

PERSONALITY, SENSITIVITY AND SATISFACTION IN A NATURAL RESOURCE
AGENCY: RELATIONSHIPS AMONG PERSONALITY, EQUITY PREFERENCE,
SATISFACTION AND WORK-RELATED OUTCOMES

By

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To Lorraine Ausley, patron of House Bill 1241

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Abstract of Dissertation Presented to the Graduate School
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The purpose of study 1 was to determine whether any organizational benefits might reasonably be obtained through the incorporation of personality assessment in the candidate recruitment and selection process. Findings were generally supportive of the utility of personality assessments as an applicant pre-screen and selection tool. Linear and knotted-spline regression analyses indicated personality accounted for between $r^2 = .13$ and $r^2 = .22$ of the variance in performance ratings. Equity preference was found to be positively related to supervisor ratings of performance for the 3 consecutive years under investigation. Results were compiled and presented to the organization in the form of a technical report.

Study 2 examined whether an interpersonal judgment theory was affected by the introduction of status differentials in organizational settings. Using contextually relevant proxies of *warmth* and *competence*, researchers modeled the affective outcomes of supervisor ratings of subordinate performance and subordinate' supervisor satisfaction resulting from trait-based interpersonal interactions. Results indicated that the respective levels of core self-evaluations and equity preference influenced the affective outcomes arising from supervisor-subordinate interpersonal interactions.

In response to the growing interest in civil service and environment-related work, study 3 examined relationships among personality, satisfaction, and work-related outcomes within a governmental natural resource recreation agency. Researchers compared these findings with results obtained from other organizational contexts. Findings suggest that while many of the relationships were of comparable magnitude to those demonstrated in recent meta-analyses, several displayed negative relations or more generally, failed to meet the requisite level of statistical significance. Among the more surprising findings were conscientiousness' negative relationship with job tenure and extraversion's lack of association with performance and sick leave usage.

CHAPTER 1 INTRODUCTION

Although the natural resource recreation field has never suffered from a shortage of job applicants, the combination of renewed interest in government service and environmentalism has increased both the quantity and quality of those applicants. Despite the benefits of receiving greater numbers of more experienced and better educated applicants, the selection process has consequently grown more time consuming and cumbersome. Applicants with greater work experience or additional education require greater consideration. In addition, it can often be difficult to conceptualize the translation of advanced education and work experience from unrelated fields to the roles and responsibilities associated with natural resource recreation. Because of the type and variety of responsibilities, there are few occupational surrogates to serve as contextually relevant proxies of positions within the field. There is rarely a one to one translation that would provide evidence of the candidate's ability to adequately perform the job.

The research is particularly timely. Two phenomena are currently underway. The first concerns organizations that are increasingly granting employees additional autonomy. Employee empowerment, task autonomy and workplace flexibility all relate to the level of freedom an employee may exercise in the performance of work. Collectively, these terms refer to the extent to which an employee is able to affect what work is to be done, when it is to be initiated, and how it is to be accomplished. As defined by Hackman and Oldham (1976), job autonomy is "the degree to which the job provides substantial freedom, independence and discretion to the individual in scheduling the work and in determining the procedures to be used in carrying it out."

Workplace trends indicate more US corporations are offering their employees greater autonomy. Current estimates are that at least 70% of US companies have adopted some form of

employee empowerment (Spreitzer, 2007). Of the Fortune 1000 companies, more than 90% afforded some form of employee participation or task autonomy (Lawler, Mohrman & Ledford, 1995). Employees with higher job autonomy are more likely to take work home with them (Schieman & Glavin, 2008). From 2003 to 2007, the percentage of time that management, professional and related occupations spent working from home increased from 10 to 13 % (US Department of Labor, 2009). These trends point to the fact that employees are granted more freedom and flexibility than ever before. In essence, employees have greater discretion in choosing their role in the workplace and how they contribute to organizational goals.

Much of the research on job autonomy has focused on teams. This is not surprising since work teams have been the de facto corporate response to the changing nature of work. Although the focus on autonomy within and between teams has been reasonably justified, there exists a parallel line of research that has received considerably less attention. Employers are increasingly granting greater job autonomy at the individual level. Although research in the area of individual-level autonomy has shown that increased employee autonomy often results in tangible benefits to the organization including lower turnover intentions (Thompson & Prottas, 2005), reduced absenteeism (Spector, 1986), and higher performance (Barrick & Mount, 1993), very little research has focused specifically on the outcomes of a workforce in which the vast majority of employees are provided with a high level of job autonomy. The following studies focus on the individual traits and preferences of workers belonging to a workforce with an unusually high level of job autonomy.

The second phenomenon concerns an increasing interest in government employment and environmentalism. The appeal of government employment is on the rise (Clark, 2009). The recent economic downturn and general disenchantment with corporate America has led more job

seekers to turn their attention to the relative stability associated with government work (Vogel, 2009). Coupled with this trend is an increasing concern for the environment and interest in environment-related work (Berger, 2009; Berman, 2009). Within the environmental sector, government is one of the largest employers accounting for over 60% of conservation scientists and foresters (Occupational Outlook Handbook, 2011) and 80% of forest and conservation workers (Occupational employment statistics, 2009).

Personality assessments for the purpose of recruitment, selection and management of employees have been used by private and publicly traded corporations for many years. It is currently estimated that much as 75% of companies use, or are considering the use of, such testing procedures in their employee selection and development processes (Anderson, 2010). Despite the competitive advantages that such an approach affords, most governments have been slow to adopt similar practices. Perhaps owing to bureaucratic processes or the absence of a profit motive, most governments have failed to invest in research surrounding associations within their own organizations, much less incorporate such findings into their decision making processes.

Government sponsored environmental work is unique. It is often more complex and demanding than the general public is aware. Within the natural resource recreation field, an employee's roles and responsibilities are often fluid and dependent on a number of factors including visitation patterns, seasonality, weather and an assortment of emergency-related situations that may arise during the course of employment. Weekly work may range from cleaning bathrooms to fighting wildfires, from providing campfire programs to participating in search and rescue operations. Although it would be convenient to rely on prior findings from the field of industrial and organizational psychology during the recruitment and selection process,

the unique nature of the work to which such findings would be applied makes such generalizations particularly problematic.

As such, the purpose of these studies is to investigate the relationships among personality, satisfaction and work-related outcomes within a governmental natural resource recreation agency. We examine three sets of relationships. The first are those among personality and job satisfaction. We include the Five Factor model of personality, core self-evaluation and equity preference. The job satisfaction construct includes 5 separate satisfaction facets and an overall *job in general* measure. The second series of relationships are among the listed personality dimensions and several work-related outcomes including performance, leave, tenure, gender and employment rank. Lastly, we examine relationships among satisfaction and the various work-related outcomes.

Chapter 2 was written as a technical paper delivered to the organization that served as the subject of investigation. The purpose of the paper was to determine whether the presumed relationships existed within the organization's workforce, the strength of those relationships, and whether any benefits might be obtained through the incorporation of personality assessment during the candidate recruitment and selection process. The document was written for an audience without in-depth knowledge of statistical techniques and processes. As such, the paper contains greater descriptive information surrounding correlation and regression analyses. In sum, the report represents an attempt to offer scientifically defensible rationale on which to base preliminary employment decisions.

Chapter 3 represents a specific test of a general and ubiquitous theory of interpersonal judgments. The theory on which the paper is based is the result of work by Fiske, Cuddy & Glick (2006). Their theory entails interpersonal judgments have evolutionary origins whereupon it was

once necessary to quickly deduce another's intentions and ability to act on such intentions in order to ensure one's personal survival. The purpose of the research was to apply their theory to the modern organization and determine whether the outcomes they characterize are affected by the introduction of a status hierarchy and other organizational considerations.

Chapter 4 is an exploratory examination of the interplay of personality, satisfaction, and work-related outcomes within a governmental natural resource recreation agency. The purpose of the paper was to address the growing interest in governmental and environmental work and determine whether prior meta-analytic findings might be confidently applied to such an occupational field.

This research project is uncommon for a number of reasons. To our knowledge, it represents the first time such cross-sectional data has been obtained from a natural resource management organization. It is the first time these separate instruments from the field of industrial and organizational psychology have measured individual-level traits and preferences as part of a single data collection campaign. It is the first time two of the traits have been shown to affect outcomes arising from interpersonal interactions.

Although the research project was initially advanced to address calls for further research by Yamaguchi, 2003; Williams, McDaniel & Nguyen, 2006; and Williams, McDaniel & Ford, 2007, it became evident during analysis that more relevant and significant findings were present. As such, the character and direction of these research pursuits changed dramatically. It is hoped that these studies may, in some small part, add to the body of knowledge to which natural resource management organizations may refer during strategic planning and administration of employee recruitment, selection and management.

CHAPTER 2
AN INVESTIGATION OF THE FEASIBILITY OF PERSONALITY TRAITS AS A BASIS
FOR PERSONNEL SELECTION DECISIONS

Background

The following research was conceived as a means to evaluate the utility of personality testing as it might relate to the Florida Park Service's ongoing efforts surrounding the selection and management of its employees. It is based on data obtained in late fall of 2009. Self-reported data was obtained by way of an electronic survey. Survey data was then linked to human resources information drawn from the People First Database.

Throughout the data compilation process, controls were put in place to protect anonymity and confidentiality. These controls included the coding of People First employee numbers and the elimination of all salient identification data. These procedures were enacted prior to dataset linkage and the coding of survey set string values. Access to data was limited to researchers.

The vast majority of reported statistics are correlations. Such methods are common to social science at large and especially the field of industrial/organizational psychology. Correlation analysis does not imply causation. It merely indicates whether two variables tend to rise and fall together (positive relation) or act in an opposing manner where an increase in one variable is associated with a decrease in the other (negative or inverse relation).

Throughout the analysis, an alpha level of .05 was used. Although such a low alpha level is considered rather stringent for social science research, it provides greater certainty surrounding the confidence of findings. In laymen's terms, it means that there is a 1 out of 20 chance that a "significant" finding is due solely to random variations in the data. Where confidence intervals are used, the .05 alpha level indicates that we are 95% confident that the true mean or correlation lies within the range of the interval.

Proxy of the Five Factor Model

Personality was examined from within the framework of the Five Factor Model (FFM) and core self. As measurements, their validity and reliability have been consistently confirmed¹. The FFM instrument consisted of a 50-item questionnaire drawn from the International Personality Item Pool. A 12-item question set developed by Judge, Erez, Bono and Thoresen (2003) was used to capture the participants' evaluation of core self.

The Big Five Personality Traits, or Five Factor Model (FFM), represents the evolution of findings by Tupes and Christal (1961), Norman (1963), Goldberg (1981), and Costa and McCrae (1985). Collectively, their research led to the development of a personality model characterized by 5 factors---namely, extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience.

Extraversion is typified by a desire for active social interaction. Individuals high in this trait exhibit increased tendencies to interact with others and often feel energized by such interactions. Agreeableness refers to an individual's willingness to cooperate with others. Such willingness implies a high degree assumed trust and consideration of others' feelings and desires. Conscientiousness manifests itself through characteristics such as dependability, persistence, and organization. Individuals high in conscientiousness appear disciplined and achievement-oriented. Emotional Stability refers to an individual's ability to temper emotions. Individuals high in emotional stability display few outward expressions and are able to remain calm in difficult situations. Openness to Experience pertains to individuals described as imaginative, intellectual and artistically sensitive (Mount, Barrick, Scullen & Rounds, 2005). Individuals high in this trait display heightened intellectualism and an acceptance of alternate viewpoints.

¹ Survey-specific Cronbach reliabilities may be found in Appendix B.

The FFM has been applied extensively within the fields of personnel and organizational psychology. Of primary interest to many researchers has been the strength of correlations between the modeled personality traits and work-related outcomes² such as job performance (Barrick & Mount, 1991; Dudley, Orvis, Lebiecki, & Cortina, 2006) and job satisfaction³ (Furnham, Petridesa, Jackson, & Cotter, 2002; Judge, Heller & Mount, 2002; Shaw, Duffy, Jenkins & Gupta, 1999).

Core Self

The core self-evaluation concept was introduced in 1997 as an outgrowth of the dispositional factors affecting job satisfaction (Judge, Locke & Durham, 1997). Borrowed from several fields, the construct represents a higher order trait rooted in self-esteem, generalized self-efficacy, neuroticism, and locus of control (Judge, Erez, Bono & Locke, 2005). Conceptually, the core self-evaluation is designed to provide researchers with a glimpse into an individual's assessment of his or her basic ability, merit and efficacy as a person (Judge, et al., 2003). Core self has been shown to be related to job satisfaction (Judge, Locke, Durham, & Kluger, 1998), job performance (Judge, et al., 2003), ability to cope with organizational change (Judge, Thorensen, Pucik & Welbourne, 1999), and subjects' attainment of more challenging jobs (Judge, Bono & Locke, 2000).

² Employers understand such knowledge of personality's relationships to work-related outcomes can offer the business a competitive advantage in terms of employee recruitment and selection, employee-organization fit, and person-job compatibility.

³ Past studies surrounding the FFM and job satisfaction have reached somewhat different conclusions. In a meta-analysis of their relationships (Judge, Heller, and Mount, 2002), personality and job satisfaction was shown to have a correlation of .41. That same year, a primary study concluded that either personality did not exhibit much of an effect or that those effects were inconsistent (Furnham, Petridesa, Jackson & Cotter, 2002).

Satisfaction

Job satisfaction was measured in accordance with the hardcopy format of the Job Descriptive Index (Balzer, Kihm, Smith, Irwin, Bachiochi, Robie, Sinar, & Parra, 2000). The Job Descriptive Index (JDI) is a 72 item survey instrument composed of 5 categories whereby participants rate whether or not specific terms or phrases describe their current job. Response options include “yes”, “no” and “cannot decide.” Categories include work, pay, opportunities for promotion, supervision and interpersonal interaction. It should be noted that the 1997 revision included a “Job in General” category (18 items).

Equity Preference

Equity sensitivity was measured using the 16-item Equity Preference Questionnaire (Sauley & Bedeian, 2000). This instrument represents the most recent development in equity sensitivity measurement. In addition, this instrument lacks many of the drawbacks commonly associated with the more popular Equity Sensitivity Instrument⁴.

Equity sensitivity theory was proposed by Huseman, Hatfield and Miles (1985, 1987). Their studies led to the development of a classification structure whereby participants’ attitudes toward equity situations determined group divisions and individual standing. Benevolent, Equity Sensitive and Entitled were the terms given to the three classes into which individual participants were grouped.

Theoretically, the construct can be viewed as a spectrum with Benevolents on one end and Entitleds on the other. The theory holds that individuals exhibiting benevolent attitudes are less likely to feel uneasy in situations where they are under rewarded relative to their peers. Equity Sensitive individuals (representing the middle-ground) typically follow a “norm of equity”

⁴ Despite Equity Sensitivity Instrument’s continued use in research (Mintu-Wimsatt, 2003; Allen & White, 2002; Wheeler, 2002; Kickul & Lester, 2001), it remains sample-specific (Foote & Harmon, 2005). Furthermore, the trichotomization of equity sensitivity results in a loss of measurement precision (Sualey & Bedeian, 2000).

whereby they experience the least discomfort when their outcomes are commensurate with their inputs. Lastly, Entitleds feel most at ease when their efforts are over rewarded relative to referent others.

Survey Participation

Overall, survey participation was judged to be satisfactory (*see appendices*). Of the 1060 full time employees, 437 completed the survey in its entirety for a response rate of 41%. Excluded and included classes completed the survey at the rates of 56% and 29% respectively. Although survey invitations specified that only the responses of full time employees were of interest, 35 surveys were returned by part time employees representing 6% of the organization's part time workforce. Of the 437 completed surveys, 8 lacked information necessary to associate an employment status. Median survey completion time was 20 minutes 36 seconds.

The sample obtained was judged to be sufficiently representative of the organization's workforce. There were no significant differences between those who completed the survey and those who chose not to participate in terms of age, gender, or sick leave. There were, however, statistically significant differences among tenure, base pay, annual leave and performance rating. Interestingly, the direction and magnitude of these differences were reflected in participant comparisons between the excluded and included job classes. The apparent differences between survey participants and non-participants were therefore attributed to the disproportionate participation rate of the excluded class.

Outlier Inspection and Removal

Visual inspection of survey responses alerted researchers to the presence of unusual patterns of responses. Most evident were response sets composed entirely of the first or last available response option. Similarly, although less visually perceptible, was the possibility that participants had selected response options randomly. Because of the potential for such sets to

mute or distort underlying relationships, it was deemed necessary to systematically identify and reconsider the validity of these sets prior to analysis.

The first approach to outlier identification involved an examination of participant consistency within specific instrument dimensions. This approach entailed separating and scoring each dimension of each instrument based on its forward and reverse coded questions. The difference between these uniformly coded subsets formed a dimension-specific participant-level score. For survey instruments composed of multiple dimensions, dimension-level scores were totaled to produce an instrument-level score. These instrument-level scores were then standardized. Of the 437 completed surveys, 14 scores among 10 participants exceeded an arbitrary 3 SD from the mean and became the focus of further investigation (Table 2-1).

Further investigation of these sets revealed gross inconsistencies commonly attributed to linguistic incompetence or inattentiveness on the part of the survey participant (Johnson, 2005). It was determined that the identified surveys would be treated as invalid and removed from statistical analysis. Although this approach to response consistency was deemed sufficient for detecting the more egregious inconsistencies, there was a strong possibility that it would fail to detect a survey set composed of entirely random responses. In an effort to identify “random response” surveys, a modified version of Goldberg’s method (Johnson, 2005) of calculating response consistency based on “psychometric antonyms” was investigated.

The second method differed from the previous approach in that psychometric antonyms are not necessarily positively and negatively phrased statements about the same subject matter. Words and phrases may be from separate personality dimensions, or in this case, from entirely separate survey instruments. The rationale behind the use of such an approach, especially as it would apply to survey instruments composed of few dimensions, is that it generally affords more

points of comparison than would otherwise be obtained through reliance on dimension-specific divisions of forward and reverse coded question sets. Typically, the 30 strongest negative correlations from all intercorrelations form the basis for calculating consistency.

Of the 14,196 item intercorrelations, 30 pairs were identified as displaying the strongest inverse relationships. Despite having included all item-level data, the top 30 correlations were between only 5 dimensions. Moreover, 87% (26 out of 30) of the pairs were between just 2 dimensions, namely, core self and neuroticism. Although such findings can be traced to the zero-order correlation between core self and neuroticism ($r = -.69$), it was surprising that, despite the inclusion of many interrelated items, a broader scale of participant consistency was not obtained.

The resultant participant consistency measure was judged to be inadequate for its intended purpose given its narrow focus on a fairly brief and preliminary section of the survey response set. Had the questions comprising the negative correlations on which this method relies been randomly interspersed throughout the entire survey, a more generalized consistency measure might have been obtained. Although the possibility remains that a survey set could be composed of entirely random responses, the limited number of outliers detected by the first approach provides evidence against any especially pervasive contamination of data. Furthermore, the issue of random responding is not especially problematic in that such data are more likely to generate a minor amount of statistical noise than alter any fundamental relationship.

Findings

Comparison of FPS and Government Averages

In comparing sample-specific satisfaction levels to government averages obtained over a 31 year period, one finds that the organization's overall satisfaction ranking falls between the 61st and 67th percentile (Table 2-2). Promotion satisfaction was the highest by comparison and ranged by class from the 71st percentile (included OPS) to the 83rd percentile (excluded).

Lowest on the list of satisfaction dimensions was pay satisfaction. Pay satisfaction averages by class ranged from the 27th percentile (Included) to the 40th percentile (excluded).

Personality and Satisfaction

There were 22 statistically significant correlations among 5 personality traits, equity preference and the six satisfaction dimensions.(Table 2-3). The most ubiquitous of these traits were core self, neuroticism and agreeableness. Core self was unique in that it was broadly associated with all satisfaction dimensions and was the only trait related to pay satisfaction⁵. Additionally, core self exhibited the strongest associations with the satisfaction dimensions job in general, promotion, work and supervisor. Second to core self in terms of general strength of association and prevalence was neuroticism. Neuroticism was peculiar in that it was associated with *lower* satisfaction ratings for the dimensions of job in general, promotion, work and supervisor. Agreeableness ranked third in terms of the extent of its satisfaction associations, but was the trait most strongly related to people satisfaction. Finally, it should be mentioned that both conscientiousness and equity preference displayed positive associations with the satisfaction dimensions job in general and work.

In practical terms, insofar as the organization would rather hire individuals who are more likely to be satisfied with the nature of work particular to the field, focus should be placed on those individuals scoring higher in core self and agreeableness while avoiding those individuals scoring higher in neuroticism. From an efficiency standpoint, it may be sufficient to test candidates on the traits of core self and agreeableness. Both of these traits displayed a strong and significant negative correlation with neuroticism (Table 2-4). As such, individuals scoring high in core self and agreeableness would, by default, typically score low in the trait of neuroticism.

⁵ Controlling for base pay, the relationship between core self and pay satisfaction is reduced to $r = .08$, $p = .096$.

As for conscientiousness and equity preference, these traits were also significantly associated with core self, agreeableness and neuroticism. Although sole reliance on the dimensions of core self and agreeableness would likely capture the bulk of associations between personality and satisfaction, such an approach would naturally restrict the amount of available information on which to base decisions. Given the fact that the full personality battery including equity preference consisted of a total of 78 Likert scale questions, administration and scoring of such a set in its entirety is not deemed overly burdensome.

Personality and Work Outcomes

There were 12 statistically significant correlations among three personality variables, equity preference and four outcomes of interest (Table 2-5). Regarding performance, there were three personality variables positively associated with higher performance ratings. The strongest of these three variables was equity preference. Interestingly, equity preference led the personality traits by a fairly wide margin and was the variable most strongly associated with higher performance ratings for all three years. Conscientiousness and core self appeared to rotate in relative position but maintained positive and similar strengths of association with performance for the two most recent years. Interestingly, extraversion displayed a significant and inverse relationship with performance ratings from 2007. This was somewhat unusual in that prior meta-analyses have shown extraversion to be associated with *higher* performance ratings for service-related occupations (Barrick & Mount, 1991).

The inverse relationship between conscientiousness and FPS tenure was somewhat difficult to interpret. It could either be the case that individuals high in conscientiousness typically leave the organization after a brief period of time or that recently hired individuals possess comparatively higher levels of conscientiousness than those with longer organizational tenure. In an effort to determine whether the relationship between conscientiousness and FPS

tenure was spurious and dependent on the *age* variable, a partial correlation controlling for age⁶ was performed. Surprisingly, the partial correlation revealed the relationship to have been *suppressed* by age (Table 2-6). The relationship remains unexplained.

From a practical perspective, it would appear fundamentally advantageous to hire individuals with increased levels of equity preference, conscientiousness and core self. Individuals high in these traits are associated with higher performance ratings and at least one of which, core self, is associated with a reduction in the use of sick leave. Additionally, the fact that equity preference and core self are associated with higher base pay indicates that individuals high in these traits typically advance to higher paying positions within the organization.

Satisfaction and Work Outcomes

There were 26 statistically significant relationships among six satisfaction dimensions and six outcomes of interest (Table 2-7). Of particular interest were the satisfaction dimensions associated with performance and sick leave. In terms of performance, supervisor and pay satisfaction displayed the most significant and widespread associations with increased performance. Although the relationship between supervisor satisfaction and performance might be interpreted as individuals who receive higher performance ratings are, because of such ratings, generally more satisfied with their supervisor, regression analysis indicated that performance ratings accounted for only 5 % of the variance in the supervisor satisfaction dimension (Table 2-8). Such low predictive power of the actual ratings received complicates the interpretation of the relationship between supervisor satisfaction and performance.

The relationship between pay satisfaction and performance was interpreted quite simply as those individuals who are higher performers typically receive greater pay. In examining the

⁶ Correlations between FPS tenure, age and conscientiousness were $r = .457$, $p < .0001$ and $r = .103$, $p = .034$, respectively.

relationship between base pay and performance, we found this to be true. As further support of such an interpretation, we found, after controlling for base pay, the relationship between pay satisfaction and performance dropped to almost zero and was statistically nonsignificant at the .05 level (Table 2-9).

In examining the relationship between satisfaction and sick leave we found four dimensions significantly and negatively related to the use of sick leave. Of these dimensions, work, promotion, and supervisor satisfaction were the strongest. Since the variable *age* was significantly associated with both sick leave and work satisfaction, a partial correlation controlling for age was investigated. After removing age effects, we found all but one of the relationships between satisfaction and sick leave to have *increased* in strength (Table 2-10). The relationship that did not increase was between sick leave and promotion satisfaction. This relationship suffered only a slight decrease in strength and significance. Although sick leave and performance ratings shared associations with the supervisor and job in general satisfaction dimensions, we found no significant relationship between the use of sick leave and performance rating (Table 2-11).

Regressions

Personality Predicting Performance

These regression summaries represent the performance-related predictive power of personality for each of the last three years (Table 2-12). On average, linear regression indicated that personality accounted for approximately 13 % of the variance in performance. Although the regression associated with the 2008 year lacked the level of significance associated with findings of adjoining years, it was included in the calculated average since it represented the midpoint in a string of successive years and resulted in a more conservative overall estimate. Removal of the 2008 year increased the average predictive power of personality to just over 14 %.

In an effort to detect additional performance-related subtleties accounted for by personality, a second analytical technique, less bound by assumptions of linearity, was investigated. Knotted spline regression indicated that personality accounted for approximately 22 % of the variance in performance (Table 2-13). The knotted spline approach was of both greater strength and significance compared to the linear approach. Although knotted spline analysis has sometimes been criticized for displaying a tendency to over-fit data, the sample size on which the present analysis was based provided sufficient reassurance that over-fitting was not a significant problem.

Of the years under examination, the strongest, most significant effects were associated with the year 2007. Interestingly, such findings were followed by a steep drop in strength and significance the following year. Coincidentally, the performance ratings of 2008 represented the first employee performance data subsequent to the adoption of an agency-wide initiative aimed at combating performance rating inflation. Most of the terms of the initiative involved a general lowering and re-centering of “average performance” as well as the inclusion of an additional common performance criterion. Although the transition to the revised performance evaluation material was to have occurred uniformly within a specific time-frame, participation in the program was inevitably conditioned by the avoidance of a duplication of efforts. For example, if an employee had received an annual performance rating prior to the program transition period, it was often the case that the employee did not receive a revised rating merely for the purpose of program participation. Evidence of the use of two different rating scales can be found in the uniquely bimodal performance rating distribution of 2008 (Figure 2-1). The general lack of comparability brought about by the use of two separate performance scales led to an obfuscation of causal relationships and diminished statistical significance. In 2009, the predictive ability of

personality, as it relates to performance, began to make a return to 2007 levels. In examining the distribution of 2009, one finds the bimodal pattern of 2008 in retreat. This is evidence that the transition toward the new rating scale is underway and that the performance-related predictive power of personality is likely to trend upwards in the coming years.

Personality Predicting Satisfaction

These regression summaries represent the satisfaction-related predictive power of personality (Tables 2-14 & 2-15). Unlike the regressions associated with personality and performance, the linear and knotted spline regressions appear to share more similarities than differences. Although the knotted spline approach showed personality to have more predictive power than the linear analyses, such displays were also of lower statistical significance, but still well within the established alpha range of .05. One dimension where neither linear nor knotted spline analysis appeared to detect any personality-related causal mechanism of satisfaction was pay satisfaction. The simplest and most straightforward interpretation of such finding is that regardless of whatever particular personality characteristics an individual may possess, he or she is likely to be dissatisfied with pay. This was not an entirely unexpected finding given the variance in personality levels and lack thereof, in the pay satisfaction dimension. Regardless of the peculiarity surrounding pay satisfaction, personality has been shown to significantly predict a portion of satisfaction levels and especially the dimensions job in general and work satisfaction. For these latter dimensions, linear and knotted spline analyses indicated personality accounted for between 19 and 26 % of their variance respectively.

Conclusion

The previous analyses provide an indication of the relationships among personality, satisfaction and work-related outcomes. As originally conceived, such data was thought to be useful in circumstances when a hiring committee is forced to choose between two or more

candidates who, based on the committee's limited exposure and information on hand, appear essentially identical. It was intended to provide a scientific and defensible rationale where, in the absence of additional information, a statistically justifiable consensus could be reached.

Ideally, personality testing would be a part of the hiring process and the results of which, would be tracked over time. This would provide longitudinal data on which to base future decisions as well as substantiate and support the use of such data in the specific employment setting. Periodic professional satisfaction surveys would assist in the compilation of a similarly comprehensive dataset intended to afford opportunities to monitor changes in the referenced relationships and detect minute organizational climate shifts over time.

These findings were provided as part of an investigational examination of the utility of personality testing as it might relate to the Florida Park Service's ongoing efforts surrounding the selection and management of its employees. Although the relationships described in this report are of considerable statistical significance and strength, they are not of such sufficiency as to obsolesce personal experience or common sense. They are intended to augment the decision-making process and provide a platform on which to base decisions in situations whose outcomes may have otherwise been left to chance.

Table 2-1. Outlier respondents based on standardized difference scores

Five Factor Model	Standardized Scores by Survey Instrument						
	<i>p</i>	Core Self	<i>p</i>	Equity Preference	<i>p</i>	Job Descriptive Index	<i>p</i>
8.77976979	<0.001	-3.28503	<0.001	-0.053628		-1.415693	
-9.214761	<0.001	7.042737	<0.001	6.57457062	<0.001	8.20921839	<0.001
-0.600358		3.070517	0.001	1.12997893		-1.415693	
0.73966029		0.687185		4.20735684	<0.001	-0.6892846	
-0.0260644		0.687185		3.49719271	<0.001	0.82406628	
0.6439447		0.157556		-4.0778914	<0.001	-0.4471484	
-1.3660827		-0.9017		0.89325755		-3.0501119	0.001
0.35679793		-0.37207		-1.2372348		-3.4738501	<0.001
0.16536675		-1.96096		-1.0005135		-3.8975883	<0.001
-0.0260644		-1.69615		0.4198148		7.48280998	<0.001

Table 2-2. Comparison of organization averages to national norms (Government)

Satisfaction Dimension	Included OPS			Included			Excluded			FTE Average		
	Low	High	μ	Low	High	μ	Low	High	μ	Low	High	μ
Job in General	46	72	55	55	72	65	70	80	72	65	72	70
Pay	23	39	30	23	29	27	38	49	40	30	36	32
Promotion	62	80	71	77	83	81	81	87	83	81	83	82
Work	39	62	48	60	68	62	68	79	70	63	70	68
Supervisor	54	75	66	60	66	61	69	75	71	66	69	66
People	44	70	57	55	65	59	62	70	69	59	69	62
Overall	45	66	55	55	64	59	65	73	68	61	67	63

Notes. Data expressed as percentile; Confidence intervals $\alpha = .05$

Table 2-3. Pairwise correlations between personality and satisfaction

Variable	by Variable	<i>r</i>	N	Lower 95%	Upper 95%	<i>p</i>
Core self	Job in General	0.3346	427	0.2475	0.4163	<.0001
Neuroticism	Job in General	-0.3085	427	-0.3919	-0.2201	<.0001
Agreeableness	Job in General	0.2391	427	0.1476	0.3266	<.0001
Equity Preference	Job in General	0.1723	427	0.0787	0.2629	0.0003
Conscientiousness	Job in General	0.1638	427	0.0700	0.2547	0.0007
Core self	Pay Satisfaction	0.1203	427	0.0257	0.2128	0.0128
Core self	Promotion Satisfaction	0.2091	427	0.1165	0.2981	<.0001
Extraversion	Promotion Satisfaction	0.1247	427	0.0302	0.2171	0.0099
Neuroticism	Promotion Satisfaction	-0.1243	427	-0.2167	-0.0298	0.0101
Agreeableness	Promotion Satisfaction	0.1004	427	0.0055	0.1934	0.0382
Core self	Work Satisfaction	0.3458	427	0.2594	0.4267	<.0001
Neuroticism	Work Satisfaction	-0.3251	427	-0.4075	-0.2376	<.0001
Equity Preference	Work Satisfaction	0.2281	427	0.1362	0.3162	<.0001
Conscientiousness	Work Satisfaction	0.1769	427	0.0834	0.2673	0.0002
Extraversion	Work Satisfaction	0.1367	427	0.0423	0.2286	0.0047
Agreeableness	Work Satisfaction	0.1296	427	0.0351	0.2218	0.0073
Core self	Supervisor Satisfaction	0.1532	427	0.0591	0.2445	0.0015
Agreeableness	Supervisor Satisfaction	0.1404	427	0.0461	0.2322	0.0036
Neuroticism	Supervisor Satisfaction	-0.1072	427	-0.2000	-0.0124	0.0268
Agreeableness	People Satisfaction	0.2405	427	0.1490	0.3279	<.0001
Neuroticism	People Satisfaction	-0.1975	427	-0.2870	-0.1046	<.0001
Core self	People Satisfaction	0.1783	427	0.0849	0.2687	0.0002

Table 2-4. Pairwise correlations between select personality traits

Variable by	Variable	<i>r</i>	N	Lower 95%	Upper 95%	<i>p</i>
Neuroticism	Agreeableness	-0.4847	427	-0.5541	-0.4086	<.0001
Core self	Agreeableness	0.3561	427	0.2703	0.4362	<.0001
Core self	Neuroticism	-0.6945	427	-0.7406	-0.6419	<.0001
Conscientiousness	Core self	0.4860	427	0.4100	0.5553	<.0001
Conscientiousness	Agreeableness	0.3636	427	0.2783	0.4432	<.0001
Conscientiousness	Neuroticism	-0.4570	427	-0.5289	-0.3785	<.0001
Equity Preference	Core self	0.3528	427	0.2668	0.4332	<.0001
Equity Preference	Agreeableness	0.3181	427	0.2302	0.4009	<.0001
Equity Preference	Neuroticism	-0.2557	427	-0.3423	-0.1648	<.0001

Table 2-5. Pairwise correlations between personality and work-related outcomes

Variable	by Variable	<i>r</i>	N	Lower 95%	Upper 95%	<i>p</i>
Equity Preference	Performance Rating 2009	0.1927	335	0.0874	0.2938	0.0004
Conscientiousness	Performance Rating 2009	0.1414	335	0.0347	0.2448	0.0096
Core self	Performance Rating 2009	0.1339	335	0.0271	0.2376	0.0142
Equity Preference	Performance Rating 2008	0.2279	291	0.1160	0.3341	<.0001
Core self	Performance Rating 2008	0.1398	291	0.0252	0.2507	0.0170
Conscientiousness	Performance Rating 2008	0.1267	291	0.0119	0.2382	0.0307
Equity Preference	Performance Rating 2007	0.2452	287	0.1332	0.3510	<.0001
Extraversion	Performance Rating 2007	-0.1161	287	-0.2288	-0.0003	0.0494
Conscientiousness	FPS Tenure	-0.1345	420	-0.2272	-0.0393	0.0058
Core self	Sick Leave	-0.1314	382	-0.2287	-0.0314	0.0102
Equity Preference	Base Pay	0.1055	420	0.0099	0.1992	0.0307
Core self	Base Pay	0.1052	420	0.0096	0.1989	0.0311

Table 2-6. Conscientiousness and tenure controlling for age effects

Control Variables: Age		Conscientiousness	FPSTenure
Conscientiousness	Correlation	1.000	-.205
	Significance (2-tailed)	.	.000
	df	0	417
FPSTenure	Correlation	-.205	1.000
	Significance (2-tailed)	.000	.
	df	417	0

Table 2-7. Pairwise correlations between satisfaction and work-related outcomes

Variable	by Variable	<i>r</i>	N	Lower 95%	Upper 95%	<i>p</i>
Supervisor Satisfaction	Performance Rating 2009	0.2099	335	0.1051	0.3100	0.0001
Work Satisfaction	Performance Rating 2009	0.1746	335	0.0687	0.2765	0.0013
Pay Satisfaction	Performance Rating 2009	0.1612	335	0.0550	0.2638	0.0031
Job in General	Performance Rating 2009	0.1218	335	0.0149	0.2260	0.0258
People Satisfaction	Performance Rating 2009	0.1095	335	0.0023	0.2141	0.0453
Supervisor Satisfaction	Performance Rating 2008	0.2453	291	0.1341	0.3504	<.0001
Job in General	Performance Rating 2008	0.1433	291	0.0287	0.2541	0.0144
Pay Satisfaction	Performance Rating 2008	0.1309	291	0.0161	0.2422	0.0256
Supervisor Satisfaction	Performance Rating 2007	0.2144	287	0.1011	0.3222	0.0003
Pay Satisfaction	Performance Rating 2007	0.1617	287	0.0468	0.2724	0.0060
Work Satisfaction	FPS Tenure	0.1588	420	0.0641	0.2507	0.0011
Pay Satisfaction	FPS Tenure	0.1572	420	0.0625	0.2492	0.0012
People Satisfaction	FPS Tenure	0.1186	420	0.0232	0.2119	0.0150
Pay Satisfaction	Annual Leave	0.1257	382	0.0257	0.2232	0.0140
Work Satisfaction	Sick Leave	-0.1974	382	-0.2919	-0.0990	0.0001
Promotion Satisfaction	Sick Leave	-0.1697	382	-0.2655	-0.0705	0.0009
Supervisor Satisfaction	Sick Leave	-0.1640	382	-0.2601	-0.0647	0.0013
Job in General	Sick Leave	-0.1369	382	-0.2341	-0.0371	0.0074
Pay Satisfaction	Base Pay	0.4204	420	0.3383	0.4961	<.0001
Work Satisfaction	Base Pay	0.2023	420	0.1087	0.2923	<.0001
People Satisfaction	Base Pay	0.2011	420	0.1075	0.2912	<.0001
Supervisor Satisfaction	Base Pay	0.1422	420	0.0472	0.2347	0.0035
Job in General	Base Pay	0.1228	420	0.0274	0.2159	0.0118
Promotion Satisfaction	On Site	0.3112	427	0.2229	0.3945	<.0001
Work Satisfaction	On Site	0.1528	427	0.0587	0.2442	0.0015
Job in General	On Site	0.0990	427	0.0041	0.1920	0.0410

Table 2-8. Supervisor satisfaction regressed on performance

Model Summary							
Model	R		R Square		Adjusted R Square		Std. Error of the Estimate
	.227 ^a		.052		.039		12.808
a. Predictors: (Constant), PerformanceRating2007, PerformanceRating2009, PerformanceRating2008							
ANOVA ^b							
Model	Sum of Squares		df	Mean Square		F	Sig.
Regression	2043.388		3	681.129		4.152	.007 ^a
Residual	37567.376		229	164.050			
Total	39610.764		232				
a. Predictors: (Constant), PerformanceRating2007, PerformanceRating2009, PerformanceRating2008							
b. Dependent Variable: Supervisor Satisfaction							
Coefficients ^a							
Model	Unstandardized Coefficients		Standardized Coefficients		95.0% Confidence Interval for B		
	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
(Constant)	18.510	7.119		2.600	.010	4.484	32.537
PerformanceRating2009	1.642	2.369	.068	.693	.489	-3.025	6.310
PerformanceRating2008	2.354	2.323	.103	1.013	.312	-2.224	6.932
PerformanceRating2007	2.222	1.877	.093	1.184	.238	-1.476	5.920
a. Dependent Variable: Supervisor Satisfaction							

Table 2-9. Pay satisfaction and performance controlling for base pay effects

Control Variables: Base Pay				
		Performance Rating 2009	Performance Rating 2008	Performance Rating 2007
Pay Satisfaction	<i>r</i>	.013	.023	.064
	<i>p</i>	.816	.696	.281
	df	332	288	284

Table 2-10. Sick leave and satisfaction controlling for age effects

Control Variables: Age		SickLeave
Job in General	Correlation	-.143
	Significance (2-tailed)	.005
	df	379
Pay Satisfaction	Correlation	-.030
	Significance (2-tailed)	.563
	df	379
Promotion Satisfaction	Correlation	-.159
	Significance (2-tailed)	.002
	df	379
Work Satisfaction	Correlation	-.221
	Significance (2-tailed)	.000
	df	379
Supervisor Satisfaction	Correlation	-.172
	Significance (2-tailed)	.001
	df	379
People Satisfaction	Correlation	-.094
	Significance (2-tailed)	.068
	df	379

Table 2-11. Sick leave and performance controlling for age effects

Control Variables : Age		Performance Rating 2009	Performance Rating 2008	Performance Rating 2007
Sick Leave	Correlation	.036	.001	-.076
	Significance (2-tailed)	.510	.985	.204
	df	332	287	282

Table 2-12. Performance regressed on personality (linear)

Summary of Fit	2009	2008	2007
RSquare	0.1231	0.1022	0.1611
RSquare Adj	0.0428	0.0063	0.0701
Root Mean Square Error	0.5301	0.5681	0.5333
Mean of Response	3.7706	3.6710	4.1338
Observations (or Sum Wgts)	335	291	287
Prob > F	0.0447	0.3812	0.0119

Table 2-13. Performance regressed on personality (knotted spline)

Summary of Fit	2009	2008	2007
RSquare	0.2032	0.2142	0.2547
RSquare Adj	0.0662	0.0544	0.1006
Root Mean Square Error	0.5236	0.5541	0.5245
Mean of Response	3.7706	3.6710	4.1338
Observations (or Sum Wgts)	335	291	287
Prob > F	0.0265	0.0792	0.0076

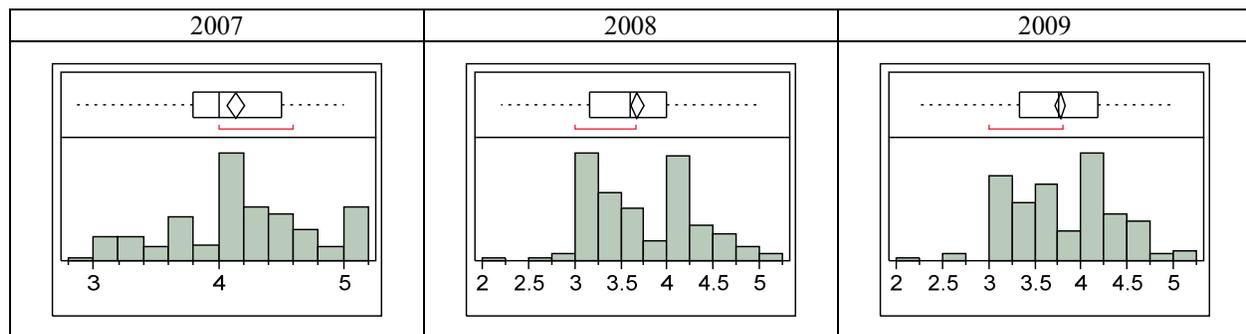


Figure 2-1. Employee performance rating distributions

Table 2-14. Satisfaction regressed on personality (linear)

Summary of Fit	JIG	Pay	Promotion	Work	Supervisor	People
RSquare	0.1868	0.0853	0.1342	0.2232	0.1279	0.1122
RSquare Adj	0.1296	0.0209	0.0733	0.1685	0.0665	0.0498
Root Mean Square Error	7.8075	13.9093	16.6998	9.3890	12.2816	12.0142
Mean of Response	46.0796	17.2693	26.0234	44.1452	42.9742	41.0586
Observations (or Sum Wgts)	427	427	427	427	427	427
Prob > F	<.0001	0.1274	0.0005	<.0001	0.0012	0.0086

Table 2-15. Satisfaction regressed on personality (knotted spline)

Summary of Fit	JIG	Pay	Promotion	Work	Supervisor	People
RSquare	0.2293	0.1271	0.1671	0.2625	0.1769	0.1357
RSquare Adj	0.1291	0.0137	0.0588	0.1666	0.0699	0.0234
Root Mean Square Error	7.8094	13.9609	16.8296	9.3997	12.2595	12.1799
Mean of Response	46.0796	17.2693	26.0234	44.1452	42.9742	41.0586
Observations (or Sum Wgts)	427	427	427	427	427	427
Prob > F	<.0001	0.2772	0.0144	<.0001	0.0054	0.1698

CHAPTER 3

A TEST OF 'WARMTH AND COMPETENCE' IN AN ORGANIZATIONAL CONTEXT

There's a growing consensus among cognitive scientists that individuals judge one another on the basis of warmth and competence (Fiske, Cuddy & Glick, 2006). Theorized to stem from evolutionary origins where one's survival was predicated on one's ability to judge another's intentions, and ability to act on such intentions, a growing body of research demonstrates that such interpersonal judgments are universal in nature, quickly deduced (Willis & Todorov, 2006), and elicit predictable affective and behavioral reactions (Fiske, et al., 2006).

Research surrounding the interplay of the two dimensions has given rise to the BIAS map (Cuddy, Fiske & Glick, 2007). The BIAS map provides a graphical representation in which the relative levels of warmth (i.e., intentions) and competence (i.e., ability to act on intentions) designate the emotional and behavioral responses typically elicited. Emotional outcomes include admiration, envy, contempt or pity. Behavioral outcomes include active facilitation, passive facilitation, active harm or passive harm (Cuddy, et al., 2007). In general terms, the perception of high levels of both warmth and competence educes uniformly positive emotions and behaviors. Alternatively, the combination of low levels warmth and competence elicits consistently negative emotions and behaviors.

While Fiske and others investigated how we form impressions of others in a general context, we are more concerned with ongoing impressions that are more relevant to organizations. We draw on Fiske's research to provide a general framework for our study and consider the predictive emotional and behavioral outcomes of the BIAS map in the formulation of hypotheses. We have selected the established I/O psychology dimensions of equity preference (EP) and core self-evaluations (CSE) to serve as contextually relevant proxies of warmth and competence as have been defined in recent social cognition literature. In addition, given the

potentially relativistic nature of such interpersonal judgments, we consider the trait levels of those individuals making judgments relative to the levels possessed by those individuals about whom those judgments are being made. Hierarchical linear modeling is therefore used to examine the interactive effects of equity preference and core self-evaluations between supervisors and subordinates in relation to the affective outcomes of supervisor satisfaction and subordinate performance.

Equity Sensitivity

The interpretation of an individual's warmth is believed to occur prior to the evaluation of an individual's competence. From an evolutionary or survivalist perspective, whether an individual is deemed to be 'friend or foe' is of primary importance. The warmth dimension is inferred from the perceived motives of the individual (Reeder, Kumar, Hesson-McInnis & Trafimow, 2002). Individuals interpreted as exhibiting warmth are characterized as friendly, helpful, trustworthy, generous and moral (Wojciszke, 1998, 1994; Fiske et al., 2006).

Of the many warmth-related personality dimensions researchers have examined, there are few considered specifically relevant to individual outcomes within organizational contexts. Although personality traits such as agreeableness have been shown to broadly influence interpersonal relationships (Graziano, Jensen-Campbell & Hair, 1996; Jensen-Campbell & Graziano, 2001), the relevance of the trait as an antecedent to both satisfaction and performance within an organizational context has been shown to be mild, and oftentimes, occupation specific (Barrick & Mount, 1991; 1993). For the purpose of the present study, researchers chose to focus on a personality dimension that (i) was more broadly related to organizational settings, (ii) had prior associations with both satisfaction and performance, and (iii) included notions of helpfulness, generosity and ethics.

Classical equity theory (Adams, 1963) proposes that individuals evaluate their ratio of inputs and outcomes with that of a comparison other. If the ratios are seen as unbalanced, inequity exists. The theory holds that the perception of inequity leads to distress, and by extension, compels the individual to engage in behaviors intended to restore balance. Such behaviors often include adjusting actual or perceived inputs and outcomes, refocusing attention on another referent other, or choosing to withdraw from the relationship entirely (Huseman, Hatfield & Miles, 1987)). Since the theory's introduction, researchers discovered that not all subjects reacted to perceptions of inequity as the theory predicted. Some individuals were satisfied despite obvious inequities in their input/outcome mix while others' satisfaction appeared closely attuned to the equality of their input/outcome mix relative to referent others. Several researchers theorized that individuals possessed a certain inherent sensitivity to perceptions of inequity and that it was this individual-level characteristic that affected outcomes.

Equity sensitivity theory was proposed by Huseman, et al. (1985, 1987) as a refinement of classical equity theory. Their studies led to the development of a classification structure whereby participants' attitudes toward equity situations determined group divisions and individual standing. Theoretically, the equity sensitivity construct can be viewed as a continuum with Benevolents on one end and Entitleds on the other. The theory holds that individuals exhibiting benevolent attitudes are less likely to feel uneasy in situations where they are underrewarded relative to their peers. Equity Sensitive individuals (representing the middle-ground) typically follow a "norm of equity" whereby they experience the least discomfort when their outcomes are commensurate with their inputs. Lastly, Entitleds feel most at ease when their efforts are over rewarded relative to referent others.

Since the theory's introduction, equity sensitivity has been shown to be associated with a number of warmth-related outcomes. Individuals high in equity sensitivity are termed benevolents and are described as 'givers' (Mudrack, Mason & Stepanski, 1999; Kickul, Gundry & Posig, 2005; Shore, Sy & Strauss, 2006) and 'altruists' (Wheeler, 2002; Bing & Burroughs, 2001; Huseman, et al., 1987). They derive satisfaction from being a 'donor' or 'creditor' and feel discomfort when on the receiving end of a social exchange (Greenburg & Wescott, 1983). Benevolent individuals display greater concern for relationships (Kickul, et al., 2005; Huseman, et al., 1985; King & Hinson, 1994) and other's needs and feelings (Major, Bylsma & Cozzarelli, 1989; Mudrack, Mason & Stepanski, 1999). They report higher satisfaction (Huseman, et al., 1985; Wheeler, 2002; King & Miles, 1994) work harder for less pay (Wheeler, 2002; Miles, Hatfield & Huseman, 1989, 1994) receive higher performance ratings (Bing, et al., 2001) and engage in more organizational citizenship behaviors (Blakely, Andrews & Moorman, 2005; Kickul & Lester, 2001). Benevolents also show greater concern for relationship-based trust (Kickul, et al., 2005), view ethically questionable workplace activities as inappropriate (Kickul, et al., 2005; Mudrack, et al., 1999), and take others' outcomes into account when making decisions (Mudrack, et al., 1999).

Core Self-Evaluations

The interpretation of an individual's competence follows inferences of an individual's warmth. Logically, information concerning whether an individual is able to act on intentions is only of interest after a determination of the individual's intentions is made. Although researchers have had minor debates surrounding the lexical definition of warmth, there is general agreement on what constitutes competence. Competence is described as perceived ability and is characterized by traits of intelligence, efficacy, foresight and efficiency (Wojciszke, 1998, 1994; Fiske et al., 2006).

The core self-evaluation concept was introduced in 1997 as an outgrowth of the dispositional factors affecting job satisfaction (Judge, Locke & Durham, 1997). Borrowed from several fields, the construct represents a higher order trait rooted in self-esteem, generalized self-efficacy, neuroticism, and locus of control (Judge, Erez, Bono & Locke, 2005). Individuals high in core self display higher levels of self-esteem, elevated generalized self-efficacy, greater emotional stability and an internal locus of control. Although the core self-evaluation was initially proposed to account for variance in job satisfaction, further research has highlighted its association with a number of competency-related outcomes including job performance, career success and the attainment of more complex and challenging jobs. Individuals high in core self display higher levels of motivation, greater ability to cope with stress and setbacks, and “better capitalize on advantages and opportunities” (Judge, 2009). Conceptually, the core self-evaluation is designed to provide researchers with a glimpse into an individual’s assessment of his or her basic ability, merit and efficacy as a person (Judge, Erez, Bono & Thoresen, 2003). It has been described as “fundamental, bottom-line evaluations that people make of themselves” (Judge, 2009).

In the present study, researchers focus on two affective outcomes, the supervisor’s rating of subordinate job performance and the subordinate’s satisfaction with supervisor. Since these are two separate outcomes arising from the perceptions of individuals of unequal status, we must consider whether the introduction of such an organizational hierarchy might affect an individual’s perceptions of another’s warmth and competence. Furthermore, we must ask whether the warmth and competence of an individual are both theoretically relevant given the affective outcomes under consideration.

The introduction of an organizational hierarchy has the potential to affect perceptions of warmth and competence in at least two ways. First, and most salient, is that competence is typically associated with promotions and advancement. It's no secret that the more competent individuals are usually the ones who receive promotions. As such, individuals higher up in the organizational hierarchy may be inherently perceived as more competent. Furthermore, insofar as competence is defined as an individual's ability to act on intentions, individuals with greater authority have greater ability to exert influence and affect change. A second way an organizational hierarchy may affect perceptions surrounds the availability of information. Whereas oftentimes warmth, as defined as another's intentions, must be inferred, in supervisor-subordinate relations, these intentions are often communicated explicitly. Most often taking the form of direction and feedback, it is the supervisor who provides the subordinate with his or her "intentions." The supervisor, in turn, expects and assumes the subordinate to act on, and carry out, such intentions. In this way, the subordinate is interested in the supervisor's intentions in that he or she must adopt the intentions of the supervisor. In contrast, the supervisor is less interested in the subordinate's actual intentions in that such intentions are largely irrelevant given the status differential and contextual nature of the interaction.

Regarding whether the warmth and competence of an individual are both theoretically relevant given the affective outcomes, it is reasonable to suspect that the subordinate's competence would have a more direct bearing on the job performance rating he or she receives than the subordinate's warmth. Most individuals are hired to perform a function, a function that presumably requires at least a minimum level of competence to perform. In addition, most supervisors would agree that evaluating subordinate job performance is one of a supervisor's fundamental responsibilities and that many supervisors are aware of their subordinates'

performance on an ongoing basis. This is not to discount the relevance of warmth as it may relate to job performance, but merely to point out that in most cases, compared to competence, warmth would be of secondary importance. It is also reasonable to propose that supervisor warmth would exert a greater influence on the subordinate's satisfaction with supervisor than supervisor competence. Evaluating supervisor competence is generally not the responsibility of the subordinate. Furthermore, assuming the supervisor possesses the minimum level of competence necessary to remain in the position, it is reasonable to suspect that the status differential will promote the perception of adequate competency. In further support of the primacy of warmth, it is likely that the subordinate's performance will, at some time, be the topic of conversation between the supervisor and subordinate. It's foreseeable that at this time, the subordinate would be especially attuned to, and perhaps unfortunately reliant upon, supervisory "warmth." This is not to say that supervisor competence is unlikely to exert an influence on the subordinate's satisfaction with supervisor, but merely to point out that its influence would, in most cases, be less than that of warmth.

We have thus far provided theoretical rationale for the relevance of two traits, warmth and competence, as they relate specifically to the affective outcomes of subordinate supervisor satisfaction and job performance, respectively. Having argued subordinate competence as a primary determinant of his or her performance rating, we now turn our attention toward the theoretical justifications in support of interactive effects between supervisor-subordinate traits.

Since the supervisor is responsible for providing subordinate performance ratings, we must consider whether the supervisor's warmth and competence might influence the performance ratings he or she provides. In terms of warmth, it's foreseeable that a highly warm supervisor would be more lenient and generous in their ratings of subordinate performance and would be

more likely, on average, to give higher performance ratings. Furthermore, because of such warmth, they may be especially forgiving towards the less competent employees and rate them as higher performers than their level of competence might otherwise imply. By extension, it follows that less warm raters would tend to, on average, give lower overall performance ratings.

With respect to supervisors' competence, it would seem that the supervisors with higher levels of competence would be more likely to recognize and appreciate competence in their subordinates. Logically, it follows that more competent supervisors would rate more competent subordinates higher. Similarly, less competent supervisors may be less likely to recognize the levels of competence displayed by their subordinates or may even perceive more competent subordinates as a threat to their status. In such cases, it is reasonable to suspect that less competent supervisors may intentionally lower the ratings of their more competent subordinates as a form of intimidation and dominance.

In turning towards the BIAS map, we find high competence to occupy the rightmost half of the figure depicting the affective and behavioral outcomes of admiration (in conjunction with high warmth), passive facilitation (average level of warmth) and envy (coupled with low warmth). Alternatively, low competence is associated with pity (high warmth), passive harm (average warmth) and contempt (low warmth). On the basis of similarity attraction theory and with reference to the BIAS map, we believe that supervisors low in competence will pity subordinates who are likewise low in competence and envy those subordinates who display higher levels of competence. In terms of performance ratings, these conditions are expected to lead to inflated ratings for their less competent employees and lower ratings of their more competent subordinates. Alternatively, supervisors who are high in competence are likely to feel contempt for their less competent subordinates and admire those subordinates who are more like

themselves. Regarding performance ratings, this would likely result in a familiar pattern of scores where the less competent subordinates are rated lower than their more competent counterparts.

In light of the aforementioned rationale, we propose the following hypotheses:

1. Subordinate CSE will be positively related to subordinate performance ratings
2. A significant interaction between supervisor CSE and subordinate CSE related to performance ratings
3. A significant Interaction between supervisor EP and subordinate CSE related to performance ratings

Having argued that the subordinate would be more familiar with his or her supervisor's intentions than his or her competence, we must consider whether the subordinate's own warmth and competence might influence the supervisor satisfaction ratings he or she provides. Regarding warmth, it's foreseeable that warm subordinates may be more forgiving and charitable in their self-reported ratings of supervisor satisfaction. We believe that the warmer subordinates will, on average, provide higher supervisor satisfaction ratings than their less warm counterparts. There also exists the potential for the subordinate's actual intentions to conflict with the supervisor's supplied intentions. Although we mentioned previously that the supervisor is less concerned with the subordinate's actual intentions in regards to the performance ratings he or she provides to the subordinate, this is not to say that the subordinate is without concern for his or her own intentions. The possibility therefore exists that regularly incompatible intentions may negatively impact the subordinate's supervisor satisfaction rating in much the same way that aligned intentions may have a positive impact. It should be mentioned however that it is unknown the extent to which both ongoing interactions and the status differential might suppress interactive effects. Ongoing interactions might create a level of expectancy surrounding intention alignment

or divergence. It's plausible that the more negatively affected subordinates seek employment elsewhere or alternatively, become more accepting of the state of affairs.

On the topic of competence, it's reasonable to suspect that the more competent subordinates will be more likely to recognize and appreciate a supervisor who displays greater warmth. In addition, subordinates with higher levels of competence are expected to be higher performers and therefore most interactions with their supervisors are expected to occur on more amiable grounds compared to their lower performing coworkers. Alternatively it could be argued that the least competent subordinates would be most appreciative of greater supervisor warmth. We do not deny that these individuals may in fact rely on a supervisor's warmth for continued employment, but such a one-way reliance is expected to strain supervisor/subordinate relations and eventually lead to negative affect for both parties.

Returning to the BIAS map, we find the upper hemisphere entailing high warmth to inspire pity (in conjunction with low competence) active facilitation (average competence) and admiration (high competence). The lower, low warmth, half elicits contempt (low competence) active harm (average competence) and envy (high competence). On the basis of the lexical descriptors of the two hemispheres we believe that those supervisors who are high in warmth will receive higher subordinate satisfaction ratings than those supervisors who fall into the low warmth category. In addition, insofar as the ability to detect warmth in others may be viewed as a competency, we believe that the more competent subordinates will provide greater differentiation among supervisors who possess differing levels of warmth. As such, we would expect to see greater variance or differentiation in the supervisor satisfaction ratings reported by subordinates high in competence compared to satisfaction ratings among subordinates low in

competence. Furthermore, we expect to see supervisor satisfaction ratings highest among those supervisors high in warmth as rated by subordinates high in competence.

In light of the aforementioned rationale, we propose the following hypotheses:

4. Subordinate EP will be positively related to subordinate supervisor satisfaction ratings
5. A significant interaction between supervisor EP and subordinate CSE related to subordinate supervisor satisfaction ratings
6. A significant interaction between supervisor EP and subordinate EP related to subordinate supervisor satisfaction ratings

Method

Setting, Participants, and Procedure

Participants were employees of a large governmental natural resource recreation agency located in the southeastern United States. The agency provides outdoor recreational services to an annual attendance of approximately 19 million visitors and has 1061 full time employees. The vast majority of the employees in this organization are assigned to work at one, or several, of 160 geographically dispersed units. Employees typically spend a great deal of their time independently patrolling geographically distant locales including boundary lines, areas of specific ecological concern and various unit access points. Work routines are usually seasonally dependent. There is considerable daily variety in the number and type of job tasks. Because of the general remoteness of individual work assignments, employees are expected to make defensible decisions essentially unsupervised.

Employees were invited to participate in the study by email and their participation was completely voluntary. Participants completed the online survey during work time and data obtained from the employees was matched to archival data provided by the organization's human resources department. Human resource information included employee performance rating, job class, job tenure, ethnicity, and age. Of the 1061 eligible employees, 427 employees completed

the survey in full representing a response rate of 40%. A comparison of respondents and non-respondents indicated that employees who did not complete the survey were no different in their levels of performance, attendance, job class, base pay, job tenure, ethnicity or age from those who did complete the survey. Participants age ranged from 19 to 81 (median = 48); 43% were female and 91% were Caucasian. The job tenure of participants ranged from less than one year to 42 years (median = 7); 43% were classified as supervisors.

Measures

Core Self-Evaluation: A 12 item question set developed by Judge, Erez, Bono and Thoresen (2003) was used to capture the participants' evaluation of core self. Coefficient alpha reliability of the scale was .81.

Equity Preference: Equity preference was measured using the 16-item Equity Preference Questionnaire (Sauley & Bedeian, 2000). Coefficient alpha reliability of the Equity Preference scale was .83.

Performance: Participants' job performance was assessed by their immediate supervisor using behaviorally anchored rating scales designed by the human resources department of the state agency. Employees were rated on five to seven criteria of performance based on their particular occupation class. Examples of performance criteria include customer service and adhering to the departmental mission.

The rating scale by which employees were evaluated ranged from 1 = *Unacceptable* (Examples of anchors included "The employee requires close supervision and his/her work requires continual correction"; "The employee's job knowledge is insufficient to meet daily requirements") to 5 = *Exceptional* (Examples of anchors included "The employee requires little or no supervision from management in accomplishing his/her tasks and seeks opportunities to enhance the organization"; "The employee is relied upon to solve complex problems and applies

creativity and innovative approaches in formulating solutions”). Supervisors were instructed to provide employee ratings for each of the individual performance criteria then calculate the arithmetic average to serve as the employee’s overall performance rating. The performance ratings used in this study were obtained from the organization’s 2009 annual individual performance review.

Satisfaction with Supervisor: Satisfaction with supervisor was measured with the Supervision sub-scale of the JDI (Smith, Kendall & Hulin, 1969) as modified by Roznowski (1989). The coefficient alpha reliability estimate for this measure was .91.

Results

Means, standard deviations, and intercorrelations among the sample’s study variables are included in Table 3-1. Descriptives and intercorrelations among matched pairs’ core self-evaluation (CSE), equity preference (EP), subordinates’ supervisor satisfaction, subordinates’ performance rating, and supervisor and interactions are provided in Table 3-2. In order to test the influence of supervisors’ and subordinates’ warmth and competence on the subordinates’ performance and supervisor satisfaction we used hierarchical linear modeling (HLM 6.08, Raudenbush, Bryk, & Congdon, 2009). Interactions at the same level of analysis were calculated in accordance with recommendations set forth by Aiken & West, (1991). At the first level of analysis (i.e., the individual-level), the specified model for each subordinate was:

$$Y_{ij} = \beta_{0j} + \beta_{1j} X_{1ij} + \beta_{2j} X_{2ij} + \beta_{3j} X_{3ij} + \beta_{4j} X_{4ij} + r_{ij}$$

Where, Y_{ij} was each subordinate’s i performance under supervisor j ; β_{0j} (the intercept) represented the average performance of subordinates under supervisor j , controlling for the subordinate’s CSE, EP, CSE x EP interaction and supervisor satisfaction; β_{1j} represented the relationships between subordinates’ CSE scores and their performance under supervisor j ; X_{1ij}

represented the CSE of subordinate i of supervisor j ; β_{2j} represented the relationships between subordinates' EP scores and their performance under supervisor j ; X_{2ij} represented the EP of subordinate i of supervisor j ; β_{3j} represented the relationships between subordinates' supervisor satisfaction and their performance under supervisor j ; X_{3ij} represented the supervisor satisfaction of subordinate i of supervisor j ; β_{4j} represented the relationships between subordinates' CSE x EP interaction and their performance under supervisor j ; X_{4ij} represented the CSE x EP interaction of subordinate i of supervisor j ; and r_{ij} represented the individual error term. HLM incorporates a second-level modeling (i.e., group-level model) in which the intercepts (β_{0j}) and slopes (β_{1j}) of the individual-level model are simultaneously regressed on the supervisors' personality variables:

$$\begin{aligned}\beta_{0j} &= \gamma_{00} + \gamma_{01}W_{1j} + \gamma_{02}W_{2j} + \gamma_{03}W_{3j} + U_{0j} \\ \beta_{1j} &= \gamma_{10} + \gamma_{11}W_{1j} + \gamma_{12}W_{2j} + U_{1j} \\ \beta_{2j} &= \gamma_{20} + \gamma_{21}W_{1j} + \gamma_{22}W_{2j} + U_{2j} \\ \beta_{3j} &= \gamma_{30} + U_{3j} \\ \beta_{4j} &= \gamma_{40} + U_{4j}\end{aligned}$$

Where, W represented supervisor j personality and values variables (CSE, EP, and CSE x EP), γ_{00} , γ_{01} , and γ_{02} represented the relationship (i.e., intercept and slopes) of these supervisor traits and values to subordinate performance under supervisor j , controlling for subordinates' CSE, EP, supervisor satisfaction, and CSE x EP interaction; γ_{10} , γ_{11} , and γ_{12} represented interactive effects of supervisor CSE and EP with subordinates CSE on subordinate performance under supervisor j ; γ_{20} , γ_{21} , and γ_{22} represented interactive effects of supervisor CSE and EP with subordinates EP on subordinate performance under supervisor j ; γ_{30} , and γ_{40} represented the influence of subordinates' EP, supervisor satisfaction, and CSE x EP interaction on performance under supervisor j ; U represented the group-level error terms.

A second model was constructed, identical to the first, but where subordinates' supervisor satisfaction was regressed on subordinates' traits and values controlling for subordinate performance. The second level of analysis where the supervisors' traits and values interacted with the subordinates' CSE and EP levels remained unchanged.

Next, we estimated the models described above and the results are reported in Table 3-3. The results of Model 1, the performance model, show that the subordinates' EP, supervisors' EP, and subordinates' supervisor satisfaction were positively related to performance. In addition, the supervisors' CSE interacted with the subordinates' CSE to positively influence performance. A graph of the interaction between supervisor CSE and subordinate CSE is shown in Figure 3-1. The figure shows that supervisors give comparably higher performance ratings to those employees whose CSE levels are more similar to their own. Supervisors who are low in CSE give employees low in CSE higher ratings; supervisors high in CSE give employees with high levels of CSE higher ratings. In contrast to the CSE x CSE interaction, the supervisors' EP interacted with the subordinates' CSE to negatively influence performance. A graph of the interaction between supervisor EP and subordinate CSE is shown in Figure 3-2. The figure shows that supervisors high in EP give subordinates low in CSE higher ratings compared to those employees higher in CSE. Similarly, supervisors low in EP give higher ratings to those employees with high levels of CSE. The results of Model 2, the supervisor satisfaction model, show that subordinates' CSE has a negative effect, while subordinates' performance rating has a positive effect, on the subordinates' supervisor satisfaction levels. In addition, the supervisors' EP interacted with the subordinates' CSE to positively influence the subordinates' supervisor satisfaction. A graph of the interaction between supervisor EP and subordinate CSE is shown in Figure 3-3. The figure shows that subordinates low in CSE are dissatisfied with supervisors who

have high levels of EP. In contrast, subordinates high in CSE are satisfied with supervisors who have high levels of EP.

Discussion

In terms of main effects (hypotheses 1 and 4), minimal support was found and only for hypothesis 1. No support was found for the relationship between subordinate EP and subordinate supervisor satisfaction. Although evidence was found for the existence of the CSE-performance rating relationship in the entire sample (Table 3-1), the focal main effect in HLM model 1 failed to meet the established level of significance (Table 3-3). One explanation for the lack of statistical significance in the HLM performance model surrounds the reduction in overall sample size consequential of having matched subordinates with supervisors. If one compares Table 3-1 with Table 3-2, one can see that the strength of the CSE-performance relationship was reduced and was subsequently nonsignificant (.13* to .03).

Regarding the proposed interactions of model 1, the subordinate performance rating model, support was found for both hypotheses 2 and 3. Supervisor CSE interacted with Subordinate CSE in the determination of subordinate job performance. In support of the theoretical justification presented earlier, competent supervisors seemed to appreciate competent subordinates and rated them as higher performers. Alternatively, less competent supervisors rated the performance of their less competent subordinates as higher than what their level of competence might have otherwise predicted. Furthermore, and supportive of the premise that more competent subordinates might be viewed by less competent supervisors as a threat, among the less competent supervisors, subordinate competence was negatively related to performance ratings. Supervisor EP and subordinate CSE also interacted to influence the supervisors' ratings of subordinate performance. Supervisors with greater warmth rated their less competent subordinates as higher performers and their more competent subordinates as lower performers.

The subordinate performance rating patterns displayed by the less warm supervisors mirrored those of the more competent supervisors. In addition, both the less competent supervisors and the supervisors with greater warmth gave their subordinates higher average performance ratings.

As for model 2, the subordinates' supervisor satisfaction model, support was found for hypothesis 5 but not 6. Interestingly it appears as if the more competent subordinates prefer supervisors with greater warmth whereas the less competent subordinates prefer supervisors lower on such dimension. In accordance with previous research surrounding the relationships between CSE and satisfaction, individuals with higher levels of CSE were generally more satisfied overall, regardless of supervisor warmth. As to why we failed to see a significant interaction between supervisor EP and subordinate EP, we are left to once again theorize that the supervisor-subordinate status differential coupled with ongoing interactions may have suppressed the importance of subordinate intentions or encouraged those for whom it was an issue to seek employment elsewhere.

Limitations and Further Research

Although differences in status, ongoing interpersonal interactions, and other environmental factors likely affected outcomes, the present study has demonstrated warmth and competence theory has relevance to interpersonal judgments in the workplace. Our findings suggest that within such contexts, warmth and competence have the potential to influence both performance ratings and supervisor satisfaction. In addition, we have shown that the trait levels of the individual making judgments can interact with the levels possessed by the focal individual to influence such judgments thereby affecting organizationally relevant outcomes.

There are several limitations of the present study. Warmth and competence theory typically relies on inferences an individual makes about another, not directly measured characteristics. Although we feel there is considerable benefit to our approach, especially as it pertains to

empirical analysis, it is not in keeping with warmth and competence theory as classically defined. In addition, we chose variables that represent individuals' general tendencies; there may be other traits or personality dimensions more closely aligned to theoretical conceptualizations of either warmth or competence. Furthermore, it may be argued that performance ratings are not equivalent to the theory's emotional and behavioral reactions. We would like to point out however that examination of these types of affective outcomes have a long history in industrial and organizational psychology and that supervisors, without proper training, are likely to allow their personal biases to affect such outcomes (Lefkowitz, 2000). Warmth and competence theory indicates that interpersonal judgments are formed quickly, but may change as contradictory or conflicting information is introduced. It is presumed that over protracted periods involving many interpersonal interactions that individual judgments would become more grounded, and perhaps influenced by outside factors including personality traits not examined here. Researchers are therefore encouraged to consider other traits and situational factors that may influence the formation and character of interpersonal judgments. Consideration of other organizationally relevant outcomes is also encouraged.

An unexpected implication of this study concerns the trait of CSE. Insofar as CSE is used practically as a predictor of performance and satisfaction, the findings presented here point to the possibility that previously established empirical relationships may have been suppressed due to moderating effects such as those presented here. Researchers are therefore encouraged to consider potential moderators of the CSE relationships in future studies.

Table 3-1. Means (M), standard deviations (SD), and intercorrelations among study variables (full sample)

	M	SD	1	2	3	4
1. Core Self-Evaluation (CSE)	3.90	.52	(.81)			
2. Equity Preference (EP)	4.35	.42	.35**	(.83)		
3. Supervisor Satisfaction	2.39	.71	.15**	.08	(.91)	
4. Performance Rating	3.77	.54	.13*	.19**	.21**	-

Notes. N = 427. * = p < .05 level. ** = p < .01 level. Reliabilities are on the diagonal are in parentheses.

Table 3-2. Means (M), standard deviations (SD), and intercorrelations among study variables (paired matches)

	M	SD	1	2	3	4	5	6	7	8
1. Subordinate CSE	3.89	.49	(.81)							
2. Supervisor CSE	4.02	.45	-.05	(.81)						
3. Subordinate EP	4.39	.39	.34**	.08	(.83)					
4. Supervisor EP	4.41	.35	-.03	.40**	.08	(.83)				
5. Supervisor Satisfaction	2.34	.74	.16*	-.03	.03	-.12	(.91)			
6. Performance Rating	3.79	.55	.03	.01	.22**	.05	.26**	-		
7. Subordinate CSE x EP	.34	1.08	.10	-.09	-.14	-.07	-.06	-.13	-	
8. Supervisor CSE x EP	.40	.99	-.08	.54**	.03	-.02	-.07	.06	.01	-

Notes. N = 193. * = p < .05 level. ** = p < .01 level. Reliabilities are on the diagonal are in parentheses.

Table 3-3. HLM coefficients and significance of performance (Model 1) and supervisor satisfaction (Model 2)

	Performance	Supervisor Satisfaction
1. Subordinate CSE	.21	-3.62*
2. Subordinate EP	2.30*	-1.29
3. Supervisor CSE	-.92	-.62
4. Supervisor EP	2.98*	-4.08
5. Supervisor CSE x EP	.13	-.14
6. Supervisor Satisfaction	.21**	.NA
7. Subordinate CSE x EP	-.05	-.07
8. Subordinate Performance	.NA	.39**
9. Supervisor CSE x Subordinate CSE	.35**	.13
10. Supervisor EP x Subordinate CSE	-.37*	.78*
11. Supervisor CSE x Subordinate EP	-.15	.08
12. Supervisor EP x Subordinate EP	-.31	.18

Notes. N =79 (supervisors) and 151 (subordinates). * p < .05. ** p < .01. Subordinate CSE, EP, supervisor satisfaction, CSE x EP, and subordinate performance are at the first level of analysis. Supervisor CSE, Supervisor EP and Supervisor CSE x EP are intercept effects at the second level of analysis. Supervisor-subordinate interactions (Supervisor CSE x Subordinate CSE, Supervisor EP x Subordinate CSE, Supervisor CSE x Subordinate EP and Supervisor EP x Subordinate EP) are at the second level of analysis.

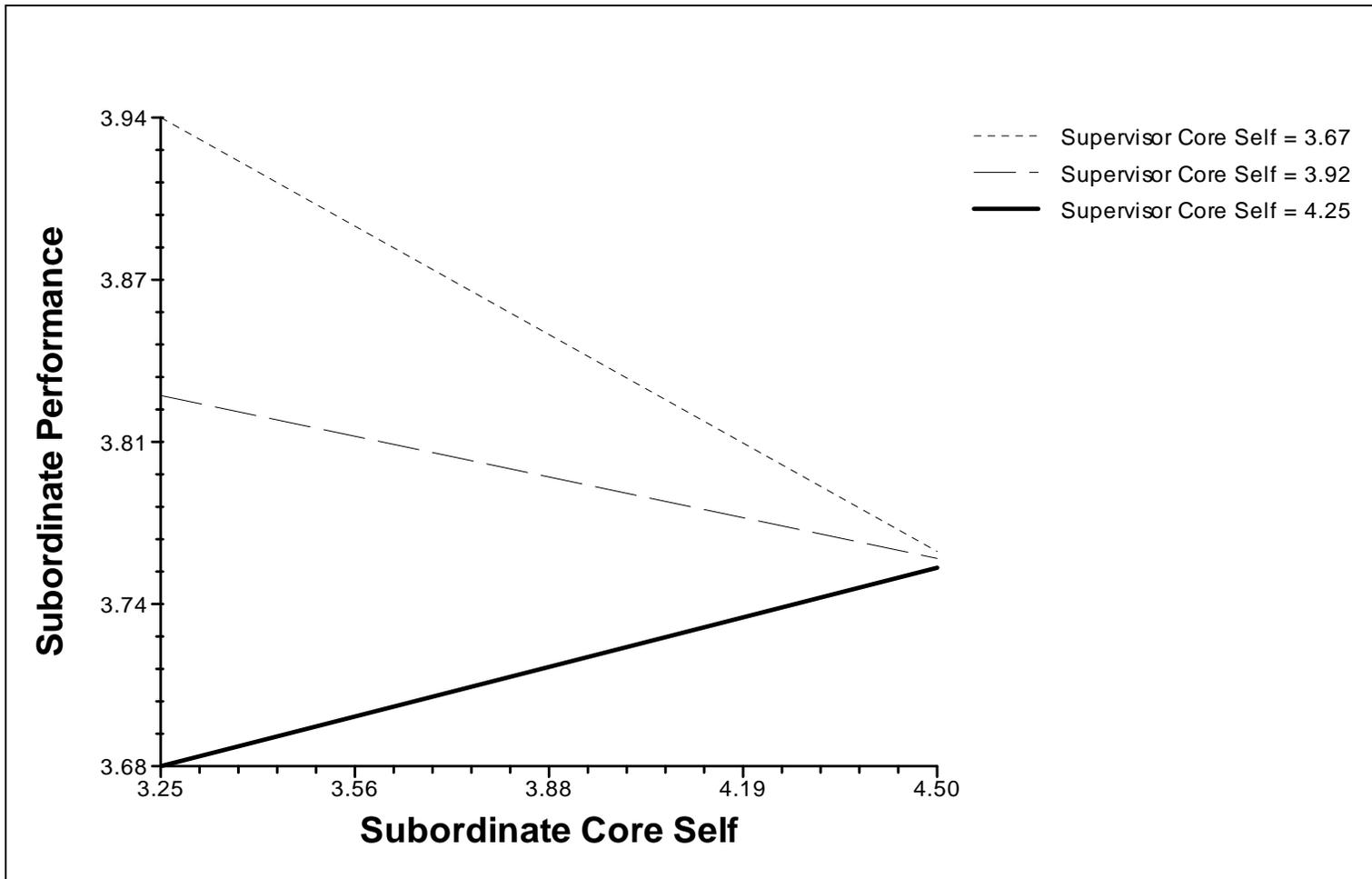


Figure 3-1. Performance outcome of supervisor-subordinate core self trait interaction.

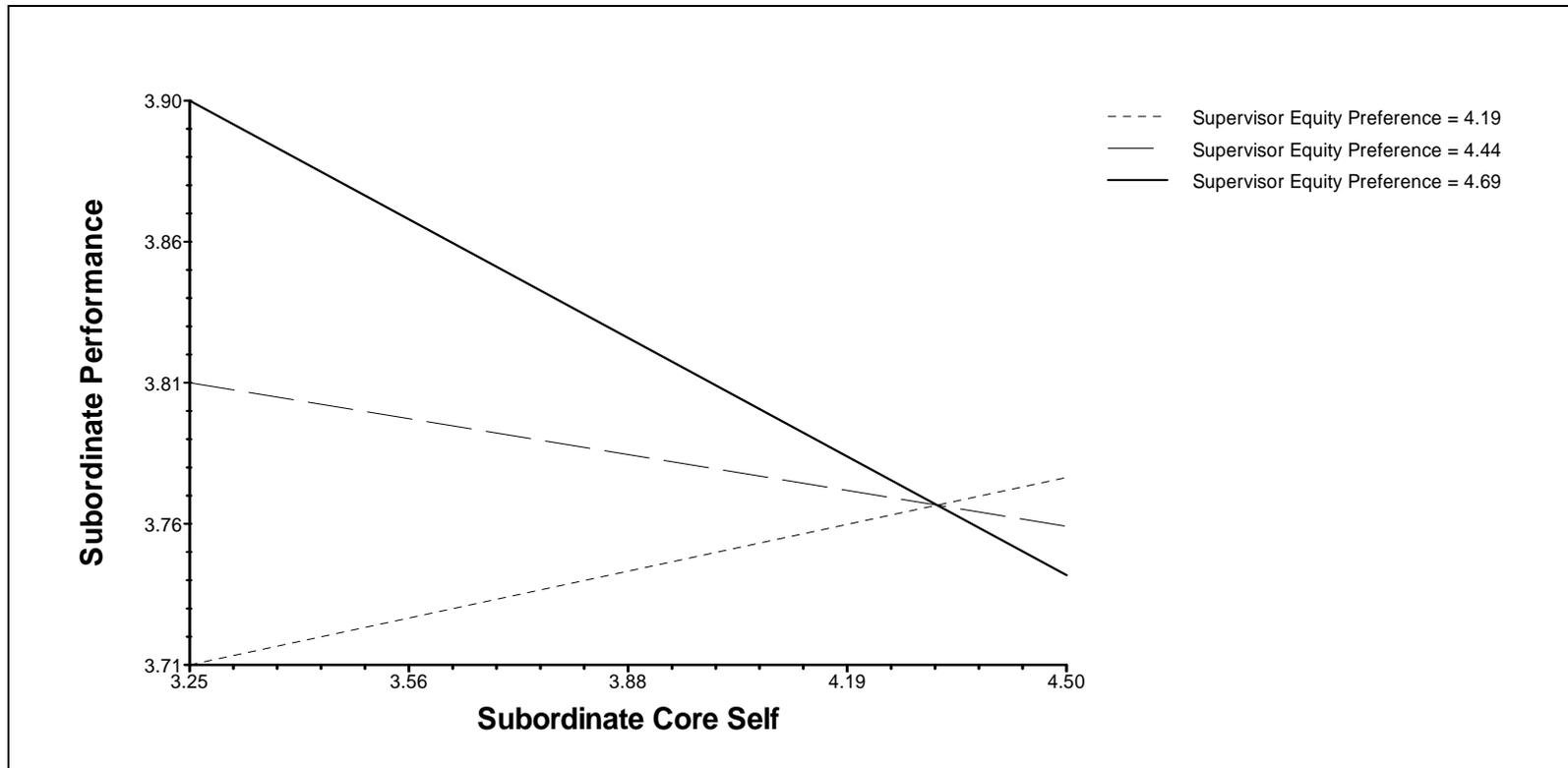


Figure 3-2. Performance outcome of supervisor-subordinate equity preference-core self trait interaction.

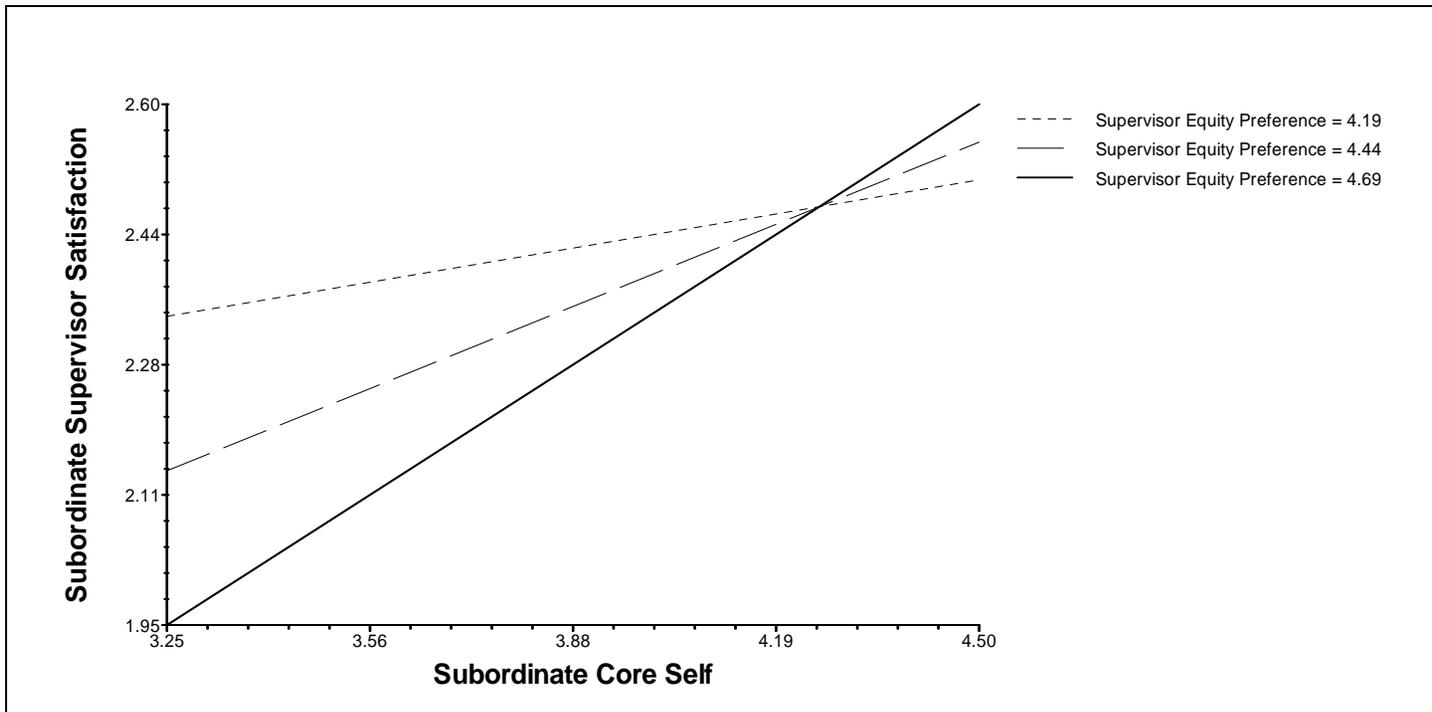


Figure 3-3. Satisfaction outcome of supervisor-subordinate equity preference-core self trait interaction.

CHAPTER 4
THE PERSONALITY OF THE PARK RANGER: AN EXAMINATION OF TRAIT-BASED
RELATIONSHIPS WITHIN A NATURAL RESOURCE RECREATION AGENCY

The appeal of government employment is on the rise (Clark, 2009). The recent economic downturn and general disenchantment with corporate America has led more job seekers to turn their attention to the relative stability associated with government work (Vogel, 2009). Coupled with this trend is an increasing concern for the environment and interest in environment-related work (Berger, 2009; Berman, 2009). Within the environmental sector, government is one of the largest employers accounting for over 60% of conservation scientists and foresters (Occupational Outlook Handbook, 2011) and 80% of forest and conservation workers (Occupational employment statistics, 2009).

Personality assessments for the purpose of recruitment, selection and management of employees have been used by private and publicly traded corporations for many years. It is currently estimated that much as 75% of companies use, or are considering the use of, such testing procedures in their employee selection and development processes (Anderson, 2010). Despite the competitive advantages that such an approach affords, most governments have been slow to adopt similar practices. Perhaps owing to bureaucratic processes or the absence of a profit motive, most governments have failed to invest in research surrounding associations within their own organizations, much less incorporate such findings into their decision making processes.

Government sponsored environmental work is unique. It is often more complex and demanding than the general public is aware. Within the natural resource recreation field, an employee's roles and responsibilities are often fluid and dependent on a number of factors including visitation patterns, seasonality, weather and an assortment of emergency-related situations that may arise during the course of employment. Weekly work may range from

cleaning bathrooms to fighting wildfires, from providing campfire programs to participating in search and rescue operations. Although it would be convenient to rely on prior findings from the field of industrial and organizational psychology during the recruitment and selection process, the unique nature of the work to which such findings would be applied makes such generalizations particularly problematic.

As such, the purpose of this study is to investigate the relationships among personality, satisfaction and work-related outcomes within a governmental natural resource recreation agency. We examine three sets of relationships. The first are those among personality and job satisfaction. We include the Five Factor model of personality, core self-evaluation and equity preference. The job satisfaction construct includes 5 separate satisfaction facets and an overall *job in general* measure. The second series of relationships are among the listed personality dimensions and several work-related outcomes including performance, leave, tenure, gender and employment rank. Lastly, we examine relationships among satisfaction and the various work-related outcomes. Where available, we provide prior meta-analytic findings and offer comparisons with results presented here. It is believed that this study may, in some small part, add to the body of knowledge to which natural resource management organizations may refer during strategic planning and administration of employee recruitment, selection and management.

Evolution of the Theories

Since the 1980s, the five factor model (FFM) of personality has grown to become the most widely used personality taxonomy in industrial and organizational psychology (Barrick, Mount & Judge, 2001). The origins of the FFM are traced back to the 1940s where researchers such as Fiske (1949) employed factor analysis to distill large datasets of personality descriptors and traits into their underlying components. Although early findings hinted at the existence of five main

factors, published research on the subject had little effect (Digman, 1990). In the 1960s, unknown to all but a handful of researchers, was an Air Force study, the purpose of which was to determine whether or not there were any personality traits were associated with officer effectiveness. Tupes and Christal's (1961) factor analysis revealed that five broad factors underlying the 35 personality traits accounted for a significant portion of variance. Researchers labeled the principal factors surgency, agreeableness, dependability, emotional stability and culture. The few researchers who were aware of the study began their own research from within the FFM paradigm. Subsequent research focused on refining the factors and describing their relationship to outcomes of interest. The current FFM represents the evolution of findings by these early researchers and well as Goldberg (1981), Costa and McCrae (1985) and Digman (1990). Collectively, their research led to the development of a personality model characterized by 5 factors—namely, Extraversion, Agreeableness, Conscientiousness, Emotional Stability, and Openness to Experience.

Extraversion is typified by a desire for active social interaction. Individuals high in this trait exhibit increased tendencies to interact with others and often feel energized by such interactions. Agreeableness refers to an individual's willingness to cooperate with others. Such willingness implies a high degree assumed trust and consideration of others' feelings and desires. Conscientiousness manifests itself through characteristics such as dependability, persistence, and organization. Individuals high in conscientiousness appear disciplined and achievement-oriented. Emotional Stability refers to an individual's ability to temper emotions. Individuals high in emotional stability display few outward expressions and are able to remain calm in difficult situations. Openness to Experience pertains to individuals described as imaginative, intellectual

and artistically sensitive (Mount, Barrick, Scullen and Rounds, 2005). Individuals high in this trait display heightened intellectualism and an acceptance of alternate viewpoints.

The FFM has been applied extensively within the fields of industrial and organizational psychology. A search of PsychINFO reveals more than 20,000 articles associated with either the entire model or one of its broad factors. It remains the most widely accepted model of personality trait structure (Costa & McCrae, 2009). Of primary interest to many researchers has been the strength of correlations between the modeled personality traits and work-related outcomes. Researchers have identified correlations between specific personality dimensions and employee performance (Barrick & Mount, 1991), organizational commitment (Erdheim, Wang & Zickar, 2006), job satisfaction (Judge, Heller & Mount, 2002), organizational deviance (Berry, Ones & Sackett, 2007), pay satisfaction (Shaw, Duffy, Jenkins & Gupta, 1999), counterproductive work behaviors (Mount, Ilies & Johnson, 2006) and many other outcomes of interest to employers.

The core self-evaluation concept was introduced in 1997 as an outgrowth of the dispositional factors affecting job satisfaction (Judge, Locke & Durham, 1997). Borrowed from several fields, the construct represents a higher order trait rooted in self-esteem, generalized self-efficacy, neuroticism, and locus of control (Judge, Erez, Bono & Locke, 2005). Individuals high in core self display higher levels of self-esteem, elevated generalized self-efficacy, greater emotional stability and an internal locus of control. Although the core self-evaluation was initially proposed to account for variance in job satisfaction, further research has highlighted its association with a number of outcomes including job performance, career success and the attainment of more complex and challenging jobs. Individuals high in core self display higher levels of motivation, greater ability to cope with stress and setbacks, and “better capitalize on

advantages and opportunities” (Judge, 2009). Conceptually, the core self-evaluation is designed to provide researchers with a glimpse into an individual’s assessment of his or her basic ability, merit and efficacy as a person (Judge, Erez, Bono & Thoresen, 2003). It has been described as “fundamental, bottom-line evaluations that people make of themselves” (Judge, 2009).

Equity sensitivity theory was proposed by Huseman, Hatfield and Miles (1985, 1987) as a refinement of classical equity theory. Their studies led to the development of a classification structure whereby participants’ attitudes toward equity situations determined group divisions and individual standing. Theoretically, the equity sensitivity construct can be viewed as a continuum with Benevolents on one end and Entitleds on the other. The theory holds that individuals exhibiting benevolent attitudes are less likely to feel uneasy in situations where they are underrewarded relative to their peers. Equity Sensitive individuals (representing the middle-ground) typically follow a “norm of equity” whereby they experience the least discomfort when their outcomes are commensurate with their inputs. Lastly, Entitleds feel most at ease when their efforts are over rewarded relative to referent others.

Since the theory’s introduction, equity sensitivity has been shown to be associated with a number of outcomes of interest. Benevolent individuals are described as ‘givers’ (Mudrack, Mason & Stepanski, 1999; Kickul, Gundry & Posig, 2005; Shore, Sy & Strauss, 2006) and ‘altruists’ (Wheeler, 2002; Bing & Burroughs, 2001; Huseman, et al., 1987). They derive satisfaction from being a ‘donor’ or ‘creditor’ and feel discomfort when on the receiving end of a social exchange (Greenburg & Wescott, 1983). Benevolent individuals display greater concern for relationships (Kickul, et al., 2005; Huseman, et al., 1985; King & Hinson, 1994) and other’s needs and feelings (Major, Bylsma & Cozzarelli, 1989; Mudrack, Mason & Stepanski, 1999). They report higher satisfaction (Huseman, et al., 1985; Wheeler, 2002; King & Miles, 1994)

work harder for less pay (Wheeler, 2002; Miles, Hatfield & Huseman, 1989, 1994) receive higher performance ratings (Bing, et al., 2001) and engage in more organizational citizenship behaviors (Blakely, Andrews & Moorman, 2005; Kickul & Lester, 2001). Benevolents also show greater concern for relationship-based trust (Kickul, et al., 2005), view ethically questionable workplace activities as inappropriate (Kickul, et al., 2005; Mudrack, et al., 1999), and take others' outcomes into account when making decisions (Mudrack, et al., 1999).

Relationships of the Traits to Job satisfaction

Relationships among the Five Factor model of personality and job satisfaction were most recently addressed in a meta-analysis by Judge, Heller & Mount (2002). Their findings demonstrated significant relationships among three of the traits and an overall measure of job satisfaction. Of the traits, neuroticism proved to be the strongest of correlates ($r = -.29$) followed by conscientiousness ($r = .26$) and then extraversion ($r = .25$). Although the strength of the relationships sometimes varied by individual study (i.e., conscientiousness sometimes displayed a nonsignificant or negative relationship with job satisfaction), the overarching relationships were robust to minor deviations even when alternative meta-analytic weighting procedures were used (Judge, et al., 2002).

Due to the comparatively recent evolution of the CSE concept, researchers have yet to conduct a meta-analysis focusing specifically on the construct's relationship with job satisfaction. There is, however, meta-analytic evidence of relationships among the construct's constituent components. In an article by Judge & Bono (2001), researchers demonstrated positive relationships among all four of the constructs underlying traits and job satisfaction. The strongest of these correlations was generalized self-efficacy ($r = .45$), the weakest, emotional stability ($r = .23$). Although the average correlation between the four traits and job satisfaction was .32, upon aggregating the traits as a single construct, the relationship grew to .41 (Judge, et al., 2004).

Researchers have also demonstrated the core self-evaluation construct to be more strongly related to job satisfaction than the FFM traits (Judge & Heller, 2002).

Although researchers have yet to perform a meta-analysis on correlates among equity preference and various job outcomes, most researchers have found positive correlations between equity sensitivity and job satisfaction (Farr, 1976; Jenkins & Lawler, 1981; Pritchard, Dunnette & Jorgenson, 1972; O'Neill & Mone, 1998; King & Miles, 1994). In addition, multiple studies reported benevolents to have the highest pay satisfaction and lowest intentions to leave the organization (Huseman, et al., 1985; King, Miles & Day, 1993; King, et al., 1994; Shore, 2004).

Relationships of the Traits to Work-related Outcomes

Most meta-analyses surrounding the relationships between the FFM and work-related outcomes have reached the consensus that conscientiousness (Barrick & Mount, 1991) and emotional stability are positively correlated with job performance for virtually all occupations (Anderson & Viswesvaran, 1998; Salgado, 1997; Tett, Jackson & Rothstein, 1991; Judge & Bono, 2001). Although similar large-scale analyses have yet to focus specifically on leave usage, prior research surrounding the FFM has found neuroticism and extraversion to be positively related (Cooper & Payne, 1966), and conscientiousness to be negatively related (Judge, Martocchio & Thoresen, 1997), to employee absence.

Research surrounding the relationship between CSE and job performance have reached remarkably similar findings to those demonstrated by Barrick & Mount (1991) concerning conscientiousness' relationship to performance (Judge, Van Vianen & De Pater, 2004). Furthermore, additional research has shown that individuals with high levels of CSE actually prefer more complex work and attain more challenging jobs (Srivastava, Locke & Judge, 2002; Judge, Bono & Locke, 2000)---a comparative characteristic of management positions. These individuals display greater motivation to perform (Judge, Erez & Bono 1998; Erez & Judge,

2001). For the same reasons that an individual must be present at work to perform well, it is suspected that CSE may also be related to reduced absenteeism.

Equity sensitivity has been shown to be positively related to job performance (O'Neill & Mone, 1998; Bing & Burroughs, 2001) and the quantity or quality of work produced (Andrews, 1967; Goodman & Freidman, 1968; Valenzi & Andrews, 1971) In addition, benevolent individuals have been shown to perform more organizational citizenship behaviors (Blakely, Andrews & Moorman, 2005) and work harder for less pay (Huseman, Hatfield & Miles, 1989). In terms of tenure and attendance, benevolents have been shown to display reduced turnover intentions (Carrel & Dittrich, 1976; Telly, French & Scott, 1971; King and Miles, 1994) and lower absenteeism (Carrell & Dittrich, 1976). Although relating equity preference to gender has not been the specific focus of primary investigations, research surrounding reward allocation hints that the behavior of females is more in line with benevolent tendencies (King & Hinson, 1994). The inclusion of gender variables in equity research has, however, been inconclusive in that relations have ranged from nonsignificant (Shore, Sy & Strauss, 2006; Evers, Tomic, Brouwers, 2005) to $r = .18$ (Wheeler, 2002).

Relationships of Job Satisfaction to Work-related Outcomes

Formal research surrounding job satisfaction has typically focused on the antecedents, correlates and outcomes of various employee satisfaction levels. Researchers have explored relationships between job satisfaction and personality (Judge, et al., 2002; Judge, Bono, Erez and Locke, 2005), counterproductive work behaviors (Mount, et al., 2006), turnover intentions (Dick, Christ, Stellmacher, Wagner, Ahlswede, Grubba, Hauptmeier, Höhfeld, Moltzen & Tissington, 2004; Saari & Judge, 2004), absenteeism (Wegge, Schmidt, Parkes & Van Dick, 2007), demographics (Niblock, 2000), equity sensitivity (Thompson, 1998), compensation satisfaction

(Igalens & Roussel, 1999), organizational trust (Callaway, 2007), organizational citizenship (Organ & Ryan, 1995) and many other factors of interest.

Meta-analyses surrounding the relationship of job satisfaction to job performance have found correlations ranging from $r = .17$ (Iaffaldano & Muchinsky, 1985) to $r = .31$ (Petty, McGhee & Cavander (1984). The most recent and comprehensive study by Judge, Thoresen, Bono & Patton (2001) found the mean correlation between job satisfaction and performance to be $r = .30$. A separate meta-analysis focusing on the relationships between pay satisfaction and work-related outcomes found pay satisfaction to be significantly related to turnover intentions ($r = -.31$), voluntary turnover ($r = -.17$), absenteeism ($r = -.05$), and performance ($r = .05$) (Williams, McDaniel & Nguyen, 2006). In light of the negative relationship between job satisfaction and turnover intentions, it follows that organizational tenure would be negatively related as well.

Method

Setting, Participants, and Procedure

Participants were employees of a large governmental natural resource recreation agency located in the southeastern United States. The agency provides outdoor recreational services to an annual attendance of approximately 19 million visitors and has 1061 full time employees. The vast majority of the employees in this organization are assigned to work at one, or several, of 160 geographically dispersed units. Employees typically spend a great deal of their time independently patrolling geographically distant locales including boundary lines, areas of specific ecological concern and various unit access points. Work routines are usually seasonally dependent. There is considerable daily variety in the number and type of job tasks. Because of the general remoteness of individual work assignments, employees are expected to make defensible decisions essentially unsupervised.

Employees were invited to participate in the study by email and their participation was completely voluntary. Participants completed the online survey during work time and data obtained from the employees was matched to archival data provided by the organization's human resources department. Human resource information included employee performance rating, job class, job tenure, ethnicity, and age. Of the 1061 eligible employees, 427 employees completed the survey in full representing a response rate of 40%. A comparison of respondents and non-respondents indicated that employees who did not complete the survey were no different in their levels of performance, attendance, job class, base pay, job tenure, ethnicity or age from those who did complete the survey. Participants age ranged from 19 to 81 (median = 48); 43% were female and 91% were Caucasian. The job tenure of participants ranged from less than one year to 42 years (median = 7); 43% were classified as supervisors.

Measures

Five Factor Model: The Five Factor Model of personality was measured by way of the IPIP proxy of the NEO-PI-R. The instrument consisted of a 50 item questionnaire drawn from the International Personality Item Pool. Coefficient alpha reliability estimates of the scales were as follows: Extraversion, $\alpha = .80$; Agreeableness, $\alpha = .73$; Conscientiousness, $\alpha = .79$; Emotional Stability, $\alpha = .80$; Openness to Experience, $\alpha = .72$.

Core Self-evaluation: Core self evaluation was captured using a 12 item question set developed by Judge, Erez, Bono and Thoresen (2003). Coefficient alpha reliability of the scale was .81.

Equity Preference: Equity preference was measured using the 16 item Equity Preference Questionnaire¹ (Sauley & Bedeian, 2000). Coefficient alpha reliability of the Equity Preference scale was .83.

Job Satisfaction: Job satisfaction was measured in accordance with the hardcopy format of the Job Descriptive Index (Balzer, Kihm, Smith, Irwin, Bachiochi, Robie, Sinar, & Parra, 2000). Coefficient alpha reliabilities of the scales were as follows: Job in General, $\alpha = .86$; Pay, $\alpha = .81$; Work, $\alpha = .87$; Promotion, $\alpha = .89$; Supervision, $\alpha = .91$; Coworkers, $\alpha = .90$;

Performance: Participants' job performance was assessed by their immediate supervisor using behaviorally anchored rating scales designed by the human resources department of the organization. Employees were rated on five to seven criteria of performance based on their particular occupation class. Examples of performance criteria include customer service and adhering to the departmental mission.

The rating scale by which employees were evaluated ranged from 1 = *Unacceptable* (Examples of anchors included “The employee requires close supervision and his/her work requires continual correction”; “The employee’s job knowledge is insufficient to meet daily requirements”) to 5 = *Exceptional* (Examples of anchors included “The employee requires little or no supervision from management in accomplishing his/her tasks and seeks opportunities to enhance the organization”; “The employee is relied upon to solve complex problems and applies creativity and innovative approaches in formulating solutions”). Supervisors were instructed to provide employee ratings for each of the individual performance criteria then calculate the

¹ Despite Equity Sensitivity Instrument’s continued use in research (Mintu-Wimsatt, 2003; Allen & White, 2002; Wheeler, 2002; Kickul & Lester, 2001), it remains sample-specific (Foote & Harmon, 2005). Furthermore, the trichotomization of equity sensitivity results in a loss of measurement precision (Sauley & Bedeian, 2000). In light of the limitations associated with the Equity Sensitivity Instrument, several researchers have argued for the adoption of the equity preference questionnaire (Shore & Strauss, 2008). Research by Wheeler (2007) has demonstrated both instruments produce comparable results.

arithmetic average to serve as the employee's overall performance rating. The performance ratings used in this study were obtained from the organization's 2009 annual individual performance review.

Archival data: Beyond performance, additional archival data was obtained from the human resources department of the organization under examination. Data sets included tenure, gender, employee class (supervisor or supervisee) and the amount of vacation and sick leave used in the 2008-2009 year.

Results

Means, standard deviations and intercorrelations among the study variable set are presented in Tables 1 through 3. Table 4-1 displays the personality-based traits of the study. It reveals that the traits of the FFM have a mean correlation of $r = .27$. The core self evaluation construct is moderately correlated with the FFM traits at $r = .42$. Equity preference displays a mean correlation with the FFM traits of $r = .27$. Table 4-2 contains the satisfaction dimensions of the study. Table 4-2 shows that the job in general satisfaction dimension is moderately correlated with the other satisfaction dimensions at $r = .39$. The strongest of these *job in general* correlations is with work satisfaction ($r = .70$), the weakest, *pay* satisfaction ($r = .21$). Table 4-3 displays the intercorrelations among the work-related outcomes. We find that performance ratings and the management job class are positively associated. Annual leave is positively associated with the use of sick leave, longer tenure and the management job class. The use of sick leave is positively related to longer tenure and the female gender. Tenure is positively associated with both the male gender (gender was coded 0 = male, 1 = female; $r = -.24$) and management. The management job class is positively, and significantly associated with the male gender.

Tables 4 through 6 present the correlations among personality, satisfaction and work-related outcomes. Table 4-4 shows the traits most strongly associated with the satisfaction dimensions are core self, emotional stability and agreeableness. Core self is the only trait associated with all of the included satisfaction dimensions. Openness to experience is not related to any of the satisfaction dimensions. Conscientiousness is positively and significantly related to work satisfaction ($r = .18$) and job in general ($r = .16$). Extraversion is positively related to promotion satisfaction ($r = .13$) and work satisfaction ($r = .14$). Agreeableness and emotional stability are both related to all satisfaction dimensions except pay. Agreeableness displays a mean correlation of $r = .17$, and extraversion shows a slightly stronger relationship to the dimensions with a mean correlation of $r = .21$. Agreeableness is equally related to coworker satisfaction and job in general ($r = .24$). Emotional stability is most strongly related to work satisfaction and job in general ($r = .31$). Similarly, core self is most strongly associated with the same dimensions at $r = .35$ and $r = .34$, respectively. Core self shows a mean correlation of $r = .23$.

Table 4-5 displays the correlations among the measured personality traits and work-related outcomes. Openness to experience and agreeableness are positively and significantly related to the female gender ($r = .14$ and $r = .12$, respectively), but not related to the other outcomes. Conscientiousness is also positively related to the female gender ($r = .15$), and performance ($r = .14$), but negatively related to tenure ($r = -.13$). Neither extraversion nor emotional stability is associated with any of the work-related outcomes. Core self is positively related to performance ($r = .13$) and reduced sick leave ($r = -.13$). Equity preference is positively related to performance ($r = .19$), the female gender ($r = .11$), and the management job class ($r = .11$).

Table 4-6 shows the correlations among the satisfaction dimensions and work-related outcomes. All satisfaction dimensions are positively and significantly related to the management job class. Pay satisfaction is positively related to performance ($r = .16$) as is supervisor, coworker, work and job in general satisfaction measures ($r = .21$, $r = .11$, $r = .18$, and $r = .12$, respectively). Pay satisfaction is also the only dimension positively and significantly related to the increased use of annual leave ($r = .13$). Promotions, supervisor, work and job in general satisfaction dimensions are all associated with reduced sick leave use ($r = -.17$, $r = -.16$, $r = -.20$, and $r = -.14$, respectively). Pay, coworker and work satisfaction are all related to longer job tenure ($r = .16$, $r = .12$, and $r = .16$, respectively). Promotions and work satisfaction are associated with the male gender ($r = -.22$ and $r = -.16$, respectively).

Discussion

In reviewing table 4-1 we find that equity preference and core self are positively and significantly related to all of the FFM traits. This is not surprising in that a study by Scott and Colquitt (2007) examined the relationship between equity sensitivity and the FFM traits and found a mean correlation of $r = .20$. A difference here is that equity preference displayed a somewhat stronger correlation of $r = .27$ and was also related to the trait of openness to experience. It is not known, however, whether such differences are properly attributed to disparities between focal populations (the Scott et al., 2007 study utilized a student sample) or instrument variation (equity sensitivity instrument vs. equity preference questionnaire). Although there have been prior studies relating self-esteem, a component of CSE, to the FFM, far fewer have compared the two constructs directly. It should be mentioned, however that results presented here are comparable to those demonstrated elsewhere (see Bono & Judge, 2003 for a review).

Table 4-2 shows that satisfied individuals tend to be satisfied across a broad range of satisfaction dimensions. It is interesting to note that job in general displays moderate correlations with all job satisfaction dimensions except pay satisfaction. This is believed to be due in part to the generally low pay satisfaction levels across the sample. In addition, such low satisfaction is likely the result of baseline pay hiring practices and a uniform government pay structure. It also highlights the likelihood that individuals choosing to enter the natural resource recreation field do so for reasons other than pay. In further support, the strong correlation between job in general and work satisfaction indicates that much of the satisfaction derived from the line of work is due to the nature of the work itself.

Table 4-3 demonstrates that those individuals of the management job class tend to receive higher performance ratings. This could be due to a general tendency for the management class to be more lenient in their estimations of one another's performance or, more likely, the existence of a performance-promotion relationship. Understandably, the management class displays longer organizational tenure. In addition, because the natural resource recreation field has traditionally been a male dominated profession, those individuals who have longer tenure are also typically male. It is further apparent that those individuals with greater tenure tend to take more or longer vacations. Incidentally, a moderate correlation exists between the use of vacation time and the use of sick leave. This relationship is true between sick and annual leave and among the older, more tenured employees. Such a finding is somewhat contradictory to prior research given a negative relationship had been established between age and absence (Martocchio, 1989).

In reviewing Table 4-4 we find our results surrounding the FFM and satisfaction generally comparable to prior research. Similar to the meta-analysis by Judge, et al., (2002), neuroticism proved to be the strongest of correlates with the overall job in general measure. Differences were

apparent, however, in the correlation of agreeableness with the general measure and an absence of such relationship involving extraversion. The CSE relationships in our study are somewhat lower than those reported previously. Our results display a mean correlation of $r = .23$ rather than $r = .32$ (Judge et al. 2001) or $r = .41$ (Judge, et al., 2004). Such outcomes may have been due to having used alternative measures of job satisfaction and the aggregate core self-evaluation instrument (Judge, et al., 2003). The CSE measure proved to be significantly and positively related to all satisfaction dimensions despite overall low pay satisfaction levels within the sample. Surprisingly, equity preference was not related to pay satisfaction. This is somewhat curious given the construct's theoretical roots in work/reward tolerance or preference. Our findings are similar to prior research in terms of the theory's relation to overall job satisfaction.

Table 4-5 shows that while conscientiousness is related to performance, emotional stability is not. This is different from most meta-analyses where both traits were judged to be predictors of performance. Such a finding within our sample may be due to range restriction. Those individuals higher in neuroticism may have decided to not participate in the study or as has been stated elsewhere, these individuals may have been selected out of the workforce. Similar to prior findings, both CSE and EP are positively and significantly related to performance. Equity preference is not related to tenure. This is unusual given the logical connection between reduced turnover intentions and organizational tenure. Despite prior evidence for relationships among the FFM traits and employee absence, none are present here. Only CSE displays a negative relationship with employee sick leave usage. It is interesting that the rationale typically offered in support for the relationship between conscientiousness and employee absence, specifically that achievement-oriented individuals understand excessive workplace absence may hinder personal job performance, may be more appropriately characterized, in this case, through reference to core

self. Comparable to prior research is our finding between conscientiousness and performance. It is somewhat surprising that despite its association with performance, conscientiousness is negatively related to tenure. This may be due to the recent hiring of more conscientious individuals or those individuals with higher levels of conscientiousness seeking employment elsewhere. It is of special interest that equity preference is related to higher performance, the female gender, and the management job class. The concern surrounding these associations is that the female gender is shown to be negatively related to the management job class. It is possible that given the fact that the field has traditionally been a male dominated profession that gender stereotyping may have contributed to such relationships. It is worthwhile noting that work satisfaction is positively related to the male gender. Interestingly, so is promotion satisfaction (Table 4-6).

The relationships apparent in Table 4-6 demonstrate that the management class is more satisfied across all satisfaction dimensions than non-management. This is not surprising in that the management class is also associated with longer tenure. Had one or several of the satisfaction dimensions been particularly dissatisfying to an individual, it is likely that the individual would have sought employment elsewhere. As mentioned previously, we find the male gender to be more satisfied with both promotions and work. Although not to a statistically significant extent, we also see all satisfaction dimensions positively associated with the male gender. True to prior findings, our results also indicate satisfaction to be negatively related to the use of sick leave and positively related to organizational tenure. The relationship between satisfaction and performance is also comparable to prior meta-analytic reviews although it falls at the lower end of the spectrum at a mean $r = .16$.

Limitations and Future Research

In this study, meta-analytic data was used to highlight general trends and form the basis of comparisons. Results presented here highlight several similarities and differences from findings obtained and distilled from a variety of occupational fields and contexts. We did not find, nor expect, that results presented here would mirror the assimilation of findings derived through meta-analytic methods. Variations in the magnitude and direction of relations naturally arise between samples. In addition, several authors have pointed to the possibility of range restriction consequential of the manifestation of certain traits. It has been theorized that the more conscientious individuals and those higher in equity preference would be more likely to complete surveys voluntarily. Although it may seem as if such a state of affairs would be problematic for the current study, the same may be said of virtually all prior studies utilizing a voluntary participation survey sample. It is possible that some of the differences highlighted in this study are exclusive to the population from which the sample was drawn. These findings may even be sample-specific. We therefore do not make the claim that these results are representative of the natural resource recreation field at large. Additional primary studies are needed. Researchers are encouraged to target populations in the natural resource and related fields. Given the relations among core self, equity preference, satisfaction and work-related outcomes, inclusion of these variables in future research may be especially beneficial.

Table 4-1. Means (M), standard deviations (SD), and intercorrelations among traits

	M	SD	1	2	3	4	5	6	7
1. Openness to Experience	3.81	.54	(.72)						
2. Conscientiousness	4.25	.49	.13**	(.79)					
3. Extraversion	3.56	.60	.24**	.25**	(.80)				
4. Agreeableness	4.13	.46	.18**	.36**	.15**	(.73)			
5. Emotional Stability	3.96	.57	.13**	.46**	.32**	.49**	(.80)		
6. Core Self-evaluations	3.90	.52	.16**	.49**	.38**	.36**	.70**	(.81)	
7. Equity Preference	4.35	.42	.21**	.39**	.19**	.32**	.26**	.35**	(.83)

Notes. N = 427. * = $p < .05$ level. ** = $p < .01$ level. Reliabilities are on the diagonal are in parentheses.

Table 4-2. Means (M), standard deviations (SD), and intercorrelations among satisfaction dimensions

	M	SD	1	2	3	4	5	6
1. Pay	.96	.78	(.81)					
2. Promotions	1.45	.96	.21**	(.89)				
3. Supervisor	2.39	.71	.27**	.39**	(.91)			
4. Coworkers	2.28	.68	.17**	.24**	.44**	(.90)		
5. Work	2.45	.57	.18**	.33**	.37**	.32**	(.87)	
6. Job in General	2.56	.46	.20**	.32**	.41**	.32**	.70**	(.86)

Notes. N = 427. * = $p < .05$ level. ** = $p < .01$ level. Reliabilities are on the diagonal are in parentheses.

Table 4-3. Means (M), standard deviations (SD), and intercorrelations among work-related outcomes

	M	SD	1	2	3	4	5	6
1. Performance	3.77	.54	-					
2. Annual Leave	14.14	9.09	.11	-				
3. Sick Leave	8.14	8.51	.05	.31**	-			
4. Tenure	10.86	9.90	.09	.39**	.11*	-		
5. Gender	.43	.50	.04	-.07	.18**	-.24**	-	
6. Management	.43	.50	.28**	.26**	-.04	.31**	-.16**	-

Notes. N = 427. * = $p < .05$ level. ** = $p < .01$ level. Gender was coded as 0 = male and 1 = female. Management was coded as 0 = supervisee or subordinate and 1 = supervisor or management.

Table 4-4. Correlations among traits and satisfaction dimensions

	Pay	Promotions	Supervisor	Coworkers	Work	Job in General
1. Openness to Experience	-.04	-.03	-.06	.01	.01	-.01
2. Conscientiousness	-.02	.02	.06	.06	.18**	.16**
3. Extraversion	-.07	.13**	.00	.02	.14**	.09
4. Agreeableness	.06	.10*	.14*	.24**	.13**	.24**
5. Emotional Stability	.01	.12*	.11*	.20**	.33**	.31**
6. Core Self-evaluations	.12*	.21**	.15**	.18**	.35**	.34**
7. Equity Preference	.06	.08	.08	.08	.23**	.17**

Notes. N = 427. * = p < .05 level. ** = p < .01 level.

Table 4-5. Correlations among traits and work-related outcomes

	Performance	Annual Leave	Sick Leave	Tenure	Gender	Management
1. Openness to Experience	-.07	-.01	-.00	.00	.14**	.05
2. Conscientiousness	.14**	-.05	-.05	-.13**	.15**	-.08
3. Extraversion	-.04	-.09	-.01	-.04	-.03	-.01
4. Agreeableness	.07	.05	.03	-.03	.12*	-.04
5. Emotional Stability	.07	-.07	-.06	.04	-.09	.00
6. Core Self-evaluations	.13*	-.03	-.13*	-.02	-.09	.02
7. Equity Preference	.19**	.00	-.03	-.03	.11*	.11*

Notes. N = 427. * = p < .05 level. ** = p < .01 level. Gender was coded as 0 = male and 1 = female. Management was coded as 0 = supervisee or subordinate and 1 = supervisor or management.

Table 4-6. Correlations among satisfaction dimensions and work-related outcomes

	Performance	Annual Leave	Sick Leave	Tenure	Gender	Management
1. Pay	.16**	.13*	-.02	.16**	-.05	.31**
2. Promotions	-.01	-.07	-.17**	.06	-.22**	.10*
3. Supervisor	.21**	-.04	-.16**	.08	-.09	.16**
4. Coworkers	.11*	.03	-.09	.12*	-.08	.12*
5. Work	.18**	-.11	-.20**	.16**	-.16**	.19**
6. Job in General	.12*	-.04	-.14**	.09	-.09	.11*

Notes. N = 427. * = $p < .05$ level. ** = $p < .01$ level.

CHAPTER 5 CONCLUSIONS

The previous analyses provide an indication of the relationships among personality, satisfaction and work-related outcomes. As originally conceived, such data was thought to be useful in circumstances when a hiring committee is forced to choose between two or more candidates who, based on the committee's limited exposure and information on hand, appear essentially identical. It was intended to provide a scientific and defensible rationale where, in the absence of additional information, a statistically justifiable consensus could be reached.

The findings of chapter 2 were provided as part of an investigational examination of the utility of personality testing as it might relate to the organization's ongoing efforts surrounding the selection and management of its employees. Although the relationships described in this chapter were of considerable statistical significance and strength, they were not of such sufficiency as to obsolesce a hiring committee's personal experience or common sense. They were intended to augment the decision-making process and provide a platform on which to base decisions in situations whose outcomes may have otherwise been left to chance.

It was suggested that personality assessment should be a part of the organization's hiring process and the results of which, should be tracked over time. These procedures would provide longitudinal data on which to base future decisions as well as substantiate and support the use of such data in the specific employment setting. A further suggestion was to include periodic satisfaction surveys that would assist in the compilation of a similarly comprehensive dataset intended to afford opportunities to monitor changes in the referenced relationships and detect minute organizational climate shifts over time.

Although differences in status, ongoing interpersonal interactions, and other environmental factors likely affected the outcomes include in chapter 3, the study's findings

demonstrated warmth and competence theory has relevance to interpersonal judgments in the workplace. Results suggested that within such contexts, warmth and competence have the potential to influence both performance ratings and supervisor satisfaction. In addition, it was shown that the trait levels of the individual making judgments can interact with the levels possessed by the focal individual to influence such judgments thereby affecting organizationally relevant outcomes such as performance ratings and supervisor satisfaction.

There were several limitations of the study presented in chapter 3. Warmth and competence, as a theory, relies on inferences an individual makes about another, not directly measured characteristics. Although we felt there was considerable benefit to our approach, especially as it pertains to empirical analysis, it could be argued that it was not in keeping with warmth and competence theory as classically defined. In addition, we chose variables we felt adequately represented individuals' general tendencies; there may have been other traits or personality dimensions more closely aligned to the theoretical conceptualizations of warmth and competence. Furthermore, the performance ratings used in the study may not have been equivalent to the theory's emotional and behavioral reactions. We would like to point out that supervisors, without proper training, are likely to allow their personal biases to affect such outcomes (Lefkowitz, 2000). In addition, examinations of these types of affective outcomes have a long history in industrial and organizational psychology.

Warmth and competence theory maintains that interpersonal judgments are formed quickly, but may change as contradictory or conflicting information is introduced. It is suspected that over protracted periods, involving many interpersonal interactions, that an individual's interpersonal judgments would become more grounded and influenced by outside factors including other personality traits not included in this study. Researchers were therefore

encouraged to consider other traits and situational factors theoretically capable of influencing the formation and character of these and other interpersonal judgments. Consideration of other organizationally relevant outcomes was also encouraged.

Chapter 4 demonstrated that equity preference and CSE were positively and significantly related to all of the FFM traits. To our knowledge, this was the first time such relationships were included in a single analysis. In addition, it stands as one of the few studies to compare CSE and the FFM the traits directly. Results also showed that satisfied individuals tended to be satisfied across a broad range of satisfaction dimensions. The correlation between two of the satisfaction dimensions offered support for the previously unfounded anecdotal evidence that much of the individual-level satisfaction derived from the profession is due to the nature of the work itself. Also apparent was the tendency for the management class to be more satisfied generally. It was suggested that organizational tenure was a prerequisite of the management class and job dissatisfaction was at odds with job tenure.

Results surrounding the FFM and job satisfaction were generally comparable to prior research. Differences were apparent, however, in the correlation of agreeableness with the overall measure of job satisfaction and an absence of such relationship involving extraversion. Mean relations of CSE to job satisfaction were somewhat lower than those reported previously. It was suggested that such findings were perhaps due to having used alternative measures of job satisfaction and the aggregate core self-evaluation instrument (Judge, et al., 2003). Equity preference was unrelated to pay satisfaction. This was surprising given extant equity preference and sensitivity research and the theory's roots in work/reward outcomes. With the exception of pay, the relation of equity preference to other job satisfaction dimensions was comparable to prior findings.

Emotional stability was unrelated to performance. This was surprising given meta-analytic associations of the trait. Similar to prior findings, CSE, conscientiousness and equity preference were positively and significantly related to performance. CSE was shown to be related to reduced sick leave usage. It was suggested that rationale typically offered in support of the traditional findings between conscientiousness and reduced sick leave usage may apply equally to CSE. It was of particular interest that equity preference was related to higher performance, the female gender, and the management job class. The concern surrounding such associations was that the female gender was shown to be negatively related to the management job class. In should be mentioned, however, that the male gender was generally more satisfied with the nature of the work particular to the profession. For reasons mentioned previously, it was perhaps such satisfaction that led to longer tenure which, in turn, eventually led to the management class. Alternatively, results also indicated the female gender was statistically dissatisfied with promotion opportunities.

Throughout the study concerns were raised regarding the inherent variability and differentiation particular to the focal population. The organization maintained 160 independently operating work units. It was mentioned that within, and especially between units, job responsibilities, levels of public contact, workloads, coworker interactions, and work pace differed among individuals of even the same job class. Concerns were raised that such within-group variability might present special problems for detecting minute relationships among the focal variables. By extension, it was conceived that the inherent variety within and between units might lead to a general dilution of variable relations. These circumstances may have accounted for several of the relationships of diminished meta-analytical comparative strength. Other concerns were more generic such as the possibility of range restriction consequential of the

operation of certain traits. This was not of great importance as it was doubtful that such conditions affected comparisons with meta-analyses to any significant extent, if at all.

APPENDIX A CORRELATIONS

Table A-1. Extended list of correlations

Variable	by Variable	<i>r</i>	N	Lower 95%	Upper 95%	<i>p</i>
Years on Site	FPS Tenure	0.883	132	0.838	0.916	<.0001
Performance Rating 2008	Performance Rating 2009	0.733	271	0.673	0.784	<.0001
Work Satisfaction	Job in General	0.704	427	0.653	0.749	<.0001
Years on Site	Base Pay	0.578	132	0.452	0.681	<.0001
Performance Rating 2007	Performance Rating 2008	0.575	249	0.485	0.653	<.0001
Performance Rating 2007	Performance Rating 2009	0.494	262	0.396	0.580	<.0001
Age	Years on Site	0.488	132	0.345	0.608	<.0001
Core self	Conscientiousness	0.486	427	0.410	0.555	<.0001
Base Pay	FPS Tenure	0.477	420	0.399	0.547	<.0001
Age	FPS Tenure	0.457	420	0.378	0.530	<.0001
People Satisfaction	Supervisor Satisfaction	0.435	427	0.354	0.509	<.0001
Base Pay	Pay Satisfaction	0.420	420	0.338	0.496	<.0001
Supervisor Satisfaction	Job in General	0.411	427	0.329	0.487	<.0001
Annual Leave	FPS Tenure	0.390	382	0.302	0.472	<.0001
Equity Preference	Conscientiousness	0.388	427	0.304	0.465	<.0001
Core self	Extraversion	0.384	427	0.300	0.462	<.0001
Supervisor Satisfaction	Promotion Satisfaction	0.379	427	0.294	0.457	<.0001
Supervisor Satisfaction	Work Satisfaction	0.373	427	0.288	0.451	<.0001
Agreeableness	Conscientiousness	0.364	427	0.278	0.443	<.0001
Core self	Agreeableness	0.356	427	0.270	0.436	<.0001
Equity Preference	Core self	0.353	427	0.267	0.433	<.0001
Work Satisfaction	Core self	0.346	427	0.259	0.427	<.0001
On Site	FPS Tenure	0.340	420	0.253	0.422	<.0001
Job in General	Core self	0.335	427	0.248	0.416	<.0001
Work Satisfaction	Promotion Satisfaction	0.328	427	0.240	0.410	<.0001
Base Pay	Performance Rating 2009	0.322	335	0.222	0.415	<.0001
Promotion Satisfaction	Job in General	0.320	427	0.232	0.403	<.0001
People Satisfaction	Job in General	0.319	427	0.231	0.402	<.0001
Equity Preference	Agreeableness	0.318	427	0.230	0.401	<.0001
People Satisfaction	Work Satisfaction	0.316	427	0.228	0.399	<.0001
Sick Leave	Annual Leave	0.313	382	0.220	0.401	<.0001
On Site	Promotion Satisfaction	0.311	427	0.223	0.395	<.0001
Base Pay	Annual Leave	0.274	382	0.179	0.365	<.0001
Supervisor Satisfaction	Pay Satisfaction	0.266	427	0.176	0.352	<.0001
Age	Annual Leave	0.258	382	0.162	0.349	<.0001
Extraversion	Conscientiousness	0.253	427	0.162	0.340	<.0001
Performance Rating 2008	Supervisor Satisfaction	0.245	291	0.134	0.350	<.0001
Performance Rating 2007	Equity Preference	0.245	287	0.133	0.351	<.0001
People Satisfaction	Promotion Satisfaction	0.243	427	0.152	0.330	<.0001

Table A-1. Continued

Openness to Experience	Extraversion	0.241	427	0.150	0.329	<.0001
People Satisfaction	Agreeableness	0.241	427	0.149	0.328	<.0001
Job in General	Agreeableness	0.239	427	0.148	0.327	<.0001
Base Pay	Performance Rating 2008	0.232	291	0.121	0.338	<.0001
Work Satisfaction	Equity Preference	0.228	427	0.136	0.316	<.0001
Performance Rating 2008	Equity Preference	0.228	291	0.116	0.334	<.0001
Promotion Satisfaction	Core self	0.209	427	0.117	0.298	<.0001
Promotion Satisfaction	Pay Satisfaction	0.208	427	0.116	0.297	<.0001
Equity Preference	Openness to Experience	0.206	427	0.114	0.295	<.0001
Pay Satisfaction	Job in General	0.203	427	0.110	0.292	<.0001
Base Pay	Work Satisfaction	0.202	420	0.109	0.292	<.0001
Base Pay	People Satisfaction	0.201	420	0.108	0.291	<.0001
Age	Base Pay	0.195	420	0.101	0.285	<.0001
Equity Preference	Extraversion	0.189	427	0.095	0.279	<.0001
People Satisfaction	Neuroticism	-0.198	427	-0.287	-0.105	<.0001
Equity Preference	Neuroticism	-0.256	427	-0.342	-0.165	<.0001
Job in General	Neuroticism	-0.309	427	-0.392	-0.220	<.0001
Neuroticism	Extraversion	-0.321	427	-0.404	-0.234	<.0001
Work Satisfaction	Neuroticism	-0.325	427	-0.408	-0.238	<.0001
Neuroticism	Conscientiousness	-0.457	427	-0.529	-0.379	<.0001
Neuroticism	Agreeableness	-0.485	427	-0.554	-0.409	<.0001
Core self	Neuroticism	-0.695	427	-0.741	-0.642	<.0001
Base Pay	Performance Rating 2007	0.226	287	0.113	0.333	0.000
Performance Rating 2009	Supervisor Satisfaction	0.210	335	0.105	0.310	0.000
Sick Leave	Work Satisfaction	-0.197	382	-0.292	-0.099	0.000
Openness to Experience	Agreeableness	0.181	427	0.087	0.271	0.000
People Satisfaction	Core self	0.178	427	0.085	0.269	0.000
Work Satisfaction	Conscientiousness	0.177	427	0.083	0.267	0.000
Performance Rating 2007	Supervisor Satisfaction	0.214	287	0.101	0.322	0.000
Work Satisfaction	Pay Satisfaction	0.175	427	0.082	0.266	0.000
Job in General	Equity Preference	0.172	427	0.079	0.263	0.000
Performance Rating 2009	Equity Preference	0.193	335	0.087	0.294	0.000
People Satisfaction	Pay Satisfaction	0.170	427	0.076	0.261	0.000
Job in General	Conscientiousness	0.164	427	0.070	0.255	0.001
Age	Work Satisfaction	0.162	420	0.067	0.254	0.001
Sick Leave	Promotion Satisfaction	-0.170	382	-0.266	-0.071	0.001
Years on Site	Annual Leave	0.286	129	0.119	0.437	0.001
FPS Tenure	Work Satisfaction	0.159	420	0.064	0.251	0.001
Core self	Openness to Experience	0.158	427	0.064	0.249	0.001
FPS Tenure	Pay Satisfaction	0.157	420	0.063	0.249	0.001
Performance Rating 2009	Work Satisfaction	0.175	335	0.069	0.277	0.001

Table A-1. Continued

Sick Leave	Supervisor Satisfaction	-0.164	382	-0.260	-0.065	0.001
Supervisor Satisfaction	Core self	0.153	427	0.059	0.245	0.002
On Site	Work Satisfaction	0.153	427	0.059	0.244	0.002
Years on Site	Conscientiousness	-0.263	132	-0.415	-0.097	0.002
Extraversion	Agreeableness	0.146	427	0.052	0.237	0.003
On Site	Base Pay	0.146	420	0.051	0.238	0.003
Performance Rating 2009	Pay Satisfaction	0.161	335	0.055	0.264	0.003
Base Pay	Supervisor Satisfaction	0.142	420	0.047	0.235	0.004
Age	Neuroticism	-0.142	420	-0.235	-0.047	0.004
Age	Equity Preference	0.142	420	0.047	0.234	0.004
Supervisor Satisfaction	Agreeableness	0.140	427	0.046	0.232	0.004
Work Satisfaction	Extraversion	0.137	427	0.042	0.229	0.005
FPS Tenure	Conscientiousness	-0.135	420	-0.227	-0.039	0.006
Performance Rating 2007	Pay Satisfaction	0.162	287	0.047	0.272	0.006
Neuroticism	Openness to Experience	-0.133	427	-0.225	-0.038	0.006
On Site	Annual Leave	0.137	382	0.037	0.234	0.007
Work Satisfaction	Agreeableness	0.130	427	0.035	0.222	0.007
Sick Leave	Job in General	-0.137	382	-0.234	-0.037	0.007
Age	Core self	0.130	420	0.035	0.223	0.008
Openness to Experience	Conscientiousness	0.129	427	0.034	0.221	0.008
Performance Rating 2009	Conscientiousness	0.141	335	0.035	0.245	0.010
Promotion Satisfaction	Extraversion	0.125	427	0.030	0.217	0.010
Promotion Satisfaction	Neuroticism	-0.124	427	-0.217	-0.030	0.010
Sick Leave	Core self	-0.131	382	-0.229	-0.031	0.010
Base Pay	Job in General	0.123	420	0.027	0.216	0.012
Pay Satisfaction	Core self	0.120	427	0.026	0.213	0.013
On Site	Extraversion	0.120	427	0.025	0.212	0.013
Annual Leave	Pay Satisfaction	0.126	382	0.026	0.223	0.014
Performance Rating 2009	Core self	0.134	335	0.027	0.238	0.014
Performance Rating 2008	Job in General	0.143	291	0.029	0.254	0.014
FPS Tenure	People Satisfaction	0.119	420	0.023	0.212	0.015
Performance Rating 2008	Core self	0.140	291	0.025	0.251	0.017
On Site	Sick Leave	-0.118	382	-0.216	-0.018	0.021
Age	Sick Leave	0.115	382	0.015	0.213	0.024
Performance Rating 2008	Pay Satisfaction	0.131	291	0.016	0.242	0.026
Years on Site	Sick Leave	0.196	129	0.024	0.357	0.026
Performance Rating 2009	Job in General	0.122	335	0.015	0.226	0.026
Supervisor Satisfaction	Neuroticism	-0.107	427	-0.200	-0.012	0.027
Age	Performance Rating 2009	0.120	335	0.013	0.225	0.028
FPS Tenure	Performance Rating 2007	0.128	287	0.012	0.240	0.031
Performance Rating 2008	Conscientiousness	0.127	291	0.012	0.238	0.031

Table A-1. Continued

Base Pay	Equity Preference	0.106	420	0.010	0.199	0.031
Base Pay	Core self	0.105	420	0.010	0.199	0.031
Age	Conscientiousness	0.103	420	0.008	0.197	0.034
Sick Leave	FPS Tenure	0.108	382	0.008	0.206	0.035
Promotion Satisfaction	Agreeableness	0.100	427	0.006	0.193	0.038
On Site	Job in General	0.099	427	0.004	0.192	0.041
Performance Rating 2009	People Satisfaction	0.110	335	0.002	0.214	0.045
Age	Pay Satisfaction	0.097	420	0.002	0.191	0.046
Performance Rating 2007	Extraversion	-0.116	287	-0.229	0.000	0.049
Annual Leave	Performance Rating 2009	0.107	335	0.000	0.212	0.051
Age	Agreeableness	0.095	420	0.000	0.189	0.051
Performance Rating 2007	Work Satisfaction	0.115	287	-0.001	0.228	0.051
Performance Rating 2007	Job in General	0.114	287	-0.002	0.227	0.054
Performance Rating 2008	Work Satisfaction	0.110	291	-0.005	0.222	0.061
FPS Tenure	Job in General	0.090	420	-0.006	0.184	0.067
Job in General	Extraversion	0.088	427	-0.007	0.182	0.069
People Satisfaction	Equity Preference	0.084	427	-0.011	0.178	0.082
Annual Leave	Extraversion	-0.089	382	-0.188	0.012	0.083
Sick Leave	People Satisfaction	-0.088	382	-0.187	0.012	0.084
Annual Leave	Performance Rating 2008	0.101	290	-0.014	0.214	0.085
Years on Site	On Site	0.150	132	-0.021	0.313	0.086
Age	People Satisfaction	0.084	420	-0.012	0.178	0.087
FPS Tenure	Performance Rating 2009	0.093	335	-0.014	0.199	0.088
Base Pay	Neuroticism	-0.083	420	-0.177	0.013	0.089
Age	Job in General	0.083	420	-0.013	0.177	0.089
Supervisor Satisfaction	Equity Preference	0.082	427	-0.013	0.176	0.090
Years on Site	Performance Rating 2009	0.159	113	-0.026	0.334	0.092
Promotion Satisfaction	Equity Preference	0.081	427	-0.014	0.175	0.095
Years on Site	Equity Preference	-0.140	132	-0.304	0.032	0.109
Performance Rating 2008	Neuroticism	-0.091	291	-0.204	0.024	0.121
FPS Tenure	Supervisor Satisfaction	0.075	420	-0.021	0.170	0.125
Years on Site	Pay Satisfaction	0.134	132	-0.038	0.298	0.127
On Site	Openness to Experience	0.074	427	-0.022	0.167	0.130
Pay Satisfaction	Extraversion	-0.073	427	-0.167	0.022	0.133
Age	On Site	0.073	420	-0.023	0.167	0.137
Age	Supervisor Satisfaction	0.073	420	-0.023	0.167	0.138
Years on Site	Openness to Experience	-0.129	132	-0.294	0.043	0.140
Performance Rating 2008	Agreeableness	0.086	291	-0.030	0.199	0.146
Age	Promotion Satisfaction	-0.071	420	-0.166	0.025	0.146
On Site	Performance Rating 2008	-0.083	291	-0.196	0.033	0.160
On Site	Equity Preference	0.068	427	-0.027	0.162	0.161

Table A-1. Continued

Annual Leave	Promotion Satisfaction	-0.071	382	-0.170	0.030	0.167
Performance Rating 2007	Conscientiousness	0.081	287	-0.035	0.195	0.170
Performance Rating 2007	Core self	0.081	287	-0.036	0.195	0.173
Supervisor Satisfaction	Openness to Experience	-0.064	427	-0.158	0.031	0.186
Performance Rating 2009	Openness to Experience	-0.072	335	-0.178	0.035	0.187
Supervisor Satisfaction	Conscientiousness	0.064	427	-0.032	0.157	0.191
Years on Site	Core self	-0.114	132	-0.280	0.058	0.193
Performance Rating 2009	Agreeableness	0.071	335	-0.037	0.177	0.195
Annual Leave	Neuroticism	0.066	382	-0.035	0.165	0.199
FPS Tenure	Promotion Satisfaction	0.062	420	-0.034	0.157	0.205
Performance Rating 2009	Neuroticism	-0.069	335	-0.175	0.038	0.207
People Satisfaction	Conscientiousness	0.061	427	-0.034	0.155	0.207
On Site	Supervisor Satisfaction	0.061	427	-0.034	0.155	0.209
Years on Site	Performance Rating 2007	0.117	115	-0.067	0.294	0.212
Pay Satisfaction	Equity Preference	0.060	427	-0.035	0.154	0.213
Performance Rating 2007	Neuroticism	-0.074	287	-0.188	0.043	0.214
Performance Rating 2008	People Satisfaction	0.071	291	-0.044	0.185	0.226
Pay Satisfaction	Agreeableness	0.058	427	-0.038	0.152	0.235
Base Pay	Openness to Experience	0.058	420	-0.038	0.152	0.240
Sick Leave	Neuroticism	0.060	382	-0.041	0.160	0.241
Sick Leave	Performance Rating 2007	-0.069	285	-0.184	0.047	0.243
Age	Performance Rating 2007	0.066	287	-0.050	0.181	0.263
Performance Rating 2008	Extraversion	-0.065	291	-0.179	0.050	0.266
Years on Site	Promotion Satisfaction	-0.097	132	-0.263	0.075	0.270
Age	Performance Rating 2008	0.065	291	-0.051	0.179	0.271
Years on Site	Job in General	-0.092	132	-0.258	0.081	0.296
Annual Leave	Conscientiousness	-0.053	382	-0.152	0.048	0.302
Sick Leave	Conscientiousness	-0.052	382	-0.151	0.049	0.315
FPS Tenure	Performance Rating 2008	0.059	291	-0.056	0.173	0.315
On Site	Performance Rating 2009	-0.053	335	-0.159	0.055	0.337
Annual Leave	Agreeableness	0.046	382	-0.055	0.146	0.371
Performance Rating 2007	Agreeableness	0.052	287	-0.064	0.167	0.378
Age	Openness to Experience	-0.043	420	-0.138	0.053	0.383
Years on Site	Supervisor Satisfaction	0.075	132	-0.098	0.242	0.396
Sick Leave	Performance Rating 2009	0.046	335	-0.061	0.153	0.399
Annual Leave	Supervisor Satisfaction	-0.042	382	-0.142	0.059	0.416
On Site	Core self	0.039	427	-0.057	0.133	0.428
Base Pay	Conscientiousness	-0.038	420	-0.134	0.058	0.433
FPS Tenure	Extraversion	-0.038	420	-0.133	0.058	0.441
Base Pay	Agreeableness	0.038	420	-0.058	0.133	0.442
Age	Extraversion	-0.037	420	-0.132	0.059	0.449

Table A-1. Continued

FPS Tenure	Neuroticism	-0.036	420	-0.132	0.060	0.458
Performance Rating 2009	Extraversion	-0.040	335	-0.146	0.068	0.468
Pay Satisfaction	Openness to Experience	-0.035	427	-0.129	0.061	0.476
On Site	Neuroticism	-0.035	427	-0.129	0.061	0.477
Performance Rating 2007	Openness to Experience	0.042	287	-0.074	0.157	0.481
Annual Leave	Job in General	-0.035	382	-0.135	0.065	0.490
Years on Site	Performance Rating 2008	0.065	108	-0.125	0.251	0.501
FPS Tenure	Equity Preference	-0.032	420	-0.128	0.064	0.511
Annual Leave	Core self	-0.033	382	-0.133	0.068	0.519
Performance Rating 2007	Promotion Satisfaction	-0.038	287	-0.153	0.078	0.520
Annual Leave	People Satisfaction	0.032	382	-0.068	0.132	0.531
Sick Leave	Equity Preference	-0.029	382	-0.129	0.071	0.569
Promotion Satisfaction	Openness to Experience	-0.026	427	-0.121	0.069	0.594
Sick Leave	Agreeableness	0.027	382	-0.073	0.127	0.597
On Site	Performance Rating 2007	-0.030	287	-0.146	0.086	0.609
FPS Tenure	Agreeableness	-0.025	420	-0.120	0.071	0.613
On Site	Pay Satisfaction	0.024	427	-0.071	0.119	0.623
Pay Satisfaction	Conscientiousness	-0.024	427	-0.118	0.071	0.624
Promotion Satisfaction	Conscientiousness	0.021	427	-0.075	0.115	0.673
FPS Tenure	Core self	-0.020	420	-0.116	0.075	0.677
On Site	People Satisfaction	-0.020	427	-0.115	0.075	0.678
On Site	Agreeableness	-0.020	427	-0.115	0.075	0.679
Years on Site	People Satisfaction	0.036	132	-0.135	0.206	0.679
Sick Leave	Pay Satisfaction	-0.021	382	-0.121	0.080	0.687
Base Pay	Extraversion	-0.018	420	-0.114	0.077	0.707
Years on Site	Extraversion	-0.032	132	-0.202	0.140	0.716
People Satisfaction	Extraversion	0.016	427	-0.079	0.111	0.741
Work Satisfaction	Openness to Experience	0.013	427	-0.082	0.108	0.784
Job in General	Openness to Experience	-0.013	427	-0.108	0.082	0.786
Base Pay	Promotion Satisfaction	0.012	420	-0.083	0.108	0.801
Annual Leave	Performance Rating 2007	0.014	285	-0.103	0.130	0.820
Performance Rating 2008	Promotion Satisfaction	0.012	291	-0.103	0.127	0.834
Annual Leave	Openness to Experience	-0.011	382	-0.111	0.090	0.835
On Site	Conscientiousness	-0.010	427	-0.105	0.085	0.837
Annual Leave	Work Satisfaction	-0.011	382	-0.111	0.090	0.838
Years on Site	Agreeableness	-0.017	132	-0.187	0.155	0.850
Years on Site	Work Satisfaction	0.016	132	-0.155	0.187	0.852
Performance Rating 2009	Promotion Satisfaction	-0.009	335	-0.116	0.098	0.867
Performance Rating 2007	People Satisfaction	0.010	287	-0.106	0.126	0.867
Sick Leave	Extraversion	-0.007	382	-0.108	0.093	0.888
People Satisfaction	Openness to Experience	0.007	427	-0.088	0.102	0.890

Table A-1. Continued

Performance Rating 2008	Openness to Experience	0.008	291	-0.107	0.123	0.894
Pay Satisfaction	Neuroticism	-0.007	427	-0.101	0.089	0.894
Sick Leave	Performance Rating 2008	0.007	290	-0.108	0.122	0.901
Years on Site	Neuroticism	0.010	132	-0.161	0.181	0.908
Base Pay	Sick Leave	-0.003	382	-0.103	0.098	0.961
Sick Leave	Openness to Experience	-0.002	382	-0.102	0.099	0.975
FPS Tenure	Openness to Experience	0.001	420	-0.095	0.097	0.985
Annual Leave	Equity Preference	0.001	382	-0.100	0.101	0.989
Supervisor Satisfaction	Extraversion	0.000	427	-0.095	0.095	1.000

APPENDIX B
CRONBACH ALPHAS

Table B-1. Cronbach alphas of variables

	α	Plot alpha
Openness to Experience		
Entire set	0.7161	
Tend to vote for conservative political candidates	0.7067	
Have a vivid imagination	0.7227	
Do not like art	0.6707	
Believe in the importance of art	0.6622	
Tend to vote for liberal political candidates	0.7001	
Am not interested in abstract ideas	0.6874	
Enjoy hearing new ideas	0.6963	
Do not enjoy going to art museums	0.6817	
Avoid philosophical discussions	0.6970	
Carry the conversation to a higher level	0.7105	
Conscientiousness		
Entire set	0.7887	
Carry out my plans	0.7657	
Pay attention to details	0.7733	
Waste my time	0.7761	
Shirk my duties	0.7866	
Get chores done right away	0.7613	
Do just enough work to get by	0.7767	
Don't see things through	0.7644	
Find it difficult to get down to work	0.7572	
Make plans and stick to them	0.7668	
Am always prepared	0.7751	
Extraversion		
Entire set	0.8049	
Keep in the background	0.7815	
Feel comfortable around people	0.7832	
Know how to captivate people	0.7798	
Make friends easily	0.7842	
Am skilled in handling social situations	0.7824	
Am the life of the party	0.7799	
Don't like to draw attention to myself	0.7915	
Don't talk a lot	0.7865	
Have little to say	0.7861	
Would describe my experiences as somewhat dull	0.8195	
Agreeableness		
Entire set	0.7300	
Believe that others have good intentions	0.7220	
Insult people	0.6992	
Respect others	0.7109	
Suspect hidden motives in others	0.7081	
Accept people as they are	0.7144	
Have a sharp tongue	0.6985	
Cut others to pieces	0.6902	
Have a good word for everyone	0.7120	
Get back at others	0.7129	
Make people feel at ease	0.7166	

Table B-1. Continued

Neuroticism		
Entire set	0.7951	
Am often down in the dumps	0.7621	
Am very pleased with myself	0.7825	
Am not easily bothered by things	0.7906	
Dislike myself	0.7731	
Rarely get irritated	0.7933	
Often feel blue	0.7515	
Have frequent mood swings	0.7665	
Panic easily	0.7812	
Seldom feel blue	0.7891	
Feel comfortable with myself	0.7803	
Core self		
Entire set	0.8136	
I am confident I get the success I deserve in life.	0.7978	
Sometimes I feel depressed.	0.7967	
When I try, I generally succeed.	0.8017	
Sometimes when I fail I feel worthless.	0.7943	
I complete tasks successfully.	0.8064	
Sometimes, I do not feel in control of my work.	0.8116	
Overall, I am satisfied with myself.	0.7922	
I am filled with doubts about my competence.	0.7993	
I determine what will happen in my life.	0.8098	
I do not feel in control of my success in my career.	0.8006	
I am capable of coping with most of my problems.	0.8011	
There are times when things look pretty bleak and hopeless to me.	0.7863	
Pay		
Entire set	0.8124	
Income adequate for normal expenses	0.7886	
Fair	0.7816	
Bad	0.7781	
Income provides luxuries	0.8148	
Less than I deserve	0.7852	
Well paid	0.7995	
Barely live on income	0.7875	
Insecure	0.8190	
Underpaid	0.7824	
Work on Present Job		
Entire set	0.8689	
Fascinating	0.8646	
Routine	0.8672	
Satisfying	0.8550	
Boring	0.8597	
Good	0.8605	
Gives sense of accomplishment	0.8600	
Respected	0.8670	
Uncomfortable	0.8720	
Pleasant	0.8613	
Useful	0.8634	
Challenging	0.8587	
Simple	0.8680	
Repetitive	0.8685	

Table B-1. Continued

Creative	0.8579	
Dull	0.8575	
Uninteresting	0.8595	
Can see results	0.8607	
Uses my abilities	0.8578	
Job in General		
Entire set	0.8590	
Pleasant	0.8442	
Bad	0.8555	
Ideal	0.8599	
Waste of time	0.8557	
Good	0.8453	
Undesirable	0.8503	
Worthwhile	0.8481	
Worse than most	0.8573	
Acceptable	0.8518	
Superior	0.8586	
Better than most	0.8512	
Disagreeable	0.8533	
Makes me content	0.8442	
Inadequate	0.8506	
Excellent	0.8511	
Rotten	0.8579	
Enjoyable	0.8421	
Poor	0.8557	
Equity Preference		
Entire set	0.8275	
I prefer to do as little as possible at work while getting as much as I can from my employer	0.8112	
I am most satisfied at work when I have to do as little as possible	0.8113	
When I am at my job, I think of ways to get out of work	0.8162	
If I could get away with it, I would try to work just a little bit slower than the boss expects	0.8109	
It is really satisfying to me when I can get something for nothing at work	0.8136	
It is the smart employee who gets as much as he/she can while giving as little as possible in return	0.8226	
Employees who are more concerned about what they can get from their employer rather than what they can give to their employer are the wise ones	0.8170	
When I have completed my task for the day, I help out other employees who have yet to complete their tasks	0.8273	
Even if I received low wages and poor benefits from my employer, I would still try to do my best at my job	0.8146	
If I had to work hard all day at my job, I would probably quit	0.8162	
I feel obligated to do more than I am paid to do at work	0.8321	
At work, my greatest concern is whether or not I am doing the best job I can	0.8229	
A job which requires me to be busy during the day is better than a job which allows me a lot of loafing	0.8112	
At work, I feel uneasy when there is little work for me to do	0.8287	
I would become very dissatisfied with my job if I had little or no work to do	0.8213	
All other things being equal, it is better to have a job with a lot of duties and responsibilities than one with few duties and responsibilities	0.8125	

Table B-1. Continued

Opportunities for Promotion		
Entire set	0.8903	
Good opportunities for promotion	0.8638	
Opportunities somewhat limited	0.8779	
Promotion on ability	0.8818	
Dead-end job	0.8862	
Good chance for promotion	0.8639	
Unfair promotion policy	0.8915	
Infrequent promotions	0.8824	
Regular promotions	0.8801	
Fairly good chance for promotion	0.8730	
Supervision		
Entire set	0.9071	
Ask my advice	0.9034	
Hard to please	0.9027	
Impolite	0.8998	
Praises good work	0.9008	
Tactful	0.8990	
Influential	0.9060	
Up-to-date	0.9007	
Doesn't supervise enough	0.9055	
Has favorites	0.9028	
Tells me where I stand	0.9031	
Annoying	0.8992	
Stubborn	0.9032	
Knows job well	0.9015	
Bad	0.9007	
Intelligent	0.9035	
Poor planner	0.9025	
Around when needed	0.9019	
Lazy	0.9033	
People on Your Present Job		
Entire set	0.8989	
Stimulating	0.8921	
Boring	0.8938	
Slow	0.8918	
Helpful	0.8930	
Stupid	0.8961	
Responsible	0.8897	
Fast	0.8972	
Intelligent	0.8929	
Easy to make enemies	0.8934	
Talk too much	0.8980	
Smart	0.8936	
Lazy	0.8900	
Unpleasant	0.8947	
Gossipy	0.8949	
Active	0.8921	
Narrow interests	0.8909	
Loyal	0.8928	
Stubborn	0.8977	

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BIOGRAPHICAL SKETCH

In his mother's eyes, he could do no wrong. In his father's eyes, he could do no right. He did not want to go to college, but since college was funded, and a life of luxury was not, he wound up studying philosophy at College of Charleston. Being a creature of habit, he remained in college for the next 17 years. He received his 6th degree in the spring of 2011.