesses an individual’s striving for independence in their daily work (e.g., “One must avoid dependence on other persons whenever possible”). Wasted Time assesses one’s attitudes and beliefs reflecting active and productive use of time (e.g., “I constantly look for ways to productively use my time”). Delay of Gratification assesses one’s orientation toward the future and postponement of rewards (e.g., “The best things in life are those you have to wait for”). Leisure assesses attitudes and beliefs regarding the importance of nonwork activities (e.g., “The job that provides the most leisure time is the job for me”). Morality/Ethics assesses one’s belief in a just and moral existence (e.g., “It is never appropriate to take something that does not belong to you”).

The MWEP was used to measure each of these dimensions. Each dimension had 10 items with the exception of Wasted Time (7 items) and Delay of Gratification (8 items). Responses were scored on a 5-point Likert-type scale (1= *Strongly Disagree* to 5 = *Strongly Agree*). Each dimension score, with the exception of Wasted Time and Delay of Gratification, was calculated as the average of the responses for each of the items assessing that dimension. Scores for Wasted Time and Delay of Gratification were calculated as the average item response across all responses for the specified dimension with the obtained averages being multiplied by ten so that these dimensions would remain on the same scale as the other dimensions. Therefore the dimension scores could range from 10 to 50. All of the dimensions were scored such that higher scores indicated

higher endorsement of the statements. The obtained dimension reliability estimates for the current study are listed in Table 2.

Job Involvement. Job involvement was assessed using Lodahl and Kejner's (1965) 20–item measure. This measure assesses one's psychological identification with one's job. The measure includes items such as "I live, eat, and breathe my job," and "I am very much involved personally in my work." Responses were scored on a 4-point Likert type scale (1 = *Strongly Disagree* to 4 *Strongly Agree* =) with the total score being the sum of all item responses. Scores could range from 20 to 80. The coefficient alpha obtained for the job involvement scores was .80.

Organizational Commitment. Cook and Wall's (1980) 9-item measure was used to assess organizational commitment. This measure was developed to assess one's commitment to an organization by evaluating his or her organizational identity, loyalty, and involvement in the organization. The measure includes items such as "I feel myself to be part of the organization," and "I am quite proud to tell people who it is I work for." The responses were scored on a 7-point Likert type scale (1 = *No, I strongly disagree* to 7 = *Yes, I strongly agree*). Scores were obtained by summing item responses; therefore scores could range from 9 to 63. Higher scores indicated higher commitment. The coefficient alpha obtained for the organizational commitment scores was .79.

Job Satisfaction. Warr, Cook, and Wall's (1979) 15-item measure was used to measure overall job satisfaction in terms of specific aspects of the job (e.g., pay, supervisors, coworkers, physical conditions). Responses were made on a 7-point Likert-type scale (1 = *I'm extremely dissatisfied* [with the specified aspect]; 7 = *I'm extremely*

satisfied [with the specified aspect]). Scores were obtained by summing the individual item responses; therefore scores could range from 15-105. Higher scores indicated greater overall job satisfaction. The coefficient alpha obtained for the job satisfaction scores was .92.

Conscientiousness. Goldberg's (1992) 100 Unipolar Markers was used measure conscientiousness. Goldberg's 100 Unipolar Markers is a general measure of the personality dimensions that comprise the five-factor model of personality. This measure is comprised of 20 adjectives characterizing each of the five factors. Respondents describe how accurately each of the 100 trait-descriptive adjectives applies to them using a 9-point scale (1 = *extremely inaccurate*; 9 = *extremely accurate*). Scores could range from 20-180. The coefficient alpha obtained for the conscientiousness scores was .90.

Need for Achievement. The Manifest Needs Questionnaire (MNQ; Steers & Braunstein, 1976) was used to assess need for achievement. The MNQ is a 20-item measure of four needs: Achievement, Affiliation, Autonomy, and Dominance. Each scale consists of 5 items using a 7-point Likert-type scale (1 = *Always*; 7 = *Never*). Sample items for the need for achievement scale include "I do my best work when my job assignments are fairly difficult", and "I try very hard to improve on my past performance at work." Scores were obtained by taking the average of the item responses; therefore scores range from 1-5. The coefficient alpha obtained for the need for achievement scores was .70.

Procedure

Initial meetings occurred with representatives from each participating organization's management. The managers received a brief written description of the current project as well as a sample questionnaire packet to review for any questions or concerns. Upon agreement to participate, a separate presentation time for the employees was scheduled. On the second visit to the organizations, the employees were informed that their participation was voluntary and that all responses would be anonymous. Employees were presented with the same information presented to management regarding the questionnaire packet and materials. They were instructed that the measures were to be completed on their own time.

As compensation for their time, each participant who completed the measures was entered in a drawing for $100. There were separate drawings held for each location for a giveaway total of $300. Participants were instructed to deposit all research materials and lottery slips in the locked storage box provided for each location. The storage box contents were accessible only to the researcher. Participants were assured that their responses would not be viewed by any members of their respective organizations and would be used for research purposes only. Participants were given approximately two weeks to fill out the measures and return them to the storage boxes upon completion. When returning measures, the supplemental attachments that contained participants' name and phone number were detached and placed in separate boxes because this information was needed only for the purposes of the lottery. At the end of the two-week period, the researcher collected the storage boxes and thanked the

management for their cooperation.

RESULTS

Descriptive statistics for the study variables are presented in Table 1. Overall, the averages for the MWEP dimensions were fairly consistent with each other. However one interesting note is the rather low, comparatively speaking, Leisure average and the rather high Morality/Ethics average. One probable explanation is that although the employees were instructed to complete the survey on their own time, they were given the surveys while on the job and in the their supervisors' presence. These findings may be an indication that the employees were responding in a socially desirable manner. In fact, Miller (1997) reported that the Morality/Ethics dimension was prone to social desirability.

Table 1

Descriptive Statistics for Study Variables

Measure	Mean	SD	Possible Range of Scores
Work Ethic			
Hard Work	37.81	6.94	10-50
Self-Reliance	34.64	7.12	10-50
Centrality of Work	36.77	6.33	10-50
Leisure	30.67	6.78	10-50
Morality/Ethics	44.76	5.15	10-50
Wasted Time	37.08	6.27	10-50
Delay of Gratification	33.88	7.35	10-50
Job Involvement	45.04	7.57	20-80
Organizational Commitment	50.06	8.92	9-63
Job Satisfaction	76.91	17.08	15-105
Conscientiousness	132.22	22.87	20-180
Need for Achievement	2.80	1.11	1-5

$N = 174$

Correlational Analyses and Reliability

Table 2 displays the results of the correlations among the MWEP dimensions and the reliability estimates of each dimension for the current study. The correlations between the dimensions range from .03 to .62. The average dimension intercorrelation was .33.

Table 2

Correlation Matrix of Work Ethic Dimensions and Coefficient Alpha Values for Each Dimension

Dimension	1	2	3	4	5	6	7
1. Hard Work	(.89)						
2. Self-Reliance	.57	(.86)					
3. Centrality of Work	.52	.34	(.81)				
4. Leisure	.09	.25	.11	(.86)			
5. Morality/ Ethics	.44	.27	.45	.05	(.85)		
6. Wasted Time	.59	.40	.64	.04	.62	(.76)	
7. Delay of Gratification	.60	.48	.48	.03	.40	.58	(.81)

Note. All correlations equal to or greater than .16 are significant ($p < .05$).
Coefficient alpha values shown in parentheses.
$N = 174$. Mean dimension intercorrelation = .33

Work Ethic, Job Involvement, and Organizational Commitment

Job involvement and organizational commitment were regressed onto the MWEP dimension scores to examine the effect of work ethic on these work commitment variables. As indicated in Table 3, the work ethic dimensions were strongly correlated with job involvement (multiple $R = .62$) and organizational commitment (multiple $R = .45$), thus supporting Hypothesis 1. Employees who believed in hard work and the importance of work also identified with their job and the organization. Although the

multiple correlation coefficient for the relationship between organizational commitment and work ethic (.45) was consistent with previous research (e.g., Morrow & McElroy, 1986), the multiple *R* for job involvement-work ethic relationship evidenced here (.62) was relatively higher than the relationships previously reported (Brown, 1996). This point is addressed further in the discussion.

Table 3

Zero-Order and Multiple Correlations between the MWEP Dimensions, Job Involvement, Organizational Commitment, Job Satisfaction, Conscientiousness, and Need for Achievement

Dimension	**JI**	**OC**	**JS**	**Consc**	**NAch**
Hard Work	.46*	.14	.23*	.16*	-.04
Self-Reliance	.29*	-.10	.02	-.02	.14
Centrality of Work	.41*	.27*	.17*	.11	-.10
Leisure	-.30*	-.27*	-.27*	.03	.04
Morality/Ethics	.12	.24*	.35*	.31*	-.12
Wasted Time	.34*	.25*	.25*	.27*	-.03
Delay of Gratification	.29*	.23*	.20*	.03	.05
Mean r	.32	.21	.21	.13	.07
Multiple R	.62*	.45*	.48*	.40*	.27

In addition to a significant relationship between the work ethic dimensions and both job involvement ($R = .62$, $p < .05$) and organizational commitment ($R = .45$, $p < .05$), examination of the correlation analyses show different patterns of significant relationships across these variables. Job involvement was significantly, negatively related to Leisure and positively related to Self-Reliance and Centrality of Work, supporting Hypothesis 2. In addition to the predicted relationships, job involvement was moderately and positively related to all MWEP dimensions with the exception of

Morality/Ethics. Hypothesis 3 was supported in that organizational commitment was positively related to the MWEP dimension Centrality of Work. Organizational commitment was negatively related to Leisure and positively related to all other MWEP dimensions with the exception of Hard Work and Self-Reliance.

Work Ethic and Job Satisfaction

As with job involvement and organizational commitment, the MWEP dimensions were strongly and positively correlated with job satisfaction ($R = .48$, $p < .05$), supporting Hypothesis 4. The work ethic-job satisfaction relationship reported here is consistent with the relationship reported in earlier research (Randall & Cote, 1991). Employees who believed and valued work for work's sake also derived pleasure from their job. The analyses also supported Hypothesis 5 such that job satisfaction was negatively related to the MWEP dimension Leisure and positively related to Centrality of Work. In addition to these predicted relationships, job satisfaction was positively related to all other dimensions with the exception of Self-Reliance.

Work Ethic, Conscientiousness, and Need for Achievement

Hypothesis 6 received partial support. While the MWEP dimensions were significantly related to conscientiousness ($R = .40$, $p < .05$), contrary to what was expected, these data did not indicate a significant relationship between the work ethic dimensions and need for achievement ($R = .27$, $p > .05$). Specifically, conscientiousness was related to Hard Work, Morality/Ethics, and Wasted Time. Although employees who

were conscientious also tended to value hard work, believe in being just, and believe in making productive use of their time, they did not seem to endorse a desire for success and achievement. Because this finding lacks intuitive appeal and contradicts the reported moderate and positive relationship between work ethic and need for achievement in the existing literature (e.g., Kirkcaldy, Furnham, & Lynn, 1992; Mudrack, 1997), caution should be used in its interpretation. This issue is discussed in greater detail in the discussion.

Table 4 shows the results of the regression analyses conducted to assess whether conscientiousness and need for achievement indeed were predictors of job involvement, organizational commitment, and job satisfaction. The results of the analyses indicated that conscientiousness was not a predictor of job involvement. However, conscientiousness was a significant predictor of organizational commitment ($\beta = .28$) and job satisfaction ($\beta = .26$) explaining 8% of the variance in organizational commitment and 7% of the variance in job satisfaction. Need for achievement was not a significant predictor of any of the work-related variables.

Table 4

Regression Analyses Predicting Job Involvement, Organizational Commitment, and Job Satisfaction from Conscientiousness and Need for Achievement

	β	R	R^2
Conscientiousness as Independent Variable			
Job Involvement	.06	.00	.00
Organizational Commitment	.27*	.28*	.08*
Job Satisfaction	.26*	.26*	.07*
Need for Achievement as Independent Variable			
Job Involvement	.01	.00	.00
Organizational Commitment	-.05	.00	.00
Job Satisfaction	-.08	.00	.00

*$p < .05$

Because the work ethic dimensions were significantly related to conscientiousness as well as organizational commitment and job satisfaction, hierarchical analyses were conducted to determine the extent to which the work ethic dimensions accounted for variance in organizational commitment and job satisfaction above and beyond the variance accounted for by conscientiousness. Furthermore, these analyses were used to determine which specific work ethic dimensions were primarily accounting for the additional variance explained in organizational commitment and job satisfaction. Although conscientiousness was not found to be a predictor of job involvement, job involvement was included in these analyses to examine what specific work ethic dimensions were accounting for the greatest portion of variability in job involvement. As need for achievement was neither related to the work ethic dimensions

nor any of the work-related variables, this variable was not included in the additional analyses.

Job involvement, organizational commitment, and job satisfaction were regressed onto the work ethic dimensions according to the magnitude of each dimensions zero-order correlation (refer to Table 3 for zero-order correlations). Because conscientiousness was found to be a significant predictor of organizational commitment and job satisfaction, it was entered first in the regression analyses for these variables. As previously noted, it has been theoretically implied that any explanatory power that could be attributed to work ethic beliefs may be due to conscientiousness; therefore to examine this assumption, it was necessary to enter conscientiousness first. The work ethic dimensions were entered next according to the magnitude of the zero-order correlations between the dimensions and each work-related variable. Dimensions with the strongest zero-order correlation were entered first.

The results of the hierarchical regressions presented in Table 5 showed that for job involvement, all of the work ethic dimensions provided incremental validity in predicting job involvement with the exception of Wasted Time. Hard Work explained the greatest portion of the variability (21%) in job involvement. Centrality of Work, Leisure, Self-Reliance, and Morality/Ethics respectively provided an additional 4%, 10%, 1%, 1%, and 2% of variance.

Furthermore, the analyses indicated that the work ethic dimensions accounted for an additional (17%) of the variance in organizational commitment and (19%) of the variance in job satisfaction above and beyond the variance accounted for by

conscientiousness. Centrality of Work, Leisure, Delay of Gratification, and Self-Reliance incrementally contributed to the variance accounted for in organizational commitment, explaining 5%, 7%, 2%, and 3% respectively. Therefore although the results of the correlation analyses yielded a multiple correlation of .45, Hard Work, Morality/Ethics, and Wasted Time did not significantly contribute to the multiple correlation.

Morality/Ethics, Leisure, Hard Work, and Centrality of Work incrementally contributed to variance accounted for in job satisfaction above that which could be attributed to conscientiousness. These dimensions accounted for 8%, 9%, 1%, and 1% respectively of the variability in job satisfaction with the majority of the variance accounted for by the work ethic dimensions being contributed by Morality/Ethics and Hard Work.

Table 5

Hierarchical Regression Results Using MWEP Dimension Scores

Variables		β^A	R^2	ΔR^2
Job Involvement as Dependent Variable				
1	Conscientiousness	.02	.00	
2	Hard Work	.40*	.21*	.21*
3	Centrality of Work	.20*	.25*	.04*
4	Wasted Time	.06	.25	.00
5	Leisure	-.34*	.35*	.10*
6	Self-Reliance	.15*	.36*	.01*
7	Delay of Gratification	-.09	.37*	.01*
8	Morality/Ethics	.18*	.39*	.02*
Organizational Commitment as Dependent Variable				
1	Conscientiousness	.23*	.08*	
2	Centrality of Work	.17	.13*	.05*
3	Leisure	-.20*	.20*	.07*
4	Wasted Time	-.02	.20	.00
5	Morality/Ethics	.09	.20	.00
6	Delay of Gratification	.23*	.22*	.02*
7	Hard Work	-.01	.22	.00
8	Self-Reliance	-.22*	.25*	.03*
Job Satisfaction as Dependent Variable				
1	Conscientiousness	.17*	.07*	
2	Morality/Ethics	.31*	.15*	.08*
3	Leisure	-.30*	.24*	.09*
4	Wasted Time	-.07	.24	.00
5	Hard Work	.18*	.25*	.01*
6	Delay of Gratification	.06	.25	.00
7	Centrality of Work	-.08*	.26*	.01*
8	Self-Reliance	-.05	.26	.00

Note. $^A\beta$'s for final model. * $p < .05$.

As a point of comparison, hierarchical regression analyses were also conducted regressing a composite score of work ethic onto each of the work attitudes variables. The results indicated that when a composite work ethic score was used, work ethic explained little additional variance in organizational commitment (1%) and job satisfaction (2%) above that explained by conscientiousness (see Table 6).

Table 6

Hierarchical Regressions Results Using a MWEP Composite Score

Variables		β^A	R^2	ΔR^2
Job Involvement as Dependent Variable				
1	Conscientiousness	.00	.00	
2	MWEP Composite	.35*	.12*	.12*
Organizational Commitment as Dependent Variable				
1	Conscientiousness	.26*	.08*	
2	MWEP Composite	.11*	.09*	.01*
Job Satisfaction as Dependent Variable				
1	Conscientiousness	.24*	.07*	
2	MWEP Composite	.15*	.09*	.02*

Note. $^A\beta$'s for final model * $p < .05$.

An interesting issue arises when these results are considered in conjunction with the results of the hierarchical regressions using the work ethic dimensions. When a composite score of work ethic was used work ethic only explained an additional 1% and 2% of the variability in organizational commitment and job satisfaction respectively. However, when the work ethic dimensions rather than a composite score were regressed

onto these variables they accounted for an additional 17% of the variability in organizational commitment and 19% of the variability in job satisfaction. Furthermore, although conscientiousness was not a significant predictor of job involvement, the use of a composite work ethic score indicated less variance accounted for in job involvement (12%) than when the individual work ethic dimensions were used (39%). These results support the proposition that previous research reporting the relationship between work ethic and other variables might be misleading given that previous work ethic measures lacked the ability to fully measure work ethic in its entirety and the over reliance on reporting work ethic relationships using a composite score.

DISCUSSION

The development of the MWEP has allowed for a timely reexamination of the relationship between the work ethic facets and three common work-related variables: job involvement, organizational commitment, and job satisfaction. Because of the full multidimensionality represented by the MWEP, the present research sought to (1) extend prior research conducted on the MWEP by examining the differential relationships among the MWEP dimensions and measures of job involvement, organizational commitment, and job satisfaction, and (2) examine the extent to which the MWEP dimensions explained variance in these variables beyond that explained by conscientiousness and need for achievement.

Based on these goals it was hypothesized that varying patterns of MWEP dimensions would be significantly related to job involvement, organizational commitment, and job satisfaction. In terms of specific work ethic dimension relationships with these variables, the following relationships were hypothesized: job involvement would be significantly, negatively related to the Leisure and positively related to Self-Reliance and Centrality of Work, organizational commitment would be positively related to Centrality of Work, and job satisfaction would be negatively correlated with Leisure and positively related to Centrality of Work. The final hypothesis was that the MWEP dimensions would account for significant variance in job involvement, organizational commitment, and job satisfaction above and beyond that explained by conscientiousness and need for achievement.

The results demonstrated that employees who were higher in work ethic, as measured by the MWEP, identified and were satisfied with their job, and were committed to their organization. At the dimension level the variation in the magnitude, direction, and significance of correlations between the work ethic facets and the work-related attitudinal variables indicated the underlying complexity and multidimensionality of the relationships between work ethic and the work-attitude variables studied. Each work-attitude variable was uniquely related to work ethic via a differing pattern of correlations with the work ethic facets. For example, job involvement was most strongly related to the work ethic dimensions of Hard Work, Centrality of Work, and Wasted Time, whereas organizational commitment was most strongly related to the dimensions of Centrality of Work, Wasted Time, and Delay of Gratification, and job satisfaction was most strongly related to Hard Work, Leisure, and Morality.

One notable finding was that compared to the other work ethic dimensions, Wasted Time correlated more strongly with job involvement and organizational commitment (two work commitment variables). In other words, those who were committed to the job and organization also demonstrated attitudes and beliefs reflecting active and productive use of time. This finding is consistent with previous research showing that when not otherwise engaged (e.g., commuting to work) and given the opportunity to work or not to work, individuals who endorsed the work ethic tended to engage in work-related activities (Greenberg, 1978).

Although all three work-attitude variables were significantly related to the total set of work ethic facets, the largest relationship was evidenced between the work ethic

facets and job involvement. When one considers the nature of job involvement, the magnitude of this relationship seems to be understandable. A major component of job involvement is a value orientation that pertains to how one relates to one's job and incorporates a sense of self into the job (Brooke, Russell, & Price, 1988). Thus, the value and sense of self one places in the degree of participation he or she experiences in job-related and work activities seems aligned with the work-related value orientation ascribed to by work ethic endorsement.

The findings from this study provided partial support for the relationship between the MWEP dimensions and conscientiousness and need for achievement. They indicate that individuals who scored higher on the MWEP dimensions also tended to have higher scores on conscientiousness although not necessarily having a greater need for achievement. Specifically, at the work ethic dimension level, individuals who tended to be more conscientious and diligent workers endorsed productive and just use of their time.

Although the relationship between work ethic and conscientiousness was substantiated, this study did not find support for the relationship between work ethic and need for achievement. This is especially surprising given the amount of empirical support provided by a host of authors (e.g., Kirkcaldy & Cooper, 1992; Kirkcaldy & Furnham, 1993; Kirkcaldy, Furnham, & Lynn, 1992; Mudrack, 1997). Upon further examination of the research materials, it became evident that the response structure for the MNQ was such that the response options for that questionnaire were opposite of the response pattern options for the other measures in the study. The other measures in the

study had response options that indicated that higher scores on the measure indicated greater endorsement of the construct being measured. The MNQ however, is designed such that lower scores indicate greater endorsement of the construct. Therefore one reason for the failure to find a relationship between work ethic and need for achievement is more than likely a data collection error rather than a lack of relationship between the constructs. As a result, some concern may be raised regarding the potential for common method bias. However, given that the reported correlations between the MWEP dimensions and other variables were generally consistent with those reported in prior research (e.g., Morrow & McElroy, 1986; Randall & Cote, 1991), there is reasonable confidence that what bias may be present is not a severe threat to the findings reported here.

In addressing the second purpose of this study, results indicated that the individual work ethic dimensions do account for unique variance in job involvement, organizational commitment, and job satisfaction above and beyond that which could be explained by conscientiousness. The work ethic dimensions accounted for an additional (17%) of the variance in organizational commitment and (19%) of the variance in job satisfaction, above that explained by conscientiousness. However, when a composite work ethic score was used, the incremental contribution of work ethic was only 1% for organizational commitment and 2% for job satisfaction.

Implications

These data provide additional evidence that work ethic is indeed a multidimensional construct. While most researchers have typically used work ethic measures that represented some subset of dimensions, the general trend has been to collapse these dimensions and report composite score relationships with other variables. The results presented here show that use of a composite score reduces and could even prevent the accurate representation of work ethic's relationship to other variables.

Furthermore, it might be time for those interested in conducting work ethic-related research to reconceptualize how we think about work ethic research. Perhaps the best way for future endeavors to approach work ethic research is to pattern efforts after the personality literature. The Big Five conceptualization of personality is almost a central tenet in the current literature (e.g., Costa & McCrae, 1985; Goldberg, 1992). Just as it would seem awkward if not inappropriate to report a composite score of personality, as time progresses and the work ethic literature grows, it is most likely that work ethic and its dimensions will be viewed in a similar light.

Thus far implications have been enumerated that are relevant to the study of the work ethic dimensions and consideration of work ethic at the construct level. In looking beyond the general work ethic construct, several implications of these data can be related to the expansion of the work commitment literature in general. First, just as the relationship between work ethic and specific other work-related constructs may be best conceptualized at the dimensional level, work ethic in conjunction with other work commitment variables such as job involvement and organizational commitment, may be

useful in identifying a profile of workers' commitment. That is to say that the constellation of work-related attitudes and beliefs as indicated by work ethic may contribute to the overall understanding and identification of individuals' propensity toward work-oriented commitment. If this is indeed the case, this constellation of work commitment beliefs may have important selection and retention implications for organizations. Selection, training, and retention of employees who are generally commitment-oriented may be prove to be worthwhile in terms of cost effectiveness of organization employment decisions. The correlations among the work ethic dimensions, organizational commitment, and job involvement presented here, as well as similar correlations reported among work commitment constructs (e.g., Aldag & Brief, 1975; Morrow, 1983; Morrow 1993), may prove to be a valuable starting point for investigating the common antecedents and etiology of the idea of a work commitment profile.

A fruitful starting point for examining the possibility that individuals may have a tendency toward a certain level of commitment to work may lie in the job satisfaction literature. Arvey, Bouchard, Segal, and Abraham (1989) found that a portion of variance in job satisfaction was accounted for by genetics. One implication of this finding is that some portion of employees' work attitudes and beliefs may be beyond the control of organizational interventions. Evidence of a genetic influence would provide support for the notion of dispositional aspects of work commitment such that as some individuals may be inclined to be satisfied with their current job, they also may be prone to being committed to various aspects of their work.

Alternatively, rather than look at work commitment as an individual difference variable, it may be able to be viewed from a more macro perspective (i.e., a work commitment profile that is defined by the organization, occupation, career). The demands and performance of certain job types or organizational cultures may require very different degrees of commitment. For example, an occupation such as firefighter may require a certain work commitment profile very different from that required for the occupation of teacher.

A second implication related to work ethic in the general context of work commitment lies in the changing nature of work as we progress into the 21st century. Offerman and Gowing (1990) list several work-oriented challenges such as issues related to downsizing, layoffs, mergers, globalization, and shifts from production to service-oriented industries. Given the changing nature of work, work ethic may prove to be a rich area of study given its reported stability (Shamir, 1986). Within the work commitment literature, variables such as job involvement and organizational commitment typically have received more attention than work ethic. However, these variables are related to specific commitments and as individuals become more mobile in terms of their employment histories, perhaps more attention should be devoted to work ethic as a general system of beliefs about work and the importance of work.

Several implications regarding the advancement of the study of work ethic have been reviewed. While the research presented here in conjunction with that presented by Miller et al. (2002) may serve as a springboard for further research in the area of work

commitment and work ethic specifically, some limitations of the current study should be noted.

Limitations

One limitation of this study is the loss of potentially meaningful data due to the error in presentation of the questionnaire materials. Considering that one of the goals of this research was to expand on the findings of prior research conducted on the MWEP, it would have been beneficial to have accurate measurements of the need for achievement variable. Although the response options and anchors were explicitly relayed in the directions for completing the measure, they were not reemphasized in the response area. Therefore, there is no way of ascertaining which participants were responding in accordance with the scale and which were responding due to the general response format for the other measures in the study.

Another limitation of the study is that the relationships between work ethic and job involvement, organizational commitment, and job satisfaction were investigated using global measures of the three attitude variables. However, research has indicated that, like work ethic, these variables are not unidimensional (e.g., Cohen, 1999; Morrow & McElroy, 1986; Wanous, 1974). Therefore, greater accuracy in defining the complex relationships between these variables could have been evidenced if they had been explored at the dimensional level. Further studies investigating the relationships among the dimensions of work-related attitudes would certainly advance the research in the realm of work commitment constructs and work attitudes.

Future Research

Research in the area of work ethic is rich with opportunities. Given that in comparison to other work-related commitment and attitude variables work ethic has received considerably less attention, there are numerous potential research avenues that will lend insight into the dynamics of this multidimensional construct. One area of potential research lies in investigating when work ethic is formed. Research has suggested that work ethic is stable over time (e.g., Shamir, 1986); therefore it would be interesting see how work ethic is developed. For example interesting questions could be posed regarding the parental influence and/or peer influence on work ethic development.

Another potential area for future research is examining the extent to which the work ethic dimensions predict actual job performance. Given that one of the central tenets of industrial/organizational (I/O) psychology is to predict job performance, work ethic, as a measure of a compilation of work attitudes, values, and beliefs could provide potentially useful information on what dimensions of work ethic relate to different aspects of job performance. In other words, work ethic may be an additional variable that can be used in conjunction with variables that are already in place (e.g., cognitive ability and personality) to provide improved prediction of the job performance domain. For example, certain work ethic dimensions such as Hard Work and Centrality of Work may be more related to task performance whereas as dimensions such as Delay of Gratification and Self-Reliance may have a greater impact on contextual performance.

Although the work ethic/performance relationship has been examined in the past, prior research has been mixed with some authors finding no relationship (e.g., Ganster,

1981) and others finding that individuals high in work ethic were more engaged in their work and spent more time on work-related tasks (e.g., Merrens and Garrett, 1975). One reason for these conflicting findings may be that different work ethic dimensions are valid indicators of certain criteria used to assess job performance while other dimensions are not. That is to say, just as the work ethic dimensions are differentially predictive of other work-related attitude variables, so may they be differentially predictive of various job performance criteria.

CONCLUSION

The interest in work commitment and work-related variables continues to thrive in academia and industry. Indeed, the importance of the interrelationships of organizationally-based constructs has been emphasized for some time by researchers who argue there is still much to be gained from research efforts aimed at defining and sorting out the relationships among the work-related attitudes that comprise work commitment (Blau & Ryan, 1997; Mueller, Wallace, & Price, 1992; Randall & Cote, 1991). As we begin to tease apart the intricacies of the interrelationships of these variables, it is necessary that we have measurement tools that accurately represent their multidimensionality. Having a work ethic measure that fully taps the dimensionality of work ethic allows greater precision in ascertaining the relationships between work ethic as a construct and other work-related variables. For work ethic, the MWEP appears to be such a tool.

REFERENCES

Aldag, R. J., & Brief, A. P. (1975). Some correlates of work values. *Journal of Applied Psychology, 60*, 757-760.

Ali, A. J., Falcone, T., & Azim, A. A. (1995). Work ethic in the USA and Canada. *Journal of Management Development, 14*(6), 26-34.

Arvey, R. D., Bouchard, T. J., Segal, N. L., & Abraham, L. M. (1989). Job satisfaction: Environmental and genetic components. *Journal of Applied Psychology, 74*, 187-192.

Blau, G., & Ryan, J. (1997). On measuring work ethic: A neglected work commitment facet. *Journal of Vocational Behavior, 51*, 435-448.

Blood, M. R. (1969). Work values and job satisfaction. *Journal of Applied Psychology, 53*, 456-459.

Brooke, P.P., Russell, D. W., & Price, J. L. (1988). Discriminant validation of measures of job satisfaction, job involvement, and organizational commitment. *Journal of Applied Psychology, 73,* 139-145.

Brown, S. P. (1996). A meta-analysis and review of organizational research on job involvement. *Psychological Bulletin, 120*, 235-255.

Buchholz, R. (1978). An empirical study of contemporary beliefs about work in American society. *Journal of Applied Psychology, 63*, 219-227.

Cohen, A. (1998). An examination of the relationship between work commitment and work outcomes among hospital nurses. *Scandinavian Journal of Management, 14*(1), 1-17.

Cohen, A. (1999). Relationships among five forms of commitment: An empirical assessment. *Journal of Organizational Behavior, 20*, 285-308.

Cook J., & Wall, T.D. (1980). New work attitude measures of trust, organizational commitment, and personal need non-fulfillment. *Journal of Occupational Psychology, 53*, 39-52.

Costa, P. T., & McCrae, R. R. (1985). *The NEO Personality Inventory manual.* Odessa, FL: Psychological Assessment Resources.

Eisenberger, R., & Shank, D. M. (1985). Personal work ethic and effort training affect cheating. *Journal of Personality & Social Psychology, 49*, 520-528.

Fallon, J. D., Avis, J. M., Kudisch, J. D., Gornet, T. P., & Frost, A. (2000). Conscientiousness as a predictor of productive and counterproductive behaviors. *Journal of Business & Psychology, 15*, 339-349.

Furnham, A. (1990a). *The Protestant work ethic: The psychology of work related beliefs and behaviours.* London: Routledge.

Furnham, A. (1990b). A content, correlational, and factor analytic study of seven questionnaire measures of the Protestant work ethic. *Human Relations, 43,* 383-389.

Furnham, A., & Korsitas, E. (1990). Protestant work ethic and vocational preference. *Journal of Organizational Behavior, 11,* 43-56.

Ganster, D. (1981). Protestant ethic and performance: A reexamination. *Psychological Reports, 48,* 335-338.

Goldberg, L. (1992). The development of markers for the Big-Five factor structure. *Psychological Assessment, 4,* 26-42.

Goldstein, B., & Eichhorn, R. (1961). The changing Protestant ethic: Rural patterns in health, work and leisure. *American Sociological Review, 26*, 557-565.

Greenberg, J. (1977). The Protestant ethic and reactions to negative performance evaluations on a laboratory task. *Journal of Applied Psychology, 62*, 682-690.

Greenberg, J. (1978). Protestant ethic endorsement and attitudes toward riding to work among mass transit riders. *Journal of Applied Psychology, 63*, 755-758.

Hackett, R.D., Lapierre, L.M., & Hausdorf, P.A. (2001). Understanding the links between work commitment constructs. *Journal of Vocational Behavior, 58,* 392-413.

Hammond, P., & Williams, R. (1976). The Protestant ethic thesis: A social

psychological assessment. *Social Forces, 54*, 579-589.

Heaven, P. C. (1989). Structure and personality correlates of the Protestant work ethic among women. *Personality and Individual Differences, 10,* 101-104.

Hirschfeld, R. R., & Feild, H. S. (2000). Work centrality and work alienation: Distinct aspects of a general commitment to work. *Journal of Organizational Psychology, 21*, 789-800.

Ho, R., & Lloyd, J. I. (1984). Development of an Australian work ethic scale. *Australian Psychologist, 19*, 321-332.

Holland, J. L., Johnston, J. A., Asama, N. F., & Polys, S. M. (1993). Validating and using the Career Beliefs Inventory. *Journal of Career Development, 19*, 233-244.

Iaffaldano, M., & Muchinsky, P. (1985). Job satisfaction and job performance: A meta-analysis. *Psychological Bulletin, 97*, 251-273.

Judge, T. A., Thoresen, C. J., Bono, J. E., & Patton, G. K. (2001). The job satisfaction-job performance relationship: A qualitative and quantitative review. *Psychological Bulletin, 127,* 376-407.

Kanungo, R. N. (1982). Measurement of job and work involvement. *Journal of Applied Psychology, 67*, 341-349.

Keller, R.T. (1997). Job involvement and organizational commitment as longitudinal predictors of job performance: A study of scientists and engineers. *Journal of Applied Psychology, 82,* 539-545.

Kirkcaldy, B. D., & Cooper, C. L. (1992). Work attitudes and leisure preferences: Sex differences. *Personality and Individual Differences, 13*, 329-334.

Kirkcaldy, B. D., & Furnham, A. (1993). Predictors of beliefs about money. *Psychological Reports, 73*, 1079-1082.

Kirkcaldy, B. D., Furnham, A., & Lynn, R. (1992). Individual differences in work attitudes. *Personality and Individual Differences, 13*, 49-55.

Lodahl, T. M. & Kejner, M. (1965). The definition and measurement of job involvement. *Journal of Applied Psychology, 49*, 24-33.

Manheim, B. (1983). Male and female industrial workers: Job satisfaction, work role centrality, and work place preference. *Work and Occupations, 10*, 413-436.

Mathieu, J. E., & Zajac, D. M. (1990). A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychological Bulletin, 108*, 171-194.

McClelland, D. (1961). *The achieving society*. Princeton, NJ: Van Nostrand.

McHoskey, J. W. (1994). Factor structure of the Protestant work ethic scale. *Personality and Individual Differences, 17,* 49-52.

Merrens, M. R., & Garrett, J. B. (1975). The Protestant ethic scale as a predictor of repetitive work performance. *Journal of Applied Psychology, 60,* 125-127.

Messick, S. (1995). Validity of psychological assessment. *American Psychologist, 50,* 741-749.

Miller, M. J. (1997). *Work ethic: The development of a multidimensional measure.* Unpublished doctoral dissertation, Texas A&M University, College Station, TX.

Miller, M. J., Woehr, D. J., & Hudspeth, N. (2002). The meaning and measurement of work ethic: Construction and initial validation of a multidimensional inventory. *Journal of Vocational Behavior, 60*, 451-489.

Mirels, H. L., & Garrett, J. B. (1971). The Protestant work ethic as a personality variable. *Journal of Consulting and Clinical Psychology, 36,* 40-44.

Morrow, P. C. (1983). Concept redundancy in organizational research: The case of work commitment. *Academy of Management Review, 8,* 486-500.

Morrow, P. C. (1993). *The theory of measurement of work commitment.* Greenwich, CT: JAI.

Morrow, P. C., & McElroy, J. C. (1986). On assessing measures of work commitment. *Journal of Vocational Behavior, 28,* 214-228.

Mudrack, P. E. (1997). Protestant work-ethic dimensions and work orientations. *Personality and Individual Differences, 23*, 217-225.

Mueller, C. W., Wallace, J. E., & Price, J. L. (1992). Employee commitment: Resolving some issues. *Work and Occupation, 19,* 211-236.

Offerman, L. R., & Gowing, M. K. (1990). Organizations of the future: Changes and challenges. *American Psychologist, 45*, 95-108.

Orpen, C. (1982). Effect of job involvement on the work-leisure relationship: Correlational study among bank clerks and police officers. *Psychological Reports, 50*, 355-364.

Paullay, I. M., Alliger, G. M., & Stone-Romero, E. F. (1994). Construct validation of two instruments designed to measure job involvement and work centrality. *Journal of Applied Psychology, 79,* 224-228.

Porter, L. W., Steers, R. M., Mowday, R. T., & Boulian, P. V. (1974). Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology, 59,* 603-609.

Rabinowitz, S., & Hall, D. T. (1977). Organizational research on job involvement. *Psychological Bulletin, 84,* 265-288.

Randall, D. M., & Cote, J. A. (1991). Interrelationships of work commitment constructs. *Work and Occupation, 18,* 194-211.

Ray, J.J. (1982). The Protestant ethic in Australia. *Journal of Social Psychology, 116*, 127-138.

Rose, M. (1985). *Reworking the work ethic: Economic values and socio-cultural politics*. London: Schocken.

Saks, A. M., Mudrack, P. E., & Ashforth, B. E. (1996). The relationship between the work ethic, job attitudes, intentions to quit, and turnover for temporary service employees. *Canadian Journal of Administrative Sciences, 13,* 226-236.

Schnake, M. (1991). Organizational citizenship: A review, proposed model, and research agenda. *Human Relations, 44,* 735-759.

Sekaran, U. (1989). Paths to the job satisfaction of bank employees. *Journal of Organizational Behavior, 10*, 347-359.

Shamir, B. (1985). Unemployment and "free time": The role of Protestant work ethic and work involvement. *Leisure Studies, 4*, 333-345.

Shamir, B. (1986). Protestant work ethic, work involvement, and the psychological impact of unemployment. *Journal of Organizational Behavior, 7*, 25-38.

Snir, R., & Harpaz, I. (2002). Work-leisure relations: Leisure orientation and the meaning of work. *Journal of Leisure Research, 34*, 178-203.

Sousa-Poza, A., & Sousa-Poza, A. A. (2000). Well-being at work: A cross-national analysis of the levels and determinants of job satisfaction. *Journal of Socio-Economics, 29*, 517-538.

Steers, R. M. & Braunsteen, D. N. (1976). A behaviorally-based measure of manifest needs in work settings. *Journal of Vocational Behavior, 9,* 251-266.

Stone, E. F. (1975). Job scope, job satisfaction, and the Protestant ethic: A study of enlisted men in the U.S. Navy. *Journal of Vocational Behavior, 7,* 215-234.

Stoeber, J., & Seidenstueker, B. (1997). A new inventory for assessing worry in managers: Correlated with job involvement and self-reliance. *Personality and Individual Differences, 23*, 1085-1087.

Tang, T. L. (1993). A factor analytic study of the Protestant work ethic. *The Journal of Social Psychology, 133,* 109-111.

Tokar, D. M., Fischer, A. R., Subich, L. M. (1998). Personality and vocational behavior: A selective review of the literature. *Journal of Vocational Behavior, 53*, 115-153.

Wanous, J. P. (1974). Individual differences and reactions to job characteristics. *Journal of Applied Psychology, 59,* 616-622.

Wayne, F. S. (1989). An instrument to measure adherence to the Protestant ethic and contemporary work values. *Journal of Business Ethics, 8,* 793-804.

Warr, P. B., Cook, J., & Wall, T. D. (1979). Scales for the measurement of some work attitudes and aspects of psychological well-being. *Journal of Occupational Psychology, 52,* 129-148.

Weaver, C. N. (1997). Has the work ethic in the USA declined? Evidence from nationwide surveys. *Psychological Reports, 81,* 491-495.

Weiner, Y., & Vardi, Y. (1980). Relationships between job, organization, and career commitments and work outcomes: An integrative approach. *Organizational Behavior and Human Decision Processes, 26,* 81-96.

Weinstein, M., & Barber, L. (1999). *Work like your dog: Fifty ways to work less, play more, and earn more*. New York: Villard.

VITA

Name: Natasha Antoinette Hudspeth
Permanent Address: 3607 Vara Drive, Austin, TX 78754
E-Mail: n-hudspeth@tamu.edu

Education

B.A. Texas A&M University, College Station, TX; Psychology, May 1996

Honors

Psi Chi National Honor Society
Mortar Board
Golden Key National Honor Society
Phi Kappa Phi

Publications and Presentations

Miller, M. J., Woehr, D. J., & Hudspeth, N. (2002). The meaning and measurement of work ethic: Construction and initial validation of a multidimensional inventory. *Journal of Vocational Behavior, 60*, 451-489.

Hudspeth, N. A., & Woehr, D. J. (2000, April). Expanding the nomological net: What does work ethic measure? In David J. Woehr (Chair), *The meaning and measurement of work ethic: Another look*. Symposium conducted at the 15th Annual Conference of the Society for Industrial and Organizational Psychology, New Orleans, Louisiana.

Woehr, D. J., Hudspeth, N. A, & Edwards, B. (2000, April). Examination and evaluation of frequency estimation based on personality measurement. In R. Thomas Ladd (Chair), *The measurement of complex constructs in I-O Psychology: Issues and challenges.* Symposium conducted at the 15th Annual Conference of the Society for Industrial and Organizational Psychology, New Orleans, Louisiana.