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Refining the Relationship between Personality and Subjective Well-Being

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Running head: PERSONALITY AND SWB

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Abstract

Understanding subjective well-being (SWB) has historically been a core human endeavor and presently spans fields from management to mental health. Previous meta-analyses indicated that personality traits are one of the best predictors. Still, the results previously obtained indicate only a moderate relationship, weaker than several lines of reasoning suggests. This may be because of the *commensurability* problem, where researchers have grouped together substantively disparate measures in their analyses. We review and address this problem directly, focusing on individual measures of personality (e.g., the NEO) and categories of SWB (e.g., Life Satisfaction). In addition, we take a multivariate approaching, assessing how much variance personality traits account for individually as well as together. Results indicate that different personality and SWB scales can be substantively different and that the relationship between the two is typically *much* larger (e.g., four times) than previous meta-analyses indicate. Total SWB variance accounted for by personality can reach as high as 41% or 63% unattenuated. These results also speak meta-analysis in general and the need to account for scale differences once a sufficient research base has been generated.

Words: 180 of 180

Keywords: personality, subjective well being, meta-analysis, job satisfaction, commensurability.

Refining the Relationship between Personality and Subjective Well-Being

Subjective well-being (SWB) is a fundamental human concern. Since at least the sixth century BC, the Classic Greeks explored the issue under the rubric of *eudaemonia*, that is human flourishing or living well. This followed with the Hellenistic Greeks and the Romans exploring *ataraxia*, a form of happiness within one's own control (Leahey, 2000). Similarly, interest in subjective well-being has continued to the present day, also under a variety of terms and methodologies (e.g., Diener, Eunkook, Lucas, & Smith, 1999; Lyubomirsky, Sheldon, & Schkade, 2005). More recently, the study of SWB has focused on its relationship to personality and sufficient research has been conducted to permit several meta-analyses (Ozer & Benet-Martínez, 2006). In particular, DeNeve and Cooper's (1998) work, which summarizes the correlations of SWB with 137 traits, has been cited close to 200 times in fields ranging from economics (Frey & Stutzer, 2002) to gerontology (Isaacowitz & Smith, 2004). They show that personality is one of the foremost predictors of SWB, which underscores the importance of using personality to understand happiness. Building on this innovative research base by meta-analytically reexamining the role personality has with SWB is the focus of this study.

The major reason for this reanalysis is twofold. First, there has been explosion of interest in "positive psychology" in the new millennia (e.g., Seligman & Csikszentmihalyi, 2000), generating considerably more data since DeNeve and Cooper (1998) conducted their study. For example, their earlier investigation of the personality trait Psychoticism's relationship with SWB was based on 5 samples, while for the present meta-analysis we were able to obtain over 43. This allows us to refine our estimates to much greater degree. Second and more importantly, despite the empirical results from the DeNeve and Cooper's meta-analysis, as well as other summaries indicating that personality is one of the strongest predictors of SWB, it is still weaker than

expected. For example, Extraversion, which is among the most strongly related, achieves a correlation of just .27. This is inconsistent with theoretical reviews which suggest personality's relationship with SWB should be even larger (e.g., Deiner et al., 1999). As Keyes, Shmotkin, and Ryff (2002) conclude: "Integrative reviews of the literature indicate that personality, despite its impact, can explain only limited variance relating to the vicissitudes of SWB and its reactivity to mental processes and life experiences" (p. 1010).

We begin by considering three major reasons the personality-SWB relationship should be extremely strong. After this, we review how the relationship between SWB and personality could be better assessed. Due to the recent proliferation of SWB research, several improvements to the meta-analytic procedure are now available. To begin with, previous research was primarily univariate, examining the relationship of individual traits with SWB. We will examine the multivariate impact of all major personality traits simultaneously. More importantly, we review how past meta-analyses aggregated dissimilar operational definitions of personality and SWB constructs, likely affecting the summary estimates. We argue that a multivariate analytic approach that controls for measurement differences should yield the most appropriate and accurate meta-analytic effect sizes.

Why the SWB-Personality Relationship is Likely Underestimated

As mentioned, many strong theoretical linkages between the personality traits and SWB have already been thoroughly reviewed (e.g., Diener et al., 1999; Diener & Lucas, 1999). In the following sections, we review three other arguments that suggest a far greater connection between SWB and personality than what is presently found. We first note that at a definitional or conceptual level, there are impressive similarities between specific personality traits and SWB components. Second, we examine research regarding genetic determinants of SWB. This

literature indicates that long-term SWB is largely determined by personality traits. Third, we note that the situational strength does not affect the results as would be expected. In particular, life satisfaction should be more closely connected to SWB than job satisfaction; however, the opposite effect has been observed.

Construct similarities.

One basic reason why the relationship between personality and SWB should be much stronger is that the two constructs are *very* similar. In particular, Neuroticism and Extraversion are nearly identical to two elements of SWB, negative and positive affect, respectively. Neurotic individuals tend to be anxious, easily upset, and moody or depressed while Extraverts tend to be sociable, optimistic, outgoing, energetic, expressive, active, assertive, and exciting. As Yik and Russell (2001) note, many of these very terms used to describe Neuroticism and Extraversion appear in measures of negative and positive affect, and “even when the terms are not exactly the same, similar ideas are found on both the personality and affect scales” (p. 251).

Further underscoring their similarity, Watson and Clark (1992) found that negative affect facets loaded onto the same factor as Neuroticism and, as their later work indicated, that positive affect is at the center of the broad trait of Extraversion (Watson & Clark, 1997). Other empirical studies support that the constructs overlap considerably (e.g., Lucas & Fujita, 2000; Suh, Diener, & Fujita, 1996). For example, Burger and Caldwell (2000) noted that “the results from several investigations indicate that the PANAS trait positive affect scale and the NEO Extraversion appear to be measure highly overlapping, if not the same, constructs” (p. 54). It is unsurprising then, that Tellegen and Waller (1996) have gone so far to suggest that Neuroticism should be relabeled negative affect while Extraversion should be relabeled positive affect. Given this extreme conceptual overlap, we would expect correlations much higher than what is presently

reported (John & Srivastava, 1999).

Stability and heritability of SWB.

As Lyubomirsky et al. (2005) review, there appears to be a happiness “set point,” that is, SWB over the long-term tends to be stable. Adoption and twin research studies by Lykken and Tellegen (1996) and more recently by Nes, Røysamb, Tambs, Harris, and Reichborn-Kjennerud (in press), indicate that genes account for about 80% of this stability. Environmental influences are still important but they primarily affect only present mood, having little lasting impact in the long term. After excluding other individual characteristics, such as demographics, the predominant conclusion is that “it appears a substantial portion of stable SWB is due to personality” (Diener & Lucas, 1999, p. 214). Similarly, Lyubomirsky et al. (2005) note “the set point probably reflects relatively immutable intrapersonal, temperamental, and affective personality traits, such as extraversion, arousability, and negative affectivity, that are rooted in neurobiology” (p. 117). Also, Nes et al. (in press) indicate that the long-term stability of SWB may “reflect stable and heritable personality traits, such as neuroticism and extraversion” (p. 6-7). Finally, Eid, Rieman, Angleitner, and Bornenau (2003), based on their own twin study research, conclude “that it is reasonable to consider sociability, energy, and positive affect as different facets of one multidimensional personality trait called extraversion or positive emotionality” (p. 338).

Given that genes appear to account for 80% of the variance in long-term SWB, and that these genes appear to be primarily expressed in terms of personality traits, the expected correlation between traits and SWB should be much higher than what is presently observed. Consider Ilies and Judge (2003) research that estimates up to 45% of genetic influences on job satisfaction, an element of overall SWB, are expressed through personality traits. As the

subsequent section on situational strength indicates, we would expect that traits mediate even more of the relationship between genes and long-term SWB than it does for genes and job satisfaction. Still, if about half of the genetic sources of long-term SWB can also be attributed to major personality traits, we then we would expect to see individual correlations approaching at least .50.

Situational strength and SWB.

Though long-term SWB is largely determined by genetic influences, the environment may at times mediate the relationship. Also described as “nature via nurture,” this instrumental perspective suggests an indirect link between traits and SWB where individuals who possess high levels of Extraversion or low levels of Neuroticism are more likely to position themselves in positive life situations (McCrae & Costa, 1991). For example, extraverts are genetically disposed to have more energy, which in turn may help them engage in recreational activities that produce pleasure. Consequently, constrained environments which preclude or reduce situational choice should diminish the personality-SWB relationship. More generally, the phenomenon is known as *situational strength*, which indicates the degree that the environment, rather than dispositions, influences a person’s attitudes and behaviors (Mischel, 1977; Withey, Gellatly, & Annett, 2005).

Given the concept of situational strength, previous meta-analytic SWB research results are counterintuitive. It indicates that job satisfaction (Judge, Heller, & Mount, 2002) is better predicted by personality traits than general levels of SWB (DeNeve & Cooper, 1998). For the Big Five personality traits, all except for Openness to Experience correlate more strongly with job satisfaction than overall SWB. We would expect the opposite. As Staw and Cohen-Charash (2005) review, organizations often represent strong situations, especially in the common

circumstance “where the organization controls key outcomes for the individual, such as incomes, status, and social identification” (p. 63). Though the degree of situational strength will vary among organizations, situations within the work context should typically be more powerful relative to most life domains. Consequently, situational strength should mitigate the personality-job satisfaction association to a greater degree than personality-SWB relationships.

Other research also indicates that situations should strongly affect job satisfaction. Heller, Watson, and Ilies (2004) conducted research that examined the associations between personality traits and a number of satisfaction domains. The authors initially performed a meta-analysis that investigated the relations between the Big Five personality constructs and life, health, marital, and social satisfaction. Based on their analyses and the previous meta-analysis conducted by Judge et al. (2002), the authors suggested that life satisfaction is more proximally related to personality constructs than other satisfaction domains. Furthermore, Schjoedt, Balkin, and Baron (2005) examined the role of dispositional and situational variables in predicting job satisfaction. Their results demonstrated that situational variables accounted for more variance than dispositional variables in job satisfaction.

As such, it appears that job satisfaction is more situation specific and previous meta-analytic findings could better portray the relative relationship between personality and job and life satisfaction domains. We should expect that more general indices of SWB are more closely linked to personality than they are presently summarized.

Improving Estimation: The Issue of Commensurability

Given that the SWB-Personality relationship appears to be underestimated, we are presently in a position to address this issue. Simply, many more studies are now available. A larger sample will improve the precision of any estimate but it will also enable other meta-

analytic techniques. For example, previous meta-analytic research primarily collected and provided only univariate correlations between SWB and personality traits. By collecting the intercorrelations among personality elements as well, we can conduct multivariate analyses and determine how much total variance can be accounted for by personality. However, the major benefit of significantly more data is the ability to tackle the *commensurability* or “apples and oranges” problem (e.g., Sharpe, 1997).

Commensurability is a classic difficulty in meta-analysis, reflecting that we often must merge dissimilar studies together in order to achieve a sufficient sample. This practice creates method variance (Kenny & Zaurtra, 2001), as inevitably no two studies are truly identical (e.g., even if you limit yourself to “apples” alone, they themselves come in a wide variety ranging from Fuji to Macintosh). Though a strong case can be made for aggregating slightly different studies, at some point the differences no longer remain trivial and become substantive. There is no definite point at which this happens, but when we start grouping extremely diverse studies together, Eysenck’s (1978) criticism of meta-analysis as “mega-silliness” becomes understandable. Indeed, the effects of commensurability are typically large (Cortina, 2003). For example, meta-analytic research by Doty and Glick (1998) found that 32% of variance in scores was attributed to methods of measurement. Also, as Hunter and Schmidt (1990) concluded, it can create meta-analyses that “are difficult or impossible to interpret” (p. 481).

In exploring this issue, we consider construct variation with personality and SWB separately. For both personality and SWB, we first establish that there is considerable variability regarding how they are measured and that these differences are substantive. Following this, we discuss how past research has only partially dealt with the problems of construct variation

Construct variation in personality.

Initially, the issue of commensurability does not appear to be a pressing issue in the measurement of personality. For over 20 years, the five-factor model (FFM) of personality has been commonly accepted (Goldberg, 1990; Lee & Ashton, 2004). Even earlier models, such as the three-factor structure seen in Eysenck's Personality Questionnaire (EPQ; Eysenck & Eysenck, 1975) can be largely understood in terms of five factors. For example, the Psychoticism factor of the Eysenck inventory consists of low levels of Conscientiousness and Agreeableness (Brand, 1997; John, 1990; McCrae & Costa, 1985). Despite these commonalities, many scales possess unique properties and there are compelling reasons to believe they should only be cautiously aggregated.

Even among personality scales with similar or identical nomenclature, there are substantive differences. For example, the NEO-PI Openness scale correlates with the comparable Hogan Personality Inventory (HPI) Intellectance scale at .67, while the same HPI scale correlates with the Interpersonal Adjective Scales-Big 5 (IASR-B5) Openness scale only at .44 (Widiger & Trull, 1997). Especially problematic, however, to SWB research is the impulsivity facet and its "wandering" nature (Revelle, 1997). Impulsivity has been nested under Extraversion for the EPI, under Psychoticism for the EPQ, and under Neuroticism for the NEO-PI-R. Aluja, Garcia, and Garcia (2004) factor analyzed several personality inventories including the NEO-PI-R and the EPQ-RS. Interestingly, the results suggested that that the impulsiveness scale, a facet of NEO's Neuroticism dimension, actually loaded with the Extraversion dimensions from both the NEO and EPQ inventories. The concern is that impulsiveness should be relevant in the prediction of SWB (Emmons & Diener, 1986), and is positively associated with negative affect. Depending on where it is placed then, it has the capacity to affect correlations, such as diminishing the Extraversion relationship with SWB. Consequently, the combination of diverse personality

measures has the potential to underestimate correlations in SWB meta-analytic research.

Past practices and research implications.

Hogan, Hogan, and Roberts (1996) suggested that combining non-equivalent scales is a major problem that all personality researchers face when conducting meta-analyses. Other researchers agree. Post hoc classification threatens the construct validity of Big Five personality dimensions, simply because there are an extremely large number of traits, many of which do not fit cleanly into the Big Five framework (Hurtz & Donovan, 2000; Salgado, 1997). Consequently, it is very easy to make dubious or mistaken classifications. For example, consider the meta-analysis of the Big Five and job performance conducted by Barrick, and Mount (1991), two extremely capable and experienced researchers whose methodology is likely one of the “best case” scenarios. As Hogan et al. (1996) noted, they made a few misclassification errors and Hurtz and Donovan (2000) raised concerns regarding their rater agreement, as it reached “only 83% or better rater agreement on 68% of the classifications” (p. 872).

Given the challenge in sorting a diverse array of personality measures with no clear guidelines for equivalency, other methods have been developed to address the issue of commensurability. Notably, Judge et al. (2002) attempted to account for this threat to construct validity by conducting a moderator analysis that compared the effect sizes derived from direct measures of Big Five traits to scales that indirectly measured these traits. The results of this moderator analysis did show some limited incommensurability, as indirect measures tended to produce larger effect sizes with job satisfaction than the direct measures. However, this methodology still assumes that direct measures are relatively uniform in meaning, which is not necessarily the case.

Other researchers have suggested that the best approach to control for variation in construct validity, and reduce the level of subjective judgments, is to examine evidence associated with a single scale (e.g., Hogan et al., 1996; Hunter & Schmidt, 1990). By doing so, interrater agreement will not be sacrificed, and more importantly, there will be no comparison made between non-commensurate measures. This methodology was adopted by Lucas and Fujita (2000), who addressed commensurability in a focused SWB meta-analysis, examining the univariate relationship of Extraversion with pleasant affect. They limited their meta-analysis to three popular scales: the NEO-PI (Costa & McCrae, 1992), Eysenck Personality Questionnaire (EPQ; Eysenck & Eysenck, 1975) and the Eysenck Personality Inventory (EPI; Eysenck & Eysenck, 1964).

We independently derived an identical approach to commensurability as Lucas and Fujita (2000), focusing our meta-analysis also on the NEO-PI, the EPQ, and the EPI. They are popular enough to provide sufficient sample for summary and reflect what Hogan et al. (1996) describe as “good personality measures.” They provide scores that are temporally stable and relate to meaningful non-test behaviours (e.g., Kirkhart, Morgan, & Sincavage, 1991; Murray, Rawlings, Allen, & Trinder, 2003). Furthermore, the measures have favorable psychometric properties. For instance, internal-consistency reliabilities for the scales are typically around .80 (e.g., Costa & McCrae, 1992; Eysenck, Eysenck, & Barret, 1985; John, Donahue, & Kentle, 1991).

Construct variation in SWB.

SWB is far from a unitary concept. Its definition and measurement can vary greatly across research studies. Diener and Lucas (1999) defined SWB as people’s evaluation of their lives. These evaluations include “both cognitive judgments of ones’ life satisfaction in addition to affective evaluations of mood and emotions” (p. 213). Facets within SWB differ through

varying levels of affective, temporal, and cognitive dimensions (Okun, Stock, & Covey, 1982), suggesting that these SWB categories are not entirely equivalent. In particular, several researchers have found significant differences between affect and happiness or satisfaction (Deiner & Deiner, 1996; Steel & Ones, 2002; Veenhoven, 1994; Weiss, 2002) and within affect itself, there are substantive differences between its positive and negative form (e.g., Connolly & Viswesvaran, 2000).

Though the field has yet to come to a consensus regarding the domains of SWB (e.g., happiness is considered at times to represent *either* affect or satisfaction), a few prominent divisions reoccur with regularity: life satisfaction, happiness, affect (overall, positive and negative), quality of life, and job satisfaction. The differences among these five categories will now be discussed.

First, life satisfaction has been defined as the “global evaluation by the person of his or her life” (Pavot, Diener, Colvin, & Sandvik, 1991, p. 150). Consequently, this includes studies that incorporate scales assessing participants’ cognitive appraisal of overall life circumstances. Second, happiness normally refers to a consistent, optimistic mood state which “is itself the highest good, the *summon bonum* of classical theory” (Averill & More, 1993, p. 617). Third, positive and negative affect are measures that gauge the propensity for an individual to assess life events in either a positive or a negative manner, respectively. Overall affect or hedonic balance examines the equilibrium between positive and negative affect, often operationalized as the difference score between the positive and negative affect scales. Of note, life satisfaction and happiness typically assess SWB over considerable duration, such as a lifetime. Affect, on the other hand can be assessed at either a state or a trait level. State affect involves emotional experience over a short period in time (e.g., today, this week, this month), while trait affect spans

across a long duration of time (e.g., years). Fourth, quality of life is a global measure assessing an individual's psychological well-being (Campbell, Converse, & Rodgers, 1976).

Finally, job satisfaction is a complex category that deserves special consideration. Its primary purpose in this analysis is to exemplify situational specificity and demonstrate that personality should have weaker associations with this construct than the other four SWB dimensions. Moreover, it is particularly important from an organizational perspective as satisfied employees are more likely to be superior performers (Judge, Thoresen, Bono, & Patton, 2001) and less likely to participate in counterproductive behaviours, while contributing to a positive work environment and promoting corporate health (Hardy, Woods, & Wall, 2003). Job satisfaction should be a subset of life satisfaction, where the latter is influenced by the former (Hart, 1999) but ultimately has separate causes and consequences (Weiss, 2002). Unfortunately, as Weiss (2002) reviews, the job satisfaction literature has not consistently acknowledged the difference between cognition and affect, though it has tended to favor cognition during operationalization.

Past practices and research implications.

For the most part, researchers have been fairly rigorous in separating different categories of SWB during analysis. DeNeve and Cooper (1998) sorted their measures into four groups: Life Satisfaction, Happiness, Positive Affect, and Negative Affect. Similarly, Lucas, Diener, and Suh (1996) categorized subjective well-being measures into four dimensions, which include life satisfaction, optimism, self-esteem, and affect. Thoresen, Kaplan, Barsky, Warren, and de Chermont (2003) focused on affect alone. Finally, Connolly and Viswesvaran (2000) considered both positive and negative affect but evaluated the overall affective disposition as well. However, two problematic issues arise.

To begin with, affect is a *bridge* concept, as it can be considered both a personality trait (a predictor) and a measure of SWB (a criterion) simultaneously. This generates a situation where the focus of many studies is to use affect, one measure of SWB, to predict another (e.g., job satisfaction: Connolly & Viswesvaran, 2000; Thoresen et al., 2003). DeNeve and Cooper (1998) dealt with this confusion by considering only state affect as representing SWB. This choice, though, is at odds with life satisfaction, which deals with judgments regarding one's entire life. This means that though we have long-term measures of cognitive SWB, we asymmetrically have no corresponding affective ones. If subjective well-being is our criterion of interest, we should examine both long- and short-term affect, using moderator analyses to assess whether personality is differentially related to the two levels.

The second issue directly pertains to commensurability. Researchers have appeared to be fairly inclusive in regards to what is considered SWB. Connolly and Viswesvaran (2000) as well as Thoresen et al. (2003) used a wide variety of measures to describe affect: from anxiety (e.g., State-Trait Anxiety Inventory) and optimism (e.g., Life Orientation Test), to Extraversion and Neuroticism (e.g., the EPQ). As mentioned, Weiss (2002) concludes that the job satisfaction literature has not been careful in differentiating between cognitive and affective forms of SWB, meaning that it can be very difficult to determine whether to group different measures together.

In the present meta-analysis, we attempt to reduce commensurability problems through several ways. First, we broaden the number of SWB categories as compared to previous research. We consider life satisfaction, happiness, affect (overall, positive and negative), quality of life, and job satisfaction. Second, approximately 90% of the SWB scales we used were published measures and less than 3% were based on single items. Third, scales were sorted based on the input of all three authors, excluding any where clear consensus could not be achieved. A

list depicting what scales were sorted into which categories (e.g., Satisfaction with Life Scale into the Life Satisfaction category) is available from the authors.

Methods

Literature Search

Our literature search procedure was designed to include all relevant articles on the topic, including foreign language and unpublished works. The first strategy was to conduct searches in the PsycInfo, Medline, and Proquest (unpublished dissertations) databases using keywords for articles that included both subjective well-being and personality measures. Searches combined 36 keywords related to happiness, life satisfaction, affect, or quality of life *with* 15 key words related to either the Eysenck or the NEO personality inventories. The personality keywords included NEO personality inventory, NEO personality, NEO five-factor inventory, NEO-FFI, NEO-PI, NEO-PI-R, Eysenck personality inventory, Eysenck personality questionnaire, EPI, EPQ, EPQ-J, EPQ-R-S, and EPQ-R-X. Second, the Social Sciences Citation Index (i.e., Web of Science) was searched for all publications that cited articles providing various measures of the above listed key words. Meta-analyses (e.g., DeNeve & Cooper, 1998; Steel & Ones, 2002; Judge et al., 2002) and websites (e.g., World Database of Happiness) were examined to identify many of the major measures. In total, the citations of more than 80 articles were searched. Third, authors who published more than one study within our initial search were contacted to secure any unpublished research in attempt to address the “file drawer” problem. In total, 903 published articles, masters and doctoral dissertations, book chapters, and conference proceedings have been identified in various languages. We included six different revised NEO measures, in part to accommodate language translations between 1985 and 1992. There were 10 different EPQ scales, mostly from translations into various languages. Lastly, there were four EPI measures.

Similarly, between 14 and 19 scales were identified measuring each construct of job satisfaction, happiness, life satisfaction, overall affect, positive affect, negative affect, and quality of life.

Eligibility Criteria and Data Coding Procedures

Of the 903 identified articles, 223 contained usable data. Usable data included effect sizes expressed as a correlation, t-score, d-score or F-score. All articles were double coded by two authors and all entered correlations were compared to identify and correct any data entry errors. The inter-rater reliability of the coding was 96.4%. Any inconsistencies were resolved by re-examining the articles. Outliers were defined as individual correlations that were four standard deviations above or below the mean of the correlations in the sample. The existence of outliers was addressed by further examining the original article to ensure that data entry errors did not occur. If the outlier did not result from an entry error, then the sample size of the outlying correlation was reduced until it was not significant (i.e., below four standard deviations from the mean). If the sample size had to be reduced to fewer than 300, approximately the overall average sample size, it was removed from the analysis. Any other discrepancies were resolved via a consultation process that included all three authors.

Statistical Analysis

We employed the meta-analysis procedures proposed by Hunter and Schmidt (1990) to conduct this research. Correlations were weighted according to sample size and then corrected for unreliability and sampling error in the measures at the aggregate level. Other corrections, specifically for dichotomizing a continuous variable, uneven splits, range restriction, and standard deviation splits, were conducted at the individual level. Consistent with the procedures of Judge et al. (2002), we inserted the internal consistency reliability figure as averaged within each SWB facet in the analysis when the alpha was not reported. For single-item measures of job

satisfaction, we followed the research of Nagy (2002) and assumed a reliability coefficient of .63. Correlations were deemed significant if the confidence interval did not include zero. When multiple measures were used within one facet of subjective well-being (i.e., two measures of affect) in a primary study, they were averaged to avoid overweighting these studies.

Moderator analysis used weighted least squares regression, as per Steel and Kammeyer-Mueller (2002). Moderator variables that were examined include self- versus other-ratings of personality, gender, type of sample (e.g. student population, employee, or general population), and average age of the sample. Furthermore, the analyses tested if our findings are *statistically* different from previous findings. The information used for the moderator variables was explicitly labeled in the individual studies; consequently, the analysis consisted of coding the requisite information and separately analyzing the correlations for each moderator variable.

Results

In total 1,645 correlation coefficients were examined to determine the relationship between SWB and personality, as measured by NEO, EPQ and EPI personality inventories. The coefficients were derived from 223 studies. The total number of participants across all studies was 91,074, with a mean of 335 participants per study. The mean age of the sample was 36.85 (SD = 7.26), 46% of which were males. The research methodology was almost exclusively self-report, with 3% using other-report. A large proportion (84%) of the studies assessing job satisfaction was conducted with employee samples. The majority of the studies were conducted in North America (k = 88), followed by the United Kingdom (k = 37), while the remaining of the studies originated from various countries in Europe, Asia, Australia or unknown. Most of the research was conducted in field samples, which incorporated convenience-sampling techniques.

To examine the relationship between personality and SWB, we calculated the weighted correlation for each facet of SWB with each dimension of personality. The number of independent samples included in each analysis ranged from 1 to 72. Statistical significance is reached only when the 95% confidence interval does not include zero. However, the results are deemed practically significant when the 95% credibility range does not include zero. As expected, many of the relationships were both statistically and practically significant.

To determine whether we should display state and trait affect measures separately, we ran a stepwise WLS multivariate regression. In the first step, we entered variables pertaining to the type of measure (e.g., NEO versus EPQ) and type of affect (i.e., positive versus negative). For the second step, we entered whether it was a state or a trait. The second step added no incremental variance ($F(1, 655) = 0.126, n.s.$), and consequently the relationship of affect to personality appears to be functionally uniform at both a state and trait level.¹

Analyses specific to the NEO inventories are reported in Table 1. The findings suggest that Agreeableness, Extraversion, Conscientiousness, and Neuroticism are significantly related to all SWB facets. Openness to Experience was significantly related to job satisfaction, happiness, positive affect and quality of life, but was not significantly related to life satisfaction, negative affect and overall affect. Neuroticism is clearly the strongest predictor of SWB, particularly for negative affect ($\rho = .64, k = 72$), happiness ($\rho = -.51, k = 6$), overall affect ($\rho = -.59, k = 14$), and quality of life ($\rho = -.72, k = 5$). Similarly, Extraversion is a strong predictor of positive affect ($\rho = .53, k = 53$), happiness ($\rho = .57, k = 6$), overall affect ($\rho = .44, k = 10$), and quality of life ($\rho = .54, k = 4$). Conscientiousness is a strong predictor of quality of life ($\rho = .51, k = 4$).

¹ State versus trait is a continuous dimension, where state can reflect how one feels right now or over the last week or several months. Though state measures were not significantly related to the results obtained here, we expect that state measures that *exclusively* focus on very recent feelings (e.g., “how do you feel today?” instead of “this week” or “month”) should show a diminished correlation with personality traits, as per Steyer, Ferring and Schmitt (1992).

Analyses specific to the EPQ are reported in Table 2. Neuroticism and Extraversion are significantly related to all SWB measures. Psychoticism is also related to all SWB measures except job satisfaction and quality of life. Defensiveness is significantly related to happiness and life satisfaction, but not positive affect, negative affect, overall affect, and job satisfaction. There was only one study investigating the relationship between Defensiveness and quality of life precluding any meta-analytic significance testing (i.e., a single study cannot be meta-analyzed). Consistent with the findings from the NEO inventories, Neuroticism is the best predictor evident by numerous strong relationships including negative affect ($\rho = .66$, $k = 32$), overall affect ($\rho = -.63$, $k = 12$), quality of life ($\rho = -.66$, $k = 9$), and happiness ($\rho = -.52$, $k = 30$). SWB measures that are best predicted by Extraversion include happiness ($\rho = .47$, $k = 34$), positive affect ($\rho = .44$, $k = 38$), overall affect ($\rho = .45$, $k = 7$), and quality of life ($\rho = .40$, $k = 4$).

Analyses specific to the EPI are reported in Table 3. Extraversion and Neuroticism are significantly related to all SWB measures. However, meta-analytic significance testing of the relationship between Neuroticism and quality of life was not possible because there was only one study reporting this relationship. Neuroticism best predicts negative affect ($\rho = .54$, $k = 24$), life satisfaction ($\rho = -.42$, $k = 12$), overall affect ($\rho = -.51$, $k = 6$), and happiness ($\rho = -.40$, $k = 5$). Extraversion best predicts positive affect ($\rho = .31$, $k = 24$) and life satisfaction ($\rho = .29$, $k = 7$).

The inter-correlations between the personality dimensions are reported in Tables 4-6. Correlations corrected/uncorrected for reliability are reported above/below the diagonal, respectively. Consistent with Saucier's (2002) research, these findings suggest that the dimensions are not completely orthogonal for the NEO, EPQ or EPI inventories.

Independent sample t-tests were conducted to compare the findings of the present investigation with previous meta-analytic findings. Undoubtedly, some of the samples included

in our analysis were also included in the previous meta-analyses; however, independent sample tests were conducted for two reasons. First, most of the samples did not overlap between analyses. Second, using independent rather than dependent samples t-tests result in findings that are more conservative. Where possible, correlations uncorrected for reliability were compared. Specifically, the life satisfaction, happiness, positive affect, and negative affect uncorrected correlations were compared to those produced by DeNeve and Cooper (1998). The direct Big Five measures reported by Judge et al. (2002) were compared to the findings of this investigation. However, these comparisons used corrected correlations because uncorrected correlations were not reported. All comparative analyses are reported in Table 7. In short, 27 out of the possible 36 comparisons to DeNeve and Cooper's (1998) findings were significantly greater in magnitude, 3 were smaller, and 6 were essentially equivalent. Compared to Judge et al.'s (2002) job satisfaction findings, our correlations were significantly smaller for 6 of 9 possible comparisons, and only 1 correlation was significantly greater in magnitude.

Multivariate analyses using LISREL 8.54 were conducted to determine the combined and incremental contribution the personality traits contributed to the prediction of the SWB. Tables 8, 9, and 10 provide the results of the multiple regression analysis for the NEO, the EPQ, and the EPI, respectively. Beta weights for each personality dimensions are reported as well as total variance accounted, both attenuated (i.e., R^2) and unattenuated (i.e., ρ^2). As can be seen, there are several issues pertaining to commensurability.

First, the amount of variance that the personality dimensions accounts for varies among the SWB constructs. As expected, job satisfaction consistently has the least variance accounted for, ranging from a R^2 of .03 (for the EPI) to a R^2 of .13 (for the EPQ). On the other hand, quality of life consistently has the most variance accounted for, ranging from a R^2 of .21 (for the EPI) to

a R^2 of .41 (for the EPQ). Also, the relative amount of variance that personality traits can account for is quite reliable among all the measures, with the average correlation between measures being approximately .84 (i.e., the EPQ, the NEO, and the EPI scores are all related).

Second, the amount of variance accounted for differs according to which personality scale is used. The EPI, on average, predicts about 13% of the variance while either the NEO or the EPQ predicated about double that or 26%. It is clear that the choice of which scale is used will substantively affect the overall results. Still, there are consistencies. Neuroticism always presents the largest beta weights except for positive affect, where Extraversion is the largest.

Moderator Analysis

Exploratory moderator searches were conducted to determine the generalizability of the results between personality and SWB conceptualizations. Does the observed residual variance (i.e., the variance after taking into account sampling error) among the meta-analytic correlations depend on methodological or demographic differences among the studies? To this end, the following variables were available for analysis: age, sex, self versus other personality reports, and population type (i.e., employee, student, mentally ill or general population). To ensure adequate sample size and enough statistical power, analyses were conducted across all personality scales. Consequently, moderator searches focused on Extraversion and Neuroticism, which were common across all scales and these traits represented the two strongest correlates. All analyses were weighted by sample size and the NEO and EPQ personality scales was included as a control variable. The moderators' specific to each SWB conceptualization are reported next. As will be discussed, different SWB constructs appear to be susceptible to different moderator effects.

To begin with, age appears to affect the relationship between satisfaction and Extraversion. Specifically, the relationship between Extraversion and job satisfaction as well as life satisfaction is greater for older individuals (respectively, $\Delta R^2 = .22, p < .05$; $\Delta R^2 = .23, p < .01$). Ostensibly, as we grow older, social relationships become more important for a cognitive assessment of well-being. Also, slightly stronger correlations may exist between Neuroticism and positive affect when participants are younger in age ($\Delta R^2 = .05, p < .05$).

Similar to age, sex also affected job and life satisfactions. Specially, the relationship between Extraversion and job satisfaction is greater for males ($\Delta R^2 = .25, p < .01$). However, for life satisfaction, the relationship increased for females relative to males, for both Extraversion ($\Delta R^2 = .09, p < .05$) and Neuroticism ($\Delta R^2 = .07, p < .05$). Also, the findings suggest that stronger correlations between Neuroticism and negative affect are reported for males compared to females ($\Delta R^2 = .05, p = .01$).

There is a greater possibility of a common method bias affecting self-reports, so it is not surprising to find that it does sporadically increase observed correlations. Self-report measures of personality result in correlations of a greater magnitude between Extraversion and happiness relative to other report formats ($\Delta R^2 = .05, p < .05$). Also, self-report measures of personality produce correlations that are of a greater magnitude between Extraversion and overall affect compared ($\Delta R^2 = .18, p < .05$). Finally, the relationship between Neuroticism and negative affect increased if self-reports were used ($\Delta R^2 = .06, p = .01$).

The final moderator that we could explore was population type. Does the general population relationships apply equally well to employee, student, or mentally ill groups? There are several findings. Population type was found to moderate the relationships between both Extraversion ($\Delta R^2 = .18, p < .01$) and Neuroticism ($\Delta R^2 = .17, p < .01$) as predictors of life

satisfaction. Examining the population samples suggests that using employees or the general population as participants results in attenuated correlations between Neuroticism and life satisfaction. Population type also moderated the relationship between Neuroticism and happiness ($\Delta R^2 = .13, p = .05$). Specifically, stronger correlations result when using a mentally ill sample and weaker correlations result when using an employee sample. Continuing, population type moderates the prediction of positive affect for both Extraversion ($\Delta R^2 = .08, p < .05$) and Neuroticism ($\Delta R^2 = .07, p < .05$). Interestingly, Extraversion correlations are inflated when examining students or mentally ill participants, and Neuroticism correlations are attenuated when examining the general population. Finally, population type also moderates the relationship between Extraversion and overall affect ($\Delta R^2 = .27, p < .05$), though this effect cannot be relegated to a specific population group.

Discussion

The results of the present investigation indicate that personality traits play a much greater role in determining an individual's general level of SWB than previously thought. Almost every comparable analysis produced correlations of a greater magnitude relative to previous meta-analytic findings. The size of the difference is clearly evident when examining Extraversion and Neuroticism where the observed relationships often doubled, tripled and even quadrupled. For example, DeNeve and Cooper's (1998) meta-analysis indicated that Extraversion accounted for approximately 4% of the variance for positive affect while this analysis indicates it is as high as 19% (i.e., with the NEO), or 28% unattenuated. Similarly, the NEO Neuroticism scale accounted for 29% of the variance in negative affect, or 41% unattenuated, while previous findings suggested 5%. Furthermore, we have also considered the combined relationship of personality to SWB using multivariate meta-analytic regression. For this analysis, findings reached as high as

41% of variance or 55% unattenuated, between the EPQ and quality of life measures.

The primary reason for the difference in findings appears to be commensurability. Though there is a wide assortment of potential moderator effects, from demographics to research design, consistently one of the largest factors is scale differences. In other words, scales or measures that nominally appear identical may actually possess quite different properties. This appears to be especially true for personality. As shown here, the SWB relationships for the EPI and the EPQ, despite both being developed by Eysenck and the latter being based on the former, are substantially different. Unfortunately, though these findings indicate that aggregating various personality measures considerably reduces precision, testing the equivalence of scales is very sporadic (Cortina, 2003; Doty & Glick, 1998). Still, such “clumping” may be necessary for any early investigation as there simply may not be enough studies to properly pursue the matter. As previously mentioned, DeNeve and Cooper’s (1998) groundbreaking meta-analysis contained only 5 SWB studies examining Psychoticism, a fraction of what is presently available. Similarly, Lucas and Fujita (2000) found 17 samples to examine the relationship that the NEO Extraversion scale has with positive/pleasant affect, compared to the 52 samples in the present meta-analysis.

It is important to note that issues of commensurability can drive findings either up or down. Though our findings for SWB were typically higher than DeNeve and Cooper’s (1998) meta-analysis, the pattern of correlations for job satisfaction was generally lower than those observed by Judge et al. (2002). For example, our analysis produced a corrected correlation for Conscientiousness and job satisfaction of .11 while the same relationship reported in the Judge et al. (2002) analysis was .26. This difference could easily be due to Judge et al. including personality scales that specifically reference the work situation. Studies incorporating the “at work” frame-of-reference into personality inventories have demonstrated that these measures are

valid predictors of job performance incremental to standard personality testing conditions (e.g., Hunthausen, Truxillo, Bauer, & Hammer, 2003). Consequently, if the Judge et al. meta-analysis contained a substantial quantity of studies that incorporated a work related frame-of-reference in the personality measures, it is likely that the meta-analytic correlations would be higher than the results obtained in the present investigation.

By focusing our meta-analysis on single scales and thus controlling for commensurability, we were able to generate findings that are much more consistent with expectations. As mentioned, twin studies indicate that up to 80% should be due to stable individual differences, likely traits. Though it is unlikely that all this variance can be accounted for (e.g., most attempts to assess long-term SWB are contaminated with mood effects), we would still expect that good personality measures should predict a substantial portion. Also, theory indicates that job satisfaction, rather than life satisfaction, should demonstrate lower correlations with personality traits. Our findings are consistent with this notion, indicating that job satisfaction is indeed influenced by situational factors more strongly than other areas of SWB. For example, it is not as easy to select the types of situations that one would like to be involved in the work environment as in the home environment.

Future research should endeavor to further refine the estimates made here. Though the amount of variance attributed to personality has greatly increased, we expect it could easily be larger. Specifically, it has long been suggested that Extraversion and Neuroticism has an interactive effect upon SWB, such that being both introverted and neurotic decreases one's happiness (Hotard, McFatter, McWhirter, & Stegall, 1989; Pavot, Diener, & Fujita, 1990). More recently, Yik and Russell (2001) indicate that this interaction incrementally explains approximately 3% of the variance while Lynn and Steel (2006) found it to be as high as 14% to

19%, though using national level data. As our research base expands, we should seek to meta-analytically summarize and incorporate this effect in our estimates.

Also, as our research base expands, we should attempt to control and test for scale differences whenever possible. Even in this study, where commensurability was a focal issue, we collapsed scales into SWB categories using theoretically based dimensions. Due to the sheer number of scales used to measure SWB, and that none have dominated the literature, we cannot use the same highly focused strategy that was employed for personality. For this reason, we used many categories of SWB to keep the constructs as precise as possible while also keeping the sample size sufficient to obtain meaningful results. Moreover, careful judgments were used to both include and exclude particular measures. For example, certain measures (e.g., General Health Questionnaire, Goldberg scales) were excluded because they tap more into the clinical depression construct than to facets of SWB. The relationship between personality and depression or anxiety is interesting, but beyond the scope of this investigation.

This indicates that there is still much to be done in determining if there are more significant differences for SWB and other personality and attitudinal measures (e.g., self-esteem, optimism, and anxiety), though some work has already been conducted. If we consider SWB specifically, Lucas and Fujita (2000) found, consistent with our results, that EPI Extraversion produces lower correlations with pleasant affect than the NEO or EPQ scales. Thoresen et al. (2003) found that using Extraversion and Neuroticism as proxies for positive and negative affect generated significantly different results. Similarly, Connolly and Viswesvaran (2000) observed a significant difference among the job satisfaction measures, specifically for the Job Descriptive Index and the Minnesota Satisfaction Questionnaire. Also, Judge et al. (2002) located several significant differences among the gamut of job satisfaction measures included in their analysis.

Finally, the relationship of job facet scales to global job satisfaction is tenuous, even if all of the facets are used in the estimation (Ironson, Smith, Brannick, Gibson, & Paul, 2002; Jackson & Corr, 2002; Weiss, 2002).

In summary, the results of this review not only indicate that personality is substantially related to SWB, but also that the relationship is typically much stronger than previously thought. Furthermore, these findings suggest that commensurability is indeed a potential problem that researchers need to acknowledge. Clearly, careful decisions need to be made with respect to the aggregation of measures to ensure meta-analysis does not degrade into Eysenck's "mega-silliness" criticism.

References

References marked with an asterisk indicate studies included in the meta-analysis.

- *Affleck, G., Tennen, H., Urrows, S., & Higgins, P. (1992). Neuroticism and the pain mood relation in Rheumatoid Arthritis: Insights from a prospective daily study. *Journal of Consulting and Clinical Psychology, 60*, 119-126.
- *Affleck, G., Tennen, H., Urrows, S., & Higgins, P. (1994). Person and contextual features of daily stress reactivity: Individual differences in relations of undesirable daily events with mood disturbance and chronic pain intensity. *Journal of Personality and Social Psychology, 66*, 329-340.
- *Allik, J., & Realo, A. (1997). Emotional experience and its relation to the five-factor model in Estonian. *Journal of Personality, 65*, 625-647.
- Aluja, A., Garcia, O., & Garcia, L. F. (2004). Replicability of the three, four and five Zucherman's personality super-factors: Exploratory and confirmatory factor analysis of the EPQ-RS, ZKPQ and NEO-PI-R. *Journal of Personality and Individual Differences, 36*, 1093-1108.
- *Argyle, M., & Lu, L. (1990). Happiness and social skills. *Personality and Individual Differences, 11*, 1255-1261.
- *Arrindell, W. A., Meeuwesen, L., & Huyse, F. J. (1991). The satisfaction with life scale (SWLS): Psychometric properties in a nonpsychiatric medical outpatients sample. *Personality and Individual Differences, 12*, 117-123.
- Averill, J. R. & More, T. A. (1993). Happiness. In L. Michael and J. M. Haviland (Eds). *Handbook of emotions*. (pp. 617-629). New York: Guilford Press.

- *Bachorowski, J. A., & Braaten, E. B. (1994). Emotional intensity: Measurement and theoretical implications. *Personality and Individual Differences, 17*, 191-199.
- Barrick, M. R., & Mount, M. K. (1991). The Big Five personality dimensions and job performance: A meta-analysis. *Personnel Psychology, 44*, 1-26.
- *Barton, J., Spelten, E., Totterdell, P., Smith, L., Folkard, S., & Costa, G. (1995). The standard shiftwork index: A battery of questionnaires for assessing shiftwork-related problems. *Work and Stress, 9*, 4-30.
- *Berry, D. S., Willingham, J. K., & Thayer, C. A. (2000). Affect and personality as predictors of conflict and closeness in young adults' friendships. *Journal of Research in Personality, 34*, 84-107.
- *Bettencourt, B. A., & Dorr, N. (1997). Collective self-esteem as a mediator of the relationship between allocentrism and subjective well-being. *Personality and Social Psychology Bulletin, 23*, 955-964.
- *Bianchi, G. N., & Fergusson, D. M. (1977). The effect of mental state on EPI scores. *British Journal of Psychiatry, 131*, 306-309.
- *Blatny, M. (2001). Personality determinants of self-esteem and life satisfaction: Gender differences. *Ceskoslovenska Psychologie, 45*, 385-392.
- *Boudreau, J. W., & Boswell, W. R. (2001). Effects of personality on executive career success in the United States and Europe. *Journal of Vocational Behavior, 58*, 53-81.
- *Brackett, M. A., & Mayer, J. D. (2003). Convergent, discriminant, and incremental validity of competing measures of emotional intelligence. *Personality and Social Psychology Bulletin, 29*, 1147-1158.

- *Bradley, B. P., & Mogg, K. (1994). Mood and personality in recall of positive and negative information. *Behaviour Research and Therapy*, 32, 137-141.
- Brand, C. R. (1997). Hans Eysenck's personality dimensions: Their number and nature. In H. Nyborg (Ed.), *The Scientific Study of Human Nature: Tribute to Hans J. Eysenck at Eighty*. (pp. 17-35). Oxford: Pergamon/Elsevier Science Inc.
- *Brebner, J. (1998). Happiness and personality. *Personality and Individual Differences*, 25, 279-296.
- *Brebner, J., Donaldson, J., Kirby, N., & Ward, L. (1995). Relationships between happiness and personality. *Personality and Individual Differences*, 19, 251-258.
- *Brebner, J., & Martin, M. (Eds.). (1995). *Testing for Stress and Happiness: The Role of Personality Factors (Vol. 15)*. Philadelphia, PA: Taylor & Francis.
- *Brown, K. W., & Moskowitz, D. S. (1997). Does unhappiness make you sick? The role of affect and neuroticism in the experience of common physical symptoms. *Journal of Personality and Social Psychology*, 72, 907-917.
- *Burger, J. M., & Caldwell, D. F. (2000). Personality, social activities, job-search behavior and interview success: Distinguishing between PANAS trait positive affect and NEO extraversion. *Motivation and Emotion*, 24, 51-62.
- *Burroughs, J. E., & Rindfleisch, A. (2002). Materialism and well-being: A conflicting values perspective. *Journal of Consumer Research*, 29, 348-370.
- Campbell, A., Converse, P. E., & Rodgers, W. L. (1976). *The Quality of American life: Perceptions, Evaluations, and Satisfaction*. New York: Russell Sage Foundation.

- *Carver, C. S., & White, T. L. (1994). Behavioral-inhibition, behavioral activation, and affective responses to impending reward and punishment: The Bis Bas scales. *Journal of Personality and Social Psychology, 67*, 319-333.
- *Cavanaugh, M. A., Boswell, W. R., Roehling, M. V., & Boudreau, J. W. (2000). An empirical examination of self-reported work stress among US managers. *Journal of Applied Psychology, 85*, 65-74.
- *Chan, R., & Joseph, S. (2000). Dimensions of personality, domains of aspiration, and subjective well-being. *Personality and Individual Differences, 28*, 347-354.
- *Chang, E. C. (1997). Positive and negative affectivity for academic and interpersonal domains: Relations to general affectivity, extraversion, and neuroticism. *Personality and Individual Differences, 22*, 929-932.
- *Chay, Y. W. (1993). Social support, individual differences and well-being: A study of small business entrepreneurs and employees. *Journal of Occupational and Organizational Psychology, 66*, 285-302.
- *Cheng, H., & Furnham, A. (2003). Personality, self-esteem, and demographic predictions of happiness and depression. *Personality and Individual Differences, 34*, 921-942.
- *Cohen, S., Gwaltney, J. M., Doyle, W. J., Skoner, D. P., Fireman, P., & Newsom, J. T. (1995). State and trait negative affect as predictors of objective and subjective symptoms of respiratory viral infections. *Journal of Personality and Social Psychology, 68*, 159-169.
- *Compton, W. C., Smith, M. L., Cornish, K. A., & Qualls, D. L. (1996). Factor structure of mental health measures. *Journal of Personality and Social Psychology, 71*, 406-413.
- *Cooper, H., Okamura, L., & Gurka, V. (1992). Social activity and subjective well-being. *Personality and Individual Differences, 13*, 573-583.

- *Cooper, H., Okamura, L., & McNeil, P. (1995). Situation and personality correlates of psychological well-being: Social activity and personal control. *Journal of Research in Personality, 29*, 395-417.
- Connolly, J. J., & Viswesvaran, C. (2000). The role of affectivity in job satisfaction: A meta-analysis. *Personality and Individual Differences, 29*, 265-281.
- Cortina, J. M. (2003). Apples and oranges (and pears, oh my!): The search for moderators in meta-analysis. *Organizational Research Methods, 6*, 415-439.
- *Costa, P. T., & McCrae, R. R. (1980). Influence of extraversion and neuroticism on subjective well-being: Happy and unhappy people. *Journal of Personality and Social Psychology, 38*, 668-678.
- Costa, P. T., & McCrae, R. R. (1992). *Revised NEO Personality Inventory (NEO PI-R) and NEO Five-Factor Inventory Professional Manual*. Odessa, FL: Psychological Assessment Resources.
- *Cote, S., & Moskowitz, D. S. (1998). On the dynamic covariation between interpersonal behavior and affect: Prediction from Neuroticism, Extraversion, and Agreeableness. *Journal of Personality and Social Psychology, 75*, 1032-1046.
- *Courneya, K. S., Bobick, T. M., Rhodes, R. E., Jones, L. W., Friedenreich, C. M., & Arthur, K. (2000). Personality correlates of patients' subjective well-being after surgery for colorectal cancer: An application of the five-factor model. *Journal of Psychosocial Oncology, 18*, 61-72.
- *Daniels, K. (1999). Coping and the job demands-control-support model: An exploratory study. *International Journal of Stress Management, 6*, 125-144.

- *David, J. P., Green, P. J., Martin, R., & Suls, J. (1997). Differential roles of neuroticism, extraversion, and event desirability for mood in daily life: An integrative model of top-down and bottom-up, influences. *Journal of Personality and Social Psychology*, *73*, 149-159.
- *de Frias, C. M., Dixon, R. A., & Backman, L. (2003). Use of memory compensation strategies is related to psychosocial and health indicators. *Journals of Gerontology Series B-Psychological Sciences and Social Sciences*, *58*, 12-22.
- *Deluga, R. J., & Masson, S. (2000). Relationship of resident assistant conscientiousness, extraversion, and positive affect with rated performance. *Journal of Research in Personality*, *34*, 225-235.
- DeNeve, K. M., & Cooper, H. (1998). The happy personality: A meta-analysis of 137 personality traits and subjective well-being. *Psychological Bulletin*, *124*, 197-229.
- *DeRenzo, E. G. (1987). *The relationship of the personality traits neuroticism, extraversion and openness to experience, and age, education, health and social support to well-being in a group of wives of retired military officers*. Unpublished doctoral dissertation, University of Maryland, College Park.
- Diener, E., & Diener, C. (1996). Most people are happy. *Psychological Science*, *7*, 181-185.
- *Diener, E., & Emmons, R. A. (1984). The independence of positive and negative affect. *Journal of Personality and Social Psychology*, *47*, 1105-1117.
- *Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, *49*(1), 71-75.
- Diener, E., Eunkook, M. S., Lucas, R. E., & Smith, H. L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, *125*, 276-302.

- Diener, E. & Lucas, R. R. (1999). Personality and subjective well-being. In E. Kahneman, E. Diener, & N. Schwarz (Eds.). *Well-being: The Foundations of Hedonic Psychology*. (pp. 213-229). New York: Russell Sage Foundation.
- *Dorn, L., & Matthews, G. (1995). Prediction of Mood and Risk Appraisals from Trait Measures - 2 Studies of Simulated Driving. *European Journal of Personality*, 9, 25-42.
- Doty, D. H. & Glick, W. H. (1998). Common methods bias: Does common methods variance really bias results? *Organizational Research Methods*, 1, 374-406.
- *Doxsee, D. J. (1999). *Hindering events in group counseling and psychotherapy*. Unpublished doctoral dissertation, University of Missouri, Columbia.
- Eid, M., Riemann, R., Angleitner, A., & Borkenau, P. (2003). Sociability and positive emotionality: Genetic and environmental contributions to the covariation between different facets of extraversion. *Journal of Personality*, 71, 319-346.
- *Elfering, A., Semmer, N. K., & Kalin, W. (2000). Stability and change in job satisfaction at the transition from vocational training into "real work". *Swiss Journal of Psychology*, 59, 256-271.
- *Elliot, A. J., & Thrash, T. M. (2002). Approach-avoidance motivation in personality: Approach and avoidance temperaments and goals. *Journal of Personality and Social Psychology*, 82, 804-818.
- *Emmons, R. A., & Diener, E. (1985). Personality correlates of subjective well-being. *Personality and Social Psychology Bulletin*, 11, 89-97.
- *Emmons, R. A., & Diener, E. (1986). Influence of impulsivity and sociability on subjective well-being. *Journal of Personality and Social Psychology*, 50, 1211-1215.
- Eysenck, H. J. (1978). An exercise in mega-silliness. *American Psychologist*, 33, 517.

- Eysenck, H. J., & Eysenck, S. B. G. (1964). *Manual of the Eysenck Personality Inventory*. San Diego: Educational and Industrial Testing Service.
- Eysenck, H.J., & Eysenck, S.B.G. (1975). *Manual for the Eysenck Personality Questionnaire (Junior and Adult)*. London: Hodder & Stoughton.
- Eysenck, S. B. G., Eysenck, H. J., & Barrett, P. (1985). A revised version of the psychoticism scale. *Personality and Individual Differences, 6*, 21-29.
- *Ferrario, S. R., Cardillo, V., Vicario, F., Balzarini, E., & Zotti, A. M. (2004). Advanced cancer at home: Caregiving and bereavement. *Palliative Medicine, 18*, 129-136.
- *Ferrario, S. R., Zotti, A. M., Baroni, A., Cavagnino, A., & Fornara, R. (2002). Emotional reactions and practical problems of the caregivers of hemodialysed patients. *Journal of Nephrology, 15*, 54-60.
- *Ferrario, S. R., Zotti, A. M., Massara, G., & Nuvolone, G. (2003). A comparative assessment of psychological and psychosocial characteristics of cancer patients and their caregivers. *Psycho-Oncology, 12*, 1-7.
- *Fierro, A., & Cardenal, V. (1996). Dimensions of personality and personal satisfaction and personality. *Revista de Psicologia General y Aplicada, 49*, 65-81.
- *Finch, J. F., Okun, M. A., Barrera, M., Zautra, A. J., & Reich, J. W. (1989). Positive and negative social ties among older adults: Measurement models and the prediction of psychological distress and well-being. *American Journal of Community Psychology, 17*, 585-605.
- *Fortunato, V. J., & Stone-Romero, E. F. (1999). Taking the strain out of negative affectivity: Development and initial validation of scores on a strain-free measure of negative affectivity. *Educational and Psychological Measurement, 59*, 77-97.

- *Fossum, T. A., & Barrett, L. F. (2000). Distinguishing evaluation from description in the personality-emotion relationship. *Personality and Social Psychology Bulletin*, 26, 669-678.
- *Francis, L. J. (1999). Happiness is a thing called stable extraversion: A further examination of the relationship between the Oxford Happiness Inventory and Eysenck's dimensional model of personality and gender. *Personality and Individual Differences*, 26, 5-11.
- *Francis, L. J. (2000). Religion and happiness: A study in empirical theology. *Transpersonal Psychology Review*, 4, 17-22.
- *Francis, L. J., & Bolger, J. (1997). Personality and psychological well-being in later life. *Irish Journal of Psychology*, 18, 444-447.
- *Francis, L. J., & Kay, W. K. (1996). Are religious people happier? A study among undergraduates. In L. J. Francis, W. K. Kay, & W. S. Campbell (Eds.), *Research in Religious Education* (pp. 207-217). Leominster: Gracewing.
- *Freund, A. M., & Baltes, P. B. (1998). Selection, optimization, and compensation as strategies of life management: Correlations with subjective indicators of successful aging. *Psychology and Aging*, 13, 531-543.
- Frey, S., & Stutzer, A. (2002). What can economists learn from happiness research? *Journal of Economic Literature*, 40, 402-435.
- *Fry, S. K., & Heubeck, B. G. (1998). The effects of personality and situational variables on mood states during outward bound wilderness courses: An exploration. *Personality and Individual Differences*, 24, 649-659.

- *Fullana, M. A., Caseras, X., & Torrubia, R. (2003). Psychometric properties of the Personal State Questionnaire in a Catalan sample. *Personality and Individual Differences, 34*, 605-611.
- *Furnham, A., & Cheng, H. (1997). Personality and happiness. *Psychological Reports, 80*, 761-762.
- *Furnham, A., & Cheng, H. (1999). Personality as predictor of mental health and happiness in the East and West. *Personality and Individual Differences, 27*, 395-403.
- *Furnham, A., & Petrides, K. V. (2003). Trait emotional intelligence and happiness. *Social Behavior and Personality, 31*, 815-823.
- *Furnham, A., & Zacherl, M. (1986). Personality and job satisfaction. *Personality and Individual Differences, 7*, 453-459.
- *Furr, R. M., & Funder, D. C. (1998). A multimodal analysis of personal negativity. *Journal of Personality and Social Psychology, 74*, 1580-1591.
- *Garrity, R. D., & Demick, J. (2001). Relations among personality traits, mood states, and driving behaviors. *Journal of Adult Development, 8*, 109-118.
- *Ge, X. J., & Conger, R. D. (1999). Adjustment problems and emerging personality characteristics from early to late adolescence. *American Journal of Community Psychology, 27*, 429-459.
- *Geary, B. (2003). *The contribution of spirituality to well-being in sex offenders*. Unpublished doctoral dissertation, Loyola College, Maryland.
- *Geist, R. L., & Gilbert, D. G. (1996). Correlates of expressed and felt emotion during marital conflict: Satisfaction, personality, process, and outcome. *Personality and Individual Differences, 21*, 49-60.

- *Geuens, M., & De Pelsmacker, P. (2002). Developing a short affect intensity scale. *Psychological Reports, 91*, 657-670.
- *Gilboa, D., Bisk, L., Montag, I., & Tsur, H. (1999). Personality traits and psychosocial adjustment of patients with burns. *Journal of Burn Care and Rehabilitation, 20*, 340-346.
- *Girodo, M. (1991). Personality, job stress, and mental health in undercover agents: A structural equation analysis. *Journal of Social Behavior and Personality, 6*, 375-390.
- Goldberg, L. R. (1990). An alternative "description of personality": The Big-Five factor structure. *Journal of Personality and Social Psychology, 59*, 1216-1229.
- *Gomez, R., Gomez, A., & Cooper, A. (2002). Neuroticism and extraversion as predictors of negative and positive emotional information processing: Comparing Eysenck's, Gray's, and Newman's theories. *European Journal of Personality, 16*, 333-350.
- *Gross, J. J., Sutton, S. K., & Ketelaar, T. (1998). Relations between affect and personality: Support for the affect-level and affective-reactivity views. *Personality and Social Psychology Bulletin, 24*, 279-288.
- *Gustafson, S. A. (1997). *Cognitive processes as dispositional factors in job satisfaction*. Unpublished doctoral dissertation, University of Mississippi, US.
- *Gustavsson, J., Weinryb, R., Goransson, S., Pedersen, N., & Asberg, M. (1997). Stability and predictive ability of personality traits across 9 years. *Personality and Individual Differences, 22*, 783-791.
- *Hagemann, D., Naumann, E., Lurken, A., Becker, G., Maier, S., & Bartussek, D. (1999). EEG asymmetry, dispositional mood and personality. *Personality and Individual Differences, 27*, 541-568.

- *Halamandaris, K., & Power, K. (1997). Individual differences, dysfunctional attitudes, and social support: A study of the psychosocial adjustment to university life of home students. *Personality and Individual Differences, 22*, 93-104.
- *Hamid, P. N., & Cheng, S. T. (1996). The development and validation of an index of emotional disposition and mood state: The Chinese affect scale. *Educational and Psychological Measurement, 56*, 995-1014.
- *Hamlin, M. E. (2002). A measure of positive and negative affect using cartoon facial expressions of emotion. Unpublished doctoral dissertation, Oklahoma State University, US.
- Hardy, G. E., Woods, D., & Wall, T. D. (2003). The impact of psychological distress on absence from work. *Journal of Applied Psychology, 88*, 306-314.
- *Hart, P. M. (1999). Predicting employee life satisfaction: A coherent model of personality, work and nonwork experiences, and domain satisfactions. *Journal of Applied Psychology, 84*, 564-584.
- *Headey, B., & Wearing, A. (1989). Personality, life events, and subjective well-being: Toward a dynamic equilibrium model. *Journal of Personality and Social Psychology, 57*, 731-739.
- *Headey, B., Kelley, J., & Wearing, A. (1993). Dimensions of mental health: Life satisfaction, positive affect, anxiety and depression. *Social Indicators Research, 29*, 63-82.
- *Heaven, P. C. (1989). Extraversion, neuroticism and satisfaction with life among adolescents. *Personality and Individual Differences, 10*, 489-492.
- *Heisel, M. J., & Flett, G. L. (2004). Purpose in life, satisfaction with life, and suicide ideation in a clinical sample. *Journal of Psychopathology and Behavioral Assessment, 26*, 127-135.

- *Heller, D., Judge, T. A., & Watson, D. (2002). The confounding role of personality and trait affectivity in the relationship between job and life satisfaction. *Journal of Organizational Behavior, 23*, 815-835.
- Heller, D., Watson, D., & Ilies, R. (2004). The role of person versus situation in life satisfaction: A critical examination. *Psychological Bulletin, 130*, 574-600.
- *Hemenover, S. H. (2001). Self-reported processing bias and naturally occurring mood: Mediators between personality and stress appraisals. *Personality and Social Psychology Bulletin, 27*, 387-394.
- *Hemenover, S. H. (2003). Individual differences in rate of affect change: Studies in affective chronometry. *Journal of Personality and Social Psychology, 85*, 121-131.
- *Hepburn, L., & Eysenck, M. W. (1989). Personality, average mood and mood variability. *Personality and Individual Differences, 10*, 975-983.
- *Herringer, L. G. (1998). Facets of extraversion related to life satisfaction. *Personality and Individual Differences, 24*, 731-733.
- *Heubeck, B. G., Wilkinson, R. B., & Cologon, J. (1998). A second look at Carver and White's (1994) BIS/BAS scales. *Personality and Individual Differences, 25*, 785-800.
- *Hilleras, P. K., Jorm, A. F., Herlitz, A., & Winblad, B. (1998). Negative and positive affect among the very old: A survey on a sample age 90 years or older. *Research on Aging, 20*, 593-610.
- *Hilleras, P. K., Jorm, A. F., Herlitz, A., & Winblad, B. (2001). Life satisfaction among the very old: A survey on a cognitively intact sample aged 90 years or above. *International Journal of Aging and Human Development, 52*, 71-90.

- *Hills, P., & Argyle, M. (2001). Emotional stability as a major dimension of happiness. *Personality and Individual Differences, 31*, 1357-1364.
- *Hills, P., & Argyle, M. (2002). The Oxford Happiness Questionnaire: A compact scale for the measurement of psychological well-being. *Personality and Individual Differences, 33*, 1073-1082.
- *Hirschfeld, R. R. (2002). Achievement orientation and psychological involvement in job tasks: The interactive effects of work alienation and intrinsic job satisfaction. *Journal of Applied Social Psychology, 32*, 1663-1681.
- Hogan, R., Hogan, J., & Roberts, B. W. (1996). Personality measurement and employment decisions. *American Psychologist, 51*, 469-477.
- *Hooker, K., Monahan, D., Shifren, K., & Hutchinson, C. (1992). Mental and physical health of spouse caregivers: The role of personality. *Psychology and Aging, 7*, 367-375.
- *Horner, K. L. (1998). Individuality in vulnerability: Influences on physical health. *Journal of Health Psychology, 3*, 71-85.
- *Hossack, R. C. (1997). *Salutogenic and pathogenic orientations to life: Attachment, personality, sense of coherence and well-being in late adolescence: A structural equation model*. Unpublished doctoral dissertation, University of Manitoba, Canada.
- Hotard, S. R., McFatter, R., M., McWhirter, R. M., & Stegall, M. E. (1989). Interactive effects of extraversion, neuroticism, and social relationships on subjective well-being. *Journal of Personality and Social Psychology, 57*, 321-331.
- *Howell Rolston, C. D. (2003). *Attachment styles and the concepts of self and of others*. Unpublished doctoral dissertation, Ohio University, US.
- Hunter, J. E. & Schmidt, F. L. (1990). *Methods of Meta-analysis*. Newbury Park, CA: Sage.

- Hunthausen, J.M., Truxillo, D.M., Bauer, T.N., & Hammer, L.B. (2003). A field study of frame-of-reference effects on personality test validity. *Journal of Applied Psychology, 88*, 545-551.
- Hurtz, G. M. & Donovan J. J. (2000). Personality and job performance: The big five revisited. *Journal of Applied Psychology, 85*, 869-879.
- *Hyland, M. E., Bott, J., Singh, S., & Kenyon, C. A. P. (1994). Domains, constructs and the development of the Breathing Problems Questionnaire. *Quality of Life Research, 3*, 245-256.
- *Ilies, R., & Judge, T. A. (2002). Understanding the dynamic relationships among personality, mood, and job satisfaction: A field experience sampling study. *Organizational Behavior and Human Decision Processes, 89*, 1119-1139.
- Ilies, R., & Judge, T. A. (2003). On the heritability of job satisfaction: The mediating role of personality. *Journal of Applied Psychology, 88*, 750-759.
- Ironson, G. H., Smith, P. C., Brannick, M. T., Gibson, W. M., & Paul, K. B. (1989). Construction of a "Job in General" scale: A comparison of global, composite, and specific measures. *Journal of Applied Psychology, 74*, 193-200.
- *Isaacowitz, D. M., & Smith, J. (2003). Positive and negative affect in very old age. *Journals of Gerontology Series B-Psychological Sciences and Social Sciences, 58*, 143-152.
- Jackson, C. J., & Corr, P. J. (2002). Global job satisfaction and facet description: The moderating role of facet importance. *European Journal of Psychological Assessment, 18*, 1-8.
- John, O. P. (1990). The "Big Five" factor taxonomy: Dimensions of personality in the natural language and in questionnaires. In P. A. Lawrence (Ed.). *Handbook of Personality: Theory and Research*. (pp. 66-100). New York: Guilford Press.

- John, O. P., & Srivastava, S. (1999). The Big Five Trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (2nd ed., pp.102–139). New York: Guilford Press
- John, O. P., Donahue, E. M., & Kentle, R. L. (1991). *The Big Five Inventory – Version 4a and 54*. Berkeley, CA: University of California, Berkeley, Institute of Personality and Social Research.
- *Jones, R. S. (2001). *A correlational examination of personality, self-concept, social roles, and life satisfaction in working adult women students*. Unpublished doctoral dissertation, George Washington University, Columbia.
- *Jorm, A., & Duncan-Jones, P. (1990). Neurotic symptoms and subjective well-being in a community sample: Different sides of the same coin? *Psychological Medicine*, 20, 647-654.
- *Judge, T. A., & Bono, J. E. (2000). Five-factor model of personality and transformational leadership. *Journal of Applied Psychology*, 85, 751-765.
- *Judge, T. A., Erez, A., Bono, J. E., & Thoresen, C. J. (2002). Are measures of self-esteem, neuroticism, locus of control, and generalized self-efficacy indicators of a common core construct? *Journal of Personality and Social Psychology*, 83, 693-710.
- Judge, T. A., Heller, D., & Mount, M. K. (2002). Five-factor model of personality and job satisfaction: A meta-analysis. *Journal of Applied Psychology*, 87, 530-541.
- Judge, T. A., Thoresen, C. J., Bono, J. E., & Patton, G. K. (2001). The job satisfaction-job performance relationship: A qualitative and quantitative review. *Psychological Bulletin*, 127, 376-407.

- *Judge, T. A., Thoresen, C. J., Pucik, V., & Welbourne, T. M. (1999). Managerial coping with organizational change: A dispositional perspective. *Journal of Applied Psychology, 84*, 107-122.
- *Kahn, J. H., & Hessling, R. M. (2001). Measuring the tendency to conceal versus disclose psychological distress. *Journal of Social and Clinical Psychology, 20*, 41-65.
- *Kammann, R., Farry, M., & Herbison, P. (1984). The analysis and Measurement of Happiness as a Sense of Well-Being. *Social Indicators Research, 15*, 91-115.
- *Katz, D. M. (2001). *Reactivity theory and the prediction of positive and negative affect*. Unpublished doctoral dissertation, Fordham University, US.
- *Kempen, G., Jellicic, M., & Ormel, J. (1997). Personality, chronic medical morbidity, and health-related quality of life among older persons. *Health Psychology, 16*, 539-546.
- Kenny, D. A. & Zautra, A. (2001). Trait-state models for longitudinal data. In L.M. Collins & A.G. Sayer (Eds.). *New methods for the analysis of change: Decade of behavior*. (pp. 243-263). Washington, DC: American Psychological Association.
- Keyes, C. L. M., Shmotkin, D., & Ryff, C. D. (2002). Optimizing well-being: The empirical encounter of two traditions. *Journal of Personality and Social Psychology, 82*, 1007–1022.
- *Kirkcaldy, B., Thome, E., & Thomas, W. (1989). Job satisfaction amongst psychosocial workers. *Personality and Individual Differences, 10*, 191-196.
- Kirkhart, K. E., Morgan, R. O., & Sincavage, J. (1991). Assessing evaluation performance and use: Test retest reliability of standardized instruments. *Evaluation Review, 15*, 482-502.

- *Kitamura, T., Kawakami, N., Sakamoto, S., Tanigawa, T., Ono, Y., & Fujihara, S. (2002). Quality of life and its correlates in a community population in a Japanese rural area. *Psychiatry and Clinical Neurosciences*, *56*, 431-441.
- *Klumb, P. L. (2004). Benefits from productive and consumptive activities: Results from the Berlin aging study. *Social Indicators Research*, *67*, 107-127.
- *Knussen, C., & Niven, C. A. (1999). Neuroticism and work-related stress in a sample of health care workers. *Psychology and Health*, *14*, 897-911.
- *Kokkonen, M., & Pulkkinen, L. (2001). Examination of the paths between personality, current mood, its evaluation, and emotion regulation. *European Journal of Personality*, *15*, 83-104.
- *Korotkov, D., & Hannah, T. E. (2004). The Five-Factor Model of personality: Strengths and limitations in predicting health status, sick-role and illness behaviour. *Personality and Individual Differences*, *36*, 187-199.
- *Kreitler, S., Aronson, M., Berliner, S., Kreitler, H., & et al. (1995). Life events and personal problems: Their physiological and emotional effects. *Personality and Individual Differences*, *18*, 101-116.
- *Kunzmann, U., & Baltes, P. B. (2003). Wisdom-related knowledge: Affective, motivational, and interpersonal correlates. *Personality and Social Psychology Bulletin*, *29*, 1104-1119.
- *Kurdek, L. A. (1997). Relation between neuroticism and dimensions of relationship commitment: Evidence from gay, lesbian, and heterosexual couples. *Journal of Family Psychology*, *11*, 109-124.

- *Kwan, V. S. Y., Bond, M. H., & Singelis, T. M. (1997). Pancultural explanations for life satisfaction: Adding relationship harmony to self-esteem. *Journal of Personality and Social Psychology, 73*, 1038-1051.
- *Lam, S. S. K., Yik, M. S. M., & Schaubroeck, J. (2002). Responses to formal performance appraisal feedback: The role of negative affectivity. *Journal of Applied Psychology, 87*, 192-201.
- *Lay, C. H. (1997). Explaining lower-order traits through higher-order factors: The case of trait procrastination, conscientiousness, and the specificity dilemma. *European Journal of Personality, 11*, 267-278.
- Leahey, T. H. (2000). *A History of Psychology*. Upper Saddle River, NJ: Prentice Hall.
- Lee, K., & Ashton, M. C. (2004). Psychometric properties of the HEXACO personality inventory. *Multivariate Behavioral Research, 39*, 329-358.
- *Leong, Y.-M. (2003). *Personality in obsessive compulsive disorder and other proposed obsessive compulsive spectrum disorders using the five-factor model*. Unpublished doctoral dissertation, The Catholic University of America, US.
- *Lewis, C. A., Francis, L. J., & Ziebertz, H.-G. (2002). The internal consistency reliability and construct validity of the German translation of the Oxford Happiness Inventory. *North American Journal of Psychology, 4*, 211-220.
- *Libran, E. C. (2000). Emotional intensity and its relationship with extraversion and neuroticism. *Psicothema, 12*, 568-573.
- *Lipkus, I. M., Dalbert, C., & Siegler, I. C. (1996). The importance of distinguishing the belief in a just world for self versus for others: Implications for psychological well-being. *Personality and Social Psychology Bulletin, 22*, 666-677.

- *Liu, R., & Gong, Y. (2000). Subjective well-being of the elderly and its influential factors. *Chinese Journal of Clinical Psychology, 8*, 73-78.
- *Lu, L. (1995). The relationship between subjective well-being and psychosocial variables in Taiwan. *Journal of Social Psychology, 135*, 351-357.
- *Lu, L. (1999). Personal or environmental causes of happiness: A longitudinal analysis. *Journal of Social Psychology, 139*, 79-90.
- *Lu, L. (2000). Gender and conjugal differences in happiness. *Journal of Social Psychology, 140*, 132-141.
- *Lu, L., & Argyle, M. (1991). Happiness and cooperation. *Personality and Individual Differences, 12*, 1019-1030.
- *Lu, L., & Lin, Y. Y. (1998). Family roles and happiness in adulthood. *Personality and Individual Differences, 25*, 195-207.
- *Lu, L., & Shih, J. B. (1997). Personality and happiness: Is mental health a mediator? *Personality and Individual Differences, 22*, 249-256.
- *Lucas, R. E., & Diener, E. (2001). Understanding extraverts' enjoyment of social situations: The importance of pleasantness. *Journal of Personality and Social Psychology, 81*, 343-356.
- Lucas, R. E., Diener, E., & Suh, E. (1996). Discriminant validity of well-being measures. *Journal of Personality and Social Psychology, 71*, 616-628.
- *Lucas, R. E., & Fujita, F. (2000). Factors influencing the relation between extraversion and pleasant affect. *Journal of Personality and Social Psychology, 79*, 1039-1056.
- Lykken, D., & Tellegen, A. (1996). Happiness is a stochastic phenomenon. *Psychological Science, 7*, 186-189.

Lynn, M., & Steel, P. (2006). National differences in subjective well-being: the interactive effects of extraversion and neuroticism. *Journal of Happiness Studies*, 7, 155-165.

*Lyubomirsky, S., & Lepper, H. S. (1999). A measure of subjective happiness: Preliminary reliability and construct validation. *Social Indicators Research*, 46, 137-155.

Lyubomirsky, S., Sheldon, K. M. & Schkade, D. (2005). Pursuing happiness: The Architecture of sustainable change. *Review of General Psychology*, 9, 111–131.

*Marshall, G. N., Wortman, C. B., Kusulas, J. W., Hervig, L. K., & Vickers, R. R. (1992). Distinguishing optimism from pessimism: Relations to fundamental dimensions of mood and personality. *Journal of Personality and Social Psychology*, 62, 1067-1074.

*Martin, R., & Watson, D. (1997). Style of anger expression and its relation to daily experience. *Personality and Social Psychology Bulletin*, 23, 285-294.

*Maybery, D. J. (2003). Including interpersonal events on hassle and uplift scales: verification employing global and molecular events. *Stress and Health*, 19, 289-296.

*Mayo, P. R. (1983). Personality traits and the retrieval of positive and negative memories. *Personality and Individual Differences*, 4, 465-471.

*McConville, C., & Cooper, C. (1992). Mood variability and personality. *Personality and Individual Differences*, 13, 1213-1221.

*McConville, C., & Cooper, C. (1999). Personality correlates of variable moods. *Personality and Individual Differences*, 26, 65-78.

*McCrae, R. R. (1986). Well-being scales do not measure social desirability. *Journal of Gerontology*, 41, 390-392.

- McCrae, R. R., & Costa, P. T. (1985). Comparison of EPI and psychoticism scales with measures of the five-factor model of personality. *Personality and Individual Differences*, 6, 587-597.
- *McCrae, R. R. & Costa, P. T. (1991). Adding *Liebe und Arbeit*: The full five-factor model of well-being. *Personality and Social Psychology Bulletin*, 17, 227-232.
- *McKnight, C. G., Huebner, E. S., & Suldo, S. (2002). Relationships among stressful life events, temperament, problem behavior, and global life satisfaction in adolescents. *Psychology in the Schools*, 39, 677-687.
- *McLennan, J., & Bates, G. W. (1993). Vulnerability to psychological distress: Empirical and conceptual distinctions between measures of neuroticism and negative affect. *Psychological Reports*, 73, 1315-1323.
- *Meyer, G. J., & Shack, J. R. (1989). Structural convergence of mood and personality: Evidence for old and new directions. *Journal of Personality and Social Psychology*, 57, 691-706.
- Mischel, W. (1977). The interaction of person and situation. In D. Magnusson & N. S. Endler (Eds.), *Personality at the crossroads: Current issues in interactional psychology* (pp. 333-352). Hillsdale, NJ: Lawrence Erlbaum.
- *Morrison, K. A. (1997). Personality correlates of the five-factor model for a sample of business owners/managers: Associations with scores on self-monitoring, Type A behavior, locus of control, and subjective well-being. *Psychological Reports*, 80, 255-272.
- *Moyle, P. (1995). The role of negative affectivity in the stress process: Tests of alternative models. *Journal of Organizational Behavior*, 16, 647-668.
- *Moyle, P., & Parkes, K. (1999). The effects of transition stress: a relocation study. *Journal of Organizational Behavior*, 20, 625-646.

- *Murberg, T. A., Bru, E., Svebak, S., Aarsland, T., & Dickstein, K. (1997). The role of objective health indicators and neuroticism in perceived health and psychological well-being among patients with chronic heart failure. *Personality and Individual Differences, 22*, 867-875.
- Murray, G., Rawlings, D., Allen, N. B., & Trinder, J. (2003). NEO Five-Factor Inventory scores: Psychometric properties in a community sample. *Measurement and Evaluation in Counseling and Development, 36*, 140-149.
- Nagy, M.S. (2002). Using a single item approach to measure facet job satisfaction. *Journal of Occupational and Organizational Psychology, 75*, 77-86.
- *Negoescu-Bodor, V., Corduban, C., & Popa, S. (1991). Factorial dimensions of psychosocial adjustment in a group of heavy industry workers. *Revista de Psihologie, 37*, 157-166.
- *Nemanick, R. C., Jr, & Munz, D. C. (1997). Extraversion and neuroticism, trait mood, and state affect: A hierarchical relationship? *Journal of Social Behavior and Personality, 12*, 1079-1092.
- Nes, R. B., Røysamb, E., Tambs, K., Harris, J. R., & Reichborn-Kjennerud, T. (in press). Subjective well-being: genetic and environmental contributions to stability and change. *Psychological Medicine*.
- *Noor, N. M. (1996). Some demographic, personality, and role variables as correlates of women's well-being. *Sex Roles, 34*, 603-620.
- *O'Connor, K., Belanger, L., Marchand, A., Dupuis, G., Elie, R., & Boyer, R. (1999). Psychological distress and adaptational problems associated with discontinuation of benzodiazepines. *Addictive Behaviors, 24*, 537-541.

- Okun, M. A., Stock, W. A., & Covey, R. E. (1982). Assessing the effects of older adult education on subjective well-being. *Educational Gerontology, 8*, 523-526.
- Ozer, D. J., & Benet-Martínez, V. (2006). Personality and the prediction of consequential outcomes. *Annual Review of Psychology, 57*, 401-412.
- *Pallant, J. F. (2000). Development and validation of a scale to measure perceived control of internal states. *Journal of Personality Assessment, 75*, 308-337.
- *Park, C. L., Armeli, S., & Tennen, H. (2004). Appraisal-coping goodness of fit: A daily Internet study. *Personality and Social Psychology Bulletin, 30*, 558-569.
- *Parkes, K. R., & Vonrabenau, C. (1993). Work characteristics and well-being among psychiatric health care staff. *Journal of Community and Applied Social Psychology, 3*, 243-259.
- *Pasupathi, M., & Carstensen, L. L. (2003). Age and emotional experience during mutual reminiscing. *Psychology and Aging, 18*, 430-442.
- *Pavot, W., & Diener, E. (1993). The affective and cognitive context of self-reported measures of subjective well-being. *Social Indicators Research, 28*, 1-20.
- Pavot, W. G., Diener, E., Colvin, C. R., & Sandvik, E. (1991). Further validation of the Satisfaction With Life Scale: Evidence for the cross-method convergence of well-being measures. *Journal of Personality Assessment, 57*, 149-161.
- *Pavot, W., Diener, E., & Fujita, F. (1990). Extroversion and happiness. *Personality and Individual Differences, 11*, 1299-1306.
- *Penley, J. A., & Tomaka, J. (2002). Associations among the big five, emotional responses and coping with acute stress. *Personality and Individual Differences, 32*, 1215-1128.

- *Perone, M., DeWaard, R. J., & Baron, A. (1979). Satisfaction with real and simulated jobs in relation to personality variables and drug use. *Journal of Applied Psychology, 64*, 660-668.
- *Persson, L. O., & Sahlberg, D. (2002). The influence of negative illness cognitions and neuroticism on subjective symptoms and mood in rheumatoid arthritis. *Annals of the Rheumatic Diseases, 61*, 1000-1006.
- *Potter, P. T., Smith, B. W., Strobel, K. R., & Zautra, A. J. (2002). Interpersonal workplace stressors and well-being: A multi-wave study of employees with and without arthritis. *Journal of Applied Psychology, 87*, 789-796.
- *Pychyl, T. A., & Little, B. R. (1998). Dimensional specificity in the prediction of subjective well-being: Personal projects in pursuit of the PHD. *Social Indicators Research, 45*, 423-473.
- *Ramanaiah, N. V., Detwiler, F. R., & Byravan, A. (1997). Life satisfaction and the five-factor model of personality. *Psychological Reports, 80*, 1208-1210.
- Revelle, W. (1997). Extraversion and impulsivity: The lost dimension? In H. Nyborg (Ed.). *The Scientific Study of Human Nature: Tribute to Hans J. Eysenck at Eighty*. (pp. 189-212). Amsterdam, Netherlands: Pergamon/Elsevier Science Inc.
- *Roberts, J. E., Kassel, J. D., & Gotlib, I. H. (1995). Level and stability of self-esteem as predictors of depressive symptoms. *Personality and Individual Differences, 19*, 217-224.
- *Rolland, J. P., & De Fruyt, F. (2003). The validity of FFM personality dimensions and maladaptive traits to predict negative affects at work: A six month prospective study in a military sample. *European Journal of Personality, 17*, 101-121.

- *Romero, E., Luengo, M. A., Gomez-Fraguela, J. A., & Sobral, J. (2002). The structure of personality traits in adolescents: the Five-Factor Model and the alternative five. *Psicothema, 14*, 134-143.
- *Ruehlman, L. S., Lanyon, R. I., & Karoly, P. (1999). Development and validation of the multidimensional health profile, part I: Psychosocial functioning. *Psychological Assessment, 11*, 166-176.
- *Ruggeri, M., Pacati, P., & Goldberg, D. (2003). Neurotics are dissatisfied with life, but not with services: The South Verona Outcome Project 7. *General Hospital Psychiatry, 25*, 338-344.
- *Rusting, C. L., & Larsen, R. J. (1995). Moods as sources of stimulation: Relationships between personality and desired mood states. *Personality and Individual Differences, 18*, 321-329.
- *Ryan, E. L. (1999). *False memory and personality integration*. Unpublished doctoral dissertation, Pacific Graduate School Of Psychology, US.
- *Ryan, R.M., & Frederick, C. (1997). On energy, personality, and health: Subjective vitality as a dynamic reflection of well-being. *Journal of Personality, 65*, 529-565.
- *Sale, C., Guppy, A., & El-Sayed, M. (2000). Individual differences, exercise and leisure activity in predicting affective well-being in young adults. *Ergonomics, 43*, 1689-1697.
- Salgado, J. F. (1997). The five factor model of personality and job performance in the European community. *Journal of Applied Psychology, 82*, 30-43.
- *Sandvik, E., Diener, E., & Seidlitz, L. (1993). Subjective well-being: The convergence and stability of self-report and nonself-report measures. *Journal of Personality, 61*, 318-342
- Saucier, G. (2002). Orthogonal markers for orthogonal factors: The case of the Big Five. *Journal of Research in Personality, 36*, 1-31.

- *Schaubroeck, J., Ganster, D. C., & Kemmerer, B. (1996). Does trait affect promote job attitude stability? *Journal of Organizational Behavior*, *17*, 191-196.
- *Schimmack, U., Radhakrishnan, P., Oishi, S., Dzokoto, V., & Ahadi, S. (2002). Culture, personality, and subjective well-being: Integrating process models of life satisfaction. *Journal of Personality and Social Psychology*, *82*, 582-593.
- Schjoedt, L., Balkin, D.B., & Baron, R.A. (2005, August). *Job satisfaction: Comparing the effects of the situational, dispositional, and interactional approaches*. Paper presented at the Academy of Management Conference, Honolulu, HI.
- *Schmidtke, J. I. (2000). *Personality, affect and EEG: An integration of three models to predict neural patterns of activity*. Unpublished doctoral dissertation, University of Illinois at Urbana-Champaign, US.
- *Schmidtke, J. I., & Heller, W. (2004). Personality, affect and EEG: predicting patterns of regional brain activity related to extraversion and neuroticism. *Personality and Individual Differences*, *36*, 717-732.
- *Schmutte, P. S., & Ryff, C. D. (1997). Personality and well-being: Reexamining methods and meanings. *Journal of Personality and Social Psychology*, *73*, 549-559.
- *Schneider, M. H. (1999). *The relationship of personality and job setting to job satisfaction*. Unpublished doctoral dissertation, United States International University, US.
- *Schwebel, D. C., & Suls, J. (1999). Cardiovascular reactivity and neuroticism: Results from a laboratory and controlled ambulatory stress protocol. *Journal of Personality*, *67*, 67-92.
- Seligman, M., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, *55*, 5-14.

- *Shadish, W. R. (1985). Transitory emotional states and encounter group training. *Small Group Behavior, 16*, 477-486.
- *Sham, P. C., Sterne, A., Purcell, S., Cherny, S., Webster, M., Rijdsdijk, F., et al. (2000). GENESiS: Creating a composite index of the vulnerability to anxiety and depression in a community-based sample of siblings. *Twin Research, 3*, 316-322.
- Sharpe, D. (1997). Of apples and oranges, file drawers and garbage: Why validity issues in meta-analysis will not go away. *Clinical Psychology Review, 17*, 881-901.
- *Sloan, J. M. (1995). *A structural model of neuroendocrine arousal, personality, and affect*. Unpublished doctoral dissertation, University of Nebraska - Lincoln, US.
- Staw, B. M., & Cohen-Charash, Y. (2005). The dispositional approach to job satisfaction: More than a mirage but not yet an oasis. *Journal of Organizational Behavior, 26*, 59-78.
- Steel, P., & Kammeyer-Mueller, J. D. (2002). Comparing meta-analytic moderator estimation techniques under realistic conditions. *Journal of Applied Psychology, 87*, 96-111.
- Steel, P., & Ones, D. (2002). Personality and happiness: A national level of analysis. *Journal of Personality and Social Psychology, 83*, 767-781.
- *Sterns, L., Alexander, R. A., Barrett, G. V., & Dambrot, F. H. (1983). The relationship of extraversion and neuroticism with job preferences and job satisfaction for clerical employees. *Journal of Occupational Psychology, 56*, 145-153.
- Steyer, R., Ferring, D., & Schmitt, M. J. (1992). States and traits in psychological assessment. *European Journal of Psychological Assessment, 8*, 79-98.
- *Strumpfer, D. J. W., Gouws, J. F., & Viviers, M. R. (1998). Antonovsky's sense of coherence scale related to negative and positive affectivity. *European Journal of Personality, 12*, 457-480.

- *Suh, E., Diener, E., & Fujita, F. (1996). Events and subjective well-being: Only recent events matter. *Journal of Personality and Social Psychology*, *70*, 1091-1102.
- *Suls, J., Green, P., & Hills, S. (1998). Emotional reactivity to everyday problems, affective inertia, and neuroticism. *Personality and Social Psychology Bulletin*, *24*, 127-136.
- *Svebak, S., Sondena, K., Hausken, T., Soreide, O., Hammar, A., & Berstad, A. (2000). The significance of personality in pain from gallbladder stones. *Scandinavian Journal of Gastroenterology*, *35*, 759-764.
- *Swickert, R., Hittner, J. B., Kitos, N., & Cox-Fuenzalida, L. E. (2004). Direct or indirect, that is the question: A re-evaluation of extraversion's influence on self-esteem. *Personality and Individual Differences*, *36*, 207-217.
- Tellegen, A., & Waller, N. G. (1996). Exploring personality through test construction: Development of the Multidimensional Personality Questionnaire. In S. R. Briggs & J. M. Cheek (Eds.). *Personality Measures: Development and Evaluation* (pp. 133-161). Greenwich, CT: JAI Press.
- *Terracciano, A. (2003). The Italian version of the NEO PI-R: Conceptual and empirical support for the use of targeted rotation. *Personality and Individual Differences*, *35*, 1859-1872.
- Thoresen, C. J., Kaplan, S. A., Barsky, A. P., Warren, C. R., & de Chermont, K. (2003). The affective underpinnings of job perceptions and attitudes: A meta-analytic review and integration. *Psychological Bulletin*, *129*, 914-945.
- *Todd, M., Armeli, S., Tennen, H., Carney, M. A., & Affleck, G. (2003). A daily diary validity test of drinking to cope measures. *Psychology of Addictive Behaviors*, *17*, 303-311.
- *Tokar, D. M., & Subich, L. M. (1997). Relative contributions of congruence and personality dimensions to job satisfaction. *Journal of Vocational Behavior*, *50*, 482-491.

- *Van den Berg, P. T., & Feij, J. A. (2003). Complex relationships among personality traits, job characteristics, and work behaviors. *International Journal of Selection and Assessment*, *11*, 326-339.
- *Velting, D. M., & Liebert, R. M. (1997). Predicting three mood phenomena from factors and facets of the NEO-PI. *Journal of Personality Assessment*, *68*, 165-172.
- Veenhoven, R. (1994). *World Database of Happiness: Correlates of Happiness: 7837 findings from 603 Studies in 69 Nations 1911-1994, Vols. 1-3*. Rotterdam, Netherlands: Erasmus University Rotterdam.
- *Walsh, J. M. (2002). *Spirituality and recovery from pathological gambling*. Unpublished doctoral dissertation, Loyola College in Maryland, US.
- *Wanberg, C. R., & Kammeyer-Mueller, J. D. (2000). Predictors and outcomes of proactivity in the socialization process. *Journal of Applied Psychology*, *85*, 373-385.
- *Warr, P. B., Barter, J., & Brownbridge, G. (1983). On the independence of positive and negative affect. *Journal of Personality and Social Psychology*, *44*, 644-651.
- *Watson, D., & Clark, L. A. (1992). On traits and temperament - general and specific factors of emotional experience and their relation to the five-factor model. *Journal of Personality*, *60*, 441-476.
- Watson, D., & Clark, L. A. (1997). Extraversion and its positive emotional core. In R. Hogan, J. Johnson, & S. Briggs (Eds.). *Handbook of Personality Psychology*. (pp. 767-793). San Diego, CA: Academic Press.
- *Watson, D., Hubbard, B., & Wiese, D. (2000). General traits of personality and affectivity as predictors of satisfaction in intimate relationships: Evidence from self- and partner-ratings. *Journal of Personality*, *68*, 413-449.

- *Watson, D., Suls, J., & Haig, J. (2002). Global self-esteem in relation to structural models of personality and affectivity. *Journal of Personality and Social Psychology*, *83*, 185-197.
- *Wayne, J. H., Musisca, N., & Fleeson, W. (2004). Considering the role of personality in the work-family experience: Relationships of the big five to work-family conflict and facilitation. *Journal of Vocational Behavior*, *64*, 108-130.
- Weiss, H. M. (2002). Deconstructing job satisfaction: Separating evaluations, beliefs, and affective experiences. *Human Resource Management Review*, *12*, 173-194.
- Widiger, T. A., & Trull, T. J. (1997). Assessment of the five-factor model of personality. *Journal of Personality Assessment*, *68*, 228-250.
- *Wiese, B. S., Freund, A. M., & Baltes, P. B. (2000). Selection, optimization, and compensation: An action-related approach to work and partnership. *Journal of Vocational Behavior*, *57*, 273-300.
- *Wilkinson, R. B., & Walford, W. A. (2001). Attachment and personality in the psychological health of adolescents. *Personality and Individual Differences*, *31*, 473-484.
- *Williams, D. (1981). Personality and mood: State-trait relationships. *Personality and Individual Differences*, *2*, 303-309.
- *Williams, D. (1990). Effects of psychoticism, extraversion, and neuroticism in current mood: A statistical review of six studies. *Personality and Individual Differences*, *11*, 615-630.
- *Williams, D.G. (1989). Personality effects in current mood: Pervasive or reactive. *Personality and Individual Differences*, *10*, 941-948.
- *Williams, D.G. (1993). Are personality effects upon average mood due to personality effects upon mood variation. *Personality and Individual Differences*, *14*, 199-208.

- *Williams, P. G., & Wiebe, D. J. (2000). Individual differences in self-assessed health: Gender, neuroticism and physical symptom reports. *Personality and Individual Differences, 28*, 823-835.
- *Williams, P. G., Colder, C. R., Lane, J. D., McCaskill, C. C., Feinglos, M. N., & Surwit, R. S. (2002). Examination of the neuroticism-symptom reporting relationship in individuals with type-2 diabetes. *Personality and Social Psychology Bulletin, 28*, 1015-1025.
- *Williams, P. G., Surwit, R. S., Babyak, M. A., & McCaskill, C. C. (1998). Personality predictors of mood related to dieting. *Journal of Consulting and Clinical Psychology, 66*, 994-1004.
- *Wilson, K., & Gullone, E. (1999). The relationship between personality and affect over the lifespan. *Personality and Individual Differences, 27*, 1141-1156.
- Withey, M. J., Gellatly, I. R., & Annett, M. (2005). The moderating effect of situation strength on the relationship between personality and provision of effort. *Journal of Applied Social Psychology, 35*, 1587-1608.
- *Wong, C. S., & Law, K. S. (2002). The effects of leader and follower emotional intelligence on performance and attitude: An exploratory study. *Leadership Quarterly, 13*, 243-274.
- *Wood, C., Magnello, M. E., & Jewell, T. (1990). Measuring vitality. *Journal of the Royal Society of Medicine, 83*, 486-489.
- *Xue, Z., Liu, Z., Yao, G., Chen, F., Zhu, Y., & Liu, S. (2000). A preliminary study of the role of psychosocial factors in patients with impotence. *Chinese Mental Health Journal, 14*, 236-238.
- *Yeung, R. R., & Hemsley, D. R. (1997). Personality, exercise and psychological well-being: Static relationships in the community. *Personality and Individual Differences, 22*, 47-53.

Yik, M. S. M., & Russell, J. A. (2001). Predicting the big two of affect from the big five of personality. *Journal of Research in Personality* 35, 247–277.

*Zhu, D. T., Jin, L. J., Xie, G. J., & Xiao, B. (1998). Quality of life and personality in adults with epilepsy. *Epilepsia*, 39, 1208-1212.

Table 1
Meta-Analytic Subjective Well-Being Results for the NEO

Construct	K	n	\bar{r}	\bar{r} - 95% Interval			ρ	ρ - 95% Interval		
				Confidence	Credibility	Q Statistic		Confidence	Credibility	Q Statistic
Agreeableness										
Job Satisfaction	11	10703	.06	.03 to .09	.00 to .12	$p=.0193$	.08	.05 to .12	.00 to .16	$p=.0236$
Happiness	4	441	.30	.22 to .38	.31 to .31	$p=.2736$	.36	.26 to .47	.36 to .36	$p=.2737$
Life Satisfaction	20	7127	.14	.11 to .17	.06 to .23	$p=.0179$	.19	.15 to .23	.10 to .28	$p=.0683$
Positive Affect	23	5933	.12	.09 to .15	.02 to .22	$p=.0131$	.15	.11 to .19	.02 to .28	$p=.0094$
Negative Affect	27	7199	-.19	-.16 to -.23	-.05 to -.34	$p<.0001$	-.25	-.20 to -.29	-.10 to -.40	$p=.0004$
Overall Affect	6	1035	.14	.09 to .19	.14 to .14	$p=.5818$	.20	.13 to .26	.20 to .20	$p=.5632$
Quality of Life	4	767	.23	.15 to .30	.17 to .29	$p=.1908$	.31	.21 to .40	.22 to .39	$p=.1873$
Conscientiousness										
Job Satisfaction	15	11910	.08	.05 to .12	-.04 to .21	$p<.0001$	.11	.06 to .15	-.06 to .27	$p<.0001$
Happiness	4	441	.25	.17 to .33	.25 to .25	$p=.3804$	.27	.19 to .36	.28 to .28	$p=.3804$
Life Satisfaction	22	6208	.22	.18 to .25	.10 to .34	$p=.0006$	.28	.23 to .32	.13 to .42	$p=.0012$
Positive Affect	25	6007	.26	.22 to .31	.07 to .46	$p<.0001$	.31	.26 to .37	.09 to .54	$p<.0001$
Negative Affect	29	7871	-.21	-.17 to -.25	-.05 to -.37	$p<.0001$	-.26	-.21 to -.30	-.08 to -.44	$p<.0001$
Overall Affect	5	829	.22	.12 to .32	.04 to .39	$p=.014$	.29	.15 to .42	-.06 to .52	$p=.0139$
Quality of Life	4	767	.40	.33 to .46	.37 to .42	$p=.2482$	.51	.43 to .59	.48 to .54	$p=.2468$
Extraversion										
Job Satisfaction	16	12439	.15	.12 to .18	.07 to .23	$p=.001$	.19	.15 to .22	.08 to .29	$p=.0007$
Happiness	6	829	.49	.40 to .58	.31 to .67	$p=.0041$	.57	.47 to .68	.37 to .78	$p=.0048$
Life Satisfaction	32	9901	.28	.24 to .32	.11 to .44	$p<.0001$	.35	.31 to .39	.14 to .56	$p<.0001$
Positive Affect	52	12491	.44	.41 to .47	.24 to .64	$p<.0001$	.53	.50 to .57	.28 to .79	$p<.0001$
Negative Affect	49	11462	-.18	-.15 to -.21	-.03 to -.33	$p<.0001$	-.22	-.19 to -.26	-.05 to -.40	$p<.0001$
Overall Affect	10	2042	.33	.26 to .40	.14 to .52	$p=.0001$	.44	.34 to .54	.18 to .70	$p<.0001$
Quality of Life	4	767	.40	.35 to .45	.40 to .40	$p=.3834$	.54	.47 to .61	.54 to .54	$p=.5175$

Table 1

Continued

Construct	K	n	\bar{r}	\bar{r} – 95% Interval			ρ	ρ – 95% Interval		
				Confidence	Credibility	Q Statistic		Confidence	Credibility	Q Statistic
Neuroticism										
Job Satisfaction	21	14311	-.22	-.19 to -.25	-.11 to -.33	$p < .0001$	-.28	-.24 to -.31	-.15 to -.41	$p < .0001$
Happiness	6	621	-.46	-.40 to -.51	-.46 to -.46	$p = .4145$	-.51	-.44 to -.57	-.51 to -.51	$p = .4029$
Life Satisfaction	33	9350	-.37	-.34 to -.40	-.20 to -.54	$p < .0001$	-.44	-.40 to -.48	-.24 to -.64	$p < .0001$
Positive Affect	57	11681	-.29	-.26 to -.32	-.12 to -.47	$p < .0001$	-.35	-.31 to -.38	-.15 to -.54	$p < .0001$
Negative Affect	72	16526	.54	.51 to .57	.31 to .77	$p < .0001$	.64	.60 to .67	.36 to .91	$p < .0001$
Overall Affect	14	3711	-.51	-.46 to -.55	-.38 to -.64	$p < .0001$	-.59	-.55 to -.65	-.38 to -.81	$p < .0001$
Quality of Life	5	967	-.53	-.49 to -.56	-.53 to -.53	$p = .4634$	-.72	-.67 to -.77	-.61 to -.82	$p = .1033$
Openness to Experience										
Job Satisfaction	13	11731	.04	.03 to .05	.04 to .04	$p = .9486$	.05	.04 to .07	.05 to .05	$p = .9717$
Happiness	5	779	.13	.03 to .23	-.04 to .29	$p = .0267$	.14	.03 to .26	-.05 to .33	$p = .0258$
Life Satisfaction	23	8448	.04	.01 to .06	-.03 to .11	$p = .0518$	.05	.01 to .08	-.03 to .13	$p = .0674$
Positive Affect	26	7422	.20	.16 to .24	.04 to .36	$p < .0001$	.26	.21 to .31	.06 to .47	$p < .0001$
Negative Affect	26	7559	-.03	-.07 to .01	-.18 to .12	$p < .0001$	-.04	-.09 to .01	-.23 to .15	$p < .0001$
Overall Affect	7	1373	.04	-.10 to .18	-.08 to .18	$p = .0257$	.07	-.05 to .16	-.13 to .26	$p = .0370$
Quality of Life	6	1305	.16	.07 to .25	-.02 to .34	$p = .0027$	.23	.09 to .35	.03 to .43	$p = .0178$

Table 2
Meta-Analytic Subjective Well-Being Results for the EPQ

Construct	K	n	\bar{r}	\bar{r} - 95% Interval			ρ	ρ - 95% Interval		
				Confidence	Credibility	Q Statistic		Confidence	Credibility	Q Statistic
Extraversion										
Job Satisfaction	7	989	.19	.14 to .24	.19 to .19	$p=.6519$	.22	.17 to .27	.22 to .22	$p=.6684$
Happiness	34	8316	.41	.38 to .43	.29 to .52	$p<.0001$	.47	.44 to .50	.33 to .60	$p<.0001$
Life Satisfaction	23	5776	.21	.17 to .24	.11 to .30	$p=.0168$	.25	.21 to .29	.14 to .36	$p=.0288$
Positive Affect	38	7446	.35	.32 to .39	.18 to .52	$p<.0001$	.44	.39 to .48	.25 to .63	$p<.0001$
Negative Affect	33	6676	-.15	-.11 to -.18	-.02 to -.27	$p=.0008$	-.18	-.14 to -.22	-.02 to -.33	$p=.001$
Overall Affect	7	894	.32	.26 to .39	.24 to .41	$p=.0903$	.45	.36 to .55	.28 to .63	$p=.1732$
Quality of Life	4	813	.36	.30 to .41	.36 to .36	$p=.4069$	.40	.34 to .45	.40 to .40	$p=.058$
Neuroticism										
Job Satisfaction	11	1808	-.34	-.25 to -.43	-.07 to -.61	$p<.0001$	-.39	-.29 to -.50	-.07 to -.72	$p<.0001$
Happiness	30	7342	-.44	-.41 to -.47	-.31 to -.57	$p<.0001$	-.52	-.48 to -.56	-.35 to -.68	$p<.0001$
Life Satisfaction	33	8650	-.38	-.35 to -.41	-.21 to -.55	$p<.0001$	-.45	-.41 to -.49	-.25 to -.65	$p<.0001$
Positive Affect	32	6634	-.26	-.23 to -.29	-.13 to -.39	$p=.0003$	-.32	-.28 to -.36	-.16 to -.48	$p=.0003$
Negative Affect	31	6213	.53	.50 to .57	.36 to .70	$p<.0001$	.66	.61 to .70	.48 to .83	$p<.0001$
Overall Affect	12	2198	-.50	-.46 to -.53	-.46 to -.53	$p=.1519$	-.63	-.58 to -.68	-.63 to -.63	$p=.4536$
Quality of Life	9	4259	-.56	-.51 to -.61	-.42 to -.69	$p<.0001$	-.66	-.60 to -.71	-.50 to -.82	$p<.0001$
Psychoticism										
Job Satisfaction	3	280	.05	-.15 to .24	-.22 to .32	$p=.0104$	.07	-.22 to .36	-.33 to .47	$p=.0140$
Happiness	20	4418	-.08	-.03 to -.12	.07 to -.22	$p=.0009$	-.11	-.05 to -.17	.10 to -.31	$p=.0009$
Life Satisfaction	12	1964	-.24	-.18 to -.29	-.10 to -.37	$p=.0237$	-.35	-.26 to -.44	-.15 to -.55	$p=.0244$
Positive Affect	10	1444	-.07	-.02 to -.11	-.07 to -.07	$p=.5015$	-.10	-.03 to -.17	-.10 to -.10	$p=.4895$
Negative Affect	9	1382	.08	.01 to .15	-.07 to .22	$p=.0327$	.12	.01 to .22	-.09 to .33	$p=.0368$
Overall Affect	4	408	-.11	-.07 to -.15	-.11 to -.11	$p=.8538$	-.20	-.12 to -.26	-.20 to -.20	$p=.9223$
Quality of Life	2	400	-.08	.21 to -.37	.30 to -.46	$p<.0001$	-.12	-.31 to -.55	.45 to -.69	$p<.0001$

Table 2

Continued

Construct	K	n	\bar{r}	$\bar{r} - 95\% \text{ Interval}$			ρ	$\rho - 95\% \text{ Interval}$		
				Confidence	Credibility	Q Statistic		Confidence	Credibility	Q Statistic
Defensiveness										
Job Satisfaction	4	440	.05	-.05 to .14	.05 to .05	$p=.2813$	.05	-.06 to .17	.05 to .05	$p=.2739$
Happiness	18	4422	.12	.08 to .16	.00 to .23	$p=.008$	.15	.10 to .20	.00 to .29	$p=.0093$
Life Satisfaction	11	1080	.12	.09 to .16	.12 to .12	$p=.9596$	.16	.11 to .20	.16 to .16	$p=.9592$
Positive Affect	7	1081	-.04	.01 to -.10	-.04 to -.04	$p=.4604$	-.07	.02 to -.16	-.07 to -.07	$p=.4513$
Negative Affect	7	1438	-.05	.02 to -.12	.08 to -.18	$p=.0376$	-.09	.03 to -.20	.13 to -.30	$p=.1497$
Overall Affect	4	408	.07	-.03 to .17	.07 to .07	$p=.9718$	.11	-.05 to .27	.11 to .11	$p=.9877$
Quality of Life	1	130	-.15	-	-	-	-.17	-	-	-

Table 3

Meta-Analytic Subjective Well-Being Results for the EPI

Construct	K	n	\bar{r}	\bar{r} – 95% Interval			ρ	ρ – 95% Interval		
				Confidence	Credibility	Q Statistic		Confidence	Credibility	Q Statistic
Extraversion										
Job Satisfaction	6	2645	.11	.07 to .15	.07 to .16	$p=.1995$	.15	.09 to .20	.10 to .19	$p=.2342$
Happiness	4	1242	.18	.06 to .30	-.04 to .39	$p=.0001$	.21	.07 to .36	-.04 to .47	$p=.0001$
Life Satisfaction	7	2545	.20	.16 to .23	.20 to .20	$p=.4826$	.29	.24 to .34	.29 to .29	$p=.4602$
Positive Affect	24	5014	.25	.20 to .30	.05 to .46	$p<.0001$	.31	.25 to .37	.08 to .54	$p<.0001$
Negative Affect	20	4576	-.09	-.05 to -.13	.03 to -.22	$p=.0031$	-.11	-.06 to -.16	.04 to -.27	$p=.003$
Overall Affect	6	1864	.17	.11 to .24	.05 to .29	$p=.021$	.20	.12 to .28	.06 to .34	$p=.0214$
Quality of Life	2	364	.21	.11 to .31	.20 to .22	$p=.1559$	.32	.16 to .46	.32 to .32	$p=.2128$
Neuroticism										
Job Satisfaction	4	720	-.14	-.05 to -.23	-.03 to -.25	$p=.1002$	-.17	-.06 to -.28	-.04 to -.31	$p=.0979$
Happiness	5	1157	-.34	-.26 to -.43	-.20 to -.49	$p=.0095$	-.40	-.30 to -.49	-.24 to -.56	$p=.0111$
Life Satisfaction	12	2414	-.33	-.27 to -.39	-.17 to -.50	$p=.0003$	-.42	-.35 to -.50	-.22 to -.63	$p=.0005$
Positive Affect	22	4332	-.15	-.10 to -.19	-.01 to -.29	$p=.001$	-.19	-.13 to -.23	-.03 to -.34	$p=.007$
Negative Affect	23	4686	.46	.40 to .48	.28 to .61	$p<.0001$	.54	.49 to .59	.37 to .71	$p<.0001$
Overall Affect	7	1176	-.44	-.33 to -.55	-.18 to -.70	$p<.0001$	-.51	-.38 to -.63	-.21 to -.80	$p<.0001$
Quality of Life	1	246	-.26	-	-	-	-.40	-	-	-

Table 4

Correlations Between NEO Personality Dimensions.

	Extraversion	Neuroticism	Openness	Agreeableness	Conscientiousness
Extraversion	$\alpha = .78$	-.41 (53)	-.13 (33)	-.31 (33)	-.40 (36)
Neuroticism	-.33	$\alpha = .83$	.31 (27)	.34 (27)	.35 (29)
Openness	.23	-.10	$\alpha = .72$	.14 (27)	.01 (27)
Agreeableness	.25	-.24	.10	$\alpha = .71$	.27 (27)
Conscientiousness	.28	-.33	.01	.20	$\alpha = .80$

Note. The number of studies used in the analyses is reported in the brackets. Correlations corrected/uncorrected for reliability are reported above/below the diagonal, respectively.

Table 5

Correlations Between EPQ Personality Dimensions.

	Extraversion	Neuroticism	Psychoticism	Defensiveness
Extraversion	$\alpha = .85$	-.29 (38)	.00 (18)	-.11 (11)
Neuroticism	-.24	$\alpha = .82$	.08 (17)	-.12 (12)
Psychoticism	.00	.06	$\alpha = .67$	-.31 (11)
Defensiveness	-.08	-.09	-.21	$\alpha = .70$

Note. The number of studies used in the analyses is reported in the brackets. Correlations corrected/uncorrected for reliability are reported above/below the diagonal, respectively.

Table 6

Correlations Between EPI Personality Dimensions.

	Extraversion	Neuroticism
Extraversion	$\alpha = .79$	-.17 (16)
Neuroticism	-.14	$\alpha = .84$

Note. The number of studies used in the analyses is reported in the brackets. Correlations corrected/uncorrected for reliability are reported above/below the diagonal, respectively.

Table 7

Significance testing of our findings in comparison to previous meta-analyses

		<u>Job Satisfaction</u>		<u>Happiness</u>		<u>Life satisfaction</u>		<u>Positive Affect</u>		<u>Negative Affect</u>	
		<i>z</i>	<i>p</i>	<i>z</i>	<i>p</i>	<i>z</i>	<i>p</i>	<i>z</i>	<i>p</i>	<i>z</i>	<i>p</i>
NEO	Agreeableness	5.91 _b	0.00	-2.33 _a	0.02	1.40	0.16	2.79 _b	0.01	3.25 _a	0.00
	Conscientiousness	7.06 _b	0.00	-1.87	0.06	0.00	1.00	-7.07 _a	0.00	6.17 _a	0.00
	Extraversion	7.38 _b	0.00	-6.82 _a	0.00	-8.99 _a	0.00	-20.83 _a	0.00	7.96 _a	0.00
	Neuroticism	-4.50 _b	0.00	5.68 _a	0.00	10.50 _a	0.00	11.80 _a	0.00	-28.07 _a	0.00
	Openness	-1.53	0.13	-1.81	0.07	6.40 _b	0.00	-2.90 _a	0.00	3.50 _a	0.00
EPQ	Extraversion	1.16	0.24	-8.42 _a	0.00	-2.69 _a	0.01	-10.86 _a	0.00	3.03 _a	0.00
	Neuroticism	2.32 _a	0.02	11.90 _a	0.00	11.11 _a	0.00	8.02 _a	0.00	-21.49 _a	0.00
EPI	Extraversion	4.88 _b	0.00	2.94 _b	0.00	-1.45 _a	0.15	-3.09 _a	0.00	1.11	0.27
	Neuroticism	-2.57 _b	0.01	3.03 _a	0.00	4.41 _a	0.00	0.57	0.57	-14.56 _a	0.00

Note: _a = our correlation is significantly greater in magnitude, _b = our correlation is significantly lower in magnitude.

Table 8

Results of the Multiple Regression Analysis with the NEO Personality Dimensions

NEO Variables	Beta Weights						
	Job Satisfaction	Happiness	Life Sat.	Positive Affect	Negative Affect	Overall Affect	Quality of Life
Neuroticism	-0.19*	-0.30*	-0.29*	-0.13*	0.52*	-0.45*	-0.38*
Extraversion	0.09*	0.35*	0.17*	0.34*	0.01	0.19*	0.22*
Openness	0.00	0.01	-0.03*	0.11*	0.03*	-0.05*	0.07*
Agreeableness	-0.01	0.13*	0.02	-0.03*	-0.06*	-0.02	0.04
Conscientiousness	-0.01	0.03	0.08*	0.13*	-0.03*	0.02	0.21*
Error Variance	0.94*	0.64*	0.83*	0.76*	0.70*	0.71*	0.62*
	$R^2 = 0.06^*$	$R^2 = 0.36^*$	$R^2 = 0.17^*$	$R^2 = 0.24^*$	$R^2 = 0.30^*$	$R^2 = 0.29^*$	$R^2 = 0.38^*$
	$\rho^2 = 0.09^*$	$\rho^2 = 0.43^*$	$\rho^2 = 0.24^*$	$\rho^2 = 0.33^*$	$\rho^2 = 0.42^*$	$\rho^2 = 0.40^*$	$\rho^2 = 0.63^*$

Note: * = $p < .05$

Table 9

Results of the Multiple Regression Analysis with the EPQ Personality Dimensions

NEO Variables	Beta Weights						
	Job Satisfaction	Happiness	Life Sat.	Positive Affect	Negative Affect	Overall Affect	Quality of Life
Neuroticism	-0.31*	-0.35*	-0.33*	-0.19*	0.52*	-0.44*	-0.52*
Extraversion	0.12*	0.34*	0.14*	0.30*	-0.02	0.20*	0.22*
Psychoticism	0.08*	-0.04*	-0.21*	-0.07*	0.05*	-0.08*	-0.09*
Defensiveness	0.05	0.11*	0.06*	-0.05*	0.00	0.03	-0.20*
Error Variance	0.87*	0.69*	0.79*	0.84*	0.72*	0.70*	0.59*
	$R^2 = 0.13^*$	$R^2 = 0.31^*$	$R^2 = 0.21^*$	$R^2 = 0.16^*$	$R^2 = 0.28^*$	$R^2 = 0.30^*$	$R^2 = 0.41^*$
	$\rho^2 = 0.18^*$	$\rho^2 = 0.40^*$	$\rho^2 = 0.32^*$	$\rho^2 = 0.25^*$	$\rho^2 = 0.44^*$	$\rho^2 = 0.50^*$	$\rho^2 = 0.55^*$

Note: * = $p < .05$

Table 10

Results of the Multiple Regression Analysis with the EPI Personality Dimensions

NEO Variables	Beta Weights						
	Job Satisfaction	Happiness	Life Sat.	Positive Affect	Negative Affect	Overall Affect	Quality of Life
Neuroticism	-0.13*	-0.32*	-0.31*	-0.12*	0.46*	-0.42*	-0.24*
Extraversion	0.09*	0.14*	0.16*	0.23*	-0.03*	0.11*	0.18*
Error Variance	0.97*	0.87*	0.87*	0.92*	0.79*	0.79*	0.90*
	$R^2 = 0.03$	$R^2 = 0.13^*$	$R^2 = 0.13^*$	$R^2 = 0.08^*$	$R^2 = 0.21^*$	$R^2 = 0.21^*$	$R^2 = 0.10^*$
	$\rho^2 = 0.04$	$\rho^2 = 0.18^*$	$\rho^2 = 0.23^*$	$\rho^2 = 0.12^*$	$\rho^2 = 0.29^*$	$\rho^2 = 0.27^*$	$\rho^2 = 0.23^*$

Note: * = $p < .05$