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# Affectivity and job satisfaction: a meta-analysis

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Miami, Florida

Affectivity and Job Satisfaction: A Meta-analysis

A thesis submitted in partial satisfaction of the  
requirements for the degree of

MASTER OF SCIENCE

IN

PSYCHOLOGY

By

James J. Connolly

1998

To: Arthur W. Herriott  
Dean of Arts and Sciences

This thesis, written by James J. Connolly, and entitled Affectivity and Job Satisfaction: A Meta-analysis, having been approved in respect to style and intellectual content, is referred to you for judgement.

We have read this thesis and recommend that it be approved.

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This thesis of James J. Connolly is approved.

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Florida International University, 1998

**I dedicate this thesis to my sister Katheleen. She is a constant inspiration.**

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ABSTRACT OF THESIS

AFFECTIVITY AND JOB SATISFACTION: A META-ANALYSIS

by

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Florida International University, 1998

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Professor Chockalingam Viswesvaran, Major Professor

The goal of this investigation was to examine the affective determinants of job satisfaction. Correlations between affectivity and job satisfaction measures were examined by cumulating research findings across studies. Measurement of affectivity in this study focused on five constructs, (1) negative affectivity, (2) positive affectivity, (3) affective disposition, (4) positive & negative affectivity, (5) all affectivity measures combined. The correlations between these five constructs and job satisfaction were meta-analyzed. The mean correlation corrected for coefficient alpha in both the affectivity and job satisfaction measures were: .49 for positive affectivity (N= 3,326, k= 15), -.33 for negative affectivity (N= 6,028, k= 25), .36 for affective disposition (N= 1,415, k= 7), .39 for positive & negative affectivity (N= 9,354, k= 40), and .38 for all measures of affectivity combined (N= 10,769, k= 47). Results indicated that 10% - 25% of variance in job satisfaction could be due to individual differences in affectivity. No strong moderator variables were found. Implications for a Dispositional and situational source of job satisfaction are discussed.

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# Affectivity and Job Satisfaction: A Meta-Analysis

## INTRODUCTION

Job satisfaction has been defined as a pleasurable or positive emotional state resulting from an appraisal of one's job (Locke, 1969). Several determinants of job satisfaction have been identified in prior research (e.g., Agho, Mueller, & Price, 1993). Hackman and Oldham (1976) identified five job characteristics that determined job satisfaction, which are skill variety, task identity, task significance, autonomy, and job feedback. Currently, researchers have identified many more determinants of job satisfaction. Agho, Muller, and Price (1993) researched and added several more determinants of job satisfaction. These additions were distributive justice, supervisory support, the internal labor market (respective to the organization), integration or friendships among coworkers, and pay. Agho et al. also identified determinants that led to lower job satisfaction as well. These include opportunity of available jobs outside organization, role ambiguity, role conflict, and role overload. Other determinants of job satisfaction include organizational constraints (O'Connor, Peters, Rudolf, & Pooyan, 1992), work – family conflict (Bedeian, Burke, & Moffett, 1988), and work schedules (Erberhardt & Shani, 1984; Jamal & Baba, 1992; Ralston, 1989; Ronen & Primps, 1981).

Both individual consequences of job satisfaction such as experienced strain (Bogg & Cooper, 1995; Brief, Burke, George, Roberson, & Webster, 1988; Viswesvaran & Deshpande, 1996) and organizational consequences such as job performance (Iffaldano & Muchinsky, 1985) and turnover (Carsten & Spector, 1987) have been widely researched. Job satisfaction has shown to be critically related to both organizational commitment and employee turnover (Carsten & Spector, 1987; Schlesinger & Zornitsky, 1991). Most research has focused on situational variables effecting job satisfaction, and dispositional factors effecting job satisfaction such as personality, have garnered far less attention (Brief & Roberson, 1989).

Meta-analytic cumulation of this literature examining situational variables affecting job satisfaction exists, summarizing this vast domain of great theoretical and practical importance. Despite the availability of many empirical studies examining the situational correlates of job satisfaction, significant gaps in our knowledge of job satisfaction exists. This is primarily due to an emphasis on situational determinants of



job satisfaction in the extant studies above (Levin & Stokes, 1989). The Dispositional side (cf. George, 1992; Judge & Hulin, 1993) of the equation has been neglected. The recent years have seen attempts to remedy this state of affairs. Researchers (e.g., Watson & Slack, 1993) have attempted to link individual characteristics to job satisfaction. An individual characteristic that has been widely studied is affective disposition (Staw, Bell & Clausen, 1986). Although Agho et al. (1993) focused on situational determinants of job satisfaction, these authors also found that their model gained significant variance accountability when work motivation, positive affectivity, and negative affectivity were added. Furthermore, Arvey, Bouchard, Segal, and Abraham (1989) presented evidence that determinants of job satisfaction may be genetically inherited. That is, when monozygotic twins reared apart were examined with the Minnesota Job Satisfaction Questionnaire (MSQ), results indicated that about 30% of the variance in job satisfaction were attributed to genetic components. Additionally, Watson et al. (1993) found significant correlations for both positive affectivity and negative affectivity with job satisfaction, and that both positive affectivity and negative affectivity predicted certain job satisfaction facets more than 2 years later. My objective in this thesis is to cumulate the literature investigating the affectivity – job satisfaction relationship.

## LITERATURE REVIEW

### Theories of Job Satisfaction

Although research on the theoretical explanation of the correlation between job satisfaction and affectivity is speculative, this relationship is applicable and can be integrated into a few theories of job satisfaction. Several researchers have posited a needs theory of job satisfaction (e.g., Herzberg, 1966, Wolf, 1970). These theories in part detail psychological needs that must be met in order for the individual to experience job satisfaction. Specifically, affective dispositions provide the psychological screen in which these needs are interpreted as being met or not. Hackman and Oldham (1976) present the most well known theory of the job characteristic theory of job satisfaction. This theory concentrates on the actual tasks performed on the job. Hackman and Oldham also added a personality variable, Growth need strength, which moderates the job tasks and job satisfaction relationship. Again, affective dispositions provide the foundation on which Growth need strength operate.

Another influential theory on job satisfaction is role theory (Katz & Kahn, 1978). This theory states that role ambiguity and role conflict account for most of the variance in job satisfaction. Affective dispositions can either worsen (negative affectivity) or alleviate role conflict or role ambiguity. Another theory of job satisfaction involves matching the individual to the job or environment. Holland's (1973) theory states that an individual will seek out a job that fits his/her personality. This may imply that organizations may adopt, through existing personnel, either a positive or negative disposition, and like wise attract like dispositional individuals who will attain higher levels of job satisfaction. Another theory posits that life satisfaction incorporates job satisfaction. The spillover hypothesis states that satisfactions in different areas of life can spill over into each other. Affective dispositions can also effect life satisfaction as well as job satisfaction, again by acting as the filter through which attitudes are recognized.

Perception and cognition have also influenced theories of job satisfaction (James & James, 1989). Moyle (1995), has suggested that individuals who are high on the negative affectivity scale perceive their environment generally in negative terms, and thus these individuals perceive work as negative, resulting in low job satisfaction. Levin and Stokes (1989), view negative affectivity as resulting from a cognitive process, that evaluates negative cues from work more acutely, which manifests eventually into low job satisfaction. The same explanation suggests why individuals with positive affectivity have higher job satisfaction. Cognitive frameworks need to be researched to explain the correlation between affectivity and job satisfaction. How and why individuals acquire these cognitive frameworks that predispose them to positive (or high job satisfaction) or negative (low job satisfaction) affective states need to be researched. Although meta-analytic cumulations of bivariate correlations do not constitute a test of casual processes, the results of such a cumulation can nevertheless be informative.

In addition, theories of job satisfaction have been advanced that indicate job satisfaction is stable over time (Staw & Ross, 1985) and seems to reflect a genetic source (Avery, Bouchard, Segal & Abraham, 1989). If a correlation exists between stable affective dispositions and job satisfaction, then such a finding explains why job satisfaction is stable over time and covaries within the twin data. That is, the explanation becomes that affective disposition and not job satisfaction per se is inherited. Although the meta-

analytically-derived correlation by itself does not prove this causality, such a correlation supports this explanation. Thus, this meta-analytic cumulation is timely.

### Affective Dispositions

Affective dispositions have been conceptualized in different ways (cf. Watson & Clark, 1984; Judge & Hulin, 1993). Watson and Clark (1984) define trait negative affectivity as a disposition to experience elevated levels of distress and dissatisfaction pervasive to all aspects of the environment. Trait positive affectivity individuals experience elevated levels of good will and vibrancy with their interactions to the environment. Judge and Hulin (1993) define affective disposition as the tendency to respond to classes of environmental stimuli in a pre-determined, affect-based manner. According to this definition, affective disposition is not the same as realized or experienced affect. Thus, scales that assess subjective well being are not considered as measures of affective disposition. Affective disposition is construed as a casual antecedent to subjective well being, and subjective well being in turn is conceptualized as comprising of two components: a hedonic level and an over-all life satisfaction. Hedonic level refers to the emotion based responses, whereas over-all life satisfaction reflects the cognitive aspects of subjective well being. Thus, according to Judge and Hulin (1993), Judge (1993), Erez and Judge (1997), positive and negative affectivity scales capture experienced or realized affect and are closely related to hedonic level, although unlike positive and negative affectivity, hedonic level does not rest on the assumption that positive and negative affectivity are unrelated (Judge & Hulin, 1993, P. 392). As such, in this definition of affective disposition, positive and negative affectivity are construed as opposite bipolar ends of the same construct: realized or experienced affect. Several measures have been proposed as measures of negative affectivity and, recently, (Viswesvaran & Sanchez, in Press) demonstrated their equivalence using the principle of tetrad differences.

### Construct Validity Issues

Recently Stone- Romero (1996) has raised questions about the construct validity of the measures of job satisfaction and the measures of negative affectivity. However, it should be noted that most of the criticisms are at the present moment in need of empirical verification. That is, critics have argued that

existing measures of negative affectivity and job satisfaction overlap. However, Ormel and Wohlfarth (1991) found evidence for the validity of the construct of negative affectivity, precisely the aspect of distress proclivity. Individuals high on the trait of negative affectivity tend to experience more distress across time and heedless of the situation. In this study negative affectivity was measured 6 years before the assessment of psychological distress. The association between measures of negative affectivity and distress, even with a six-year gap, was significant. Furthermore, Burke, Brief, and George (1993) also supported the construct validity of negative affectivity. The authors also comment that “face validity” should not be more regarded than the “theorized pervasiveness of mood-dispositional negative affectivity.” In addition, if both negative affectivity and job satisfaction are potentially contaminated, it is difficult to explain the correlation of just .17 between negative affectivity and job satisfaction as reported by Schaubroeck, Ganster, and Fox (1992).

Several measures of negative and positive affectivity exist in the literature. The Positive and Negative Affect Schedule (PANAS) scale developed by Watson, Clark, and Tellegen (1988) is a commonly used measure to assess positive affectivity. Another measure of positive affectivity is the multidimensional personality questionnaire, MPQ (Tellegen, 1982). Both the PANAS and the MPQ questionnaire can also be used to assess negative affectivity. In fact, there exists more measures of negative affectivity than there are measures of positive affectivity. Perhaps this is a reflection of the fact that affectivity was studied more in terms of depression in clinical settings before their relevance in explaining normal behavior was recognized. Specifically Watson and Clark (1984) identified 18 measures of negative affectivity. These 18 scales encompass a wide variety of personality measures, variously labeled as trait anxiety, neuroticism, ego strength, general maladjustment, and repression-sensitization. Recently, Viswesvaran and Sanchez (in Press) demonstrated the measurement equivalence of the 18 scales using the principle of tetrad differences. This measurement equivalence implies these scales can be lumped together in a meta-analysis as measures of the same construct. To reconcile these findings, we need to further examine these measures. In addition to developing new “pure” measures, certain other analyses can be suggested to assess the extent of this possible contamination.

First, one could compare the magnitude of the meta-analytically estimated correlation between measures of affectivity and measures of job satisfaction with the average correlation reported within measures of (1) job satisfaction and (2) affectivity. In fact, Viswesvaran and Sanchez (in Press) report the correlation within negative affectivity measures. If the correlation between affectivity measures and job satisfaction measures is less than (1) the correlation between job satisfaction measures and (2) the correlation between affectivity measures, one can conclude that existing measures of affectivity and existing measures of job satisfaction demonstrate discriminant validity. The correlation between job satisfaction and affectivity is usually in the .30's whereas the correlation between negative affectivity measures were in the .80's (Viswesvaran & Sanchez, in Press). Thus, there appears to be some evidence of discriminant validity. Note, however, that this still does not imply that the measures are uncontaminated. Discriminant validity is still possible (the two are separate constructs), even though the correlation (between the two constructs) is inflated by contamination.

An alternative option to address this "contamination" issue is to obtain measures of affectivity and job satisfaction from different individuals, like friends, or a spouse, or co-workers. That is, we need to ask someone to rate the job satisfaction or affectivity of another (the focal) individual. The problem with this option is that both job satisfaction and affectivity tap into private emotions that may not be observable to outsiders. In any event, future research is needed to further empirically test whether these existing measures are contaminated. In fact Erez and Judge (1997) did look at observer and self-reporting of job satisfaction. Erez and Judge report a self-observer correlation rating of job satisfaction of .67. However, until additional tests are available, dismissing the extant empirical literature on negative affectivity and job satisfaction, in my view, is unwarranted. Given that affectivity and job satisfaction are important constructs (for theory and practice), a meta-analytic cumulation of this literature constitutes an important, meaningful and substantive contribution. Such a meta-analytic cumulation is therefore, worth pursuing.

Whether or not positive and negative affectivity are the two polar ends of the same construct has been the source of debate among researchers (Schaubroeck & Ganster, 1991). Factor analytic studies (Watson, 1988; Watson & Pennebaker, 1989) have shown the presence of two factors. However, as the works of Spector and his colleagues indicate, the emergence of two factors may be due to item wording.

Thus it is possible that all positively phrased items load onto a factor whereas all negatively oriented items load onto a second factor. Perhaps, a more persuasive line of evidence to examine whether positive and negative affectivity are the polar ends of the same construct is to examine the correlation between them. A high magnitude of the correlation indicates they are bipolar, a low value for the correlation suggests they are not bipolar. The correlation between measures of negative affectivity and measures of positive affectivity as reported in the extant literature varies from a low of  $r = -.05$  (Brief & Roberson, 1989) to a high of  $r = -.39$  (Judge & Locke, 1993). Note, however, that these are observed correlations uncorrected for any artifacts. To investigate whether measures of positive affectivity and measures of negative affectivity are assessing the same bipolar construct the true score correlation is perhaps more appropriate. As a secondary objective to this thesis, I cumulated the observed correlations between measures of positive affectivity and measures of negative affectivity and corrected for unreliability in the measures correlated. Other artifacts (such as range restriction) could not be corrected. The reliability-corrected correlation was an index of whether positive and negative affectivity were bipolar measures of the same construct.

#### Research on Affectivity and Job Satisfaction

Several Studies have examined the affectivity and job satisfaction relation. Although these studies found significant results on the relation between affectivity and job satisfaction, these studies do suffer from several systematic artifacts that distort the true results. Specifically, observed artifacts increase variability of individual studies and systematic statistical artifacts reduce observed mean effect size (Schmidt, Viswesvaran, & Ones, 1994). These statistical artifacts include sampling error, unreliability in the x and y measures, range restriction in the x and y measures, dichotomization of the x and y measures, construct validity of x and y measures, transcriptional errors, and variance due to extraneous variables. However, psychometric meta-analyses procedures can correct for most of these artifacts when cumulating results across studies, and thus gives an estimate of the true relationship between variables.

Before embarking on the meta-analysis, it is instructive to review the main findings from individual studies. It is instructive since such a qualitative review gives a broad idea of the content domain being meta-analyzed, and therefore, such a review follows. Levin and Stokes (1989) found negative affectivity to be a significant predictor of job satisfaction. Levin and Stokes used a sample (N=315) of participants from

a large international professional service organization. The measures in the Levin and Stokes study consisted of the Job Diagnostic Survey (JDS) and the Job Descriptive Index (JDI) for job satisfaction and the Negative Affect Scale (NAS). Brief and Roberson (1989) examined the affectivity and job satisfaction relationship with a sample size of 144 graduate level students. Brief and Roberson used three measures of job satisfaction (JDI, MSQ, and FACES), and used the Job affect Scale (JAS) to measure positive and negative affectivity. Brief and Roberson found that the three most widely used job satisfaction measures (JDI, MSQ, and FACES) correlated significantly with measures of both positive affectivity and negative affectivity.

Judge (1993) used a sample of medical personnel from a clinic (N=234). Judge used the gripe index as a measure of affective disposition, the JDI for the job satisfaction measure, and company records to measure voluntary turnover. Judge found that for positive affective individuals, the job dissatisfaction and turnover relationship was stronger than for negative affective individuals. Agho, Mueller, and Price (1993) used a sample of 405 employees from a Veterans Administration Medical Center. Agho et al. measured satisfaction with the Brayfield and Rothe index among the 15 other measures used in the study. Agho et al. found a significant increase in explanatory power of their casual model of job satisfaction, when both negative affective and positive affective factors were added. Necowitz and Roznowski (1994) listed a sample (N=165) from four organizations in the food service or processing industry. Necowitz and Roznowski used the JDI for job satisfaction and used the Negative Affect scale (NAS) for measuring negative affectivity. Necowitz and Roznowski found significant correlations between negative affectivity and job satisfaction (not in aversive task conditions though).

George (1995) recruited 65 sales managers from a large retailer in the U.S. for her study. George used the Michigan Organizational Assessment Questionnaire for measuring job satisfaction and the Positive Affect Schedule (PANAS) to measure positive affect. George found leaders with high positive affective dispositions correlated highly with leader job satisfaction and group performance. Kim, Price, Muller, and Watson (1996) examined 244 male physicians at an U.S. Air Force hospital for their sample. Kim et al. used several measures developed by Price-Mueller and their colleagues. Kim et al. found positive affectivity to be the most important determinant of job satisfaction. Williams, Gavin, and

Williams (1996) used 183 employees from 13 libraries in their study. Williams et al. measured job satisfaction with the Facet Free Job Satisfaction Scale and measured negative affectivity with the PANAS scale. Consistent with past research, they too found a strong correlation between negative affectivity and job satisfaction. Erez and Judge (1997) used a sample of 219 non-academic employees from a large Midwestern University for their study. Erez and Judge used several measures in their study, such as the Self-deception Questionnaire, the Balanced Inventory of Desirable Responding, the Brayfield and Rothe job satisfaction measure, the Minnesota Satisfaction Questionnaire, and lastly the Neutral Objects Satisfaction Questionnaire to measure affective disposition. Erez and Judge (1997) found that positively disposed affective individuals used acts through self-deception to influence their high job satisfaction levels.

### Hypotheses

The objective in this thesis is to cumulate, using the principles of psychometric meta-analysis (Hunter & Schmidt, 1990), the extant literature examining the correlation between measures of affective dispositions and measures of job satisfaction. Four separate meta-analytic cumulations were undertaken. The correlations between (1) measures of negative affectivity and job satisfaction, (2) measures of positive affectivity and job satisfaction, (3) measures of positive and negative affectivity with job satisfaction, and (4) measures of affective disposition that tapped both positive and negative affectivity with job satisfaction, were meta-analytically cumulated. Finally, a fifth meta-analysis was conducted lumping all types of correlations into one category. It is predicted that negative affectivity will correlate negatively with job satisfaction, and positive affectivity will correlate positively with job satisfaction. The prediction that positive affectivity will correlate more with job satisfaction than does negative affectivity is based on Herzberg's Two-Factor theory of Job Satisfaction and motivation. According to Herzberg (1966) the various factors that affect job satisfaction can be broadly classified into satisfiers and motivators. Satisfiers are factors that individuals expect to find in the workplace; their presence does not lead to job satisfaction, but their absence results in job dissatisfaction. In a similar vein, I expect positive affectivity to be related to job satisfaction to a greater extent than negative affectivity. Also, both measures of job satisfaction and



positive affectivity examine items by definition to be positively orientated. Thus, these measures will be more highly correlated than negative affective measures.

### Personality Research

Affective dispositions can generally be mapped into the Big Five framework. For example, measures of negative affectivity have been classified as measures of emotional stability or neuroticism (Watson & Clark, 1984), whereas positive affectivity has been considered as a measure of extraversion (George, 1992). Thus, although I focus in my thesis on the relation between affective dispositions and job satisfaction, the results reported can also be interpreted within the Big Five framework. This is important to the extent that this research can be added to the vast research on personality, and organizational constructs, as the Big Five framework has established a unifying framework to organize the research on the role of personality at work.

Organizational researchers have shown an increased interest in recent years in the role of personality and affective dispositions in explaining organizational behavior (Judge, Martocchio, & Thoresen, 1997; Barrick and Mount, 1996). In fact, in the 1960's and 1970's it was believed that personality was a weak predictor of many organizational and individual outcomes (cf. Guion & Gottier, 1965; Mischel, 1973). The 1990's have seen a resurgence of personality variables in organizational research (cf., Hough & Schneider, 1996; Ones, Viswesvaran, & Schmidt, 1993). This resurgence is partly due to meta-analytic cumulations that found substantial validities for personality variables (Barrick & Mount, 1991; Hough, Eaton, Kamp, Dunnette, & McCloy, 1990; Tett, Jackson, & Rothstein, 1991) that are generalizable across situations. Further, meta-analytic cumulation (Viswesvaran & Connolly, 1996) disputes the often repeated criticism that personality is only in the head of the perceiver (Mischel, 1973). Viswesvaran and Connolly reported reliability corrected correlations of .50 - .70 between self and observer ratings of personality. This level of self – observer convergence is higher (40%) than the interrater reliability values reported for ratings of job performance (Rothstein, 1990; Viswesvaran, Ones, & Schmidt, 1996). If the use of personality is to be criticized for low interrater agreement and discarded as something that exists only in the head of the observer, then Industrial – Organizational psychologists should also dismiss the study of job performance (and consequently dismiss the entire science of Industrial – Organizational psychology as residing only

within the head of the perceiver and as such is of no practical value). As the above indicates, personality and affective dispositions research has regained respect as an explanation of organizational behavior research. It is critical to dispel with the criticisms of this research in order to pursue with vigor the meta-analysis between affectivity and job satisfaction.

Another issue that has retarded the use of personality variables in organizational research is the claim that faking destroys the usefulness of personality predictors. However, as shown meta-analytically by Ones, Viswesvaran, and Reiss (1996), faking does not affect the rank ordering and as such, the correlations with other variables such as job satisfaction. Note however, that most of this research had focused on job performance. For example, Nicholsan and Hogan (1990) report that validity coefficients are not enhanced when social desirability is controlled. But, Chen, Dai, Spector, and Jex (1996) found that social desirability is a factor on how individuals responded to questions on affectivity. In addition Barrick and Mount (1996) reported that response distortions such as self-deception and impression management do not effect the validity of personality constructs. Although future research is needed, response distortions such as faking, social desirability, self-deception, and impression management no longer seems to be considered as so critical, as to question the use of personality variables in explaining organizational behavior.

Finally, the emerging consensus in the personality literature about the structure of personality has facilitated this resurgence of personality in organizational research. Specifically, the Big Five framework has provided a compass to guide personality research (Costa & McCrae, 1995; Goldberg & Saucier, 1995). The five-factor model of personality is the most widely acknowledged framework of personality in Industrial- organizational psychology today (Digman, 1990). The five-factor model of personality has established a unifying construct to remedy the often-confusing vocabulary of personality research. The five personality factors are Openness to experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism. Openness to experience is a measure of intellect, Conscientiousness is a measure of scrupulousness, Extraversion is a measure of sociability towards others, Agreeableness is a measure of amicability, and Neuroticism is a measure of emotional stability. The unifying effect of the emergence of the five-factor model has increased the utility of research between personality and various organizational constructs (Costa & Mc Crae, 1995; Goldberg, 1993).

## Moderators

In addition to a meta-analysis of job satisfaction – affectivity relationship, an analysis of potential moderators of the relationship between job satisfaction and affective dispositions will be examined. Several moderators such as job satisfaction measure, tenure, organizational sector, organizational size, and age will be examined. A list of moderators and their levels are summarized in Table 1. Note, however, that the list of moderators and their levels were limited to the data available in the studies.

In organizational research tenure is taken as an indicator of several factors. First tenure may represent the investments that an individual has made in an organization. Thus, an individual with a longer tenure will have invested more in the development, growth, and evaluation of the organization over the years. Thus levels of satisfaction will be higher for high tenure individuals. Second, as an individual remains longer with an organization, the position level, pay and benefits are likely to improve. This in turn will lead to higher levels of job satisfaction. In fact, Day and Bedeian (1995) found a correlation of .26 between job satisfaction and organizational tenure. Finally, the gravitation hypothesis (Wilk & Sackett, 1996) suggests that dissatisfied individuals will leave the organization over time. Those long tenured employees will be more satisfied than employees with low tenure will. This by itself is no evidence that affectivity – job satisfaction relationship would be moderated by tenure. However, highly negative affective trait employees tend to remain in work environments perceived as having low job satisfaction, the reasoning being that since individuals high on negative affectivity view the job environment as bleak as well as other aspects of their life, they may very well ask why fight it (Judge, 1993). More importantly, Sanchez, Zamora, and Viswesvaran (1997) found that job analysis ratings (importance of tasks) were higher for more satisfied employees. This suggests that the job satisfaction – negative affective relationship will be higher for longer tenured employees as compared to shorter tenures.

Employee age has gained incredible attention in recent literature as the Baby Boom generation ages. It is estimated that one-third of the workforce will be 55 or older by the next century (Crampton, Hodge, Mishra, 1995). Indeed, age is another variable that has been shown to moderate job satisfaction. Brush, Moch, and Pooyan (1987) report a correlation of .22 in their meta-analyses of job satisfaction and age. Most research has found increasing age to positively relate to job satisfaction. Pond and Geyer (1991)

found a weak negative relationship between older aged employees' job satisfaction and perceived job alternatives, compared to a strong negative relationship for younger employees' job satisfaction. Thus this study lends support to why older aged employees report higher levels of job satisfaction. Zeitz (1990) found a "U" shaped relationship between job satisfaction and age. That is, job satisfaction declines early in the work life, stabilizes in the middle years, and increases later in life. Kacmar and Ferris (1989) also found support for this "U" shaped relationship between age and job satisfaction. Specifically, Kacmar and Ferris found age and extrinsic job satisfaction and a linear relationship for age and intrinsic job satisfaction. They theorize that the Organization has control of the extrinsic nature of job satisfaction through the career stages of the individual, thus creating the "U" shaped relationship. However, the intrinsic job satisfaction is more under the control of the individual, and thus has a linear relationship between age and job satisfaction. Additionally, older aged negative affective employees will have a lower negative affective component variance of job satisfaction than younger aged negative affective employees will. As employees age, their general expectations diminish, and thus have higher job satisfaction levels compared to younger aged employees with temporally untested expectations that will not be met, and thus they have a higher part of the variance attributed to negative affectivity.

Two of the most widely used measures of job satisfaction, the Job Descriptive Index (JDI; Smith, Kendall, & Hulin, 1969), and the Minnesota Satisfaction Questionnaire (MSQ; Weiss, Dawis, England, & Lofquist, 1967) were examined for moderator effects. JDI is the most researched and fine tuned job satisfaction measure. The JDI composes of 5 facets: work, pay, promotion, supervision, and coworkers. Many published studies have used the JDI, and thus an extensive amount data has confirmed its reliability and validity. Individuals high in the trait of positive affectivity are expected to be well adjusted to the work facet, content with the pay facet, optimistic about the promotion facet, inspired by the supervision facet, and comfortable with the coworker scale. However, high negative affective individuals will experience stress with the work facet, believe they are under paid, pessimistic concerning promotional opportunities, felt misled by their supervisors, and feel anxious around coworkers. The MSQ contains 20 facets, which expand the domain sampled and compares favorably to the 5 facets of the JDI. Due to the high correlation among the 20 facets of the MSQ, discriminant validity may be compromised. The MSQ can be broken

down into extrinsic and intrinsic scales of job satisfaction. The intrinsic scale of the MSQ, which measures feelings towards the job is expected to show the strongest relationship to affective dispositions. Overall, past research has shown the JDI as a more valid and reliable measure of job satisfaction than the MSQ, and thus will have a significant moderation effect.

Organization size has also been studied as a variable that significantly effects employee job satisfaction (James & Jones, 1976). Specifically, the “Attraction-Selection” framework states that organizational structure attracts and/or selects employees with particular personal attributes (Oldham & Hackman, 1981). Additionally, organization size has also been found to influence information processing, communication systems, and control systems, which affect individual attitudes and behaviors (Berger & Cummings, 1979). Furthermore, formalization, coordination, and standardization of procedures provide certainty and order, which reduce job-related stress (Lee & Ashforth, 1991). In addition, Ferris, Frink, Glang, Zhou, Kalmar, and Howard (1996) found formalization in organizations significantly positively correlated with job satisfaction and negatively correlated with job anxiety. Indeed, organizations are losing the lethargic top heavy administrative staff, and are down sizing to remain competitive in the global market (Cascio, 1995; Peters, 1992). These smaller organizations are requiring their employees to work harder and longer hours. Role ambiguity and role conflict are the mainstays as organizations lose their formal structures to be flexible in the always-changing market. This new stressful environment will push employees to their limits in smaller organizations, but will not be as stressful for employees in larger organizations. High negative affective individuals selectively attend to stress, and thus negative affectivity will have a stronger relationship with smaller organizations. Another view asserts that employees who have a high negative affective disposition will have a higher job satisfaction in larger organizations, than in smaller organizations. In smaller organizations negative affective disposed employees are in the social spotlight more often. Employees in smaller organizations have more contact with the same employees on a daily basis. This affords social appraisals to form, and negative affective employees do not enjoy maintaining social desirability. Negative affective employees in large organizations do not have the same level of social contacts compared to smaller organizations, so negative affective employees can maintain cursory work relationships without prolonged, deep efforts at maintaining social desirability.

Researchers have found employees of non-profit (i.e., governmental agencies) organizations to have lower job satisfaction compared to public (for profit private companies) organizations (Bogg & Cooper, 1995; Solomon, 1986; Rainey, Backoff, & Levine, 1976; Buchanan, 1974), although Maidan (1991) found the reverse. Non-profit employees have been found to be more dissatisfied, and to complain both of mental and physical health compared to public employees (Bogg & Cooper, 1995). Non-profit organizations are typically burdened with inefficient policies and weak links between performance and extrinsic rewards that both serve to lower employee job satisfaction (Solomon, 1986). Furthermore, non-profit organizations typically stymie employees who seek to identify with the organizations goals, and whose employees also perceive a lack of control over work issues, thus leading to lower job satisfaction levels (Buchanan, 1974). In addition to the situational factors effecting low job satisfaction in non-profit organizations, high negative affective trait employees will favor non-profit sector organizations over public sector organizations. Negative affective employees seek out non-profit organizations, which present low key; stable, larger and less social interaction orientated environment. Public sector organizations tend to be smaller, more dynamic, and thus perceived as less comforting to negative affective employees.

## METHOD

### Database

A search to locate all studies reporting a correlation between job satisfaction assessments and measures of affective disposition was conducted. First, the PsycLit database was electronically searched. The studies found were then examined to reveal more leads for additional studies to be included in the meta-analysis. Conference papers and conference posters were also included. A total of 25 journal articles were marked as relevant, and were included in the database. The measures of affective dispositions that went into the database are listed in Table 2. Similarly, the job satisfaction measures used are summarized in Table 3.

### Analysis

The correlations were grouped into one of 5 distributions. One distribution comprised of correlations between measures of negative affectivity and measures of job satisfaction, whereas the second distribution

included correlations between measures of positive affectivity and measures of job satisfaction. The third distribution was composed of correlations between measures of either positive or negative affectivity and measures of job satisfaction. Correlations between measures of affective dispositions (that assessed both negative and positive affectivity) and measures of job satisfaction comprised the fourth distribution. Finally, a fifth distribution including the correlations from the first four distributions was also compiled.

The artifact distribution based meta-analysis (Hunter & Schmidt, 1990) with the interactive refinements suggested in Schunidt et al. al. (1993) was used. This model corrected for the following artifacts: sampling error and unreliability in the measures (Schmidt, Viswesvaran, & ones, 1994). In correcting for unreliability, coefficient alphas were used (Schmidt & Hunter, 1996). This is so because of our interest in the intra-rater correlations; the focus is not on interrater agreement. Five distributions of observed correlations, and four distributions of reliabilities (one for job satisfaction and three for affective dispositions) were constructed. The corrections were made allowing for interactions between artifacts.

Five separate meta-analyses were conducted. The input to the meta-analysis is the observed correlations, the associated sample size, and the reliability distributions. The sample size weighted mean observed correlations (Mobs) and the sample size weighted mean observed variances (SDobs) were computed. The frequency weighted mean of the square root of the reliability estimates were computed and used to correct the sample size weighted mean observed correlation. This mean corrected correlation is referred to as ( $\rho$ ). The sample size weighted mean observed correlation (Mobs) was used in the standard sampling error formula for a correlation along with the average sample size (averaged across all estimates meta-analyzed) to estimate the sampling error variance. The artifactual variance caused by differences in reliabilities across studies was also estimated. Both sampling error variance and variance caused by reliability differences across studies were subtracted from the observed variance to estimate the residual variance. This residual variance was multiplied by the square of the ratio of  $\rho$  to Mobs to obtain the variance of the reliability corrected mean correlation.

Thus, for each of the five meta-analysis, the number of correlations meta-analyzed ( $k$ ), the total sample size across the  $k$  correlations ( $N$ ), the sample size weighted mean observed correlations (Mobs), the

sample size weighted observed variance (SDobs), the reliability corrected mean correlation ( $\rho$ ), and the standard deviation of  $\rho$ , were computed.

Following the five meta-analyses, these five distributions were subgrouped by the different levels of each moderator. Each subgroup was meta-analyzed (the procedures outlined above were repeated). A moderator influence was inferred if, (1) the mean of the subgroups differed from the overall mean across subgroups; and (2) if the average within subgroup standard deviation is less than the total variance (within and between subgroups).

Several moderator variables were examined. Again, moderators examined were limited to the availability of data from the cumulated studies. The five moderator variables were investigated: organization size (by employees), employee tenure, job satisfaction measure, employee age, and organizational sector. All moderators were separated along two extreme levels, and examined the negative affectivity - job satisfaction relationship. Not enough studies were available to examine the other possible relationships, such as the moderation between positive affectivity with job satisfaction. Organization size was split between organizations with 100 employees up to 1000 employees, and organizations with more than 1000 employees. Employee tenure was divided between employees with 5 years or less service, and employees with more than 5 years of service. Job satisfaction measures were also examined as a possible moderator. The two most used job satisfaction measures, the JDI and the MSQ, were analyzed. Lastly, employee age was split between employees 40 years old and above, and employees age 39 years old or below. The age moderator was divided across the 40-year point because of possible ramifications with Title VII, and other discrimination laws.

## RESULTS

### Affectivity – Job Satisfaction Analysis

Table 4 provides the frequency weighted (i.e., unweighted by sample size) mean and standard deviation of the square root of the reliability estimates. Coefficient alphas for all five distributions of affectivity and one distribution of job satisfaction are summarized. For the six distributions, the mean value of the reliability estimates is highest for job satisfaction, and the lowest for affective disposition.



This probably reflects the fact that scales of job satisfaction have been in use for a long time enabling researchers to refine the items over the years. Another explanation is that some of the satisfaction measures were much longer than the affectivity measures. More importantly, it should be noted that the reliability distributions overlapped.

The results of the five meta-analyses are summarized in Table 5. The sample size weighted mean observed correlation corrected for coefficient alpha in the five affectivity distributions ranged from .33 to .49. The affectivity-job satisfaction correlation was highest for positive affectivity and lowest for negative affectivity.

The results seem to suggest that job satisfaction is more influenced by positive affect than by negative affect. This is consistent with my expectations based on the Herzberg Two-Factor theory of motivation. According to Herzberg, negative factors (i.e. satisfiers) cause dissatisfaction, but positive factors (i.e. motivators) are needed to generate satisfaction.

Further, the magnitudes of these correlations suggest that there are many variables affecting job satisfaction. Although the results support the inference that there may be stable individual difference correlates of job satisfaction, their relative importance (relative to situational factors) does not appear to be large. Even for positive affectivity (which had the highest correlation with job satisfaction) the percent variance explained was only 25%. Surprisingly, affective disposition conceptualized as spanning both positive and negative affectivity, had a lower correlation with job satisfaction than positive affectivity (.36 vs. .49 respectively). Perhaps, the existing measures of affective disposition capture primarily negative affectivity. This is also consistent with the finding that the correlation between job satisfaction and negative affectivity was similar to the correlation between affective disposition and job satisfaction (.33 vs. .36, respectively).

Meta-analytic evidence of the included studies ( $N = 2,768$ ,  $k = 12$ ) in this thesis indicate a correlation of  $-.34$  between negative affectivity and positive affectivity. This lends support for the discriminant validity of negative affectivity and positive affectivity. That is, these two variables may not be bipolar ends of the same construct. Further, the correlation between negative affectivity and job satisfaction was  $-.33$ , whereas the correlation between positive affectivity and job satisfaction was  $.49$ . This differential pattern

of correlation also suggests that positive and negative affectivity may be independent constructs (at least when existing measures are considered).

### Moderator Analyses

Moderator analyses explored a few of the situational factors that may influence the relationship between negative affectivity and job satisfaction. The JDI had a correlation of .33, while the MSQ had a smaller correlation of .23. Organizations with 100-999 employees had a correlation of .36, while organizations of 1000+ had a correlation of .41. Public sector organizations had a correlation of .35, and non-profit organizations had a correlation of .41. Tenured employees of less than 5 years had a correlation of .29, while employees tenured 5 years and more had a correlation of .28. Employees aged 39 years and less had a correlation of .36, and employees aged 40 and above had a correlation of .23.

90% Credibility intervals for the moderator variables are reported in table 6. According to this criterion, only the job satisfaction measure (JDI vs. MSQ) moderated the relationship between negative affectivity and job satisfaction. All of the remaining four moderator levels had credibility intervals that overlapped, thus indicating no significant moderator effect. It is interesting to note that the standard deviation associated with the mean correlation when JDI measures were used was zero whereas there was unexplained variability when MSQ measures were used. A check of the six studies using the MSQ indicated that five had used the short form of the MSQ. When the analysis was restricted to these five studies, the mean observed correlation remained the same at .19 (line 2, Table 6), suggesting that the use of the shorter version of the MSQ did not result in a tradeoff with the thoroughness of measuring the satisfaction construct.

## DISCUSSION

The correlations of -.33 for negative affectivity, .49 for positive affectivity, and .36 for affective disposition suggests that 10-25% of the variance in general job satisfaction can be due to affectivity or affective disposition. Although there is a significant affective part to general job satisfaction, it is

important to note that this part is not everything. A large percent of the total variance are explained by other factors.

### Theoretical Implications

This study has several theoretical implications. This study is supportive of both Hackman et al. (1976) and Agho et al. (1993) theories, in that both situational as well as personality/dispositional determinants of job satisfaction are relevant. The data is also supportive of the consistency model posited by Staw and Ross (1985); and by the genetic disposition of job satisfaction researched by Arvey et al. (1989). Researchers have treated affective disposition as a personality trait, and other researchers have contributed personality development partially to genetic lineage (Tellegen, Lykken, Bouchard, Wilcox, Segal, & Rich, 1988). This also suggests the need for more behavioral genetics to be incorporated in several theories. Specifically, theories on mood, Subjective-well being and life-job satisfaction need to orientate their research efforts more towards dispositional determinants.

It appears the JDI captures more of the variance between the affectivity and job satisfaction relationship. Again, this points to the extensive refinements over the years of the JDI in its ability to better measure the job satisfaction construct. Organization size does not appear to moderate the affectivity – job satisfaction relationship. Additionally, organization sector and tenure also do not appear to moderate the affectivity – job satisfaction relationship. Lastly, employee age also does not appear to moderate the negative affectivity – job satisfaction relationship.

It is also interesting to note that the correlation between positive affectivity and negative affectivity was .34 (N= 2,768, k=12). This suggests that the two are not bipolar measures of the same construct (Schmidt & Stultz, 1985; Spector, Van Katwyk, Brannick, & Chen, 1997). Further support for this conclusion can be seen in the fact that the correlation between positive affectivity and job satisfaction is almost 50% higher than the correlation between negative affectivity and job satisfaction (.49 vs. .33, respectively). More interesting is the fact that the correlation between affective disposition and job satisfaction was more like the correlation between negative affectivity and job satisfaction (.36 vs. .33, respectively) than like the correlation between positive affectivity and job satisfaction (.36 vs. .49, respectively). Unfortunately, there were very few studies that reported a correlation between measures of

affective disposition and either positive or negative affectivity. One can expect based on the pattern of correlations with job satisfaction that, existing measures of affective disposition will correlate more with negative affectivity than with positive affectivity. Theoretically, these findings seem to imply that affectivity and subjective well-being are more a function of emotional stability (i.e., negative affect) rather than a function of extraversion (i.e., positive affect). Of course an alternate explanation is that existing measures of affectivity are deficient in assessing positive affect and newer scales need to be developed which will capture affectivity as conceptualized as including both positive and negative affect. A related issue is whether item overlap explains the negative affect – job satisfaction correlation. Arguments (Chen & Spector, 1991) have been presented that one of the negative affect measures (i.e., the Taylor Manifest Anxiety Scale) shares item content with health strains (which presumably affect job satisfaction). To estimate the extent to which the confound is operating, I reanalyzed the negative affect – job satisfaction correlation after deleting all scales that employed the Taylor Manifest Anxiety Scale (there were 3 correlations). The correlation dropped from .3282 (line 3 Table 5) to .3240; a difference of .004 that is practically within rounding error. In addition, the mean observed correlation only dropped from .27 to .26 which suggests that this scale may be both comparable operationally and at the construct level with other measures of negative affect.

### Practical Implications

Several practical implications of this research abound. Organizations may have less ability to influence job satisfaction than originally thought. Indeed, global interventions to increase job satisfaction may not be as effective and individual affective dispositions must be considered. For example, employee compensation systems present one of the strongest motivators in the work environment (Flannery, Hofrichter, & Platten, 1996). Specifically, successful linkage of merit pay to performance can increase positive outcomes such as job motivation and job satisfaction (Heneman, 1992). Additionally, many compensation systems are based on team performance. This means that normal compensation systems may be missing the target if they do not consider how genetic and affective dispositions effect their employees. In addition, affective measures coupled with job satisfaction measures may be used in selection efforts. Focused job-related interviews and improvement of the efficiencies of the interview process can be

obtained by knowing the congruence of dispositions of the organization matched against job incumbents. That is, matching the personality of the job to the personality of the incumbent will result in higher job satisfaction levels. Organizational interventions such as survey research on job analyses can be enhanced with the awareness that dispositions needed for the job must be considered as well as knowledge, skills and abilities. In light of the effects of positive mood on leadership job satisfaction and group performance (George, 1995), managerial personality style must be assessed to ignite peak performance in subordinates. Also employee development/training can be improved by giving employees a better understanding on how they appraise their work environment and gain job satisfaction through their personality dispositions. Furthermore, affective dispositions can inform employers on correct interventions to decrease unwanted absences and/or turnover (Judge, 1993). This research points to the gains obtained from both affective and personality based research in organizational settings.

More specifically, consider the use of reactions as a criteria to evaluate the impact of a training program. Typically researchers (Alliger & Janak, 1989) have found that the correlation between trainee reactions and the other three levels of training criteria (Kirkpatrick, 1987) such as learning, behavior and outcomes is low. Perhaps to the extent the training program is remedial (or participants were mandated to attend), negative affect will reduce the correlation with other types of criteria. The research reported by Quinones (1995) is also in line with this interpretation.

Further, job satisfaction has been studied in the literature on downsizing, layoffs, and survivor guilt. Given that my results indicate a larger correlation between negative and positive affect compared to the correlation between negative affect and job satisfaction, it seems reasonable to question whether job satisfaction and job dissatisfaction are bipolar. In any event, pending further research, it may not be wise to treat job satisfaction and dissatisfaction as proxies of one another. If the intent is to assess job dissatisfaction following layoffs, the use of satisfaction measures appears questionable. Researchers interested in assessing respondents' negative attitudes should not rely on measures of job satisfaction.

Nothing in this research is to be construed as a suggestion to select people based either on job satisfaction or on negative affect measures. As long as a dissatisfied employee discharges his or her job satisfaction, affect should not be a selection criterion. Only if an affect- job performance link can be

shown, should affect serve as a predictor for personnel selection. Failure to document this link may violate the American with Disabilities Act (ADA) requirements, in addition to raising a whole host of ethical questions. For example, should an individual who is suffering from a slight depression denied a job that s/he is capable of performing satisfactorily? It would be profitable to examine the discussion of these issues in the personality research literature (cf. Barrick & Mount, 1991).

Another practical implication of the results reported here is for the evaluation of applicant reactions to personnel selection system characteristics (Arvey & Sackett, 1993). Merely asking applicants whether a predictor is face valid may be misleading. In fact, this concern is applicable to all self-report measures.

### Limitations

Several limitations to these meta-analyses are warranted. First, although the number of studies was sufficient, it may be that with regard to the moderator analyses the small number of studies limited the results. That is, the small number of studies may have increased sampling error, both primary and secondary. Also, a closer examination of the facets of job satisfaction with the affectivity measures would have been informative, but again due to the limited number of studies this analyses was not practical. However, measures of single-item measures of overall job satisfaction correlate highly with averaged scale scores of job satisfaction (Wanous, Reichers, & Hudy, 1997). This suggests that a closer examination of the facets of job satisfaction would not have likely presented different results than from the use of a single-item measure of overall job satisfaction used in this study. In addition, the studies examined were all correlational, which limits the casual conclusions obtained. In fact there is evidence for a reciprocal causation relationship between job satisfaction and employee job perceptions (James & Jones, 1980). Additionally, most of the studies relied on self-report measures, which points to monomethod biases effecting the results. Also, the levels of the individual moderators may have been too broad to capture any moderator effect. In addition, a substantial limitation to this study was the unavailability of data to investigate the positive affectivity- job satisfaction relationship also in terms of the moderator analyses. Furthermore, as Brief et al. (1995) revealed in their study, individuals probably have different levels of negative affectivity in their dispositional makeup. As a consequence, lack of data for this cumulation, results in further limitations, as this study may generalize over these negative affective levels. Although

range restriction corrections are possible, the lack of studies raises questions about the appropriateness of such corrections. Further, it is possible that individuals suffering from extreme levels of negative affect are not part of the labor force.

Future research can concentrate on possible moderator variables such as organizational size, employee tenure, or type of organization (public or private) to both positive and negative affective relationships with job satisfaction, which can further account for the dispositional source of job satisfaction. Given that job satisfaction is an important construct in industrial-organizational psychology, and given that most of the prior research on job satisfaction has focused on situational determinants, this study was a preliminary attempt to examine the dispositional factors. It is hoped that future research will build on this work to ultimately realize a more comprehensive understanding of job satisfaction and its correlates.

## LIST OF REFERENCES

(An asterix (\*) denotes studies that were included in the cumulation)

- \*Agho, A.O., Muller, C. W., & Price, J. L. (1993). Determinants of employee job satisfaction: An empirical test of a casual model. Human Relations, *46*, 1007-1027.
- Alliger, G.M., & Janak, E.A. (1989). Krikpatrick's levels of training criteria: Thirty years later. Personnel Psychology, *42*, 331-342.
- 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.
- Arvey, R.D., & Sackett, P.R. (1993). Fairness in selection: Current developments and perspectives. In N. Schmidt, & W.C. Borman (Eds.), Personnel Selection in organizations (pp. 171-202). San Francisco, CA: Jossey Bass.
- Barrick, M.R., & Mount, M.K. (1996). Effects of impression management and self-deception on the predictive validity of personality constructs. Journal of Applied Psychology, *81*, 261-272.
- Barrick, M. R., & Mount, M. K. (1991). The big five personality dimensions and job performance. Personnel Psychology, *44*, 1-26.
- Bedeian, A.G., Burke, B.G., & Moffett, R.G. (1988). Outcomes of work-family conflict among married male and female professionals. Journal of Management, *14*, 475-491.
- Berger, C.J., & Cummings, L.L. (1979). Organizational structure, attitudes, and behavior. In Barry M. Staw (ed.), Research in organizational behavior, *1*: (pp. 169-208), Greenwich, CT: JAI Press.
- Bogg, J., & Cooper, C. (1995). Job satisfaction, mental health, and occupational stress among senior civil servants. Human Relations, *48*, 327-341.
- Brief, A.P., Burke, M.J., George, J.M., Robinson, B.S., & Webster, J. (1988). Should negative affectivity remain an unmeasured variable in the study of job stress? Journal of Applied Psychology, *73*, 193-198.
- \*Brief, A. P., Butcher, A.H., & Roberson, L. (1995). Cookies, disposition, and job attitudes: The effects of positive mood-inducing events and negative affectivity on job satisfaction in a field experiment. Organizational Behavior And Human Decision Processes, *62*, 55-62.



- \*Brief, A. P., & Roberson, L. (1989). Job attitude organization: An exploratory study. Journal of Applied Social Psychology, 19, 717-727.
- Brush, D.H., Moch, M. K., & Pooyan, A. (1987). Individual demographic differences and job satisfaction. Journal of Occupational Behavior, 8, 139-155.
- Buchanan II, B. (1974). Government managers, business executives, and organizational commitment. Public Administration Review, 34, 339-351.
- Burke, M.J., Brief, A.P., & George, J.M. (1993). The role of negative affectivity in understanding relations between stressors and strains: A comment on the applied psychology literature. Journal of Applied Psychology, 78, 402-412.
- Carsten, J.M., & Spector, P.E. (1987). Unemployment, job satisfaction, and employee turnover: A meta-analytic test of the muchinsky model. Journal of Applied Psychology, 72, 199-212.
- Cascio, W.F. (1995). Whither industrial and organizational psychology in a changing world of work? American Psychologist, 50,928-939.
- Chen, P.Y., Dai, T., Spector, P.E., & Jex, S.M. (1996, April). Relationship between negative affectivity and positive affectivity: Impacts of judged desirability of scale items and respondents' social desirability. Paper presented at the annual conference of the society for Industrial and Organizational Psychology, St. Louis, Missouri.
- \*Chen, P.Y., & Spector, P.E. (1991). Negative affectivity as the underlying cause of correlations between stressors and strains. Journal of Applied Psychology, 76, 398-407.
- Costa, P.T., Jr., & McCrae, R.R. (1995). Solid ground in the wetlands of personality: A reply to Block. Psychological Bulletin, 117(2), 232-245.
- Costa, P. T., Jr., & McCrae, R. R. (1992). Four ways five factors are basic. Personality and Individual Differences, 13, 653-665.
- Crampton, S., Hodge, J., & Mishra, J. (1995). Transition – ready or not: The aging of America's workforce. Public Personnel Management, 25, 243-256.

Day, D.V., & Bedeian, A.G. (1995). Personality similarity and work-related outcomes among african-american nursing personnel: A test of the supplementary model of person-environment Congruence. Journal of Vocational Behavior, 46, 1995.

\*Decker, P.J., & Borgen, F.H. (1993). Dimensions of work appraisal: Stress, strain, coping, job satisfaction, and negative affectivity. Journal of Counseling Psychology, 40, 470-478.

Digman, J.M. (1990). Personality structure: Emergence of the five-factor model. Annual Review of Psychology, 41, 417-440.

Erberhardt, B.J., & Shani, A.B. (1984). The effects of full-time versus part-time employment status on attitudes toward specific organizational characteristics and overall job satisfaction. Academy of Management Journal, 27, 893-900.

\*Erez, A., & Judge, T.A. (1997). Psychological processes underlying the dispositional source of job satisfaction. Paper presented at the 12<sup>th</sup> annual conference of the Society for Industrial and Organizational Psychology, St. Louis, MO.

Ferris, G.R., Frink, D.D., Galang, M.C., Zhou, J., Kalmar, K.M., & Howard, J.L. (1996). Perceptions of organizational politics: Prediction, stress-related implications, and outcomes. Human Relations, 49, 233-265.

Flannery, T.P., Hofrichter, D.A., & Platten, P.E. (1996). *People, Performance, and Pay: Dynamic Compensation for Changing Organizations*. (pp. 251-253), New York, N.Y.: The Free Press.

\*George, J.M. (1991). Time structure and purpose as a mediator of work-life linkages. Journal of Applied Social Psychology, 21, 296-314.

George, J.M. (1992). The role of personality in organizational life: Issues and evidence. Journal of Management, 18, 185-213.

\*George, J.M. (1995). Leader positive mood and group performance: The case of customer service. Journal of applied Social Psychology, 25, 778-794.

Goldberg, L. R. (1993). The structure of phenotypic personality traits. American Psychologist, 48, 26-34.

- Goldberg, L.R., & Saucier, G. (1995). So what do you propose we use instead? A reply to Block. Psychological Bulletin, *117*(2), 221-231.
- Guion, R.M., & Gottier, R.F. (1965). Validity of personality measures in personnel selection. Personnel Psychology, *18*, 135-164.
- Hackman, J.R., & Oldham, G.R. (1976). Motivation through the design of work: Test of a theory. Organizational Behavior and Human Performance, *16*, 250-279.
- \*Harris, S.G., & Mossholder, K.W. (1996). The affective implications of perceived congruence with culture dimensions during organizational transformation. Journal of Management, *22*, 527-547.
- Heneinan, R.L. (1992). *Merit Pay: Linking Pay Increases to Performance Ratings*. (pp.223-261), New York, N.Y.: Addison-Wesley.
- Herzberg, F. (1966). *Working and the nature of man*. NewYork: Thomas Y. Crowell.
- Holland, J.L. (1973). *Making vocational choices: A theory of careers*. Englewood Cliffs, NJ: Prentice-Hall.
- Hough, L. M., Eaton, N.K., Dunnette, M.D., Kamp, J. D., & McCloy, R. A. (1990). Criterion-related validities of personality constructs and the effects of response distortion on those validities. Journal of Applied Psychology, *75*, 581-595.
- Hough, L.M., & Schneider, R.J. (1996). *The frontiers of I/O personality research*. In K.R. Murphy (ed.) *Individual differences and behavior in organizations* (pp. 31-88). San Francisco, CA: Jossey-Bass.
- Hunter, J.E., & Schmidt, F.L. (1990). *Methods of Meta-analysis: Correcting error and bias in research findings*. Beverly Hills, California: Saga Publications.
- Iaffaldano, M.T., & Muchinsky, P.M., (1985). Job satisfaction and job performance: A meta-analysis. Psychological Bulletin, *97*(2), 251-273.
- Jamal, M., & Baba, V.V. (1992). Shiftwork and department-type related to job stress, work attitudes and behavioral intentions: A study of nurses. Journal of Organizational Behavior, *13*, 449-464.
- James, L.A., & James, L.R. (1989). Integrating work environment perceptions: Explorations into the measurement of meaning. Journal of Applied Psychology, *74*, 739-751.

James, L.R., & Jones, A.P. (1980). Perceived job characteristics and job satisfaction: An examination of reciprocal causation. Personnel Psychology, 33, 97-135.

James, L.R., & Jones, A.P. (1976). Organizational structure: A review of structural dimensions and their conceptual relationships with individual attitudes and behavior. Organizational Behavior and Human Performance, 16, 74-113.

\*Judge, T.A. (1993). Does affective disposition moderate the relationship between job satisfaction and voluntary turnover? Journal of Applied Psychology, 78, 395-401.

\*Judge, T.A., & Locke, E.A. (1993). Effect of dysfunctional thought processes on subjective well-being and job satisfaction. Journal of applied Psychology, 78, 475- 490.

Judge, T.A., Martocchio, J.J., & Thoresen, C.J. (1997). Five-factor model of personality and employee absense. Journal of Applied Psychology, 82, 745-755.

\*Judge, T.A., & Hulin, C.L. (1993). Job satisfaction as a reflection of disposition: A multiple source casual analysis. Organizational Behavior And Human Decision Processes, 56, 388- 421.

Kacmar, K.M., & Ferris, G.R. (1989). Theoretical and methodological considerations in the age-job satisfaction relationship. Journal of Applied Psychology, 74, 201-207.

Katz, D., & Kahn, R. L. (1978). *The social psychology of organizations* (2<sup>nd</sup> ed.) New York: John Wiley.

\*Kemery, E.R., Bedeian, & Zacur, S.R. (1996). Expectancy-based job cognitions and job affect as predictors of organizational citizenship behaviors. Journal of Applied Social Psychology, 26, 635-651.

\*Kim, S.W., Price, J.L., Mueller, C.W., & Watson, T.W. (1996). The determinants of career intent among physicians at a U.S. air force hospital. Human Relations, 49, 947-976.

Kirkpatrick, D.L. (1987). Evaluation of training. In R.L. Craig (Ed.), Training and development handbook: A guide to human resource development (3<sup>rd</sup>, pp. 301-319). New York: McGraw-Hill.

Lee, R.T., & Ashforth, B.E. (1991). Work-unit structure and processes and job-related stressors as predictors of managerial burnout. Journal of Applied Social Psychology, 21, 1831-1847.

\*Levin, I., Stokes, J.P. (1989). Dispositional approach to job satisfaction: Role of negative affectivity. Journal of Applied Psychology, 74, 752-758.

Locke, E.A. (1969). What is job satisfaction? Organizational Behavior and Human Decision Processes, 4, 309-336.

\*Levin, I., & Stokes J.P. (1989). Dispositional approach to job satisfaction: Role of negative affectivity. Journal of Applied Psychology, 74, 752-758.

\*Long, B.C. (1993). Coping strategies of male managers: A prospective analysis of predictors of psychosomatic symptoms and job satisfaction. Journal of Vocational Behavior, 42, 184-199.

\*Mastrangelo, P.M., Guy, J.L., Greenamyre, C.J., & Melanson, K.M. (1997). Life and job satisfaction: To disaggregate or not to disaggregate. A Presentation at the Twelfth Annual Conference of the Society for Industrial and Organizational Psychology, St. Louis, MO, April 1997.

\*Moorman, R.H. (1993). The influence of cognitive and affective based job satisfaction measures on the relationship between satisfaction and organizational citizenship behavior. Human Relations, 46, 759-776.

\*Moyle, P. (1995). The role of negative affectivity in the stress process: tests of alternative models. Journal of Organizational Behavior, 16, 647-668.

Mischel, W. (1973). *Personality and Assessment*. New York; Wiley.

Moyle, P. (1995). The role of negative affectivity in the stress process: Tests of alternative models. Journal of Organizational Behavior, 16, 647-668.

\*Munz, D.C., Huelsman, T.J., Konold, T.R., & McKinney, J.J. (1996). Are there methodological and substantial roles for affectivity in job diagnostic survey relationships? Journal of applied Psychology, 81, 795-805.

\*Necowitz, L.B., & Roznowski, M. (1994). Negative affectivity and job satisfaction: Cognitive processes underlying the relationship and effects on employee behaviors. Journal of Vocational Behavior, 45, 270-294.

Nicholson, R.A. & Hogan, R. (1990). The construct validity of social desirability. American Psychologist, 45, 290-292.

O'Connor, E.J., Peters, L.H., Rudolf, C.J., & Pooyan, A. (1982). Situational constraints and employee affective reactions: A partial field replication. Group & Organizational Studies, 7, 418-428.

- Oldham, G.R., & Hackman, J.R. (1981). Relationships between organizational structure and employee reactions: Comparing alternative frameworks. Administrative Science Quarterly, *26*, 66-83.
- Ones, D.S., Viswesvaran, C., & Reiss, A.D. (1996). The role of social desirability in personality testing in personnel selection: The red herring. Journal of Applied Psychology, *81*, 660-679.
- Ones, D.S., Viswesvaran, C., & Schmidt, F.L. (1993). Meta-analysis of integrity test validities: Findings and implications for personnel selection and theories of job performance [monograph]. Journal of Applied Psychology, *78*, 679-703.
- Ormel, J., & Wohlfarth, T. (1991). How neuroticism, long-term difficulties, and life satisfaction change influence psychological distress: A longitudinal model. Journal of Personality and Social Psychology, *60*, 744-755.
- Peters, T. (1992). Rethinking scale. California Management Review, *Fall*, 7-29.
- Pond, S.B., & Geyer, P.D. (1991). Differences in the relation between job satisfaction and perceived work alternatives among older and younger blue-collar workers. Journal of Vocational Behavior, *39*, 251-262.
- Quinones, M.A. (1995). Pretraining context effects: Training assessment as feedback. Journal of Applied Psychology, *80*, 226-238.
- Rainey, H.G., Backoff, R.W., & Levine, C.H. (1976). Comparing public and private organizations. Public Administration Review, *36*, 233-244.
- Ralston, D.A. (1989). The benefits of flextime: Real or imagined? Journal of Organizational Behavior, *10*, 369-373.
- Ronen, S., & Primps, S.B. (1981). The compressed work week as an organizational change: behavioral and attitudinal outcomes. Academy of Management Review, *6*, 61-74.
- Rothstein, H.R. (1990). Interrater reliability of job performance ratings: Growth to asymptote levels with increasing opportunity to observe. Journal of Applied Psychology, *75*, 322-327.
- Sanchez J.I., Zamora, A., & Viswesvaran, C. (1997). Moderators of agreement between incumbent and nonincumbent ratings of job characteristics. Journal of Occupational and Organizational Psychology, *70*, 209-218.

Schlesinger, L.A., & Zornitsky, J. (1991). Job satisfaction, service capability, and customer satisfaction: An examination of linkages and management implications. Human Resource Planning, 14, 141-150.

Schmidt, F.L., & Hunter, J.E. (1996). Measurement error in psychological research: Lessons from 26 research scenarios. Psychological Methods, 1, 199-223.

Schmidt, F.L., Law, K., Hunter, J.E., Rothstein, H.R., Pearlman, K., & McDaniel, M. (1993). Refinements in validity generalization methods: Implications for the situational specificity hypothesis. Journal of Applied Psychology, 78, 3-12.

Schmidt, N., & Stults, D.M. (1985). Factors defined by negatively keyed items: The results of careless respondents? Applied Psychological Measurement, 9, 367-373.

Schmidt, F.L., Viswesvaran, C., & Ones, D.S. (1994). A workshop on meta-analysis. Presented at the 23<sup>rd</sup> Annual Conference of the International Congress of Applied Psychology, Madrid, Spain.

Schuabroek, J., Ganster, D.C. & Fox, M.L. (1992). Dispositional affect and work-related stress. Journal of Applied Psychology, 77, 322-335.

Smith, P.C., Kendall, L. M., & Hulin, C.L. (1969). *Measurement of satisfaction in work and retirement*. Chicago: Rand McNally.

Solomon, E.E. (1986). Private and public sector managers: An empirical investigation of job Characteristics and Organizational Climate. Journal of Applied Psychology, 71, 247-259.

\*Spector, P.E., & O'Connell, B.J. (1994). The contribution of personality traits, negative affectivity, locus of control and type A to the subsequent reports of job stressors and job strains. Journal of Occupational and Organizational Psychology, 67, 1-11.

Spector, P.E., Van Katwyk, P.T., Brannick, M.T., & Chen, P.Y. (1997). When two factors don't reflect two constructs: How item characteristics can produce artificial factors. Journal of Management, 23(5), 659-677.

Staw, B.M., Bell, N.E., & Clausen, J. A. (1986). The dispositional approach to job attitudes: A lifetime longitudinal test. Administrative Science quarterly, 31, 56-77.

Staw, B.M., & Ross, J. (1985). Stability in the midst of change: A dispositional approach to job attitudes. Journal of Applied Psychology, 70, 469-480.

Stone-Romero, E.F. (1996). *Construct Validity Issues in Organizational Behavior Research*. In J. Greenberg (ed.) (pp. *Organizational Behavior: The State of the Science 155-179*). Hillsdale, NJ: Lawrence Erlbaum Associates, inc..

Tellegen, A. (1982). Brief manual for the differential personality questionnaire. Unpublished manuscript, University of Minnesota, Minneapolis.

Tellegen, A., Lykken, D.T., Bouchard, Jr., T.J., Wilcox, K.J., Segal, N.L., & Rich, S. (1988). Journal of Applied Psychology and Social Psychology, 54(6), 1031-1039.

Tett, R. P., Jackson, D. N., & Rothstein, M. (1991). Personality measures as predictors of job performance: A meta-analytic review. Personnel Psychology, 44, 703-742.

Viswesvaran, C., & Connolly, J. (1996). The convergent validity between self and observer ratings of personality: An integrative review. Article submitted for review.

Viswesvaran, C., & Deshpande, S.P. (1996). Ethics, success, and job satisfaction: A test of dissonance theory in India. Journal of Business Ethics, 15, 1065-1069.

Viswesvaran, C., Ones, D.S., & Schmidt, F.L. (1996). Comparative analysis of the reliability of job performance ratings. Journal of applied Psychology, 81, 557-574.

Viswesvaran, C., & Sanchez, J.I. (in Press). Measurement equivalence of Watson & Clark's 18 measures of negative affectivity: Applying the principle of Tetriad differences to an incomplete correlation matrix. Work and Stress.

Wanous, J.P., Reichers, A.E., & Hudy, M.J. (1997). Overall job satisfaction: How good are single-item measures? Journal of Applied Psychology, 82, 247-252.

Watson, D., & Clark, L.A. (1984). Negative affectivity: The disposition to experience aversive emotional states. Psychological Bulletin, 96, 465-490.

Watson, D., Clark, L.A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. Journal of Personality and Social Psychology, 54, 1063-1070.



\*Watson, D., & Slack, K. (1993). General factors of affective temperament and their relation to job satisfaction over time. Organizational Behavior and Human Decision Processes, 54, 181-202.

Weiss, D.J., Dawis, R. V., England, G.W., & Lofquist, L. H. (1967). *Manual for the Minnesota Satisfaction Questionnaire (Minnesota Studies in Vocational Rehabilitation, No. 22)*. University of Minnesota, Minneapolis.

Wilk, S. L. & Sackett, P.R. (1996). Longitudinal analysis of ability-job complexity fit and job change. Personnel Psychology, 49, 937-967.

\*Williams, L.J., Gavin, M.B., & Williams, M.L. (1996). Measurement and nonmeasurement processes with negative affectivity and employee attitudes. Journal of Applied Psychology, 81, 88-101.

Wolf, M.G. (1970). Need gratification theory: A theoretical reformulation of job satisfaction/dissatisfaction and job motivation. Journal of Applied Psychology, 54, 87-94.

Zeitz, G. (1990). Age and work satisfaction in a government agency: A situational perspective. Human Relations, 43, 419-438.

## TABLES

Table 1  
MODERATORS

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MODERATOR	LEVELS
Job Satisfaction Measures	MSQ JDI
Tenure	less than 5 years 5 years or more
Organization Sector	Public Non-profit
Organizational Size	100 - 999 employees 1000 or more employees
Age	40 years or more 39 years or less

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Table 2  
PERSONALITY MEASURES

SCALE	Frequency		
	Positive Affectivity	Negative Affectivity	Affective Disposition
Positive & Negative Affectivity Scale	8	8	
Neutral Objects Satisfaction Questionnaire			5
Multidimensional Personality Questionnaire	4	4	
Negative Affect Scale		4	
Taylor Manifest Anxiety Scale		3	
Job Affect Scale	3	3	
State-Trait Personality Inventory		2	
Gripe Index			1
Life Orientation Test			1
Neuroticism Scale		1	

**TABLE 3**  
**JOB SATISFACTION MEASURES**

<b>SCALE</b>	<b>FREQUENCY</b>
Job Descriptive Index	11
Minnesota Satisfaction Questionnaire	11
Brayfield & Roth Index	7
Michigan Organizational Assessment Scale	5
Job Diagnostic Survey	4
Faces Scale	3
Job In General Scale	3
Caplan Job Satisfaction Scale	1
Hoppock Job Satisfaction Scale	1
Facet Free Job Satisfaction Scale	1

**Table 4**  
**Descriptive Statistics on Reliability Distributions**

Reliability distribution	Reliability		Square-root of reliability	
	Mean	SD	Mean	SD
Positive Affectivity	0.81	0.0708	0.91	0.0412
Negative Affectivity	0.79	0.1085	0.89	0.0651
Affective Disposition	0.76	0.0688	0.87	0.0386
Job Satisfaction	0.84	0.0634	0.92	0.0346
Positive & Negative Affectivity	0.8	0.0959	0.89	0.0571
All Affectivity measures	0.79	0.0929	0.89	0.0551

Table 5  
Summary of Affectivity and Job Satisfaction Correlations

Affectivity Constructs	K	N	Mobs	Sdobs	p	SDp
Positive Affectivity	15	3,326	0.41	0.1397	0.49	0.1506
Negative Affectivity	25	6,028	-0.27	0.0998	-0.33	0.0858
Affective Disposition	7	1,415	0.29	0.0902	0.36	0.0691
Positive & Negative Affectivity	40	9,354	0.32	0.134	0.39	0.1424
All affective measures	47	10,769	0.31	0.1292	0.38	0.1364

Note. K = Total number of studies; N = Total sample size across the studies; Mobs = sample size Weighted mean observed correlation; Sdobs = Sample size weighted standard deviation of the Correlations; p = sample size weighted mean observed correlation corrected for unreliability in the Measures; SDp = standard deviation of p.

Table 6  
Moderator Effects on the Negative Affectivity And Job Satisfaction Relationship.

Moderator	K	N	Mobs	Sdobs	p	SDp	90% CRED.
JS measure							
JDI	6	1,067	0.27	0.0549	0.33	0	0.33
MSQ	6	1,561	0.19	0.0694	0.23	0.0391	.17-.29
Organization size							
100 - 999 employees	5	1,157	0.29	0.0268	0.36	0	0.36
1000 + employees	6	1,749	0.32	0.1086	0.41	0.1138	.22-.60
Organization sector							
Public	4	1,167	0.28	0.0331	0.35	0	0.35
Non-profit	7	1,739	0.33	0.1051	0.41	0.1052	.24-.58
Tenure							
Less than 5 years	6	1,126	0.23	0.0983	0.29	0.0829	.15-.43
5 years or more	6	1,141	0.23	0.0297	0.28	0	0.28
Age							
40 years or more	5	1,163	0.19	0.0794	0.23	0.0554	.14-.32
39 years or less	14	3,073	0.3	0.1128	0.36	0.111	.18-.54

Note. K = Total number of studies; N = Total sample size across the studies; Mobs = sample size weighted mean observed correlations; Sdobs = Sample size weighted standard deviation of the correlations; p = sample size weighted mean observed correlation corrected for unreliability in the measures; SDp = standard deviation of p. 90% Credibility intervals reported in the last column.