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The Role of Person vs. Situation in Life Satisfaction: A Critical Examination

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Abstract

Two main theoretical approaches have been put forward to explain individual differences in life satisfaction: top-down (i.e., personological) and bottom-up (i.e., situational). We examine the relative merit of these two approaches, and the psychological processes underlying top-down models. Consistent with a top-down approach, meta-analytic findings indicate that neuroticism, extraversion, agreeableness and conscientiousness are related to both various domain satisfactions and life satisfaction; however, consistent with a bottom-up approach, domain satisfactions are strongly linked to life satisfaction, but only weakly linked to each other. Path analyses based on meta-analytic estimates did not support a simplistic "direct-effects" top-down model, but supported both (a) a temperament-based top-down model and (b) an integrative model that incorporates the direct influence of domain satisfactions on life satisfaction.

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General Introduction

Researchers typically distinguish between three components of subjective wellbeing (SWB), namely: pleasant affect, unpleasant affect and life satisfaction (Diener, 1984; Andrews & Whitney, 1976). In this classification, life satisfaction represents a global cognitive evaluation or judgment of one's satisfaction with his/her life. According to this view, life satisfaction can be viewed as an attitude: "a summary evaluation of objects along a dimension ranging from positive to negative." (Petty, Wegener, & Fabrigar, 1997). In other words, life satisfaction is an evaluative summary of one's liking or disliking of one's life (i.e., the attitudinal object). This construct is typically assessed with the Satisfaction with Life Scale (SWLS; Diener, Emmons, Larsen, & Griffin, 1985) a 5-item scale in which participants are asked to indicate their agreement with the following statements: "In most ways my life is close to ideal", "I am satisfied with my life", "So far I have gotten the important things I want in life", "The conditions in my life are excellent", and "If I could live my life over, I would change almost nothing." [PS1] Although life satisfaction and the affective components of SWB are related, recent findings establish the discriminant validity of the different components (Lucas, Diener & Suh, 1996).

Why are people satisfied with their lives? This question has long fascinated philosophers, writers, economists, laypeople, and more recently-- as part of a more "positive psychology"-- this topic has generated considerable interest in empirical psychology (Seligman & Csikszentmihalyi, 2000; Ryan & Deci, 2001). In this literature, two basic theoretical accounts have been put forward to explain individual differences in well-being: the top-down and bottom-up approaches (Diener, 1984; Feist, Bodner, Jacobs, Miles, & Tan, 1995; David, Green, Martin & Suls, 1997). These map on to one of the oldest debates in psychology: the person versus the situation.

That is, the top-down approach is a dispositional perspective, emphasizing the role of broad individual differences in personality in satisfaction, whereas the bottom-up approach focuses on the role of situations, events, and contexts in overall satisfaction. Bottom-up models initially were quite popular. However, due to a series of studies that reported disappointing results for objective or bottom-up factors—coupled with the emergence of behavioral genetic data and impressive stability findings—SWB research has shifted recently towards a top-down approach. However, we feel this shift has been premature because of the potentially important role played by one type of a bottom-up factor in life satisfaction: individual differences in domain satisfaction.

In this paper, we will examine the links between personality traits, domain satisfaction and life satisfaction in an attempt (a) to evaluate critically the merit of the top-down and bottom-up explanations, (b) to improve our understanding of the top-down model, and (c) to examine the possibility of integrating the two types of explanations. To achieve this goal we will use the following two basic strategies. First, we examine the meta-analytic associations between personality, domain satisfactions and life satisfaction. Second, we develop competing theoretical models that delineate the links between these constructs, which are subsequently tested via path-analysis based on the meta-analytic estimates.

Bottom-Up Models of Life Satisfaction

Early thinking in SWB research was dominated by the idea that objective life conditions and situations determine one's level of well-being. However, this intuitive bottom-up idea was seriously challenged by a wide variety of empirical findings. For example, in a large national US sample, Campbell, Converse and Rodgers (1976) found that several demographic factors (e.g., income, health, age, marital status and education level) jointly accounted for less than 20% of the variance in SWB. In a similar manner, Andrews and Withey (1976) could only account for 8% of the SWB variance using a similar set of variables (for similar findings in New Zealand see Kammann, 1983).

Moreover, even extreme events were shown to exert very little influence on people's subjective assessments of well-being. That is, findings indicate that people facing extreme hardships (e.g., quadriplegics) or experiencing great success (e.g., lottery winners) adapt quickly to these conditions, and show little long-term change in their subjective well-being (Brickman, Coates, & Janoff-Bulman, 1978; Fredrick & Loewenstein, 1999; Hellmich, 1995). These types of findings have led some researchers to conclude that deviations from normal life patterns can change an individual's life satisfaction. However, this change is likely to be temporary, because stable personality characteristics ensure that SWB returns to its equilibrium level (the "dynamic equilibrium model", Headey & Wearing, 1989).

Taken together, these findings indicate that well-being is primarily a subjective phenomenon that is based on people's internal predispositions. That is, current thinking in the field has shifted towards a view of well-being as a product of internal or subjective processes (e.g., goals, temperament) rather than of objective external factors (e.g.,

income, education). This shift is also reflected in our own thinking, in that the theoretical models of the antecedents of life satisfaction that we develop later on in the paper all include a link between personality and life satisfaction.

However, we believe this global shift in focus may have been somewhat premature. As such, both logical considerations and empirical findings support the idea that satisfaction with major life domains (e.g., job and marriage) is associated with life satisfaction. That is, it seems plausible to argue that people who have good jobs and fulfilling marriages also will be more satisfied with their lives. More fundamentally, the substantial associations found between domain satisfactions and life satisfaction (Argyle, 2001) seem to represent an important exception to the rule that bottom-up or situational factors have only limited success in predicting life satisfaction. Of course, it cannot be assumed that domain satisfactions represent pure, unambiguous measures of situational influence. Indeed, these factors —which represent people's subjective assessments of their satisfaction with a domain or context (e.g., work or marriage) -- may themselves reflect the influence of dispositional factors. [In fact, this idea led to the development of our theoretical Model 3 (see Figure 3).]

Nevertheless, it must be emphasized that perceptions of domain satisfaction are substantially associated with objective situational characteristics. For example, job satisfaction has been linked to pay, opportunities for promotion, and working conditions (for a review see Locke, 1976). Indeed, one of the most influential models of job satisfaction—the Job Characteristics Model (Hackman & Oldham, 1976) which focuses on five core job characteristics: task identity, task significance, skill variety, autonomy and feedback—has received consistent empirical support (Fried & Ferris, 1987). In a

similar manner, previous research has also indicated the role of situational characteristics in marital satisfaction (e.g., positive and negative behaviors, see Karney & Bradbury, 1995a).

Even though we examine several types of domain satisfactions later (including social satisfaction and health satisfaction), our focus in the paper is on job satisfaction and marital satisfaction as they have been the most widely studied domains and have generated the greatest amount of data. Thus, this restricted focus largely reflects pragmatic considerations, and it should not be taken to mean that these two types of domain satisfaction represent the only important situational influences on life satisfaction.

Regarding the role played by one's job in life satisfaction, starting in the 1970's, employees are working longer hours and spending less time with their families, indicating that the boundaries between work and life are blurring. Moreover, employees are deriving a sense of purpose and meaning, as well as a sense of identity from their work; for many, work has become an end-in-itself, the center of many people's lives or almost a new "religion" (Hunnicutt, 1988, 1996; Myers & Diener, 1995). Hence, the strong association between job and life satisfaction obtained in a recent quantitative review-- an average "true score" correlation of $\rho = .44$ —is hardly surprising (Tait, Padgett, & Baldwin, 1989).

In a similar manner, marital satisfaction should also be closely related to life satisfaction. Whereas satisfying marriages tend to buffer spouses from psychological distress and negative life events, marital distress has negative consequences for the emotional and physical well-being of spouses (Karney & Bradbury, 1995a). The

available studies all report moderate to strong positive correlations between marital and life satisfaction. For example, Shek (1995) and Chiu (1998) report a correlation of .38 between life satisfaction and marital satisfaction in two large samples (1.501 married Chinese adults, and 497 married couples in Hong Kong, respectively). Headey, Veehoven, and Wearing (1991) report a mean correlation of .47 in a stratified probability sample of 942 Australians residing in Victoria.

Consequently, in this paper we will examine the role of both job and marital satisfaction in life satisfaction. Support for the role of domain satisfaction in life satisfaction can also be found in recent work by Schwarz and colleagues in the judgment or constructionist tradition. For example, Schwarz, Strack, and Mai (1991) showed that the order of presentation of general versus specific satisfaction questions had an impact on the observed correlations. Specifically, when relationship satisfaction preceded the life satisfaction question, a correlation of r = .67 (assimilation effect) was obtained; however, when the order was reversed, this correlation decreased to r = .32 (contrast effect). These findings suggest that people use domain satisfaction information when making overall satisfaction ratings. More formally, Schwarz and Strack (1999) in their model of life satisfaction judgments posited that both temporary and chronically accessible sources of information play a role in life satisfaction. The intuitive notion that important domain satisfactions represent chronically accessible sources of information (e.g., health satisfaction; Schimmack, Diener, & Oishi 2002) provides additional support to the bottom-up view that domain satisfaction information is used by people to make life satisfaction judgments.

Top-Down Evidence

As mentioned previously, the focus of the SWB field has shifted towards topdown or dispositional approaches. In addition to the disappointing findings reviewed earlier for bottom-up factors (e.g., demographics and extreme events) this shift was also prompted by the findings regarding the impressive stability and substantial genetic component in SWB and life satisfaction. That is, findings regarding stability suggest that life satisfaction ratings should be significantly associated with stable personality characteristics (Diener & Lucas, 1999). In addition, simple bottom-up models cannot account for the fact that SWB differences between individuals are influenced by genetic differences among individuals.

In the SWB literature, substantial empirical findings document considerable temporal stability (e.g., Suh, Diener, & Fujita, 1996; Vitterso, 2001), and crosssituational consistency for this broad construct (Diener & Larsen, 1984; Watson, 2000). Support for the temporal stability of SWB can be found in a recent study of 264 Norwegian high-school students which yielded a 2-year test-retest stability coefficient of .64 (Vitterso, 2001). Of greater relevance-- for our purpose here-- are additional findings demonstrating considerable temporal stability on the SWLS (Magnus, Diener, Fujita, & Pavot, 1993; for a review see Pavot & Diener, 1993). For example, in one study (Magnus et al., 1993) a test-retest correlation of .54 was obtained over a time interval of four years in a sample of 97 University of Illinois students. As for cross situational consistency, SWB-based findings show large correlations-- for both positive and negative mood-between average momentary ratings of affect obtained when students were alone and while socializing, as well as between affect ratings when students were working and recreating (Diener & Larsen, 1984; Watson, 2000a).

Second, behavior-genetic twin studies indicate a sizeable genetic component in well-being (Tellegen, Lykken, Bouchard, Wilcox, Segal, & Rich, 1988; Lykken & Tellegen, 1996). For instance, Tellegen et al. (1988) — based on a sample of monozygotic and dizygotic twins reared both together and apart—found that approximately half of the observed variance in trait negative and positive affectivity was due to inherited factors (the other half being due to environmental influences in the development of the traits and measurement error). Such evidence suggests that differences between individuals in well-being are, in part, due to biological differences

Big Five Traits

between individuals (in genetic makeup), which cannot be explained by simple bottom-

up models of life satisfaction.

A useful taxonomy for categorizing the thousands of personality traits that have been developed by personality psychologists--and for integrating the diverse findings based on these traits--is the five-factor model. Within the last 20 years, a near-consensus has emerged that a five-factor model, often termed the "Big Five" (Goldberg, 1990), can be used to describe the most salient aspects of personality. The five-factor structure has been captured through analyses of trait adjectives, factor analytic studies of existing personality inventories, and expert judges' categorizations of existing personality measures (McCrae & John, 1992). These five dimensions are: neuroticism (or emotional instability), extraversion (or surgency), openness (or culture), agreeableness, and conscientiousness.

Although not accepted by all personality researchers (see Block, 1995; Eysenck, 1992; Tellegen, 1993) the Big Five framework has been an organizing force in the

personality literature, in research into the dispositional sources of domain satisfaction (Judge, Heller, & Mount, 2002; Karney & Bradbury, 1995a) and, more importantly for our purpose here, studies of the dispositional sources of life satisfaction (DeNeve & Cooper, 1998). It should be noted that this taxonomic framework is especially conducive for meta-analysis, as it enables the integration of findings from various studies employing different personality measures or instruments.

Theoretical considerations to be outlined below suggest substantial associations between the Big Five traits and life satisfaction. Personality theorists have proposed two basic types of explanations for these associations: a temperamental view and an instrumental one (McCrae & Costa, 1991). That is, whereas the temperamental explanation emphasizes a direct association between personality and life satisfaction based on endogenous biological processes, the instrumental explanation is an indirect one, emphasizing the role of mediators such as actions and circumstances in the association between personality and life satisfaction.

These two explanations can potentially have important implications for the causal links between domain satisfaction and life satisfaction. Specifically, based on the temperamental explanation one would predict that life satisfaction is more proximal to personality than is domain satisfaction (see Figure 2); whereas, based on the instrumental explanation we hypothesize a path leading from domain satisfaction to life satisfaction (see Figure 3). Finally, another possibility is that the association between domain satisfaction and life satisfaction is spurious and due to the influence of a third variable-personality; we explore this possibility in our first model (see Figure 1).

The Temperamental Explanation

The temperamental explanation suggests that personality traits—such as neuroticism and extraversion—are directly linked to well-being because they represent enduring affective dispositions. In support of these ideas, considerable overlap has been found between personality and affectivity.

For instance, Watson (2000) showed that the Big Five traits can predict general negative affect (NA) and positive affect (PA) quite well (weighted mean R= .62 and .66, for NA and PA, respectively). Indeed, except for openness to experience, all of the Big Five traits were found to be related to positive and negative affectivity, most notably neuroticism and extraversion (Watson, 2000). As such, Watson, Wiese, Vaidya, and Tellegen (1999), in analyses based on a combined sample with an overall N of 4,457, obtained a correlation of .58 between neuroticism and the trait form of the PANAS Negative Affect scale. Conversely, they obtained a parallel correlation of .51 between extraversion and the trait version of the PANAS Positive Affect scale; indeed, highly consistent with these findings, several personality researchers have argued that NA and PA are the affective core or "glue" of neuroticism and extraversion, respectively (for a detailed discussion see Tellegen, 1985; Watson & Clark, 1997; Brief, 1998; and recent work by Lucas, Diener, Grob, Suh, & Shao, 2000). Taken together, these associations suggest strongly that these two traits represent enduring affective dispositions that exert direct influences on life satisfaction.

Support for the temperamental view can also be found in psycho-biological models of personality. Beginning with the seminal work of Gray (1981, 1994), a growing body of research suggests that neuroticism/NA and extraversion/PA are components of two evolutionarily adaptive bio-behavioral systems. The first system, the Behavioral

Activation System (BAS), regulates reactions to signals of conditioned reward and nonpunishment, and directs and activates organisms to approach situations or experiences that may yield pleasure and reward. The second system, the Behavioral Inhibition System (BIS), regulates reactions to signals of conditioned punishment and nonreward, and is related to withdrawal or the inhibition of behaviors that may lead to pain or punishment (Watson et al., 1999). Depue and Collins (1999) have shown that high extraversion and trait PA are characterized by a strong BAS, whereas neuroticism and trait NA are characterized by a strong BIS. Lucas et al. (2000) further elaborated upon these ideas by providing cross-cultural evidence for reward sensitivity as the core feature of extraversion; they suggest that reward sensitivity causes general differences in approach behavior as well as in the experience of positive affect. These notions of differential sensitivity have recently received experimental support (Gross, Sutton, & Ketelaar, 1998; Rusting & Larsen, 1997), in that extraversion was related to differential susceptibility to positive mood inductions, whereas neuroticism was related to differential susceptibility to negative mood inductions.

The Instrumental Explanation

Perhaps the best examples of instrumental mechanisms—that is, of actions or circumstances linking personality to life satisfaction—are related to extraversion. For example, extraverts tend to socialize more frequently than introverts; social activity, in turn, is associated with greater positive affect (Watson, Clark, McIntyre, & Hamaker, 1992; Watson & Clark, 1997). Consequently, the greater positive affect of extraverts is due, in part, to their increased socialization. Moreover, extraversion scores are predictive

of the subsequent occurrence of favorable life events two, four and six years following the initial personality assessment (Headey & Wearing, 1989).

Another factor that may mediate the association between personality and satisfaction relates to the characteristic coping styles that individuals use to handle stress (McCrae & Costa, 1986; Watson & Hubbard, 1996). For example, Watson and Hubbard (1996) found neuroticism to be associated with passive, emotion-focused forms of coping, whereas extraversion and conscientiousness were associated with social support seeking and positive reappraisal coping styles. The use of more adaptive coping styles (i.e., active, problem-focused strategies rather than passive, emotion-focused strategies), in turn, was associated with higher levels of well-being (McCrae & Costa, 1986). It should be noted, however, that more direct examinations of this mediation model have yielded mixed results (McCrae & Costa, 1986; Bolger, 1990; Watson, David & Suls, 1999).

The available evidence, however, indicates that the instrumental explanation alone is incapable of completely accounting for these personality-well-being relations. That is, even after controlling for the effects of activities or events, these relations persist and are not completely eliminated. For example, Ormel and Wohlfath (1991) showed that even after controlling for adverse life circumstances neuroticism was substantially related to negative affect. In a similar manner, Watson et al. (1992) showed that extraversion remained correlated with positive affect even after controlling for social activity (for similar results see also Argyle & Lu, 1990). Consequently, and based on the behavioral genetic evidence reviewed earlier, the temperamental explanation is gaining prominence among researchers in the field (Watson, 2000). It should be noted, however, that this shift

may be premature, as it is likely that all the relevant instrumental factors may not have been accounted for in previous research.

The Mediating Role of Domain Satisfaction

In this paper, we examine the potential role of another type of mediator of the personality-life satisfaction association, namely, domain satisfaction (see Figure 3). As we have already discussed, there is good evidence for the association between occupational and relationship satisfaction and life satisfaction. Here, we further seek to establish that personality influences people's success and satisfaction with their occupations and relationships. For example, the job-involvement, order, efficiency and hard-work that foster task accomplishment and characterize conscientious individuals suggest that this trait is related to both job performance and job satisfaction (see Judge et al., 2002; McCrae & Costa, 1991; Organ & Lingl, 1995). Agreeableness, in turn, fosters the creation of both friendship and intimate interpersonal bonds and consequently should be associated with higher marital satisfaction (McCrae & Costa, 1991).

It is also apparent that neuroticism should be associated with experiences of both job and marital failures and dissatisfaction (c.f., Watson & Slack, 1993; Brief, Butcher, & Roberson, 1995; Kelly & Conley, 1987). Neurotic individuals are characterized by a tendency to select themselves into situations that foster negative affect (Emmons, Diener & Larsen, 1985), tend to experience negative events (Headey & Wearing, 1989), and show preferential attention to negative stimuli (Rusting & Larsen, 1998). Moreover, the job satisfaction of people high on negative affectivity seems to be less influenced by positive events relative to those low on this trait (Brief et al., 1995). Finally, neurotic individuals are more likely to make maladaptive attributions in their marriages (Karney,

Bradbury, Fincham, & Sullivan, 1994) and, as mentioned earlier, tend to use ineffective coping styles.

Taken together, these arguments support our hypothesis that neuroticism, extraversion, agreeableness and conscientiousness exert an indirect influence on life satisfaction- one that is mediated by job and marital satisfaction (see also Figure 3 for a graphic depiction of this hypothesis).

Models

In this section, we describe three models linking personality, domain (job and marital) and life satisfaction. Before we proceed to describe these models, we would like to emphasize three characteristics that they all share. First, in all three models we argue for a causal path running from personality to satisfaction, rather than vice versa; this is because personality traits are substantially heritable (e.g., the Big Five traits are, on average, 55% inherited; see Jang, Livesley, & Vernon, 1996; for an even higher estimate due to corrections for measurement error see Riemann, Angleitner, & Strelau, 1997), and highly stable over time (Roberts & DelVecchio, 2000). Second, all our models include four of the Big Five traits, excluding only openness to experience. We believe this joint examination of the four traits represents an important aspect of our analysis, in that previous research has focused almost exclusively on neuroticism and extraversion and has neglected conscientiousness and agreeableness.

Third, none of the models includes a direct path between job and marital satisfaction (although these variables are linked indirectly). This structural feature is consistent with evidence suggesting that the association between these two domain satisfactions is only modest. For example, Barling and Macewen (1992) report a

correlation of .09 in a sample of 190 people, and Chiu (1998) reports a similar correlation of .12 in a sample of 497 professionals from Hong Kong; these findings are also supported by our own meta-analytic findings, to be described below.

Beyond these similarities, we also note one key structural difference that distinguishes Model 1 from the others. That is, Model 1 assumes that these four personality traits are entirely responsible for the correlations among different types of satisfaction; consequently, it does not include any direct paths among life satisfaction, marital satisfaction, and job satisfaction. Thus, according to this model, these satisfaction measures will correlate with one another only to the extent that each is influenced by these personality traits. This, in turn, suggests that there should be similarly moderate correlations between all three types of satisfaction, although the actual size of these correlations will depend on the magnitude of paths connecting them to personality. For example, if job satisfaction and marital satisfaction both are substantially related to personality, then they also should be at least moderately correlated with one another. In contrast, the other models include direct paths running from life satisfaction to domain satisfaction (Model 2), or from domain satisfaction to life satisfaction (Model 3). Thus, these models assume that these personality traits cannot entirely account for the association between life satisfaction and domain satisfaction. Put differently, these models posit that the correlations between life satisfaction and marital/job satisfaction will be stronger than would be expected based solely on their links to the Big Five.

Model 1: A "Direct Effects" Top-Down Model of Satisfaction

In the first model we take an extreme and simplistic top-down approach and argue for a highly prominent role for personality in determining one's satisfaction with life. As such, a recent meta-analysis of the dispositional source of life satisfaction by DeNeve and Cooper (1998) yielded the following uncorrected mean estimates: neuroticism (r= -.24), extraversion (r= .17), conscientiousness (r= .22), and agreeableness (r= .16). In this model-- "the direct effects model", see Figure 1-- we hypothesize that personality-neuroticism, extraversion, agreeableness and conscientiousness-- has a direct effect on both overall and specific domain satisfactions. Below we review evidence for these hypothesized links based on the research examining the dispositional sources of job satisfaction and marital satisfaction.

A recent meta-analysis has documented the role of the four aforementioned Big
Five traits in job satisfaction (Judge et al., 2002) yielding the following estimated true
score correlations: -.29 for neuroticism, .25 for extraversion, .26 for conscientiousness
and .17 for agreeableness; taken together as a set, the Big Five traits had a multiple
correlation of .41 with job satisfaction. Finally, many studies have shown that individuals
high in neuroticism report greater marital dissatisfaction (Eysenck & Wakefield, 1981;
Kelly & Conley, 1987). However, beyond neuroticism the data are limited and fairly
inconsistent (we return to this point later). Our own meta-analytic findings—to be
reported later—show that neuroticism, extraversion (especially for NEO-based
measures), agreeableness and conscientiousness are all related to marital satisfaction.

In addition to the first hypothesis that personality is related to job, marital and life satisfaction, we put forward a second and more controversial proposition in this first model. As discussed earlier, we posit that personality is entirely responsible for the observed links between the different types of satisfaction; in other words, we hypothesize that when the direct effects of personality on the different types of satisfaction are

controlled for, the associations between the different types of satisfaction should disappear. The latter idea is based on three grounds: a) theoretical arguments (c.f., Costa & McCrae, 1980; Watson, 2000) that personality traits may reflect broad affective dispositions to be satisfied or dissatisfied within different domains/contexts, thereby serving as a confounding factor in the association between different satisfaction variables, b) the observation that the same traits are related to satisfaction in different domains, and c) initial empirical findings (Heller et al., 2002; Frone, Russell, & Cooper, 1994). For example, Heller et al. (2002) based on both partial correlations and structural equations modeling, established a confounding role for personality and affectivity in the association between job and life satisfaction.

Model 2: A "Temperament" Top-Down Model

In our second model, we take a more nuanced top-down approach, arguing that personality essentially colors one's general evaluation of life (i.e., life satisfaction); this, in turn, influences specific assessments of both job and marital satisfaction. In other words, life satisfaction is assumed to be the mediating mechanism between personality and marital/job satisfaction (a full mediation model). This model draws from our earlier discussion of temperament-based accounts of the personality-life satisfaction association, which argue that personality traits represent basic predispositions to be satisfied/unsatisfied with one's life. That is, we argue for a direct effect of personality on life satisfaction (for a somewhat different argument see Model 3), which then influences specific domain satisfactions.

In support of this model, the evidence reviewed earlier regarding the genetic component in SWB, as well as the substantial temporal and cross-situational stability of

SWB --even in the face of extreme favorable or adverse events-- suggest that life satisfaction is a trait-like construct that is proximal to personality traits. Moreover, because people are not born married or employed-- and in view of the genetic component in personality-- it seems more likely that people are born with a general predisposition to be happy and satisfied with their lives than with their yet-to-be determined jobs or spouses (see also Judge & Watanabe, 1993).

Model 3: An Integrative Model

In our third model ("the integrative model"; see Figure 3)—consistent with recent recommendations in the well-being literature (Diener, Suh, Lucas, & Smith, 1999; Brief, Butcher, George, & Link, 1993)—we take an integrative perspective and argue that both personality and domain satisfaction are important in determining one's life satisfaction. More specifically, the model combines the top-down and bottom-up approaches to the study of the life satisfaction in that it (a) specifies direct paths between the traits and all three types of satisfaction [a feature of top-down perspectives], yet also (b) posits that the two domain satisfactions contribute directly to life satisfaction [a feature of bottom-up perspectives].

Moreover, we hypothesized that marital and job satisfaction will partially mediate the relation between personality and life satisfaction (for a somewhat similar structural model, see Schimmack, Diener, & Oishi, 2002). This hypothesis is based on (a) the earlier discussion of instrumental accounts of personality-life satisfaction associations, and (b) findings reviewed earlier regarding both the substantial associations between personality and domain satisfaction, as well as between these domain satisfactions and life satisfaction.

The eclectic nature of Model 3--which draws from both temperamental [by positing a link between personality and life satisfaction] and instrumental accounts of the personality-life satisfaction association, as well as from both top-down and bottom-up perspectives--make this comprehensive model especially compelling to us. The latter component is particularly important, as the literature reviewed above (as well as our meta-analytic estimates to be reviewed later) indicates that both personality and domain satisfaction are related to life satisfaction.

In addition to testing the three models—but also as a preliminary step towards testing them—we will examine the merit of the top-down and bottom-up approaches based on the associations between the variables of interest. Consequently, we will conduct a quantitative review of the following associations: (a) the associations between different domain satisfactions, (b) the association between domain satisfactions and life satisfaction, and (c) the associations between the Big Five personality traits and both domain and life satisfaction.

Based on the evidence we reviewed previously, we expected four of the Big Five to show substantial associations with both domain satisfaction and life satisfaction; as mentioned earlier, openness to experience was not found to be related to affectivity and there is no reason to believe it shows substantial relations with the satisfaction criteria. As for the other associations, it is noteworthy that the models make different predictions. As discussed earlier, a simple top-down model (i.e., our Model 1) posits that domain satisfaction and general life satisfaction both are substantially based on broad personality traits (e.g., neuroticism, conscientiousness), rather than on situational characteristics.

Thus, moderate to large correlations between these different types of satisfaction are

supportive of this perspective. In contrast, a bottom-up model emphasizes the joint role of different situations or contexts in determining life satisfaction. Consequently, relatively weak correlations among domain satisfactions—coupled with stronger correlations between domain satisfactions and life satisfaction—are to be expected based on a bottom-up perspective. Again, we emphasize that meta-analytic estimates are used to test empirically these associations and then, subsequently, the theoretical models described earlier.

Meta-Analytic Procedures

Rationale for conducting new meta-analyses

In the current study, we conducted a meta-analysis if a relevant meta-analysis had not already been conducted (e.g., marital-life satisfaction relationship) or if we determined that the existing meta-analyses provided only incomplete information (e.g., personality-marital satisfaction association). As such, because appropriate meta-analyses have already been conducted we did not conduct our own meta-analysis in the following three areas: (a) job satisfaction—life satisfaction, (b) personality-job satisfaction and (c) correlations among the Big Five personality traits (see Tait et al., 1989; Judge et al., 2002; Ones et al., 1996; we reproduce findings from the first two meta-analyses in Tables 2 and 3).

We chose to conduct two classes of meta-analyses—personality-marital satisfaction and personality-life satisfaction—despite the existence of previous meta-analyses. First, the currently available meta-analytic evidence for the personality-marital satisfaction association reported in Karney and Bradbury (1995a) is very limited due to the small number of studies available at the time of their review; for example, these

authors could only locate four, six, and six studies assessing openness, agreeableness, and conscientiousness, respectively. Consequently, we conducted a new, updated meta-analysis.

Second, in a recent meta-analysis of the dispositional source of subjective well-being by DeNeve and Cooper (1998), the validity of both direct and indirect measures of personality traits were estimated, yielding the following uncorrected mean estimates: neuroticism (r=-.24), extraversion (r=. 17), and conscientiousness (r=. 22). However, at the time their review was conducted only a few studies had examined the relationship between direct and comprehensive measures of the Big Five and life satisfaction. For instance, the authors were able to locate only three studies that examined the association between direct measures of agreeableness and life satisfaction. Content differences between the various measures of traits can be reflected in differential predictive validities of satisfaction criteria. It is therefore important to investigate the predictive validity of clear, direct measures of the Big Five traits in relation to life satisfaction.

Moreover, it may be the case that measures of the traits differ in terms of their affective content, which may be especially important for the prediction of satisfaction. Support for the latter argument comes from findings of high predictive validities for trait PA and NA in relation to life satisfaction (e.g., Brief et al., 1993; Lucas, Diener, & Suh, 1996; Heller & Watson, 2002), as well as meta-analytic findings that PA and NA are more strongly related to job satisfaction than are extraversion and neuroticism, respectively (Judge et al., 2002; Connolly & Viswesvaran, 2000). Based on the aforementioned considerations and due to the small number of direct studies in the review of DeNeve and Cooper (1998), we conducted a new meta-analysis. However, in

light of this earlier meta-analysis, we limited our analysis to studies that examined all of the Big Five traits directly.

Consequently, we conducted 13 general classes of meta-analyses: personality-marital satisfaction, personality-life satisfaction, personality-social satisfaction, personality-health satisfaction, marital satisfaction-job satisfaction, marital satisfaction-health satisfaction, marital satisfaction-social satisfaction, marital satisfaction-life satisfaction, job satisfaction-health satisfaction, social satisfaction-life satisfaction, health satisfaction-life satisfaction and health satisfaction-social satisfaction. Next, we provide a general overview of the meta-analytic procedures we used.

Search strategy

The general search strategy used for the meta-analyses included three stages: computerized and manual search, a review of abstracts, and a review of studies. To identify relevant studies for our meta-analyses, we searched the PsychINFO 1887-2002 database, Sociological Abstracts,1963-2003, and Medline 1966-2003 for articles, dissertations or unpublished reports. We limited our searches to cross-sectional studies in English that used normal adults in which the majority of participants were in the age range of 18-65. In addition, reference sections from previous reviews or book chapters were examined (e.g., Karney & Bradbury, 1995). At this stage, approximately 790 relevant studies were identified. Second, we reviewed titles and abstracts and eliminated studies that did not appear to measure relevant constructs or did not measure a trait that was classifiable in terms of the FFM, or because it was clear that the authors did not report data. Third, we examined each of the approximately 230 remaining studies to

determine whether they contained the necessary information. Reasons for excluding studies at this stage fell into several categories: (a) failure to report a zero-order correlation or the data necessary to compute an effect size correlation (e.g., studies reporting means with no standard deviations¹, ANOVA or multiple regression results), (b) scales that measured complex combinations of personality traits (e.g., Type A), (c) measures that combined satisfaction with other, non-satisfaction variables (e.g., marital success), (d) measures of life satisfaction based on the summation of domain satisfactions, (e) inappropriate samples, (f) longitudinal studies, and (g) multiple studies based on the same sample. Table 1 shows the keyword searches used for each class of meta-analysis, the number of abstracts identified by our electronic searches and the number of articles containing relevant data that were included in the analyses.

After this stage we were left with approximately 70 studies (see Table 2 for a list of studies included in the meta-analysis). Many of the studies contained multiple independent samples, and information relevant to several meta-analyses (e.g., a correlation for both neuroticism and extraversion with marital satisfaction). Finally, we posted a request for unpublished or in-press data relevant to our four general classes of meta-analyses on the listserve of the Society of Personality and Social Psychology (SPSP), and received several responses. We used 12 raw data sets that were either available to us or that we received from members of the SPSP listserve. Thus, in all, 317 correlations from 116 independent samples were used to compute the meta-analytic estimates.

Coding reliability

Coding was completed by the first author and, in a few cases of uncertainty, in consultation with the second author. Intercoder agreement in extracting information from primary studies is an important concern in meta-analysis. Haring and colleagues (1981) presented empirical evidence that intercoder agreement in meta-analyses is not a problem for calculation-based coding (e.g., effect sizes, number of subjects; for similar findings see also Jackson, 1980; Hattie & Hansford, 1984), but may be a problem for judgmentbased coding (e.g., the quality of the study). To address this issue, in the current study we calculated intercoder agreement percentage in classifying personality traits into the Big Five. To obtain this measure of intercoder reliability, approximately 20% of the independent samples that examined the Personality-Life Satisfaction association and approximately 70% of the independent samples that examined the Personality-Marital Satisfaction association were randomly selected for coding by the third author. The percentage of agreement between coders ranged from 86% for the Personality-Marital Satisfaction meta-analysis, to 100% for the Personality-Life Satisfaction meta-analysis. There were a few disagreements related to coding Agreeableness-Marital Satisfaction associations. Specifically, whereas the first coder classified Psychoticism and Hostility as measures of agreeableness, the second coder classified them as measures of neuroticism. In addition, in one case the second coder classified the Hysteria and Defensiveness scales of the MMPI-2 as measures of agreeableness, whereas these two scales where not coded by the first coder.

Meta-analytic procedures

We used the meta-analytic procedures of Hunter and Schmidt (1990) to correct observed correlations for sampling error and unreliability in both variables. Correlations

were corrected individually. When the authors of the original studies reported the internal consistency reliability for a measure, we used this value to correct the observed correlation for attenuation. When reliabilities were not reported, we used the relevant mean reliability based on those studies that did report a reliability estimate. When multiple measures of personality and/or satisfaction were reported in individual studies, we computed equally weighted composite correlations (i.e., the correlation of a variable or variables with the sum of other variables) among these multiple measures. These correlations are conceptually similar to those obtained in confirmatory factor analysis; the use of multiple measures increases construct validity and reduces the attenuation in correlations due to measurement error (Hunter & Schmidt, 1990). We also used the refined procedure developed by Raju, Burke, Normand, and Langlois (1991)² to estimate the standard deviation of the true-score correlations more accurately; this procedure takes into account the sampling errors associated with sample-specific estimates of the reliabilities of the scores on the predictor and criterion measures when computing the sampling variance of the corrected correlations.

In addition to reporting estimates of mean true-score correlations, it is also important in meta-analysis to describe variability in correlations. Accordingly, we report 90% credibility intervals and 95% confidence intervals around the estimated population correlations. Confidence intervals provide an estimate of the variability around the estimated mean correlation; a 95% confidence interval excluding zero indicates that one can be 95% confident that the average true correlation is non-zero. Credibility intervals provide an estimate of the variability of individual correlations across studies in the population; a 90% credibility interval excluding zero indicates that 90% of the individual

correlations in the meta-analysis excluded zero. Thus, confidence intervals estimate variability in the <u>mean</u> correlation, whereas credibility intervals estimate variability in the <u>individual</u> correlations across the studies.

The meta-analytic procedure is also used to establish the relevance of potential moderators that are specified in advance. We conducted one moderator analysis of the extraversion-marital satisfaction association based on the type of extraversion measure used. As discussed by Watson and Clark (1997) there is substantial variability in the content of different measures of extraversion-- reflective of whether the instrument (a) was created to assess these traits directly (e.g., the NEO extraversion scale) or (b) assumes positive affect lies at the core of extraversion (e.g., the MPQ) or (c) whether it is more peripherally related to the construct at hand (e.g., the BSRI Femininity scale), or (d) includes additional irrelevant content (e.g., the impulsivity component in Eysenck's EPI Extraversion scale). We will assess empirically (via meta-analytic moderator analyses; see description below) the differential validity of these different types of scales. The moderator variable is used to divide the studies into subsets, and meta-analysis is applied to each subset separately. If large mean differences appear between subsets, and there is a corresponding reduction in within-subset variation across studies, the presence of a moderator can be inferred (Hunter & Schmidt, 1990). In addition, we also used the Quiñones, Ford, and Teachout (1995) Z-test to determine whether validities varied significantly across moderator categories.

Results

Meta-Analytic Findings

Table 3 presents the meta-analytic intercorrelations among the various types of satisfaction. The most salient aspect of the table is the small number of studies examining social and health satisfaction in relation to the other satisfaction variables (K<8 for all appropriate cells in the table). This lack of studies limits our ability to draw reliable inferences regarding these associations and indicates a need for future research to investigate these associations. In contrast, the literatures for job, marital and life satisfaction are substantially larger, and yield more reliable meta-analytic estimates.

The findings for job and marital satisfaction indicate an interesting pattern: job and marital satisfaction are strongly related to life satisfaction, but only weakly related to each other. As discussed earlier, this pattern is very consistent with a bottom-up explanation-- that is, with the notion that marital and job satisfaction are largely independent from each other and jointly determine one's level of life satisfaction (we will return to this issue later). More tentatively, we can say that social and health satisfaction also show moderate to strong associations with life satisfaction, but are weakly associated with each other. In contrast, however, based on the limited evidence available at this point, both social satisfaction and health satisfaction show moderate associations with job satisfaction, which suggests some spillover of satisfaction across domains. If these moderate cross-domains associations are corroborated in subsequent research, they would indicate some potential problems for a simple bottom-up perspective.

As expected, the associations reported in Table 4 indicate substantial associations for three of the Big Five traits—neuroticism, extraversion, and conscientiousness-- with job satisfaction. Judge et al. (2002) obtained the following estimates of true score correlations: -.29 for neuroticism, .25 for extraversion, and .26 for conscientiousness.

However, as discussed by these authors, only the relations of neuroticism and extraversion generalized across studies (i.e., the credibility intervals did not include zero for these traits). Thus, this evidence supports the validity of the five-factor model for predicting job satisfaction, especially with regard to neuroticism and extraversion. The one somewhat surprising aspect of these data was that agreeableness had an estimated true score correlation of only .17 with job satisfaction. Finally, as expected, openness was unrelated to job satisfaction.

Results of the meta-analyses relating the Big Five to marital satisfaction are provided in Table 5. These data establish the existence of considerable relations between the following personality traits and marital satisfaction: neuroticism (ρ =-.29) was the strongest correlate of marital satisfaction, followed closely by agreeableness (ρ =.29) and conscientiousness (ρ =.25). Moreover, all credibility and confidence intervals in the table exclude zero, indicating that the average true score correlations are distinguishable from zero, and that the results fully generalize across studies.

In contrast, the findings for extraversion were somewhat lower than we initially expected. However, as discussed earlier, we suspected a-priori that the type of measure used to assess extraversion would act as a moderator of the association between extraversion and marital satisfaction.

Table 6 reports the moderator analysis for the extraversion-marital satisfaction association. We divided the trait measures into four categories: Eysenckian (EPQ, EPI), miscellaneous (BSRI, SM-E), affective (PANAS, MPQ) and NEO (NEO-FFI, NEO-PI) The Eysenckian category includes measures that tap into an additional and less relevant component of extraversion, namely, impulsivity (note that even Eysenck's final scale, the

EPQ, includes significant impulsivity-related content; see Watson & Clark, 1997). The NEO category includes only measures designed to assess extraversion directly, whereas the miscellaneous category includes measures that contain items more peripheral to the content of the trait (e.g., the Masculinity scale of the BSRI); finally, the affective category contains measures that focus on assessing positive affect.

Strong support was found for the hypothesized moderator. The NEO measures were found to have the highest validities (ρ =.26), followed by the affective category (ρ =.23), the miscellaneous category (ρ =.16) and Eysenck's measures (ρ =.08). In addition, the corrected standard deviation decreased for all categories relative to the broad category; this provides evidence for the existence of moderators. Furthermore, we used Quiñones et al.'s (1995) Z-test to more formally test the differences between validities. Findings indicate that the validity for the Eysenck category was significantly lower (for the three comparisons z>1.65, p<.05) than the other three categories, and that the validity of the NEO category was significantly higher than the miscellaneous category (z=2.00, p<.05), but not significantly different from the affective category (z=.40, g=.05). Taken together, these results indicate that the cleaner, more direct and affective measures of extraversion show the highest validity coefficients with marital satisfaction.

Table 7 reports the limited data regarding the associations between personality and both social and health satisfaction. The top three rows of the table suggest that neuroticism, extraversion and agreeableness are related to social satisfaction, especially the latter two (and more interpersonal) traits. The substantial association between neuroticism and health satisfaction is not surprising in view of previous work establishing

a strong link between neuroticism/negative affectivity and subjective health complaints (Watson & Pennebaker, 1989).

Results of the meta-analyses relating the Big Five traits to life satisfaction are provided in Table 8. The table establishes the existence of considerable relations between the Big Five and life satisfaction (excluding the trait openness): neuroticism (ρ =-.56) was the strongest correlate of life satisfaction, followed by three other traits—extraversion, agreeableness and conscientiousness—that showed almost identical associations (ρ range from 34 to .36). Moreover, all credibility and confidence intervals in the table exclude zero, indicating that the average true score correlations are distinguishable from zero, and that the results fully generalize across studies.

The rank ordering of these differential trait validities is broadly consistent with the findings reported in the earlier meta-analysis by DeNeve and Cooper (1998). As for the magnitude of the associations, the estimates we report are higher relative to this previous meta-analysis partly due to correction for attenuation in both variables. However, even the uncorrected correlations we obtained are considerably higher than those obtained in the previous meta-analysis, suggesting the importance of distinguishing between direct and indirect measures of the Big Five.

Taken together, our findings indicate that four of the Big Five traits showed substantial associations with the satisfaction criteria. This finding lends further empirical support for the important role played by personality in satisfaction, as posited by a top-down model. Based on the confirmation of our theoretical expectations—namely, that openness to experience will either not be related or will show low associations with the satisfaction criteria—we chose not to include this trait in the models we developed and

tested. Neuroticism, consistent with its affective nature, showed substantial associations with all the satisfaction criteria, most notably with life satisfaction. Agreeableness demonstrated substantial associations with relationship satisfaction (marital and social), as well as life satisfaction, but a relatively low association with job satisfaction. Finally, a comparison of the findings in Tables 4 through 8 indicates that, overall, the strongest associations were found between personality and life satisfaction. The latter finding is supportive of a direct link between personality and life satisfaction (see also Figure 2).

Comparing the numbers of independent samples reporting results with respect to the relationships between personality and the various domain satisfaction considered in this paper--see Tables 4 through 8-- reveals that the information available regarding the associations between personality and both health and social satisfaction is considerably more sparse than for job and marital satisfaction. Consequently, we recommend that the findings regarding the dispositional source of health and social satisfaction should be treated with caution. For example, we were not able to locate any studies that examined the associations between two of the Big Five—openness and conscientiousness—and social and health satisfaction. (Note that to a lesser extent, there is also a need for these two traits to be studied in relation to marital satisfaction.)

The lack of studies relating health and social satisfaction to both (a) personality and (b) the other satisfaction variables led us to restrict the focus in our models to only two types of domain satisfaction: job and marital satisfaction. The inclusion of additional satisfaction domains—such as health and social satisfaction—in comprehensive models of life satisfaction is clearly a deserving area for future research.

Tests of the Three Competing Models

We next describe the procedures we used to test our three competing models. As described earlier, we estimated path models based on meta-analytic data. This procedure has been strongly advocated by Viswesvaran and Ones (1995) as a method of theory-testing, and several recent studies have employed path analysis techniques based on meta-analytic data (e.g., Colquitt, LePine, & Noe, 2000; Hom, et al., 1992; Le & Beal, 2002; Podaskoff, MacKenzie, & Bommer, 1996; Tett & Meyer, 1993).

Table 9 presents the same correlation matrix that was used to test all three models. We used estimates of the corrected "true-score correlations" for all entries in the matrix because the use of path analyses assumes that all variables are measured without error (e.g., Billings & Wroten, 1978; Bobko, 1990). Because every observed variable contains some measurement error, to remove error variance, the path model parameters need to be estimated using true-score correlations as input (Billings & Wroten, 1978). Wherever possible, we sought to base our path estimates on the most clear and direct measures of the Big Five traits; most notably, on the basis of the moderator analysis reported earlier, we used the NEO-based estimate for the association between extraversion and marital satisfaction. In addition, for the correlation with job satisfaction we used the validity estimates based on direct measures of personality (i.e., explicitly labeled, see Judge et al., 2002). The intercorrelations among the four Big Five traits were obtained from a very large recent meta-analysis (Ones, Viswesvaran, & Reiss, 1996).

Because the correlations in the matrix were drawn from four different sources—our findings, Judge et al. (2002), Ones et al. (1996), Tait et al. (1989)—it is important to compare the studies in terms of the meta-analytic procedures employed, as differences in the meta-analytic procedures may introduce additional uncontrolled error variance in the

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estimation of path models. In the next four sections we compare these four different sources on the following dimensions: literature search, inclusion rules, and computations.

In terms of the literature search, all four sources are based on large populations of studies, and the authors all indicate that they have attempted to undertake comprehensive reviews of the literature by including both published and unpublished studies. Moreover, the literature searches for the three personality-satisfaction meta-analyses all included the PsychINFO database, in addition to other means. Though they did not report what database was used to search the literature, Tait et al. (1989) note that "a thorough search of the published literature in several different disciplines (e.g., management, industrial psychology, sociology, leisure, and vocational behavior) was undertaken." This thorough search likely covered the same literature areas that contain job satisfaction as the PsychINFO database. Thus, we believe that the four sources have examined a fairly similar population of studies.

As for inclusion rules, we used very similar inclusion rules to those employed in the Judge et al. meta-analysis. Moreover, both our study and Ones et al. (1996) report high levels of agreement in the classification of personality measures into the Big-5 traits. However, slight differences in the inclusion rules, coupled with subjectivism on the part of the researchers who applied those rules, likely introduced some error variance in the statistics estimated in the integrative results based on the various meta-analyses reviewed here. This is a limitation of the method that we used, and we acknowledge it again in the discussion section.

Finally, as noted earlier, we used the Hunter-Schmidt psychometric meta-analysis method, with the modification proposed by Raju et al. (1991) to account for sampling

error in the sample reliability values for both the predictor and the criterion. Judge et al. (2002), Ones et al. (1996), and Tait et al. (1989) also used the Hunter-Schmidt method, though not with the Raju et al. (1991) modification. This difference in methods concerns the computations of the standard deviation of the point estimates (using the Raju et al. modification should provide slightly larger standard deviations) but not the computation of the point estimates themselves. Moreover, all the point estimates used in the path analyses have been corrected for the same artifacts (i.e., unreliability in both the predictor and the criterion; no corrections for range restriction), and thus they are comparable. Because we have only used the point estimates, and not the standard deviations, from the other meta-analyses in testing these integrative models, the difference in the computational algorithms does not affect our integrative results.

To summarize, this discussion suggests that there is substantial similarity between the procedures employed in the different meta-analyses. However, small differences between meta-analyses may have slightly reduced the precision of our model testing; as noted, this is a limitation of our analysis.

We tested the three models using the maximum-likelihood estimation method as implemented in LISREL 8 (Jöreskog & Sörbom, 1996). For the sample size of the models, we chose to use the harmonic mean of the matrix sample sizes rather than the arithmetic mean. The formula for the harmonic mean is k/(1/N1+1/N2+...+1/Nk) where k is the number of unique correlations in the matrix and N refers to the sample sizes of the studies. We chose to use the harmonic mean because it gives much less weight to large individual study samples and consequently is more conservative than the arithmetic mean

(Viswesvaran & Ones, 1995). In this study, the harmonic mean was large (N=5,297), which led to highly significant results across the board.

Results of the three LISREL analyses are provided in Figures 1, 2 and 3 and Tables 10, 11 and 12. As mentioned earlier, in the first model ("the direct effects topdown model"; see Figure 1) we took a relatively simplistic top-down approach. In this model, we hypothesized that personality has a direct effect on both overall and specific domain satisfactions and that personality is entirely responsible for the observed correlations between the different types of satisfaction. Despite the sizable magnitude of the path coefficients linking personality to the different types of satisfaction (e.g., the path linking neuroticism to life satisfaction, see Table 10), the first model was not supported by the various fit indices: $\chi^2_{(3)}$ =1121.87,CFI=0.83, IFI=.83, RMSEA=.27. Inspection of the LISREL-produced modification indices clearly indicated the need to free for estimation the paths between marital/job satisfaction and life satisfaction. Conceptually, these findings reveal that accounting for the effects of personality on satisfaction does not entirely eliminate the strong relationships existing between these different types of satisfaction (see also Table 3). More pragmatically, in order to improve the accuracy of this scheme, bottom-up features linking the specific types of domain satisfaction to overall life satisfaction must be added to the model.

In the second model ("the temperament top-down model"; see Figure 2) we took a more nuanced top-down approach, arguing that personality essentially colors one's general evaluation of life (i.e., life satisfaction); this, in turn, influences specific assessments of both job and marital satisfaction. In other words, life satisfaction is assumed to be the mediating mechanism between personality and marital/job satisfaction

(a full mediation model). Fit statistics for the second model indicate that it fit the data very well: $\chi^2_{(9)}$ =296.45,CFI=.96, IFI=.96, RMSEA=.08. What is more striking, perhaps, is the large magnitude of the path coefficients: Three of the six paths are greater than

|0.40| (see Table 11).

In contrast, in the third model ("the integrative model"; see Figure 3), we took an integrative perspective and hypothesized that marital and job satisfaction partially mediate the relation between personality and life satisfaction. Similar to the second model, fit statistics for the third model indicate that it also fits the data very well: $\chi^2_{(1)} = 1.85, \text{CFI} = 1, \text{IFI} = 1, \text{RMSEA} = .01. \text{Inspection of Table 12 indicates that substantial coefficients were obtained for many paths, especially for those linking marital and job satisfaction to life satisfaction. Additional sizable coefficients were found for the paths linking neuroticism to both job and life satisfaction, and extraversion to both job and marital satisfaction; these findings highlight the role played by several personality traits in satisfaction. Taken together, these results provide strong support for an integrative model of satisfaction. As a final evaluation of the models, and since Model 1 is nested in Model 3, we directly compared these two models. Indeed, Model 3 provided a significantly better fit than Model 1, <math>\chi^2_{\text{difference}}(2)=1120.02$, p<001.

Taken together, these results provide additional strong support for a top-down approach to satisfaction—although not a simplistic, direct effects model—as well as support for an integrative approach that also incorporates bottom-up features. In this regard it is important to note that although not directly comparable, the second (temperament top-down) model is considerably more parsimonious than the integrative model.

General Discussion

Overview of Results

In the current study we examined the relative merit of top-down and bottom-up explanations of life satisfaction. To achieve this goal we used the following two basic strategies: (a) we examined the meta-analytic associations between personality, domain satisfactions and life satisfaction, and (b) we developed and tested three competing theoretical models via path-analysis based on these meta-analytic estimates.

Examination of the meta-analytic associations between the different satisfaction variables revealed an important general pattern: domain satisfactions were substantially related to life satisfaction, but were only weakly related to each other. As such, job satisfaction, marital satisfaction, health satisfaction, and social satisfaction all showed moderate to strong associations with life satisfaction. However, job and marital satisfaction were only weakly related to each other and - based on one study - so were social satisfaction and health satisfaction. The only exceptions to this pattern were the moderate associations for friendship and social satisfaction with job satisfaction. However, as noted earlier, all the findings for social and health satisfaction should be treated with caution in view of the limited number of studies available.

Taken together, these results do not support a simple top-down or dispositional approach to satisfaction —which would predict similarly moderate correlations among all three types of satisfaction—but are consistent with a bottom-up approach to life satisfaction positing that different domain satisfactions exert independent and unique influences over life satisfaction.

Our examination of the associations between the Big Five personality traits and the five satisfaction criteria provides the most compelling evidence yet for the usefulness of the five-factor model in the study of satisfaction. That is, four of the five traits were substantially associated with various types of domain satisfaction, and even more so with global life satisfaction, with the exception being openness to experience. The finding that openness was not related to satisfaction is consistent with our hypothesis regarding the affective nature of satisfaction measures, given that openness is only weakly related to affectivity (Watson, 2000).

As was expected based on their affective nature, neuroticism and extraversion were significantly associated with satisfaction. Specifically, neuroticism was significantly associated with all five satisfaction criteria, and extraversion was associated with four (no information was available regarding the association between extraversion and health satisfaction). Conscientiousness showed substantial associations with job satisfaction, marital satisfaction and life satisfaction (no information was available regarding the association between extraversion and either social or health satisfaction). Finally, agreeableness was associated with marital satisfaction, life satisfaction and social satisfaction (no information was available regarding the association between agreeableness and health satisfaction). These findings clearly support a top-down or personological approach to the study of satisfaction in general, and to life satisfaction, in particular. Moreover, they seem to suggest that life satisfaction is more proximal to personality than are the domain satisfactions.

Three models linking personality, domain satisfaction, and life satisfaction were tested based on these meta-analytic findings. The first two models take a top-down

approach, whereas the third model adopts an integrative perspective, combining features from both the top-down and bottom-up perspectives. The first "direct effects top-down model" (see Figure 1)—which represents a simplistic top-down model wherein personality directly influences all satisfaction variables, and no links exist between the different satisfaction factors—was not supported by the data. That is, direct links between domain satisfaction and life satisfaction were clearly indicated.

In the second model ("the temperament top-down model", see Figure 2), we took a more complex top-down approach, arguing that personality influences life satisfaction, which in turn, influences one's job and marital satisfaction; this model was supported by the data. The third model ("the integrative model", see Figure 3), in contrast, posits that job and marital satisfaction mediate the relationship between personality and life satisfaction. This model fit the data very well, suggesting that marital and job satisfaction partly mediate the relations between personality and life satisfaction, although direct paths between the four personality variables and life satisfaction were also indicated.

Taken together, these results suggest that top-down models have considerable merit in explaining the dispositional sources of satisfaction, but that the links between domain and life satisfaction also need to be taken into account in comprehensive models of satisfaction.

Causal Links between Domain and Life Satisfaction

One cannot decide between the two latter models based solely on statistical criteria, as they both fit the data quite well. An important advantage of Model 2 is its parsimony: this model posits only six paths, in contrast to the much more complex Model 3. Model 3, in turn, seems compelling in that it combines both person and situational

variables as causal factors. However, the heart of the issue seems to be whether life satisfaction causes domain satisfaction or whether domain satisfaction causes life satisfaction. Another interesting possibility is that of a reciprocal causation process. For example, previous research based on both cross-sectional and longitudinal findings suggests that the relationship between job and life satisfaction is reciprocal and non-recursive—job satisfaction does affect life satisfaction, but life satisfaction also influences job satisfaction (Judge & Watanabe, 1993).

Results reported by Headey, Veenhoven and Wearing (1991) paint an even more complex picture. Based on a four-wave panel study in Australia, these authors found (a) mutual causation between marital satisfaction and life satisfaction, (b) a causal link running from life satisfaction to job satisfaction, and (c) a spurious association for both health and social satisfaction with life satisfaction due to the effects of neuroticism and extraversion. Taken together, these results appear to be more supportive of our Model 2, which posits that life satisfaction influences job and marital satisfaction; clearly, however, additional research is needed to further ascertain the causal direction of these associations.

Contributions and Implications of Current Research

An important contribution of the current study lies in showing the role that both personality factors and situational factors play in life satisfaction. Both the various meta-analyses and path models indicate that although personality plays a key role, situational factors are also important. As such, we were able to show the limitations of the top-down explanation-- and the confounding variable argument (see Costa & McCrae, 1980; Heller, et al., 2002) in the observed associations between satisfaction variables-- based on the

rejection of the simple, direct top-down Model 1. Thus, these results indicate that links between domain satisfactions and life satisfaction need to be included in comprehensive models of life satisfaction.

Indeed, we emphasize that we do not espouse a view that because life satisfaction is influenced by broad enduring individual differences, little can be done to improve people's level of satisfaction. That is, we do not think aspects of one's life such as job characteristics and marital conditions are unimportant in determining one's life satisfaction. Rather, we believe that personality places some limits (i.e., a reaction range) on the level of life satisfaction people can experience; within this broad range, changes in people's environments, perceptions, feelings and behaviors can increase or decrease their level of satisfaction.

Consistent with this idea, many dispositional approaches are inherently interactive, arguing that attitudes and behavior are a function of (a) the fit between stable aspects of the person and his or her current environment (e.g., Tellegen, 1988), as well as (b) people's perceptions of the environment, which are based on both objective and subjective/dispositional factors (e.g., Brief et al., 1993). This interactive logic might suggest to employers that they should consider employees' personality when deciding on the training, motivational and compensation systems that would be most satisfying to an employee (Heller et al., 2002). For instance, based on the "personality as reactivity" hypothesis an employer could decide whether to frame his or her feedback to a specific employee in a positive or negative manner (see Judge & Larsen, 2001).

Moreover, a potentially important implication of the good-fitting models we developed (i.e., Figures 2 and 3) lies in the processes they prescribe for raising people's

levels of life satisfaction. Based on Model 3—which posits a mediating role for job and marital satisfaction in the personality-life satisfaction association—it would be beneficial to try to change a person's occupational and relationship satisfaction levels in order to increase his or her level of life satisfaction. That is, these results suggest that job enrichment techniques, marital counseling, and other approaches may be used to influence job and marital factors and processes that are more proximal to job and marital satisfaction (e.g., the objective environment, attributions for spouse behaviors, marital interactions) than are personality traits. In contrast, based on Model 2—which emphasizes the mediating role of life satisfaction in the personality-domain satisfaction association— the best approach might be to help neurotic individuals separate their general, negative cognitive set (Watson & Clark, 1984) from the objective characteristics of their job and marriage; in this model, however, less can be done to change one's level of life satisfaction, as it is directly based on temperamental factors.

Study Limitations

Our analysis is limited in several ways. First, additional structural models of life satisfaction could be developed and tested. For example, one such plausible model would be a basic bottom-up model including situational factors or events that may have strong influences on job, marital and life satisfaction. Moreover, we recognize the limitations of our use of satisfaction judgments as proxies for bottom-up factors in the structural models we have proposed. Consequently, we view developing and testing life satisfaction models that include objective characteristics of both the job and the marriage as important steps for future research. In addition, models in which personality serves as a dependent variable could be developed. Recent work on personality development has indicated the

role of life events and experiences in these changes (Vaidya, Gray, Haig, & Watson, 2002; Roberts, Caspi, & Moffitt, 2003). For instance, in a 2-wave longitudinal study, Roberts et al. (2003) showed that job status and satisfaction, pay, financial security and work involvement were related to changes in positive and negative emotionality from age 18 to 26. Based on these findings one can hypothesize that job, marital, and other life events and experiences can influence one's domain and life satisfaction, which, in turn, may lead to personality and self-concept change [a partial mediation model]. Testing the latter type of models clearly requires multi-wave long-term longitudinal designs.

Second, the exclusive reliance on self-report may have introduced method bias in our data (see Campbell, 1982); that is, having a single rater provide both the personality and satisfaction data may have artificially inflated the correlations (a point we return to subsequently). For instance, in the personality-job satisfaction area, Crampton and Wagner (1994) found—based on meta-analytical estimates—a statistically significant inflation of .06 in the mean self-report correlation compared to the mean multi-source correlation. Third, and perhaps more importantly, the use of cross-sectional data rather than multi-panel longitudinal data or quasi-experimental designs limits inferences that can be drawn regarding the temporal sequencing and causal nature of these relations. Indeed, we believe that causal modeling of the relationships among personality, important life events, domain satisfaction, and life satisfaction is an extremely important area for future research.

Another potential limitation of the current study relates to the order effects obtained by Schwarz and his colleagues (Schwarz, Strack, & Mai, 1991; Schwarz & Strack, 1999) that were discussed earlier. There are two possible interpretations of these

findings. The first and more extreme interpretation is that life satisfaction is not a psychologically meaningful concept, but rather is constructed artificially by participants when requested to report their life satisfaction level in a survey. Consequently, the investigation of the "true" association between life satisfaction and domain satisfaction is meaningless. A second, less radical interpretation would be that order effects represent an important moderator of the associations between a specific domain satisfaction (e.g., marital or job satisfaction) and general life satisfaction. Obviously, both of these interpretations have potentially important implications for our examination of the associations between domain and life satisfaction.

Related to the latter interpretation, as authors rarely report (a) the order in which they administered the questionnaires or (b) whether they used filler items between the satisfaction measures (e.g., additional satisfaction or entirely different questions; these may decay the accessibility of the focal satisfaction questions and dilute these order effects), we could not test for order as a potential moderator of these relationships.

Without additional information, we suspect that these order effects may have been minimized—or eliminated altogether—either because order was largely counterbalanced across all of the reviewed studies, or because of the frequent use of filler items.

More fundamentally, there also is evidence that refutes the findings reported by Schwarz and colleagues. In a recent paper, Schimmack and Oishi (2003) have argued convincingly that order should not matter because "... people do not use temporarily accessible information that they deem irrelevant, and relevant information [e.g., marital satisfaction] is used even when it is not temporarily accessible." Based on their predictions, these authors conducted three studies and a meta-analysis, and failed to find

consistent item order effects. For instance, their meta-analysis revealed a negligible effect size ($\underline{r} = .00$) for item order in a set of 16 effects based on more than 3,000 respondents. Thus, these results seem to question the influence of context effects on life satisfaction, and increase one's confidence in the validity of this construct.

Another limitation of our methods is due to potential problems of dependencies in correlations (e.g., studies that have reported correlations between each of the four personality traits and marital satisfaction) estimated in the same study (Becker, 1992). However, because most of the studies included in our meta-analyses reported only a small number of correlations, this was not a major problem; furthermore, it did not permit us to use more sophisticated techniques that take into account these dependencies (e.g., Becker, 1992; Becker & Schram, 1994).

Finally, a sixth limitation of the current study relates to the use of meta-analytic estimates from four different sources. The method used was based on the procedure outlined by Viswesvaran and Ones (1995), who consider the ability to combine such data a major advantage of path analysis using meta-analytic data. That is, because meta-analytic point estimates represent population values, point estimates from different meta-analyses can be used to estimate path models. However, as discussed previously, inconsistencies in decision rules or computations can introduce additional error variance in testing these models. This in mind, the important similarities between procedures (e.g., they all used the Hunter & Schmidt method)--and the large data-bases from which the meta-analytic estimates were derived--limit the potency of this problem.

Future Research

Research on dispositional sources of life satisfaction has made important strides in recent years. In line with theoretical recommendations in the satisfaction literature, more complex interactive models that include both dispositional and environmental factors are being developed in the study of job satisfaction (e.g., Judge, Bono, & Locke, 2000), marital satisfaction (e.g., the vulnerability-stress-adaptation model of marriage; see Karney & Bradbury, 1995a; Karney & Bradbury, 1997), and life satisfaction (e.g., Brief et al., 1993; Schimmack, Radhakrishnan, Oishi, Dzokoto, & Ahadi, 2002).

We recommend that future studies use an integrative approach that incorporates both personality and situational variables. There is a clear need for studies using large samples that assess the Big-5 personality traits, important life events, various domain satisfactions, situational factors that influence these domain satisfactions, and general life satisfaction. Moreover, we still would benefit from further large-sample studies, and eventually additional meta-analytic studies, that examine the relation between direct measures of the complete five-factor model and both domain satisfaction (especially, health and social satisfaction) and general life satisfaction. In addition, more theoretical and empirical work-- examining the relative and joint merit of various potential mediators-- is needed to identify the key process variables underlying the relation between personality and life satisfaction. Finally, we call for more research to examine the role of specific affective factors (e.g., sadness, guilt, anger and joy) in both various satisfaction domains and in general life satisfaction (for some preliminary findings, see Heller & Watson, 2002).

We also recommend that-- in addition to longitudinal designs (but, see Rogosa [1980] for an important criticism of cross-lagged correlations as means for making causal

inferences)-- future research employs quasi-experimental designs to further ascertain causality and improve our understanding of the processes that influence people's life satisfaction. For example, Lyubomirsky and her colleagues have conducted an impressive line of research examining various cognitive and motivational processes (e.g., social comparison, reactions to events, dissonance reduction) that may explain the creation and maintenance of individual differences in happiness (Lyubomirsky, 2001). The paradigm developed by these authors includes subjecting globally happy and unhappy participants to a variety of experimental manipulations. For example, using this paradigm they showed that happy individuals are less sensitive to social information—especially unfavorable information—than are unhappy people (Lyubomirsky, 2001). In a similar manner, studies following people who (a) retired (c.f., Schmitt & Pulakos, 1985), (b) switched or lost their jobs, or (c) became divorced or widowed may also be very informative.

Despite the important progress that has been made in the last decade, there is still a need for more sophisticated measurement designs and data analytic techniques (for similar recommendations see also Diener et al., 1999; Karney & Bradbury, 1995a). Two methodological issues that we would like to highlight here relate to (a) the use of peerreports, and (b) the use of dynamic and longitudinal designs.

First, to provide a more rigorous test of the relationship between personality and satisfaction, it is important that researchers obtain both self- and peer-reports. This is important because—as was discussed earlier—relying solely on self-report data may introduce method bias (see Campbell, 1982); in other words, having a single rater provide both the personality and satisfaction data may artificially inflate the correlations for

several potential reasons, including the operation of various response biases (e.g., social desirability, acquiescence; see Schmitt, 1994). Consistent with this argument, recent meta-analytic evidence suggests that within the micro-organizational domain, the areas of job satisfaction and personality are especially susceptible to inflationary percept-percept effects (Crampton & Wagner, 1994). Ratings from significant others allow one to circumvent this problem by examining the personality-satisfaction association using two different raters.

In this regard, however, it is important to use an appropriate rater to generate these trait judgments. The Realistic Accuracy Model (RAM; Funder, 1995; Funder & Colvin, 1997)—which assumes that (a) personality traits are real characteristics of individuals and that (b) raters use systematically available information—identifies the conditions that will facilitate the accuracy and utility of peer ratings, such as having a "good judge" and a "good trait". For instance, numerous studies have shown that selfother and interjudge agreement both improve with increasing levels of acquaintance (the acquaintanceship effect; see Norman & Goldberg, 1966; Funder & Colvin, 1997), presumably because judges acquire more trait relevant information as they come to know the target better. Furthermore, the accumulating data reveal that easily observable personality traits (e.g., extraversion) yield better interjudge agreement and higher selfother correlations than do more internal traits (e.g., neuroticism, negative affectivity), presumably because judges acquire trait relevant information more easily (the trait visibility effect; see Funder, 1995; Watson, Hubbard, & Wiese, 2000b). Taken together, these results suggest that peer ratings will be accurate when the peers have had ample opportunity to observe the target and/or the trait is relatively easy to judge in others.

Consequently, for neuroticism—a trait that is difficult to observe— well-acquainted raters (e.g., spouses) are essential for accurate ratings, whereas for extraversion—an easily observable trait— less-acquainted judges may suffice.

Second, the comprehensive study of satisfaction and its antecedents cannot be based solely on static cross-sectional data, but rather requires the use of multi-wave longitudinal designs or shorter diary designs that enable researchers to examine how satisfaction changes over time (Karney & Bradbury, 1995a). Recent analytical developments allow for better, more appropriate ways of analyzing this type of longitudinal data, over and beyond current approaches (e.g., correlation and multiple regression) that make use of only two waves of data at a time. The recent technique of growth curve analysis (sometimes also referred to as hierarchical linear modeling or multi-level modeling; see Bryk & Raudenbush, 1987, 1992) allows one to trace the trajectory of satisfaction across multiple waves of data by employing a two stage process in which (a) within individual parameters of change (e.g., initial levels of satisfaction and rates of change in satisfaction) are estimated first, and then (b) the parameters of the trajectory are treated as dependent variables to be explained by other measures in a between-subject analysis (Karney & Bradbury, 1995b). This method recently has been implemented successfully in both the marital (see Karney & Bradbury, 1997; Davila, Karney, & Bradbury, 1999; Karney & Bradbury, 2000), and job satisfaction (Ilies & Judge, 2002) domains.

More recently, we have successfully employed a diary design to study withinindividual fluctuations in momentary assessments of life satisfaction (Heller, 2003). This type of variation has been neglected in life satisfaction research, as well as the broader well-being literature. As such, we were able to show the existence of substantial within-subject fluctuations in life satisfaction. Moreover, we showed that this variation is not random, but rather is systematically related to both personological (e.g., neuroticism) and situational factors (e.g., job and marital satisfaction), and their interactions.

With the growing interest in the dispositional sources of life satisfaction, a new generation of research is emerging, in which emphasis is shifting from the identification of basic relationships to the integration of findings and the development of more complex theoretical models that synthesize various process variables. This new wave of research is using more and more sophisticated measurement and research designs, including: multiple-wave longitudinal designs, multi-source data, and structural equation modeling. In this paper-- drawing on data from organizational psychology, personality, social psychology, counseling and clinical psychology-- we attempted to integrate these findings into more complex and comprehensive models of how traits and situational factors influence life satisfaction. We hope that our conceptual and empirical analyses will stimulate further work on this extremely important task.

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Appendix A

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We would like to thank Eva Klohnen, Irwin Levin, Dhananjay Nayakankuppam, Frank Schmidt, and Jerry Suls for their helpful comments on earlier versions of this paper. We would also like to thank Jennifer La Guardia, Michael E. McCullough, Greg Murray, Ulrich Schimmack, and Jo-Ann Tsang for providing us with unpublished raw data sets.

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Footnotes

¹ However, studies that reported both mean and standard deviations were included; in which case they were converted into a Cohen's d-value, and then to a Pearson correlation.

² We thank an anonymous reviewer for directing us to this procedure.

Table 1 Summary of Literature Searches Conducted

Relationship of Interest	Keyword Search Used			
Personality-Marital Satisfaction	(Personality <i>or</i> Big Five <i>or</i> Five Factor Model, etc.) <i>and</i> Marital Satisfaction			
Personality-Life Satisfaction	(Personality <i>or</i> Big Five <i>or</i> Five Factor Model, etc.) <i>and</i> Life Satisfaction			
Personality-Social Satisfaction	(Personality <i>or</i> Big Five <i>or</i> Five Factor Model <i>or</i> Neuroticism, etc.) <i>and</i> (Social Satisfaction <i>or</i> Friendship Satisfaction)			
Personality-Health Satisfaction	(Personality or Big Five or Five Factor Model or Neuroticism, etc.) and Health Satisfaction			
Job Satisfaction-Marital Satisfaction	Job Satisfaction and Marital satisfaction			
Marital Satisfaction-Life Satisfaction	Marital satisfaction and Life Satisfaction			
Social Satisfaction-Job Satisfaction	(Social Satisfaction <i>or</i> Friendship Satisfaction) <i>and</i> (Job Satisfaction <i>or</i> Work Satisfaction)			
Table 1 (continued)				
Relationship of Interest	Keyword Search Used			
Social Satisfaction-Marital Satisfaction	(Social Satisfaction <i>or</i> Friendship Satisfaction) <i>and</i> Marital Satisfaction			
Social Satisfaction-Health Satisfaction	(Social Satisfaction <i>or</i> Friendship Satisfaction) <i>and</i> Health Satisfaction			
Social Satisfaction-Life Satisfaction	(Social Satisfaction or Friendship Satisfaction) and Life			

	Satisfaction		
Health Satisfaction-Job Satisfaction	Health Satisfaction <i>and</i> (Job Satisfaction <i>or</i> Work Satisfaction)	17	1
Health Satisfaction-Marital Satisfaction	Health Satisfaction and Marital Satisfaction	1	0
Health Satisfaction-Life Satisfaction	Health Satisfaction and Life Satisfaction	39	3^6

Notes. ¹ We also obtained 11 raw data sets relating the five-factor model to life satisfaction. ² We also located another published study relating personality and social satisfaction based on a review of the literature. ³ We also located two other published studies relating personality and health satisfaction. ⁴ We also located two other raw studies relating marital and life satisfaction. ⁵ We also located three other published studies relating social and life satisfaction based on a review of the literature. ⁶ We also located four other published studies relating health and life satisfaction.

Table 2 Studies Included in the Meta-Analyses

Authors	N	Personality Measures	Satisfaction Measures	Effect Sizes (observed)
Albers (1982)- 1	40	-	MS: DAS	.10(MS-JS)
			JS: JDI	
Albers (1982)- 2	40	-	MS: DAS	.09(MS-JS)
			JS: JDI	
Alfonso, Allison, & Rader	127	SE-Rosenberg	JS:ESWLS	.62(SS-LS), .33(SS-JS),
(1996)			SS:ESWLS	30(N-SS)
			LS:ESWLS	
Anderson (1984)	405	-	MS:6 QLS items	.20(MS-JS)
Anderson (1991)	128	NEO-FFI	JS: 8 QLS items LS: SCLSES	63(N-LS), .44(E-LS),.09(O-LS), .19(A-LS),.33(C-LS)
Barling & MacEwen (1992)	190	-	MS:SMAT	.09(MS-JS)
Beach & O'Leary (1993)-1	264	BDI	JS:OJSS MS:SMAT	35(N-MS)
Beach & O'Leary (1993)-2	264	BDI	MS:SMAT	47(N-MS)

Table 2 (continued)

Authors	N	Personality Measures	Satisfaction Measures	Effect Sizes
Bedian, Burke, & Moffett	411	411 -	MS:SMAT	.15(MS-JS), .40(MS-LS)
(1988)-1			JS:20 general JS items from MSQ-SF	
			LS:QLS	
Bedian, Burke, & Moffett	321	-	MS:SMAT	.12(MS-JS), .45(MS-LS)
(1988)-2			JS: JS:20 general JS items from MSQ-SF	
			LS:QLS	
Black & Hill (1984) 232	232	232 -	MS: Ad-hoc	.33(MS-JS)
			JS: Ad-hoc	
Bouchard, Lussier, & Sabourin (1999)-1	446	NEO-FFI	MS:DAS	40(N-MS), .21(E-MS),.02(O-MS), .25(A-MS),.17(C-MS)
Bouchard, Lussier, & Sabourin (1999)-2	446	NEO-FFI	MS:DAS	24(N-MS), .15(E-MS),.10(O-MS), .23(A-MS),.24(C-MS)
Bradburry, Campbell, & Fincham (95)-1	32	9 FEM items and 9 MASC items from BSRI	MS:SMAT	.06(E-MS),.16(A-MS)
Bradbury, Campbell, & Fincham (95)-2	32	9 FEM items and 9 MASC items from BSRI	MS:SMAT	.13(E-MS),.21(A-MS)

Table 2 (continued)

Authors	N	Personality Measures	Satisfaction Measures	Effect Sizes
Bradbury, Campbell, & Fincham (95)-3	105	SE	MS:SMAT	32(N-MS)
Bradbury, Campbell, & Fincham (95)-4	105	SE	MS:SMAT	27(N-MS)
Bradbury & Fincham (1988)-1	39	FEM and MASC scales of BSRI	MS:SMAT	.21(E-MS),.33(A-MS)
Bradbury & Fincham (1988)-2	39	FEM and MASC scales of BSRI	MS:SMAT	08(E-MS),.38(A-MS)
Brief, Butcher, George, &	443	16PF-Anxiety	HS: 4 ad-hoc items	32(N-HS), .25(HS-LS)
Link (1993)			LS:1 item (Cantril, 1967)	
Buzzi (1997)	62 (53	FEM and MASC scales of BSRI	MS: DAS subscale dyadic satisfaction	.07(MS-JS), .04(E-MS),.09(A-MS)
	MS- JS)		JS: JDI-R, JIG	
Campbell, Converse &	2,106	-	MS-1 ad-hoc item	.40(MS-LS),
Rodgers (1976)			SS- 1 ad-hoc item	.36(SS-LS),.28(HS-LS)
			HS- 1 ad-hoc item	
			LS-8 Semantic differential items + overall life satisfaction.	

Table 2 (continued)

Authors	N	Personality Measures	Satisfaction Measures	Effect Sizes
Caughlin, Huston, & Houts (2000)-1	162	Anxiety- 2 nd order 16PF factor	MS: MOQ	11(N-MS)
Caughlin, Huston, & Houts (2000)-2	162	Anxiety- 2 nd order 16PF factor	MS: MOQ	13(N-MS)
Chiu (1998)	497	-	MS: C & M	.12(MS-JS), .38(MS-LS)
			JS: K	
			LS: QES	
Compton (1998)	296	IASR-B5	LS:SWLS	31(N-LS), 10(E-LS),.05(O-LS), .23(A-LS),.22(C-LS)
Cook (1995)	114	NEO-PI	MS:DAS	42(N-MS), .34(E-MS),.16(O-MS), .41(A-MS),.37(C-MS)
Coverman (1989)-1	687	-	MS:QES	.14(MS-JS), .45(MS-LS)
			LS: QES	
Coverman (1989)-2	249	-	MS:QES	.16(MS-JS), .50(MS-LS)
			LS: QES	
Crawford (98)	70	-	SS: 7 items from OARS	.43(HS-LS), .30(SS-LS),
			HS:3 items from OARS	.08(HS-SS)
			LS: SWLS	

Table 2 (continued)

A	NT	D 15 16		T. CC C.
Authors	N	Personality Measures	Satisfaction Measures	Effect Sizes
Davila, Bradbury, & Fincham (1998)- 1	109	NA scale of PANAS, 1 year instructions	MS:SMAT, 3 items based on SMD	59(N-MS)
(1990)- 1		instructions	OII SIVID	
Davila, Bradbury, & Fincham (1998)- 2	109	NA scale of PANAS, 1 year instructions	MS:SMAT, 3 items based on SMD	50(N-MS)
Duxbury, Higgins, & Thomas (1996)	454	-	MS: QSRS scale from the HDLF	.09(MS-JS)
			JS: Quality of Employment survey	
Eysenck & Wakefield (1981) -1	566	EPQ	MS: SMAT+6 items	24(N-MS), .09(E-MS),.27(A-MS)
Eysenck & Wakefield (1981) -2	566	EPQ	MS: SMAT+6 items	19(N-MS), .04(E-MS),.19(A-MS)
Fincham & Bradbury (1993)-1	130	BDI, SE	MS:SMAT	39(N-MS)
Fincham & Bradbury (1993)-2	130	BDI, SE	MS:SMAT	36(N-MS)
Fitzgerald, Drasgow, &	4,956	-	HS:Ad-hoc measure	.27(HS-JS)
Magley (1999)-1			JS: Ad-hoc measure	

Table 2 (continued)

Authors	N	Personality Measures	Satisfaction Measures	Effect Sizes
Fitzgerald, Drasgow, &	17,835	-	HS: Ad-hoc measure	.28(HS-JS)
Magley (1999)-2			JS: Ad-hoc measure	
Frosch, Mangelsdorf, & McHale (1998)- 1	98	MPQ	MS:DAS	36(N-MS),.07(E-MS)
Frosch, Mangelsdorf, & McHale (1998)- 2	89	MPQ	MS:DAS	44(N-MS),.32(E-MS)
Furr & Funder (1998)	143	NEO-PI	LS: SWLS	48(N-LS), .42(E-LS),.13(O-LS), .24(A-LS),.28(C-LS)
Garrett (1988)	150	16PF	HS: 1 ad-hoc item	29(N-LS),
			LS:SCLSES	.19(E-LS),.10(O-LS), .13(A-LS),.04(C-LS), .45(HS-LS)
Goldman, Masterson, Locke,	104	-	MS: MAS	.21(MS-JS)
Groth & Jensen (2002)			JS: VAS	
Govaerts (1986)-1	39	-	MS: MSI, GDS scale	.01(MS-JS)
			JS: General Satisfaction scale of MSQ	
Govaerts (1986)-2	39	-	MS: MSI, GDS scale	.18(MS-JS)
			JS: General Satisfaction scale of MSQ	

Table 2 (continued)

Authors	N	Personality Measures	Satisfaction Measures	Effect Sizes
Headey, Veenhoven, &	942	-	MS: D-T scale	.47(MS-LS)
Wearing (91)			LS: LI	
Headey & Wearing (92)	502	-	HS: D-T scale	.25(HS-LS),.37(SS-LS)
			MS: D-T scale	
			SS: D-T scale	
			LS: LI	
Heller, Judge & Watson (2002)	157	NEO-FFI	LS: SWLS	47(N-LS), .39(E-LS), 09(O-LS), .33(A-LS), .36(C-LS)
Heller & Watson (2002)-1	74	NEO-FFI	MS: SMAT, Intimacy and Conflict scales of the SRQ	.71(MS-LS),50(N-LS), .40(E-LS), .18(O-LS),
			LS: SWLS	01(A-LS), .13(C-LS)
Heller & Watson (2002)-2	74	NEO-FFI	MS: SMAT, Int and Conf scales of the SRQ	.68(MS-LS),18(N-LS), .33(E-LS), .06(O-LS),
			LS: SWLS	.35(A-LS), .27(C-LS)
Hirsch & Rapkin (1986)	235	-	MS:7 items from DAS	.14(JS-MS)
,			JS:6 items from JSI	
Hjemboe & Butcher (1991)-1	841	MMPI-2 (Avg. of Pt, Sc, ANX, DEP)	MS:DAS	29(N-MS)

Authors	N	Personality Measures	Satisfaction Measures	Effect Sizes
Hjemboe & Butcher (1991)-2	841	MMPI-2 (Avg. of Pt, Sc, ANX, DEP)	MS:DAS	31(N-MS)
Hjemboe & Butcher (1991)-3	150	MMPI-2 (Avg. of Pt, Sc, ANX, DEP)	MS:DAS	03(N-MS)
Hjemboe & Butcher (1991)-4	150	MMPI-2 (Avg. of Pt, Sc, ANX, DEP)	MS:DAS	20(N-MS)
Karambayya & Reilly (1992)-1	39	-	MS: Spanier & Lewis (1980) Scale	.08(MS-JS)
			JS: Faces	
Karambayya & Reilly (1992)-2	39	-	MS: Spanier & Lewis (1980) Scale	.02(MS-JS)
			JS: Faces	
Karney, Bradbury, Fincham, & Sullivan (1994)-1	80	EPQ-N, BDI	MS: SMAT, QMI, KMS, SMD	20(N-MS)
Karney, Bradbury, Fincham, & Sullivan (1994)-2	80	EPQ-N, BDI	MS: SMAT, QMI, KMS, SMD	15(N-MS)
Krishnaswamy & Mantri (1997)	170	EPI	MS:MAS	28(N-MS),.16(E-MS)
Kurdek (1997)	258	NEO-FFI	LS: SWLS	47(N-LS), .35(E-LS), .06(O-LS), .33(A-LS), .18 (C-LS)

Table 2 (continued)

Authors	N	Personality Measures	Satisfaction Measures	Effect Sizes
Langis, Sabourin, Lussier, & Mathieu (1994)-1	117	BSRI- FEM., MASC.	MS:DAS	.26(E-MS),.20(A-MS)
Langis, Sabourin, Lussier, & Mathieu (1994)-2	117	BSRI- FEM., MASC.	MS:DAS	.15(E-MS),.32(A-MS)
Lester, Haig, & Monnelo (1989) -1	30	N,E- EPI	MS: MDS	31(N-MS),23(E-MS)
Lester, Haig, & Monnelo (1989) -2	30	N,E- EPI	MS: MDS	31 (N-MS),01(E-MS)
Lewis, Nace, Barnhart, Carson, & Howard (1994)	113	-	MS:Locke-Williamson (1958)	.26(MS-JS)
			JS: modification of PJSS	
Lounsbury, Tatum, Chambers, Owens & Gibson (1999)	249	NEO-FFI	LS: LSS	58(N-LS), .34(E-LS), .07(O-LS), .34(A-LS), .17(C-LS)
Lucas (1991)	93	MMPI (Pt,F)	MS: DAS	.13(MS-JS),25(N-MS)
			JS: JDI, JIG	
Markey, Markey, & Birch (2000)-1	187	SE, CES-D	MS: L & H scales of MIQ, PTS & UFS scales of MEQ	35(N-MS)
Markey, Markey, & Birch (2000)-2	187	SE, CES-D	MS: L & H scales of MIQ, PTS & UFS scales of MEQ	34(N-MS)

Table 2 (continued)

Authors	N	Personality Measures	Satisfaction Measures	Effect Sizes
McCrae & Costa (1991)	391	NEO-PI	LS: LSI	37(N-LS), .22(E-LS), 05(O-LS), .12(A-LS), .24(C-LS)
McCrae, Stone, Fagan, & Costa (1998)	47	NEO-PI-R	MS: DAS	25(N-MS),.41(A-MS), .22(C-MS)
McCullough, Emmons, & Tsang (2002)	1,179	Mini-markers	LS: SWLS	45(N-LS), .30(E-LS), .12(O-LS), .27(A-LS), .26(C-LS)
Metz (1992) –1	231	-	MS: DAS	.06(MS-JS)
			JS: JSI	
Metz (1992) -2	189	-	MS: DAS	.15(MS-JS)
			JS: JSI	
Miller, Lefcourt, Holmes, Ware, & Saleh (1986)-1	88	Locus of control I-E scale	MS: DAS	11(N-MS)
Miller, Lefcourt, Holmes, Ware, & Saleh (1986)-2	88	Locus of control I-E scale	MS: DAS	09(N-MS)
Murray (2002)-1	527	NEO-FFI	LS:SWLS	41(N-LS), .26(E-LS), 05(O-LS), .22(A-LS), .24(C-LS)

Table 2 (continued)

Authors	N Personality Measures		Satisfaction Measures	Effect Sizes	
Murray (2002)-2	7133	IPIP	LS:SWLS	50(N-LS), .27(E-LS), .09(O-LS), .32(A-LS), .35(C-LS)	
Newton, Kiecolt-Glaser, Glaser, & Malarkey (1995)-1	90	Но	MS: SMAT	.17(A-MS)	
Newton, Kiecolt-Glaser, Glaser, & Malarkey (1995)-2	90	Но	MS: SMAT	.04(A-MS)	
Parasurman, Greenhaus,	413 -	-	MS:SMAT	.14(MS-JS), .41(MS-LS)	
Rabinowitz, Bedeian, & Mossholder (1989)			JS: MSQ-SF		
			LS: QLS		
Park (1991)	143 -		MS: not described	.12(MS-JS), .45(MS-LS)	
			JS: QES		
			LS: Single item+ semantic differential scale		
Pond & Green (1983)-1	51	-	MS:SMAT	.06(MS-JS)	
			JS:JSI		
Pond & Green (1983)-2	61	-	MS:SMAT	.29(MS-JS)	
			JS:JSI		

Table 2 (continued)

Authors	N	Personality Measures	Satisfaction Measures	Effect Sizes	
Pond & Green (1983)-3	57	-	MS:SMAT	.16(MS-JS)	
			JS:JSI		
Ramanaiah, Detwiler, & Byravan (1997)	245	NEO-PI	LS: SWLS	36(N-LS), .25(E-LS), .02(O-LS), .34(A-LS), .17(C-LS)	
Raymond (1980) -1	156	ABS-NA, PA	SS:3 items from the QOLS	20(N-SS), .15(E-SS)	
Raymond (1980)-2	206	ABS-NA, PA	SS: 3 items from the QOLS	20(N-SS), .23(E-SS)	
Raymond (1980)-3	143	ABS-NA, PA	SS: 3 items from the QOLS	14(N-SS), .39(E-SS)	
Reynolds (1987)	57	-	MS:DAS	.02(MS-JS)	
			JS: MPS scale of JDS		
Richmond, Craig, & Ruzicka (1991) –1	90	E component of SM	MS:DAS	.06(E-MS)	
Richmond, Craig, & Ruzicka (1991) –2	90	E component of SM	MS:DAS	.19(E-MS)	
Rho (89)-1	100	SE	MS:KMS	.45(N-MS)	
Rho (89)-2	100	SE	MS:KMS	.44(N-MS)	

Table 2 (continued)

Authors	N Personality Measures		Satisfaction Measures	Effect Sizes	
Russell & Wells (1994)	188	N-EPQ	MS:6 items of the MQ	20(N-MS)	
Schimmack, Diener, & Oishi (2002)	122	IPIP	HS:1 ad-hoc item LS: SWLS	31(N-HS), .27(HS-LS)	
Schimmack, Oishi, Furr, & Funder (2002)-1	136	NEO-PI-R	LS: SWLS LS: SWLS	45(N-LS), .33(E-LS), .16(O-LS), .14(A-LS), .25(C-LS)	
Schimmack, Oishi, Furr, & Funder (2002)-2	124	IPIP	LS: SWLS	49(N-LS), .42(E-LS), .18(O-LS), .14(A-LS), .35(C-LS)	
Shek (95)	1,501	-	MS: C-KMS, C-DAS	.38(MS-LS)	
			LS: SWLS		
Smith, Pope, Sanders, & Allred (1988)-1	60	Но	MS:SMAT	.31(A-MS)	
Smith, Pope, Sanders, & Allred (1988)-2	60	Но	MS: SMAT	.15(A-MS)	
Soliday, McCluskey-Fawcett, & O'Brien (1999)	51	CES-D, PANAS	MS: DAS16(N-MS),.22		
Taupin (1988)-1	73	-	MS: DAS	.33(MS-JS)	
			JS:MSQ		

Table 2 (continued)

Authors	N	Personality Measures	Satisfaction Measures	Effect Sizes
Taupin (1988)-2	73	-	MS: DAS	.13(MS-JS)
			JS:MSQ	
Thoits & Hewitt (2001)	3,617	SE+CES-D	HS:	34(N-HS)
Ulrich-Jakubowski, Russel, & O'Hara (1988)	78	SCL-90(R)- DEP	MS:DAS	38(N-MS)
Watson (2000a)	558	NEO-FFI	LS: SWLS	45(N-LS), .25(E-LS), .12(O-LS), .24(A-LS), .25(C-LS)
Watson (2000b)	136	NEO-FFI	LS: SWLS	50(N-LS), .49(E-LS), .09(O-LS), .20(A-LS), .34(C-LS)
Watson (2000c)	136	NEO-FFI	LS: SWLS	66(N-LS), .56(E-LS), 10(O-LS), .45(A-LS), .40(C-LS)
Watson, Hubbard, & Wiese (2000)-1	74	NEO-FFI	MS: SMAT, QMI, Int and Conf scales of the SRQ	49(N-MS), .33(E-MS), .15(O-MS), .31(A-MS), .23(C-MS)

Table 2 (continued)

Authors	N	Personality Measures	Satisfaction Measures	Effect Sizes
Watson, Hubbard, & Wiese (2000)-2	74	NEO-FFI	MS: SMAT, QMI, Int and Conf scales of the SRQ	22(N-MS), .36(E-MS), .18(O-MS), .25(A-MS), .16(C-MS)
Weisman (1997)	93	P: PAQ- MASC, FEM	SS: Sub-scale of SELF	.25(E-SS), .27(A-SS)
Wickrama, Conger, Lorenz, & Matthews (1995)-1	310 -	-	MS: Ad-hoc	.10(MS-JS)
			JS: Ad-hoc	
Wickrama, Conger, Lorenz, & Matthews (1995)-2	310	-	MS:Ad-hoc	.16(MS-JS)
			JS: Ad-hoc	
Ying (1992)	68	-	MS:1 ad-hoc item	.38(MS-LS), .25(HS-LS)
			HS: 1 ad-hoc item	
			LS: 1 Ad-hoc item	

Notes: N=Neuroticism. E=Extraversion. O= Openness. A=Agreeableness. C= Conscientiousness. HS= Health Satisfaction. JS= Job Satisfaction. MS= Marital Satisfaction. LS= Life Satisfaction. SS=Social Satisfaction. DAS= Dyadic Adjustment Scale (Spanier, 1976). JDI= Job Descriptive Index (Smith, Kendall, & Hulin, 1969). ESWLS= Extended Satisfaction With Life Scale (Alfonso, Allison, & Rader, 1996). QLS= Quality of Life Scale (Quinn & Shepard, 1974). NEO-FFI= NEO Five-Factor Inventory (Costa & McCrae, 1992). SCLSES = Salamon-Conte Life Satisfaction in the Elderly Scale (Conte & Salamon, 1982). SMAT= Short Marital

Adjustment Test (Locke & Wallace, 1959). OJSS= Overall Job Satisfaction Scale (Warr, Cook, & Wall, 1979). BDI= Beck Depression Inventory (Beck, 1972). MSQ-SF= Minnesota Satisfaction Questionnaire, Short Form (Weiss, Dawis, England, & Lofquist, 1967). BSRI= Bem Sex Role Inventory (Bem, 1974). FEM= Femininity. MASC= Masculinity. SE= Self-Esteem (Rosenberg, 1965). JDI-R= Job Descriptive Index Revised (Balzer, Kihm., Smith, Irwin, Bachiochi, Robie, Sinar, & Parra, 1997). JIG= Job in General (Balzer et al., 1997). 16PF= 16 Personality Factor Questionnaire (Cattell, Eber, & Tatsoaka, 1970). MOO= Marital Opinion Questionnaire (Huston & Vangelisti, 1991). NEO-PI= NEO Personality Inventory (Costa & McCrae, 1985). C & M= Cleary & Mechanic (1983). K= Kalleberg (1977). QES= Quality of Employment Survey (Quinn & Staines, 1979). IASR-B5= Interpersonal Adjective Scale Revised-B5 (Trapnell & Wiggins, 1990). SWLS=Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985). OARS= Duke Older American Resources and Services Program Multidimensional functional Questionnaire (Fillenbaum, 1988). NA= Negative Affectivity. PANAS= Positive and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988). SMD= Semantic Differential (Osgood, Suci, & Tannenbaum, 1957). OSRS= Quality of Significant Relationship Scale. HDLF= Health and Daily Living Form (Moos, Cronkite, Billings, & Finney, 1988). EPQ= Eysenck Personality Questionnaire (Eysenck & Eysenck, 1975). VAS= Vocational Adaptation Scale (Heath, 1991). MSI= Marital Satisfaction Inventory (Snyder, 1971). GDS= Global Distress Scale. MSQ= Minnesota Satisfaction Questionnaire (Weiss, Dawis, England, & Lofquist, 1967). CCEI= Crown-Crisp Experiential Index (Crown & Crisp, 1979). MAES= Marital Attitudes Evaluation Scale (Schutz, 1967). D-T scale= Delighted-Terrible scale (Andrews & Whitney, 1976). LI= Life-as-a-whole Index (Andrew & Whitney, 1976). Int= Intimacy. Conf= Conflict. SRQ=

SMU Relationship Questionnaire (Assenheimer & Watson, 1991). MMPI-2= The Minnesota Multiphasic Personality Inventory-2 (Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989). Pt= Psychasthenia. Sc= Schizophrenia . Anx=Anxiety. Dep=Subjective Depression Scale. Faces = Faces Scale (Kunin, 1955). QMI= Quality of Marriage Index (Norton, 1983). KMS= Kansas Marital Satisfaction (Schum, Paff-Bergen, Hatch, Obiorah, Coperland, Meens, & Bugaighia, 1986). EPI=Eysenck Personality Inventory (Eysenck & Eysenck, 1963). MAS= Marital Adjustment Scale (Kapur, 1970). MDS= Marital Dissatisfaction Scale (Edmonds, 1967). PJSS= Physician Job Satisfaction Scale (Linn, Yager, Cope, & Leake, 1985). LSS=Life Satisfaction Scale (based on Campbell, Converse, & Rodgers 1976; and Andrews & Whitney, 1976). F= MMPI "F" Scale. CES-D= Center for Epidemiological Studies Depression Scale (Radloff, 1977). L= Love. H=Harmony. MIQ=Marital Interactions Questionnaire (Braiker & Kelley, 1979). PTS= Perspective Taking Scale. UFS= Understanding from Spouse. MEQ=Marital Experiences Questionnaire (Stets, 1993). LSI= Life Satisfaction Index (Costa & McCrae, 1984). NEO-PI-R= NEO Personality Inventory Revised (Costa & McCrae, 1992). Mini-Markers=Big Five mini markers (Saucier, 1994). JSI= Job Satisfaction Index (Brayfield & Rothe, 1951). I-E= Internality-Externality (Rotter, 1966). Ho= Hostility scale (Cook & Medley, 1954). QOLS= Quality of Life Scale (Flanagan, 1978). MPS= Motivational Potential Score (Hackman & Oldham, 1975). JDS= Job Diagnostic Survey (Hackman & Oldham, 1975). SM= Self-monitoring (Snyder, 1974). MQ= Marriage Questionnaire (Russell & Wells, 1993). C-KMS= Chinese Kansas Marital Satisfaction Scale (Shek, Lam, Tsoi, & Lam, 1993). C-DAS=Chinese Dyadic Adjustment Scale (Shek, Lam, Tsoi, & Lam, 1993). SCL-90(R)-DEP= Symptom Checklist 90 Revised Depression Scale (Derogatis, 1977). SELF= Self-Evaluation of Life Function Scale (Linn & Linn, 1984).

Table 3

Intercorrelations among Satisfaction Domains (Job, Marital, Health and Social) and Life Satisfaction

Association	K	N	Avg. r	ρ	CV	CL
Job-Marital	32	6,248	.14	.16	[.16,.16]	[.14,.19]
Job-Social	1	182	.33	.36	-	-
Job-Health	2	22,791	.28	.35	[.35, .35]	[.34,.36]
Job-Life*	57	19,811	.35	.44		[.41,.47]
Marital-Social	-	-	-	-	-	-
Marital-Health	-	-	-	-	-	-
Marital-Life	13	7,540	.42	.51	[47,.55]	[.48,.53]
Social-Health	1	70	.08	.12	-	-
Social-Life	4	2,978	.39	.43	[.34,.52]	[.35,.50]

Health-Life 7 3,534 .28 .35 [.35,.35] [.32,.39]

Notes. *These results were taken from Tait et al. (1989). Avg= Average. CV= 10% and 90% credibility values. CL=5% and 95% confidence limits.

Table 4
Association between the Big Five and Job Satisfaction

Trait	K	N	Avg. r	ρ	CV	CL
Neuroticism	92	24,527	24	29	[50,08]	[33,26]
Extraversion	75	20,184	.19	.25	[.06,.45]	[.22,.29]
Openness	50	15,196	.01	.02	[26,.29]	[05,.08]
Agreeableness	38	11,856	.13	.17	[03,.37]	[.12,.22]
Conscientiousness	79	21,719	.20	.26	[02,.55]	[.21,.31]

Notes. These results were taken from Judge et al. (2002). Avg= Average. CV= 10% and 90% credibility values. CL=5% and 95% confidence limits.

Table 5
<u>Association between the Big Five and Marital Satisfaction</u>

Trait	K	N	Avg. r	ρ	CV	CL
Neuroticism	40	7,640	26	29	[51,08]	[35,24]
Extraversion	22	3,372	.14	.17	[.11,.23]	[.13,.21]
Openness	5	1,154	.08	.10	[.10,.10]	[.04,.16]
Agreeableness	19	3,071	.24	.29	[.29,.29]	[.25,.32]
Conscientiousness	6	1,201	22	.25	[.25,.25]	[.20,.31]

Notes. Avg= Average. CV= 10% and 90% credibility values. CL=5% and 95% confidence limits.

Table 6
Relationship between Extraversion and Marital Satisfaction: Extraversion Measure
Moderator Analyses

			Average		% Var			
Construct	k	N	r	ρ	Accounted	SD_{ρ}	10% CV	90
Extraversion overall	22	3,372	.14	.17	85%	.05	.11	
Eysenck	5	1,362	.07	.08	100%	.00	.08	
Misc.	9	618	.14	.16	100%	.00	.16	
Affect	3	238	.20	.23	100%	.00	.23	
NEO	5	1,154	.22	.26	97%	.01	.24	

Notes. k=number of correlations. N=combined sample size. ρ =estimated true score correlation. SD $_{\rho}$ =standard deviation of true score correlation. Whitener's (1990) procedure for computing the standard error was used to estimate the standard error of the mean corrected correlation for each meta-analysis. CV=Credibility values. CL=Confidence limit.

Table 7 Association between the Big Five and Social Satisfaction (SS), Health Satisfaction (HS)

Association	K	N	Avg. r	ρ	CV	CL
Neuroticism-SS	4	632	21	22	[22,22]	[29,15]
Extraversion-SS	4	598	.25	.28	[.28,.28]	[.20,.35]
Agreeableness-SS	1	93	.27	.38	-	-
Neuroticism-HS	3	4,182	34	42	[42,42]	[44,39]

Notes. Avg= Average. SS=Social Satisfaction. HS=Health Satisfaction. CV= 10% and 90% credibility values. CL=5% and 95% confidence limits.

Table 8 Association between the Big Five and Life Satisfaction

Trait	K	N	Avg. r	ρ	CV	CL
Neuroticism	19	12,092	48	56	[63,49]	[58,53]
Extraversion	19	12,092	.28	.34	[.26,.41]	[.30,.37]
Openness	19	12,092	.08	.10	[.06,.13]	[.08,.12]
Agreeableness	19	12,092	.29	.35	[.29,.41]	[.32,.38]
Conscientiousness	19	12,092	.31	.36	[.30,.43]	[.33,.39]

Notes. Avg= Average. CV= 10% and 90% credibility values. CL=5% and 95% confidence limits.

Table 9

<u>Correlation Input Table for Path-analytic Models</u>

	1	2	3	4	5	6
1. Neuroticism						
2. Extraversion	19					
3. Agreeableness	25	.17				
4. Conscientiousness	26	.00	.27			
5. Job Satisfaction	27	.24	.14	.17		
6. Marital Satisfaction	29	.26	.29	.25	.16	
7. Life Satisfaction	56	.34	.35	.36	.44	.51

Notes. N=5,297 (the harmonic mean of the meta-analytic sample sizes used to estimate each correlation in the table; Viswesvaran & Ones, 1995). Ns for table entries range from 1,201 to 440,440; Ks range from 6 to 710 studies. All coefficients are estimates of true score correlations (corrected for internal consistency). The intercorrelations among the Big Five dimensions were estimated by Ones et al., 1996. The correlations between the Big Five traits and job satisfaction were taken from Judge et al. (2002). The correlation between job satisfaction and life satisfaction is based on Tait et al. (1989).

Table 10 Standardized Parameter Estimates for Model 1

Path	Parameter Estimate
Neuroticism to Job Satisfaction	20
Extraversion to Job Satisfaction	.20
Agreeableness to Job Satisfaction	.03
Conscientiousness to Job Satisfaction	.11
Neuroticism to Marital Satisfaction	17
Extraversion to Marital Satisfaction	.20
Agreeableness to Marital Satisfaction	.17
Conscientiousness to Marital Satisfaction	.16
Neuroticism to Life Satisfaction	42
Extraversion to Life Satisfaction	.23
Agreeableness to Life Satisfaction	.15
Conscientiousness to Life Satisfaction	.21

Table 11 Standardized Parameter Estimates for Model 2

Path	Parameter Estimate
Neuroticism to Life Satisfaction	42
Extraversion to Life Satisfaction	.23
Agreeableness to Life Satisfaction	.15
Conscientiousness to Life Satisfaction	.21
Life Satisfaction to Marital Satisfaction	.51
Life Satisfaction to Job Satisfaction	.44

Table 12 Standardized Parameter Estimates for Model 3

Path	Parameter Estimate
Neuroticism to Job Satisfaction	20
Extraversion to Job Satisfaction	.20
Agreeableness to Job Satisfaction	.03
Conscientiousness to Job Satisfaction	.11
Neuroticism to Marital Satisfaction	17
Extraversion to Marital Satisfaction	.20
Agreeableness to Marital Satisfaction	.17
Conscientiousness to Marital Satisfaction	.16
Marital Satisfaction to Life Satisfaction	.28
Job Satisfaction to Life Satisfaction	.24
Neuroticism to Life Satisfaction	33
Extraversion to Life Satisfaction	.13
Agreeableness to Life Satisfaction	.09
Conscientiousness to Life Satisfaction	.14

Figure Captions

Figure 1. Model 1: A "Direct Effects" Top-Down Model

Figure 2. Model 2: A Temperament Top-Down Model

Figure 3. Model 3: An Integrative Model





