

BIG FIVE PERSONALITY AND RELATIONSHIP SATISFACTION:
ACTOR, PARTNER AND SIMILARITY EFFECTS

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ABSTRACT

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Data from married couples in the United Kingdom ($N = 6,554$), Australia ($N = 5,278$), and the United Kingdom ($N = 11,418$) were used to examine the intrapersonal and interpersonal effects of personality on relationship and life satisfaction. The Actor-Partner Interdependence Model (APIM; Kenny, Kashy, & Cook, 2006) was used to examine three kinds of personality effects: actor effects, partner effects, and similarity effects. Across these three large, nationally representative samples there was clear evidence of actor and partner effects of personality for both marital and life satisfaction. In addition, despite the sufficient statistical power provided by these large samples and the use of different indexes to capture similarity in both elevation and profile shape, there was no consistent evidence that the dyadic variable of similarity matters over and above the actor and partner effects of personality.

To my mom, who continually teaches me what a smart and compassionate woman can accomplish.

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TABLE OF CONTENTS

LIST OF TABLES vi

LIST OF FIGURES viii

Big Five Personality and Relationship Satisfaction: Actor, Partner, and Similarity Effects 1

 Big Five Personality and Relationship Satisfaction 2

 Components of a Relationship: Actor, Partner and Similarity Effects 3

 Personality and Relationship Satisfaction – Actor Effects 4

 Partner’s Big Five Personality and Relationship Satisfaction 7

 Personality Similarity and Relationship Satisfaction 9

 Statistical Considerations for Analyses of Similarity 14

 Overview of Research 22

 Method 24

 Analysis Plan 27

 Results 31

 Conclusion 45

APPENDIX 55

REFERENCES 70

LIST OF TABLES

Table 1: <i>Descriptive Statistics for Personality and Relationship Satisfaction Variables</i>	56
Table 2: <i>Univariate analyses predicting relationship satisfaction as a function of personality, partner personality, and personality similarity (absolute difference between trait factor scores)</i>	57
Table 3: <i>Simultaneous analyses predicting relationship satisfaction as a function of personality, partner personality, and absolute differences for all 5 trait factors.</i>	58
Table 4: <i>Discrepancy Analyses By Traits: Predicting relationship satisfaction as a function of personality, partner personality, and the sum of discrepancies across all 5 trait factors</i>	59
Table 5: <i>Discrepancy Analyses by Item: Predicting relationship satisfaction as a function of personality, partner personality, and the sum of discrepancies across all personality items while controlling for trait factors.</i>	60
Table 6: <i>Profile Correlation Analyses by Traits: Predicting relationship satisfaction as a function of personality, partner personality, and profile similarity (of trait factor scores)</i>	61
Table 7: <i>Profile Correlation Analyses by Items: Predicting relationship satisfaction as a function of personality, partner personality, and profile similarity (of items) while controlling for trait factor scores</i>	62
Table 8: <i>Univariate analyses predicting life satisfaction as a function of personality, partner personality, and personality similarity (absolute difference between trait factor scores)</i>	63
Table 9: <i>Simultaneous analyses predicting life satisfaction as a function of personality, partner personality, and absolute differences for all 5 trait factors.</i>	64
Table 10: <i>Discrepancy Analyses By Traits: Predicting life satisfaction as a function of personality, partner personality, and the sum of discrepancies across all 5 trait factors.</i>	65

Table 11: *Discrepancy Analyses by Item: Predicting life satisfaction as a function of personality, partner personality, and the sum of discrepancies across all personality items while controlling for trait factors.*..... 66

Table 12: *Profile Correlation Analyses by Traits: Predicting life satisfaction as a function of personality, partner personality, and profile similarity (of trait factor scores).* 67

Table 13: *Profile Correlation Analyses by Items: Predicting life satisfaction as a function of personality, partner personality, and profile similarity (of item scores).* 68

LIST OF FIGURES

Figure 1: Hypothetical Data to Illustrate Three Forms of Similarity.....	53
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Big Five Personality and Relationship Satisfaction: Actor, Partner, and Similarity Effects

Are individual differences in personality associated with relationship quality? Is it true that “birds of a feather flock together” and if so, are couples with more similar personalities more satisfied with their relationships? These questions have received increasing attention in recent years as researchers have worked to merge evidence regarding the intrapersonal and interpersonal influences of personality on close relationships (e.g., Barelds, 2005; Gaunt, 2006; Gonazaga, Campos, & Bradbury, 2007; Watson, Hubbard, & Wiese, 2000). Amidst growing evidence that an individual’s personality traits are reliably associated with his or her own satisfaction, there are still several questions remaining about the interpersonal influences of these traits. The existing literature contains mixed evidence regarding how relationship satisfaction is related to the personality traits of a partner or spouse. In addition, there is contradictory evidence regarding whether personality similarity is important for relationship quality, with some studies showing that similarity is related to relationship satisfaction and other studies finding no association.

The current project reviews the evidence addressing these questions and highlights some of the statistical considerations that may help to explain the diverging results. In addition, a series of new studies were conducted in order to test the effects of personality and personality similarity on relationship satisfaction in larger and more representative samples than have previously been available.

Big Five Personality and Relationship Satisfaction

Personality traits are defined as “consistent patterns of thoughts, feelings, or actions that distinguish people from one another” (Johnson, 1997, p.74). There is emerging consensus that five broad factors capture most of the variability in normal personality traits. These “Big Five” trait domains consist of Extraversion (traits like energetic and sociable), Agreeableness (traits like considerate and kind), Conscientiousness (traits like hard-working and orderly), Emotional Stability (or its converse, Neuroticism, that includes traits like nervous and tense), and Openness (traits like artistic and creative).

Theory and research suggest that the personality traits individuals bring to a relationship are related to marital satisfaction and functioning. Because personality shapes the ways in which people interpret and respond to their circumstances, the traits of each partner can be expected to influence the interactions within a relationship (Robins, Caspi, & Moffitt, 2002). Personality is believed to be an important, but distal predictor of relationship quality with personality traits shaping interactions within the relationship which in turn influence relationship satisfaction (Karney & Bradbury, 1995). Personal dispositions serve as “enduring vulnerabilities” that shape how couple members react to one another and to external events. Research evidence supports the idea that interactions between partners partially mediate the associations between personality and relationship outcomes (Donnellan, Assad, Robins, & Conger, 2007). Building on this model, it is possible that the interpersonal effects of personality may also extend beyond the relationship domain. If personality shapes daily interactions and reactions, the personality traits that an individual brings to a relationship may not only affect

satisfaction specific to the relationship, but also how satisfied his or her partner is with life in general.

Components of a Relationship: Actor, Partner and Similarity Effects

Relationships can be considered interdependent systems comprised of three parts; the individual characteristics of each partner, and characteristics resulting from unique combination of the two individuals. These conceptual distinctions are formalized in a statistical tool for analyzing data from couples, the actor-partner interdependence model (APIM; Kenny, Kashy, & Cook, 2006). The APIM is an important means of investigating the links between personality traits and relationship satisfaction. *Actor effects* capture the effects of an individual's personality trait on her or his own level of satisfaction with the relationship (e.g., the effects of an individual's own level of Agreeableness on her or his judgment of relationship quality), whereas *partner effects* capture the effects of the individual's personality trait on her or his partner's level of satisfaction with the relationship (e.g., the effects of an individual's level of Agreeableness on her or his partner's judgment of relationship quality). The existence of partner effects would strengthen the argument that interpersonal variables influence relationship functioning. This is particularly convincing because partner effects are normally free from shared method biases (see Gottman, 1998) because one partner is reporting on her or his personality whereas the other partner is reporting on her or his own relationship satisfaction. In short, partner effects provide relatively strong evidence that personality traits have interpersonal effects on relationships (Kenny & Cook, 1999).

In addition to actor and partner effects, relationship satisfaction may be influenced by characteristics that are unique to the relationship itself. APIM analyses make it possible to estimate the influence of such dyad-level variables while controlling for the main effects of each spouse's initial values. For example, the influence of an actor's personality, a partner's personality, and personality similarity can be estimated using the Actor-Partner Interdependence model.

Personality and Relationship Satisfaction – Actor Effects

Empirically, a variety of studies have documented that an individual's stable personality traits are in fact associated with his or her own relationship satisfaction (e.g., Robins, et al., 2000; Watson, et al., 2000). Across the literature, it appears that Emotional Stability, Agreeableness, and Conscientiousness are the personality traits with the most robust links to relationship satisfaction. Heller, Watson, and Ilies (2004) recently published a meta-analysis summarizing the links between the Big Five and marital satisfaction. They found that the strongest association was between Emotional Stability and marital satisfaction ($r = .29$, based on 40 studies [k] involving 7,640 participants [N]) and between Agreeableness and marital satisfaction ($r = .29$, $k = 19$, $N = 3,071$). The next strongest effect was the association between Conscientiousness and marital satisfaction ($r = .25$, $k = 6$, $N = 1,201$). The associations between marital satisfaction and Extraversion ($r = .17$, $k = 22$, $N = 3,372$) and between marital satisfaction and Openness ($r = .10$, $k = 5$, $N = 1,154$) were generally weaker.

Subsequent research using different measures of personality and satisfaction have found similar patterns. For example, in a sample of 291 married couples in Iowa, self-

rated personality significantly predicted a composite measure of marital and sexual satisfaction for four of the Big Five traits as measured by the BFI (Watson et al., 2004). Using hierarchical regression Watson and his colleagues reported the R^2 when self-reported personality was entered into the prediction equation for the individual's own satisfaction. Similar to the meta-analytic results, the largest effects were for the traits of Emotional Stability ($R^2 = .192$ for wives, $R^2 = .103$ for husbands), Agreeableness ($R^2 = .100$ for wives, $R^2 = .166$ for husbands) and Conscientiousness ($R^2 = .042$ for wives, $R^2 = .047$ for husbands). Self-rated Openness had a small but statistically significant effect on satisfaction for both husbands and wives ($R^2 = .078$ for wives, $R^2 = .033$ for husbands), but self-reported Extraversion significantly predicted satisfaction only for wives ($R^2 = .019$) and not for husbands ($R^2 = .009$).

Another sample from the Midwestern United States also replicated the association between self-rated personality and satisfaction (Donnellan, Conger, & Bryant, 2004). This sample of 418 couples completed a 60-item measure of the Big Five (NEO-FFI; Costa & McCrae, 1989) and rated overall marital quality with a two item measure assessing happiness and satisfaction. There were significant correlations, ranging from $r = .11$ to $r = .23$, between self-rated personality and marital quality for four of the Big Five traits (Extraversion, Agreeableness, Conscientiousness, and Emotional Stability). In this sample, self-rated Openness was not associated with self-rated marital quality ($r = .02$ and $.01$ for husbands and wives respectively).

Overall it appears that for at least three traits (Emotional Stability, Agreeableness, and Conscientiousness), cross-sectional analyses demonstrate a reliable association between self-rated personality and relationship satisfaction. However, because in most of

these research designs both the personality and satisfaction measures are being completed by the same person, it is possible that these estimates may be influenced by shared method variance. In other words, it is possible that these associations are due to similarities in the responses to a measure rather than the hypothesized association between psychological constructs. One way to address this concern is to test the association using independent raters for the two variables in order to remove any shared method variance.

A study adopting this type of design found there was still a significant association between ratings of personality by acquaintances and self-rated marital satisfaction (Kelly and Conley, 1987). In fact, informants' reports of personality were not only associated with marital satisfaction assessed during the same time period, but the effects held even when the initial personality assessment was used to predict marital satisfaction and stability more than forty years later. Specifically, low levels of Emotional Stability for wives and low levels of impulse control and Emotional Stability for husbands were associated with lower satisfaction and higher rates of divorce. Husbands' and wives' scores on those three personality traits actually accounted for more of the predictable variance in marital outcomes than the attitudinal, social-environment (stability and closeness of the family of origin, religious practices, etc.), and sexual history variables combined. These personality characteristics accounted for 15% of the variance and the other 14 variables together accounted for only 9% more of the variance in marital outcomes (Kelly & Conley, 1987). In addition to using multiple respondents, the longitudinal design of this study demonstrated a lasting association between an individual's personality traits and his or her relationship satisfaction over time.

Partner's Big Five Personality and Relationship Satisfaction

The meta-analytic correlations described by Heller et al. (2004) provide a summary of the individual-level associations between personality and relationships. However, by definition, relationships are interdependent systems made up of more than just two distinct individuals. In addition to an individual's personality affecting her or his own judgments of relationship satisfaction, a romantic partner's personality characteristics may also play a role. Therefore, a more complete understanding of the personality-relationship association requires a consideration of the personality traits for both relationship partners.

The literature describing partner effects for personality on relationship outcomes is not as extensive or as consistent as the evidence regarding actor effects. Although several studies have examined how relationship satisfaction and functioning relate to the personality traits of a person's romantic partner the results do not always replicate across samples and measures (e.g., Barelds, 2005; Botwin, Buss, & Shackelford, 1997; Donnellan, Assad, & Conger, 2007; Robins, Caspi, & Moffitt, 2000; Watson, 2000). The trait with the most consistent evidence of partner effects is Emotional Stability. Having a partner low in Emotional Stability is associated with higher levels of relationship dissatisfaction (e.g.; Barelds, 2005; Botwin et al., 1997), and even a greater risk of marital dissolution (Kurdek, 1993). Similarly, people high in Negative Emotionality have spouses who are less satisfied (Robins, et al., 2000). However, even with this most consistent trait, the results sometimes diverge across different samples. For example, Watson et al. (2000) found that self-reports of Negative Emotionality predicted partners' satisfaction in a sample of married couples ($r = -.27$ for women, $r = -.58$ for men), but

Negative Emotionality did not significantly predict partners' satisfaction in a sample of dating couples ($r = -.13$ for women, $r = -.16$ for men). Inconsistencies such as this one may simply be the result of insufficient statistical power to detect an effect if it is there. Partner effects are generally smaller in magnitude than actor effects (probably due at least in part to the fact that there is no shared method variance for partner effects). However, additional research with larger samples and greater power is needed to clarify the current inconsistencies in the literature.

Analyses looking at partner effects for the remaining Big Five traits are even less consistent than those for Emotional Stability. The same traits are found to be significant predictors of relationship satisfaction in some samples and not in others. There are also inconsistent gender differences, with a specific trait predicting satisfaction for one gender but not the other. Unfortunately, many of these effects do not replicate across samples. For example, one study found that partners' Extraversion and Agreeableness were the only Big Five traits that were significant predictors of marital quality (Barelds, 2005). However, another study found that Agreeableness, Openness, and Emotional Stability showed small but consistent partner effects (Watson, Klohnen, Casillas, Simms, Haig, & Berry, 2004). Adding more inconsistent results to the mix, Watson et al. (2000) reported that partners' Extraversion and Agreeableness predicted women's (but not men's) relationship satisfaction in a sample of married couples but that only the Agreeableness effect was replicated in a sample of dating couples.

The frequency with which these effects appear, albeit sporadically and inconsistently, suggests that inadequate sample sizes may be at least partially responsible for the ambiguous results. In their meta-analysis, Karney and Bradbury (1995) point out

that much of the relationship research they analyzed had relatively small sample sizes (33% had 100 or fewer participants), and that this limits researchers' ability to detect small effects.

The relative paucity of large sample sizes in research examining partner effects was further illustrated by a recent meta-analysis that sought to clarify the existing evidence regarding partner effects for the Big Five traits and relationship satisfaction (Malouff, Thorsteinsson, Schutte, Bhullar, & Rooke, 2010). Their search of the literature found only ten published studies with a total of 19 effect sizes for partner effects. However, when these studies were used to calculate overall effect sizes, Malouff and colleagues found significant associations between partner personality and relationship satisfaction for four of the Big Five traits. Consistent with the narrative review above, the strongest effect was for Neuroticism ($r = -.22$) followed by Agreeableness ($r = .15$), Conscientiousness ($r = .12$), and Extraversion ($r = .06$). The meta-analysis did not find a significant association between relationship satisfaction and partners score on Openness. These results suggest that using large enough samples to provide sufficient statistical power may help to clarify the inconsistencies regarding partner effects in the literature.

Personality Similarity and Relationship Satisfaction

The saying, "birds of a feather flock together," describes a widely held belief that people tend to congregate and select romantic partners based on similarity on a variety of characteristics. Based on this folk wisdom, psychologists have examined whether people are more attracted to similar others (e.g., Botwin et al., 1997) and even whether spouses become more similar over time (Caspi, Herbener, & Ozer, 1992). Research on assortative

mating, or homogamy, indicates that couples do tend to be similar on a variety of factors including demographic characteristics and attitude domains. Similarity correlations between spouses can be as high as $r = .77$ for age and $r = .45$ for education level (Watson et al., 2004). Couples also tend to be quite similar on a range of attitude domains; Luo and Klohnen (2005) reported profile similarity estimates for a sample of newlyweds ranging from $r = .48$ for political attitudes to $r = .72$ for religiosity.

However, there is less evidence for assortative mating for personality traits. Instead, the correlations between partners on personality traits are generally much lower than those for values or demographics. For example, published reports of the correlations between couples' self-rated personality traits on the BFI range from a low of $r = .02$ for both Neuroticism and Conscientiousness to $r = .17$ for Extraversion (Watson et al., 2004). Lykken and Tellegen (1993) reported a correlation of just $r = .08$ between spouses for scores on 10 personality scales on the MPQ. A Dutch sample of 690 heterosexual couples also showed low correlations between the partners' personality scores, with correlations between spouses of only $r = .04$ for Neuroticism and $r = .04$ for Dominance (Barelds, 2005). However, there is some evidence that congruence between partners may vary by trait. Rammstedt & Schupp (2008) used data from the German Socio-Economic Panel Study, a nationally representative sample including over six thousand married couples, to show that spouses' scores on Agreeableness, Conscientiousness, and Openness were moderately correlated ($r = .26$, $.31$, and $.30$ respectively). In contrast, the same sample showed only small associations between spouses' scores for Extraversion ($r = .11$) and Emotional Stability ($r = .06$).

Regardless of whether, on average, people select partners that are very similar, it is still possible that similarity is good for relationships. The question remains as to whether couples with more similar personalities have more successful relationships. A review of the literature shows that the empirical evidence on the issue is quite mixed. On one hand, personality similarity has been reported to be a significant predictor of marital satisfaction in several studies (e.g., Gaunt, 2006; Gonzaga et al., 2007; Karney & Bradbury, 1995). On the other hand, several other studies find no association between personality similarity and relationship outcomes (e.g.; Donnellan et al., 2007, Gattis, Berns, Simpson, & Christensen, 2004; Robins et al., 2000; Watson et al., 2004).

Among the research showing that similarity is important for relationship satisfaction is a study examining 248 Israeli couples. Gaunt (2006) examined whether masculine (e.g., self-reliant, analytical), feminine (e.g., compassionate, tender), and neutral (e.g., friendly, sincere) personality traits were associated with marital satisfaction. Two different similarity measures were tested; an absolute difference measure assessing the overall discrepancy between partners' scores and a profile correlation measure that assessed similarity in terms of the pattern of responses. For both indexes of similarity, Gaunt reported that similarity was, "strongly associated with relationship measures" (p. 1416). The profile correlation index of similarity was found to be correlated with marital satisfaction $r = .30$ for wives and $r = .33$ for husbands. The absolute difference measure of similarity was correlated with marital satisfaction less strongly, with $r = -.18$ for wives and $r = -.15$ for husbands, again indicating that less difference between spouses was associated with higher marital satisfaction.

Another recent study using profile similarity correlations also reported significant associations between couples' personality similarity and relationship functioning (Gonzaga et al., 2007). The authors reported that personality similarity as measured by a profile correlation significantly predicted relationship quality ($d = .76$ in Study 1, $d = 1.01$ in Study 2). Along the same lines, a meta-analysis synthesizing research on the association between similarity and relationship satisfaction reported that personality homogeneity was reliably associated with marital satisfaction ($r = .35$ for wives, $r = .28$ for husbands; Karney & Bradbury, 1995). However, in discussing these results, the authors called attention to an important statistical issue inherent in the analysis of similarity effects. Karney and Bradbury cautioned that most of the studies included in their review did *not* control for the initial levels of personality before assessing the effects of similarity. Consequently, the authors warned that despite their meta-analytic estimates, it was possible that, "homogeneity itself does not affect marital outcome beyond the initial levels of particular variables" (Karney & Bradbury, 1995, p. 21).

To illustrate the importance of controlling for initial personality traits before interpreting similarity effects, consider a hypothetical couple who are quite *dissimilar* on the trait of Emotional Stability and who report low relationship satisfaction. At first glance, this would seem to support the idea that personality similarity is important for relationship satisfaction. However, it is necessary to consider the circumstances that are required in order for a couple to have dissimilar scores on a trait. In order to find a large absolute difference between a couple's scores on Emotional Stability, one spouse must score quite high and the other spouse must score quite low. Measures of similarity are by definition confounded with their constituent parts. As noted in the discussion of actor

effects, there is a well-established empirical association between low scores on Emotional Stability and negative relationship outcomes. Individuals scoring low on Emotional Stability are more likely to be dissatisfied with a relationship and are even more likely to divorce. Therefore, because similarity is necessarily linked with the individuals' initial levels, it is unclear whether the hypothetical couple's problems are the result of dissimilarity or simply the result of one partner's low Emotional Stability. In fact, because similarity scores are always dependent on the partners' initial levels, no conclusions about the effects of similarity can be made without first controlling for the main effects of personality.

Although failing to control for the initial personality scores for each partner prevents any clear interpretation for the effects of personality similarity (Kenny & Acitelli, 1994), the analyses in many of the similarity studies described previously (Gaunt, 2006; Gonzaga et al., 2007; and the 1995 Karney & Bradbury review) did not take this step to appropriately control for the main effects of both partners' personalities. Therefore, these articles cannot provide a clear interpretation of the unique effect of personality similarity on relationship satisfaction.

In contrast, those investigations that have appropriately controlled for the main effects of personality have found either no evidence, or only inconsistent evidence, of personality similarity predicting relationship satisfaction. For example, Watson et al. (2004) used a sample of 291 newly married couples to test whether similarity on the Big Five traits was associated with greater relationship satisfaction after controlling for the main effects of personality. The authors reported that similarity was unrelated to relationship satisfaction for Extraversion, Agreeableness, and Emotional Stability

(Watson et al., 2004). In the same sample, similarity on Conscientiousness and Openness was associated with husbands' (but not wives') relationship satisfaction.

Several additional studies that take the step of controlling for initial personality scores have also found little evidence that relationship satisfaction is related to partner similarity. In fact, Gattis et al. (2004) did not find personality similarity on any of the Big Five traits to be a significant predictor of marital satisfaction in a sample of distressed and treatment-seeking couples. Donnellan et al. (2007) also found no evidence that personality similarity assessed by the Multidimensional Personality Questionnaire (MPQ-BF) predicted relationship outcomes. Finally, Big Five personality similarity did not predict relationship satisfaction in a community sample of couples in their 40s and 60s (Shiota & Levenson, 2007).

Interpretations regarding the influence of personality similarity on relationship satisfaction depend in large part on whether the analyses control for the main effects of individuals' personality traits. The divergence resulting from this analytic choice serves as a clear example of how important it can be to account for the interdependencies inherent in relationships when conducting research using relationship outcomes.

Statistical Considerations for Analyses of Similarity

Similarity is by its nature a complicated concept. As noted above, one important statistical issue is whether or not couple similarity affects relationship quality even after controlling for the main effects of the personality traits involved in the calculation of couple similarity (Griffin, Murray, Gonzalez, 1999; Kenny et al., 2006). The concern is that similarity scores are confounded by their constituents such that the simple correlation

between the similarity score and relationship quality is an inappropriate basis for judging the importance of couple similarity (Griffin et al., 1999). Unfortunately, as described earlier, the important step of controlling for the “main effects” of personality is frequently overlooked when the impact of similarity is investigated. This fact makes a clear reading of the existing literature quite difficult (Watson et al., 2004).

Another important statistical consideration concerns the choice of method for assessing similarity. All methods of computing similarity indexes involve measuring and then comparing two or more things. In the case of personality similarity, any index of similarity gives an estimate of the degree to which two individuals are the same or different on the trait or traits of interest. However, there are a variety of ways to make these comparisons and the choice of methods has both theoretical and statistical implications for the resulting conclusions.

There are two general categories of similarity indexes; those that measure differences between scores and those that measure similarity in the pattern of those scores. For example, the simplest version of the first category describing differences is simply to calculate the absolute difference between spouses’ scores. This type of index expresses the degree to which the couples’ mean scores are similar or different with larger numbers indicating greater dissimilarity. Difference indexes are good for assessing whether couples who have more similar mean level scores are more satisfied but they are not sensitive to different patterns of similarity across the trait dimensions. For example, a couple may vary on the mean level of their traits but still represent similarity of a different kind if they both score highest on Extraversion and lowest on Openness. To pick up on these kinds of patterns, the second category of similarity measures are needed.

The most basic example of these indexes is the profile correlation, where the trait scores for one spouse are correlated with the scores for the other spouse. In this case, higher scores indicate more similar patterns of scores. Profile correlations can be used to test whether couples who are more similar in terms of which traits they score highest or lowest on are more satisfied, but profile correlations do not pick up on differences in the mean level of those traits. Because there are conceptually different types of similarity, a complete examination of whether similarity is related to satisfaction requires an examination of both types of indexes in order to detect similarity effects from either type.

In fact, the issue of measuring similarity is even more complex than these two categories might suggest. In 1953, Cronbach and Gleser published a paper describing many of the issues inherent in the study of similarity. First, they noted that there is no such thing as “general” similarity and that similarity can only apply to specific dimensions. Two things or two people cannot simply be “similar”; they must be similar on some particular characteristic or set of characteristics. Furthermore, it is likely that similarity on different qualities will have different and distinct effects. This is apparent in investigations of “personality similarity” as it is likely that similarity on one trait (e.g., Extraversion) will have quite different implications for satisfaction than partner similarity on another trait (e.g., Conscientiousness).

In addition to these conceptual issues, the statistical techniques used to study similarity can also have important implications for the interpretations of similarity effects. All methods of calculating similarity require “reducing the configuration or the relationship between two configurations to a single index, [and require that] we discard much of the information of the score set” (Cronbach & Gleser, 1953, p. 457). Although

all indexes lose some information, different indexes of similarity discard different kinds of information. For instance, calculating similarity by adding up or averaging the absolute differences between partners' scores provides an estimate of the effect of mean levels on these traits but eliminates information about whether similarity on specific characteristics are related to satisfaction. There is no way to tell whether satisfaction is different for couples who are slightly different on many characteristics (e.g., score .5 point different on each of the Big Five traits) compared with couples who score the same on most traits but are very different on just one characteristic (e.g., score the same on Extraversion, Agreeableness, Conscientiousness and Openness but have scores that are 2.5 points different on Emotional Stability). In contrast, the profile correlation index described earlier calculates similarity by correlating partners' scores. The profile correlation index captures similarity in the pattern or configuration of scores across partners, but removes evidence about the effect of the mean level scores. Using a profile correlation approach there is no way to tell whether satisfaction is different for couples who have the same configuration of scores but different mean levels. For example, there is no way to tell the difference between a couple who shows the same pattern of scoring highest on Conscientiousness and Extraversion and 1 point lower on Emotional Stability and Openness from another couple with the same pattern who score 2 points higher on the Conscientiousness and Extraversion than on Emotional Stability and Openness.

To address this issue, Cronbach and Gleser (1953) described three distinct characteristics of similarity profiles; elevation, scatter and shape. *Elevation* refers to the average of all scores for a person and can also be referred to as the level (Kenny, et al., 2006). In other words, similarity in elevation is simply similarity in the mean across all

items. Two students would be similar in elevation if they had the same test average at the end of the semester, regardless of the pattern of grades across the semester. *Scatter* (also known as spread) refers to the variability of the scores across items. Two students who are similar in scatter would have the same overall variability across test grades at the end of the semester, although not necessarily the same variability across each of the individual tests. Finally, *shape* describes the differences between scores after accounting for difference in elevation and scatter. Students showing similarity in the shape of their grades would show the same pattern of highs and lows across tests but would not necessarily have the same average score on specific tests or at the end of the term. For example, if both students scores lowest on the first test and highest on the third test of the term they would show similarity in shape, regardless of the actual scores each student obtained. Importantly, although these three factors all assess “similarity” they measure different forms of similarity and can vary independently. For example one pair of students may have similar shape but very different elevation, while another pair might have similar elevation but different amounts of scatter.

Theoretically, these different forms of similarity across personality traits might have very different implications for relationship satisfaction. Figure 1 presents a visual illustration of these different forms of similarity, representing personality profiles for three hypothetical couples. Figure 1A presents data for a couple who is similar in terms of shape, but has different elevation. In other words, the husband and wife have the same pattern of responses such that they rate themselves highest on item O and lowest on item E, but the man rates himself 1 point higher on each item. An examination of the different indexes of similarity in the accompanying table shows that the profile correlation index

of similarity does not pick up on this type of *dissimilarity* and the correlation is 1.0. The discrepancy index of correlation does recognize the difference in elevation and is represented in the discrepancy index value of 1.0.

Figure 1B on the other hand, represents a couple who have similar shape but different amounts of scatter. Both spouses have the same peak (item C) and low points (items E and O), but in this case the man uses more extreme responses and has more variability in his answers. This similar pattern of their responses is reflected in the high profile correlation and the discrepancy index registers the differences between partners in elevation or level. Finally, Figure 1C depicts a couple with the same general shape but different elevation and different scatter. Again both spouses have the same peak and low points, but the man has a higher average score across items (elevation) and is more variable in his responses (scatter). The difference in the response patterns is also indexed in the smaller correlation between the spouses' scores.

As Figure 1 illustrates, these different forms of similarity represent different theoretical ideas of what it means to be similar and are reflected by different similarity indexes. As such, questions regarding the effects of similarity in one form (e.g., shape) might result in quite different conclusions than questions regarding the effects of another form of similarity (e.g., scatter). The appropriate choice of an index of similarity depends on the characteristics of similarity that are most relevant for the question at hand.

Kenny et al. (2006) describe six different dyadic indexes that can be used to assess these different forms of similarity; three measuring dissimilarity (discrepancy, d^2 , and distance) and three measuring similarity (correlation, covariance, and intraclass correlation). The authors highlight the forms of similarity described earlier (elevation,

scatter and shape) and demonstrate which forms can be assessed by each index of similarity. Two of these indexes are most relevant to the current questions regarding personality similarity. For research in which the similarity in the *shape* of two profiles is most important, the correlation coefficient is the recommended index. However, in calculating a correlation the information about the mean level (elevation) is removed. Therefore, when similarity effects due to differences in elevation are of interest (such as in Figure 1A), dyadic indexes such as the discrepancy are more appropriate.

Unfortunately, the existing literature examining personality similarity and relationships is very sparse regarding what kinds of similarity are most important. It is possible for similarity in any of these three characteristics (elevation, scatter, or shape) to be an important predictor of relationship satisfaction. For example, it is possible that similarity of shape is an important factor for satisfaction. If this were the case, then couples who have similar patterns in terms of the traits they score high on and the traits they score low on would report the highest satisfaction. Alternatively, it is also possible that the factor driving personality similarity effects could be scatter, such that matching a partner in terms of the amount of variability in responses is the most important factor for satisfaction. Therefore, in order to fully test the similarity-satisfaction relation, it is necessary to use a combination of similarity indexes that capture these unique types of similarity. To address these concerns, the current study uses a combination of different indexes of similarity to examine the complete picture of the effects of any or all of these forms of similarity.

A final, but important statistical consideration for the study of similarity has to do with statistical power. It should be kept in mind that the similarity score is essentially an

interaction effect (e.g., Kenny et al., 2006) and it is well known that very large samples are required to reliably detect interaction effects (Aiken & West, 1991; McClelland & Judd, 1993). This is particularly relevant to research examining partner effects and similarity because these studies require data from both members of a couple. This often makes recruitment more difficult and many of the existing studies have limited sample sizes.

Beyond sheer numbers, another concern is that research on relationships may be particularly likely to create selection effects such that participants who choose to take part may be more motivated to focus on their relationships than the general population. For example, couples who are particularly satisfied or particularly distressed might be more likely to seek out and participate in research studies examining romantic relationships. In fact, at least one of the published studies examining personality effects on satisfaction specifically recruited couples through mental health professionals and included primarily distressed couples in their analyses (e.g.; Gattis et al., 2004). It is difficult to know whether participants who volunteer to be a part of research on relationships accurately represent the general population of married couples. One could argue that the difficulty and inconvenience inherent in organizing participation for both couple members could lead to samples including unrepresentative couples who are more motivated to focus on their relationships than couples in the general population.

In light of these sampling and analytic concerns, and to address the inconsistent results in the current literature, additional research using large samples and appropriate statistical techniques is needed to clarify the effects of partner personality and personality similarity on relationship satisfaction.

Overview of Research

To test for effects of personality and personality similarity on relationship satisfaction, the current project made use of a wealth of data available from two large, nationally representative samples; the British Household Panel Study (BHPS), and the Household Income and Labour Dynamics in Australia Survey (HILDA). Participants in both of these ongoing panel studies are interviewed yearly regarding a variety of individual and household demographics, economic conditions, values and opinions. Both studies recently added a measure of the Big Five personality traits and thus provided a unique opportunity to test for personality effects on relationship satisfaction using large, representative samples of married couples.

These panel studies provided larger samples than any used in previous attempts to measure personality effects on relationship satisfaction. The large samples, which include thousands of married couples, are particularly impressive considering that the forty studies included in the meta-analysis examining the association between Emotional Stability and marital satisfaction included a combined total of 7,640 participants (Heller et al., 2004). Another advantage of these nationally representative panel studies was the ability to test for personality effects in married couples across a wide variety of ages and relationship lengths.

In addition to providing adequate statistical power to detect similarity effects if they exist, these large samples also provided an opportunity to examine how analytic choices might influence conclusions regarding the associations between personality similarity and relationship satisfaction. By comparing the results obtained using three

different methods of assessing similarity, this project investigated whether some of the inconsistencies in the current literature result from these analytic choices. Finally, it was possible to cross-validate the results for all of these analyses by comparing the estimates across the two distinct samples.

A final goal of this project was to test a related conceptual question regarding personality effects on well-being. Using data from the same two samples as well as a third panel study, the German Socio-Economic Panel Study (GSOEP); it was possible to test whether interpersonal effects of personality extend beyond the specific domain of relationship satisfaction to a more general measure of overall life satisfaction. Evidence of partner effects for overall life satisfaction would provide convincing support for more generalized intrapersonal effects of personality extending beyond the relationship domain. Thus, the final set of analyses used the APIM to estimate the associations between the Big Five personality traits, personality similarity, and life satisfaction.

To summarize, the current project used data from large, nationally representative panel studies to address the following research questions:

- 1.) *What are the associations between the Big Five personality traits of each spouse and relationship satisfaction?*
- 2.) *Is personality similarity associated with relationship satisfaction when appropriately controlling for the personality traits of each spouse?*
- 3.) *Are the conclusions drawn regarding personality similarity effects dependent on the dyadic index of similarity that is chosen? If similarity matters for relationship satisfaction, what characteristic (i.e., elevation, scatter, shape) of similarity is important?*

4.) *Do the interpersonal effects of personality extend beyond the specific domain of relationship satisfaction? Are there “partner” and similarity effects of personality for overall life satisfaction?*

Method

Sample one - British Household Panel Study

The British Household Panel Study (BHPS) is a nationally representative, household-based panel study designed to study social and economic change in residents of the United Kingdom. In the 2005 wave of data collection, the BHPS included a measure Big Five personality traits for the first time. Therefore, to investigate personality similarity effects, the current analyses selected those participants who were legally married and provided data in that wave of assessment. This included 3,277 heterosexual couples for whom personality and relationship satisfaction data were available for both spouses ($n = 6,554$). The average age of the husbands was 51.67 ($SD = 14.53$) and the average age of the wives was 49.42 ($SD = 14.08$). Full descriptive statistics for each variable are provided in Table 1.

Measures

Marital satisfaction was assessed in the BHPS by asking respondents to report how satisfied or dissatisfied they felt about their husband or wife using a seven point scale from 1 “not at all satisfied” to 7 “completely satisfied” ($M = 6.32$, $SD = 1.08$). The correlation between wives and husbands relationship satisfaction scores was .29 ($p < .01$). Participants reported their *life satisfaction* using a one-item measure with endpoints from 1 “not at all satisfied” to 7 “completely satisfied” ($M = 5.29$, $SD = 1.20$, r between

partners = .26). *Personality* was assessed using a fifteen-item measure derived from the Big Five Inventory (BFI; John & Srivastava, 1999). For each trait, participants reported the extent to which each of a series of three statements described how they see themselves using a 1-7 scale with endpoints “does not apply to me at all” to “applies to me perfectly”. For example, the indicators of Extraversion ($\alpha = .53$) were “is talkative”, “is outgoing, sociable” and “is reserved” (reverse scored). Each of the remaining traits were also assessed using three items and showed similar levels of internal consistency (Agreeableness $\alpha = .52$, Conscientiousness $\alpha = .50$, Emotional Stability $\alpha = .67$, and Openness $\alpha = .66$). These short scales have shown to be efficient measures of the Big Five personality traits and have an impressive degree of convergent validity with the longer BFI scales. For example, Donnellan and Lucas (2008) reported correlations between these three-item measures and the full BFI scales ranging from .86 to .90, and correlations between these three-items and the remaining five to seven items in each BFI scale ranging from .70 to .73. Finally, information regarding the *length of marriage* measured in years was available for 1,837 of the participating couples ($M = 21.40$, $SD = 16.04$). Data on the length of marriage was not available for the remaining couples in the sample.

Sample Two - Household Income and Labour Dynamics in Australia Survey

The Household Income and Labour Dynamics in Australia Survey (HILDA) is a second household based panel study. After selecting those participants who were legally married and for whom personality and relationship satisfaction data was collected from both spouses in 2005, this sample included 2,639 couples ($n = 5,278$). Demographic characteristics of this sample were comparable to those in the BHPS, the husbands were

an average of 50.96 (SD = 14.64) years old and wives had a mean age of 48.49 (SD = 14.28). Table 1 displays descriptive statistics for all variables used in these analyses.

Measures

Marital satisfaction was assessed by asking respondents to report how satisfied or dissatisfied they felt about their relationship with their partner using an eleven point scale (0 = “completely dissatisfied” to 10 = “completely satisfied”, $M = 8.39$, $SD = 1.84$). In the HILDA dataset, the correlation between husbands and wives relationship satisfaction was $.53$ ($p < .01$). Participants reported on *life satisfaction* using a one-item measure with endpoints of 1 “completely dissatisfied” to 10 “completely satisfied” ($M = 8.08$, $SD = 1.33$, r between partners = $.38$). The HILDA contains a longer measure of *personality* based on Saucier’s (1994) adjective-based measure of the Big Five. Personality was assessed using a 36-item adjective rating measure. Participants rated the degree to which a series of adjectives described them (1 = “does not describe me at all” to 7 = “describes me very well”). Eight items served as indicators of Extraversion ($\alpha = .78$). Six items were used to assess the trait of Openness ($\alpha = .72$). The other three personality traits, Agreeableness ($\alpha = .77$), Conscientiousness ($\alpha = .80$), Emotional Stability ($\alpha = .79$) were each assessed using seven adjective ratings. Finally, *marriage length* was measured in years and data on this variable was available for 2,609 of the responding couples ($M = 22.78$, $SD = 15.88$).

Sample Three – German Socio-Economic Panel Study

A third household based, nationally representative panel study was used to investigate personality and personality similarity effects on overall life satisfaction. The German Socio-Economic Panel Study (GSOEP) has been assessing a variety of social

and demographic characteristics of residents of Germany since 1984. In 2005, the GSOEP included the same 15-item measure of Big Five personality used in the BHPS (Sample 1). After selecting those participants who were legally married and for whom personality and life satisfaction data is available for both spouses, this sample includes 5,709 couples ($n = 11,418$). In this sample, the husbands were an average of 53.7 ($SD = 13.8$) years old and the wives had a mean age of 51.0 ($SD = 13.6$). See Table 1 for full descriptive statistics.

Measures

Marital satisfaction was not assessed in the GSOEP. Respondent reported on *life satisfaction* by reporting how satisfied or dissatisfied they felt about their life overall from 1 “not at all satisfied” to 10 “completely satisfied” ($M = 7.02$, $SD = 1.78$). The correlation between wives and husbands life satisfaction scores was $.56$ ($p < .01$).

Personality was again assessed using the same fifteen-item measure used in Sample 1 (BHPS). The reliabilities of these short scales were generally comparable to those in the UK sample (Extraversion $\alpha = .64$, Agreeableness $\alpha = .51$, Conscientiousness $\alpha = .60$, Emotional Stability $\alpha = .61$, and Openness $\alpha = .64$).

Analysis Plan

The Actor-Partner Interdependence Model (APIM; Kenny et al., 2006) was used to test whether relationship satisfaction was related to the Big Five personality traits or to the degree of similarity or difference between partners' personality. This multi-level modeling technique provides estimates of the influence of an individuals' own personality (actor effects) and the influence of his or her partners' personality (partner effects) on relationship satisfaction while accounting for issues of nonindependence between

husbands and wives. Importantly, these analyses also address concerns evident in some of the existing literature by controlling for the main effects of each partner's personality. Prior to analysis, each of the personality traits and satisfaction scores were standardized across the entire sample.

The step of standardizing scores using the sample mean is particularly important for testing similarity effects because it eliminates stereotype accuracy as another potential explanation for agreement across partners' trait scores. Stereotype accuracy describes the finding that responses to item measures are not random; there are normative or "stereotypical" responses such that some items are generally more endorsed than others. For instance, a stereotypical response would be to rate sunny days as more enjoyable than gray days and it is likely that both spouses would agree on these ratings. However, similar ratings of weather by a husband and wife do not reflect meaningful similarity in their psychological experience but simply reflect the normative response. Standardizing scores across the entire sample removes the increased agreement due to these normative patterns of responding and allows an uncontaminated test of personality similarity (Kenny et al., 2006).

To provide a comprehensive test of similarity effects on satisfaction, analyses were conducted using three different methods of calculating similarity. First, similarity was calculated as the absolute difference between husbands' and wives' scores. This index captures similarity in level or elevation and can be used to examine the effects of similarity on a single trait at a time. Next, a discrepancy measure of similarity was computed to capture the average level of similarity across all five traits and test whether overall similarity in elevation was related to satisfaction. Finally, the profile correlation

was used as the third index of similarity. Although the profile correlation is not sensitive to mean level differences in personality, it picks up on similarity in the pattern of the characteristics.

In addition to using three measures of similarity to assess the effects of similarity in both level and shape, two different sets of analyses were used to test for similarity at different levels of specificity. Both the discrepancy and profile correlation indexes were calculated two ways, at both the trait and item levels. For example, discrepancy was first calculated at the trait level by averaging the differences in mean scores across the Big Five traits. Next, discrepancy was calculated again at the item level by averaging the mean differences across all of the items (i.e., all 15 item scores in the BHPS and GSOEP and all 36 items in the HILDA). Likewise, a trait profile correlation was calculated by correlating partners' trait scores and an item-level profile correlation was calculated by correlating the spouses' item responses.

The same series of analyses were conducted on both the BHPS and HILDA data and the results showed a great deal of consistency in the results across samples. For clarity, the detailed results for the BHPS are presented first and then detailed results for the HILDA sample are given only when the conclusions vary across the two data sets. Complete results for both samples are also reported in Tables 2-7 of the appendix.

Relationship satisfaction as a function of actor personality, partner personality, and similarity.

The literature suggests that the choice of a similarity index can have important consequences for interpreting the influence of similarity on an outcome of interest (e.g.;

Cronbach & Gleser, 1953; Kenny et al., 2006). As described earlier, similarity is not a general construct and no one index can capture all of the characteristics that fall under the concept of similarity. Therefore, the analyses that follow examine the question using three different measures of similarity and dissimilarity. Comparing the results across indexes, and cross-validating across two different large samples can help to isolate the effects of specific kinds of similarity (e.g., level or shape) and address concerns in the existing literature.

The current project uses a combination of similarity indexes that capture unique aspects of similarity. The first index of similarity is simply the absolute difference between spouses' scores for a personality trait. This straightforward measure technically measures *dissimilarity* as smaller values imply greater similarity (Kenny et al., 2006). The absolute difference index picks up on mean-level differences and addresses questions regarding similarity of elevation (Cronbach & Gleser, 1953), also referred to as level. However, as discussed earlier, the absolute difference measure is not sensitive to similarity in profile or shape. An additional advantage of using the absolute difference index of similarity is that it allows tests of the unique contribution of similarity on specific traits (e.g., Extraversion) to be examined one at a time in univariate tests.

The second index of similarity, the discrepancy, is the sum of the absolute differences between spouses divided by the number of items (Kenny et al., 2006). Unlike the first set of univariate analyses that examined each trait separately and in isolation, the discrepancy measure indexes the differences in a couple's scores across all five traits together. The discrepancy measure provides an index of the overall similarity or differences in elevation across the Big Five traits.

The third index of similarity employed in the current analyses is the profile correlation. Calculated by correlating spouses' scores, it is sensitive to similarity in terms of shape or the pattern of scores. Unlike the discrepancy measure, the profile correlation index removes information about the mean level so it does not capture similarity in elevation. The profile correlation measure is sensitive only to similarity or differences in shape. Together, these indexes provide a comprehensive test for effects due to similarity in both elevation and similarity in shape as originally described by Cronbach and Gleser (1953).

Results

Univariate analyses with absolute difference as index of similarity

As an initial test of whether personality similarity predicted relationship satisfaction, the first set of analyses measured similarity as the absolute difference of trait scores between the spouses. A set of five APIM analyses were conducted to test whether similarity on a trait predicted relationship satisfaction after controlling for mean levels of that personality trait. In other words, an individual's relationship satisfaction was predicted to be a function of the person's own personality score (i.e., the actor effect), their partner's personality score (i.e., the partner effect), and the absolute difference between their personality score and their partner's score. Interactions of the actor and partner effects with gender were also included in order to determine if the impact of personality traits on relationship satisfaction varied for wives versus husbands. A description of the pattern of results is provided below and a full listing of the APIM estimates is provided in Table 2.

BHPS- Univariate analyses with absolute difference as similarity index

In the British sample (BHPS), the univariate analyses showed consistent evidence of actor effects. Higher scores on Extraversion, Agreeableness, Conscientiousness, Emotional Stability and Openness were significantly associated with greater reported relationship satisfaction. Consistent with previous research examining actor effect, the largest associations were for Agreeableness (standardized $b = .205, p < .01$), Conscientiousness (standardized $b = .158, p < .01$), and Emotional Stability (standardized $b = .103, p < .01$). These univariate analyses also showed significant partner effects for three of the traits (Agreeableness standardized $b = .078, p < .01$, Conscientiousness standardized $b = .043, p < .01$, and Emotional Stability standardized $b = .072, p < .01$) such that a spouses' standing on these traits were also related to individuals' relationship satisfaction. However, there was very little evidence that similarity between partners on these traits was associated with relationship satisfaction. In fact, only Emotional Stability had a significant effect for the absolute difference index of similarity, and the effect was very small (standardized $b = .034, p < .05$). The estimates for the other four traits were not significant and close to zero (Extraversion standardized $b = .000$, Agreeableness standardized $b = .005$, Conscientiousness standardized $b = .007$, and Openness standardized $b = -.001$).

HILDA- Univariate analyses with absolute difference as similarity index

Conducting the same analyses on the Australian sample (HILDA) provided a similar pattern of results. Again, there was consistent evidence of actor effects for all five traits. An individual's score on the Big Five traits significantly predicted his or her own relationship satisfaction such that people higher in Extraversion, Agreeableness,

Conscientiousness, and Emotional Stability were also more satisfied with their relationships. The effect for Openness, though significant, was in the opposite direction in the HILDA data. That is, in the Australian sample individuals who were higher in Openness were actually significantly less satisfied with their relationships (standardized $b = -.085, p < .01$). Evidence for partner effects was more consistent in the Australian data than the British sample. The partner's score on each of the Big Five dimensions was significantly associated with an individual's relationship satisfaction.

Despite consistent evidence for actor and partner effects across samples, there were no consistent associations between relationship satisfaction and the absolute difference measure of similarity across the two samples. As shown in Table 2, all of the similarity effects were small and most were not significant. In fact, the only two similarity effects that were significant in the Australian sample (Extraversion and Openness) were not replicated in the British sample. Also, the one significant similarity effect in the British sample (for Emotional Stability) was not found in the Australian sample.

It should be noted that two interactions with gender emerged as significant in the univariate analyses just described. In the BHPS, the partner effect of Extraversion interacted with gender (standardized $b = .029, p < .05$) such that men with more Extraverted wives were more satisfied (standardized $b = .044, p = .01$) and the effect of husbands' Extraversion on wives was not significant (and slightly negative, standardized $b = -.014, ns$). This effect was not replicated in the HILDA (standardized $b = .003, ns$), however a different interaction emerged in the Australian sample such that spouses'

Agreeableness was more important for women (standardized $b = .169, p < .01$) than for men (standardized $b = .097, p < .01$).

Relationship satisfaction as a function of all five traits simultaneously

In light of evidence that Emotional Stability is a particularly strong predictor of marital outcomes (e.g., Karney & Bradbury, 1995); it was important to test whether the personality and personality similarity effects remained when all five traits were used as simultaneous predictors of relationship satisfaction. Therefore, an additional simultaneous APIM analysis estimated the actor, partner, and similarity effects for all five traits at the same time. This step was important because although the Big Five are conceptually independent dimensions of personality, scales that measure the Big Five traits are often correlated in practice (e.g. Funder, 2001). This simultaneous analysis served as a conservative test to help evaluate the unique influence of each trait. It directly addressed concerns raised by Karney and Bradbury (1995) identifying the importance of examining whether other personality traits account for significant variance after controlling for the influence of Emotional Stability.

As shown in Table 3, including all five traits as simultaneous predictors of relationship satisfaction did not change the interpretation derived from the univariate tests described above. In fact, the pattern for both the British (BHPS) and Australian (HILDA) samples again showed that the actor effects are largest in magnitude. Only the actor effect for Openness (standardized $b = -.021, ns$) in the BHPS was not significant. The other four traits in the BHPS and all of the traits in the HILDA showed significant associations between individual's scores on personality and their own relationship satisfaction. In the simultaneous equation, partner effects remained significant for both

Agreeableness (standardized $b = .068$, $p < .01$ in BHPS, $.070$, $p < .01$ in HILDA) and Emotional Stability (standardized $b = .062$, $p < .01$ in BHPS, $.087$, $p < .01$ in HILDA) in both samples. The absolute difference index of similarity was not significant for any of the Big Five personality traits in the British sample, although both Extraversion (standardized $b = -.041$, $p < .05$) and Openness (standardized $b = -.055$, $p < .01$) were significantly related to relationship satisfaction in the Australian sample. The picture remains clear that there are no replicable effects of partner similarity across the two samples, either in the univariate analyses or the more conservative simultaneous test including all traits at once.

Discrepancy as an index of similarity

In order to investigate how the choice of similarity index can determine the interpretation of these associations, the next step was to evaluate the effects using another index of similarity. The discrepancy measure was chosen as an overall index of similarity because it is sensitive to similarity in elevation or level. Although it is insensitive to the pattern of responses, the discrepancy measure averages the differences between spouses' scores on the five trait scores. Additionally, to address the effects of measuring trait similarity versus item-level similarity, two sets of analyses were conducted. The first calculated the average discrepancy across trait scores and controlled for trait scores. The second set of analyses calculated the average discrepancy across items and controlled for the item scores. Computing discrepancy at both the trait and item level and controlling for partners' trait scores provided a comprehensive test of the associations between personality similarity and relationship satisfaction while addressing methodological concerns in some of the existing research addressing this question.

BHPS – Trait discrepancy

The results displayed in Table 4 show that the discrepancy measure resulted in the exact same pattern of associations for the BHPS as those found in the simultaneous analyses of the absolute difference index. Once again, an individual's own personality was significantly associated with relationship satisfaction for all trait domains except Openness (standardized $b = -.021$, *ns*). The same two significant partner effects for Agreeableness (standardized $b = .067$, $p < .01$) and Emotional Stability (standardized $b = .061$, $p < .01$) emerged. Consistent with the absolute difference method of calculating similarity, the trait-level discrepancy index was not a significant predictor of relationship satisfaction (standardized $b = -.004$, *ns*).

BHPS – Item discrepancy

The possibility remained that important item-level effects of similarity might be missed when calculating discrepancy scores using trait level data. To address this, the second set of discrepancy analyses tested whether the results changed when discrepancy scores were calculated across all fifteen personality items in the BHPS and the item scores were included as control variables. As shown in Table 5, the results for the BHPS were identical to those for the trait-level discrepancy measure and the absolute difference measure of similarity. Once again, discrepancy was not a significant predictor of relationship satisfaction (standardized $b = -.004$, *ns*).

HILDA – Trait discrepancy

Table 4 shows the pattern of results for the HILDA sample when the trait-level discrepancy measure of similarity was used to predict relationship satisfaction. The actor and partner effects showed the same pattern of results for the HILDA as in the

analyses using the absolute difference measure of similarity (all five actor effects and the partner effects for Agreeableness and Emotional Stability were significant predictors of relationship satisfaction). In this case, however, the discrepancy index of similarity calculated with trait factors was a statistically significant predictor of relationship satisfaction (standardized $b = -.058$, $p < .01$). This indicates that individuals who had personality trait scores more similar to their spouses' trait scores reported higher relationship satisfaction.

HILDA – Item discrepancy

When the discrepancy measure was calculated at the item-level (average discrepancy across all 36 personality items for each couple) instead of at the more general trait level, the pattern of results changed somewhat for the HILDA data. In this second set of analyses, when the item-level discrepancy measure was used to predict relationship satisfaction, the discrepancy effect dropped to standardized $b = -.032$, $p = .308$ and was no longer statistically significant. Overall, the pattern of results shown in Tables 2, 3, 4, and 5 do not support the idea that similarity in elevation (as measured by the absolute difference and discrepancy indexes) is systematically related to relationship satisfaction for either the BHPS or HILDA samples.

Profile correlation as index of similarity

Although the previous analyses tested whether similarity in level was associated with relationship satisfaction, the possibility remained that similarity in the shape or profile of personality traits is important for relationship satisfaction. If so, a similarity index sensitive to shape might yield a different answer to the question of whether couples' personality similarity is associated with relationship satisfaction. To address

this, profile correlations were used as the third index of similarity. Profile correlations were entered into the same sets of analyses used with the discrepancy measure; one using the profile correlation calculated across trait personality scores and one using profile correlations calculated across items. Both spouses trait scores were also included in each equation to control for the main effect of personality.

BHPS – Profile correlation as index of similarity

In the British sample, the analyses using profile correlations calculated as the index of similarity yielded the same pattern of results as the analyses measuring similarity using absolute difference and discrepancy indexes. As shown in Table 6, again there was evidence that an individual's personality traits are associated with their own relationship satisfaction as the actor effects were significant for Extraversion (standardized $b = .033, p < .05$), Agreeableness (standardized $b = .164, p < .01$), Conscientiousness (standardized $b = .081, p < .01$), and Emotional Stability (standardized $b = .063, p < .01$). The same significant partner effects emerged for Agreeableness (standardized $b = .067, p < .01$) and Emotional Stability (standardized $b = .062, p < .01$) as described earlier for the analyses using other indexes of similarity. And importantly, the trait-level profile correlation index of partner similarity was again not significantly related to relationship satisfaction with an estimate close to zero.

The second approach to testing profile correlation as a measure of similarity also provided very consistent results. Here the profile correlations were calculated by correlating husbands' and wives' scores on all of the personality items rather than correlating their scale scores. The item-level profile correlations again showed that couples' personality similarity was unrelated to relationship satisfaction. When

controlling for trait factor scores, the item-level profile correlation was unrelated to relationship satisfaction. The actor and partner effects were also consistent regardless for the profile correlation analyses (see Tables 6 and 7 for full list of estimates).

HILDA – Profile correlation as index of similarity

In the Australian sample, the results of the actor and partner effect analyses using trait-level profile correlations were quite similar to those found using the discrepancy similarity index. The actor effects were significant for each of the trait domains except for Conscientiousness where the estimate was in the same direction as previous analyses but did not reach statistical significance (standardized $b = .027$, *ns*). The partner effects were consistent with both the BHPS data set and other analytic approaches in the HILDA (individuals with more Agreeable and Emotionally Stable partners were more satisfied). However, in the HILDA sample, the trait-level profile correlation was significantly associated with relationship satisfaction (standardized $b = .070$, $p < .01$). In the Australian sample, couples who were more similar in the shape of their personality profiles reported higher relationship satisfaction.

As seen in Tables 6 and 7, the analyses using profile correlations as the index of similarity consistently indicated that profile similarity was associated with relationship satisfaction in the HILDA sample. This was true whether profile correlation was computed across traits or across items.

Overview of relationship satisfaction results

The data presented in Tables 2 - 7 demonstrate consistent evidence of actor effects for personality such that an individual's score on the Big Five traits are associated with their own ratings of relationship satisfaction. There was also clear and consistent

evidence across both the BHPS and HILDA samples that individuals with more agreeable and emotionally stable spouses are more satisfied with their marriages.

The analyses investigating the effects of personality similarity consistently showed no association between similarity in elevation or level and relationship satisfaction. However, one type of similarity did show inconsistent results across samples. Although similarity in shape (as indexed by the profile correlation) was not related to relationship satisfaction in the BHPS sample, profile similarity was significantly associated with relationship satisfaction in the HILDA sample. It is not entirely clear why these differences emerged across samples. One unlikely possibility is that personality plays a different role in marriage in Australia compared to the UK. Another possibility is that the differences arise from the different personality measures used in the two samples, either because the personality measures capture different content of the personality constructs or because the scales have different levels of precision and measurement error. Although the exact explanation for these differences is not readily apparent, an additional set of analyses using the same samples but examining a different outcome variable can help to shed light on some of these potential explanations and further elucidate the effects of personality within marriage.

Life Satisfaction: A More General Measure of Well-being

In order to broaden the scope of the question regarding the importance of spouses' personality similarity on important outcomes, the same series of analyses just described was also conducted with a measure of general life satisfaction as the outcome. Testing for actor, partner, and similarity effects of personality on a more general measure of well-being provided both the ability to look for broader implications of personality and to

provide context to interpret the effects found for relationship satisfaction. An additional advantage of examining the outcome of overall life satisfaction is the ability to use a third, still-larger nationally representative sample from Germany to cross-validate the findings.

All of the same analyses described for relationship satisfaction were conducted using life satisfaction as the outcome. To clarify the presentation, the results for all three datasets are reviewed together in order to highlight the consistencies and differences across samples.

Actor Effects for Life Satisfaction

Consistent with previous research (e.g., Heller et al., 2004), there was clear evidence of actor effects such that an individuals' personality traits were systematically related to their own ratings of life satisfaction. The impressive evidence of intrapersonal effects of personality can be seen in the univariate analyses shown in Table 8. In fact, all five traits were consistently significantly associated with life satisfaction across all three samples and all methods of calculating similarity with only one exception. The only exception was for the trait of Openness in the BHPS. Although the actor effect for Openness was significant in the univariate analyses where only one trait domain was tested at a time, in the more conservative simultaneous test including all five personality traits Openness was not significantly related to life satisfaction. (Table 9 includes a full report of the effect estimates for actor, partner, and similarity effects for the simultaneous analysis.)

Partner Effects for Life Satisfaction

These three large data sets also provided additional evidence that ratings of overall life satisfaction are systematically associated with the personality traits possessed by a spouse. Finding any evidence of partner effects is compelling support for the importance of the intrapersonal effects of personality, particularly when examining a domain outside of the romantic relationship such as life satisfaction. Partner effects demonstrate that an individual's satisfaction with life is reliably associated with the personality characteristics of his or her spouse, a particularly high standard considering that the reports of personality and satisfaction come from different people. Therefore, it is not surprising that the partner effects were generally smaller in magnitude and less consistent across the three samples compared with the actor effects. This is also consistent with previous research, and the smaller magnitudes of these effects are likely due at least in part to the fact that the data is not biased by shared method variance.

An examination of univariate results in Table 8 shows that individuals with more Agreeable, Conscientious, and Emotionally stable partners reported significantly higher life satisfaction across all three samples. In addition to those three consistent partner effects, the HILDA sample showed a significant partner effect for Extraversion and the GSOEP sample showed significant partner effects for *all* five personality domains in the univariate analyses.

A less consistent pattern of partner effects emerged across the three nationally representative samples when all five traits were entered simultaneously to predict life satisfaction. As shown in Table 9, partner's Agreeableness was a significant predictor of life satisfaction in the BHPS but not in the HILDA or GSOEP. In contrast, partners'

scores on Extraversion and Conscientiousness were significantly associated with life satisfaction in the HILDA but not in the other two samples. Finally, the trait of Openness showed a partner effect in only the GSOEP sample. The pattern of conclusions just described for the simultaneous analyses using the absolute difference measure were consistent across each of the additional indexes of similarity. Tables 10, 11, 12, and 13 display the estimates and show the same pattern of partner effects emerged regardless of the index of similarity or whether it was calculated across the scale or the item scores.

Although the evidence for partner effects for the other traits varied across the samples, it is important to note that even in the conservative simultaneous test, the partners' level of Emotional Stability consistently emerged as a significant predictor of life satisfaction in all three nationally representative samples (see Table 9). The partner's Emotional Stability score was a significant predictor across all samples and all methods of computing similarity. The fact that these effects replicated across all three samples and for a non-relationship domain is new and particularly impressive evidence of the intrapersonal effects of personality.

Similarity Effects for Life Satisfaction

Tables 8-13 also display the results from testing for personality similarity effects on life satisfaction. There was no consistent evidence that personality similarity between spouses was associated with life satisfaction after controlling for the main effects of personality. The analyses examining absolute difference measures of similarity did show some inconsistent effects that were different across samples. For example, in the simultaneous analysis, individuals in the British sample who were more similar to their partners on Agreeableness reported lower overall life satisfaction (standardized $b = .035$,

$p < .05$) whereas the same set of analyses in the German sample found that individuals who were more similar to their partners on Agreeableness reported higher life satisfaction (standardized $b = -.025, p < .05$). Neither of these contradictory findings were replicated in the Australian sample which showed no significant effect for similarity in Agreeableness (standardized $b = .010, ns$). See Table 9 for full report of the estimates. In contrast, the HILDA data did show small but significant associations between life satisfaction and similarity on Extraversion (standardized $b = -.034, p < .05$), Conscientiousness (standardized $b = .035, p < .05$), and Openness (standardized $b = -.031, p < .05$).

The analyses using the discrepancy indexes of similarity calculated with trait scores showed no evidence of similarity effects on life satisfaction for any of the three samples (standardized $b = .015, ns$ in BHPS, standardized $b = .004, ns$ in HILDA, and standardized $b = -.002, ns$ in GSOEP). When discrepancy was calculated at the item-level, the results in the HILDA and GSEOP were consistent, showing that similarity was not related to life satisfaction (standardized $b = .020, ns$ controlling for traits and $.025, ns$ controlling for items for HILDA and standardized $b = .012, ns$ controlling for traits and $.009, ns$ controlling for items for GSOEP). The only exception to this was when discrepancy was calculated at the item level in the BHPS. In the British sample, the item-level discrepancy measure of similarity was significantly associated with life satisfaction (standardized $b = .041, p < .01$ controlling for traits and $.028, p < .05$ controlling for items standardized). (See Table 11 for full information and specific estimates for each trait.)

The final set of analyses used the profile correlation measure of similarity to test whether individuals whose partners showed similar patterns of personality traits were more satisfied with life. The results for the profile correlation index were very consistent; there was no significant association between profile correlations and life satisfaction across any of the three samples regardless of whether the profile correlation was calculated across trait or item scores. The profile correlation calculated with trait scores was not a significant predictor of life satisfaction in the BHPS (standardized $b = -.015$, *ns*), the HILDA (standardized $b = -.013$, *ns*), or the GSOEP (standardized $b = -.009$, *ns*) samples. When profile correlations were calculated across items instead of trait scores there was still no significant association in any sample (see Table 11 for full results).

Conclusion

The current studies provided a unique opportunity to test for actor, partner, and similarity effects of personality for relationship satisfaction. Using nationally representative samples, these analyses had sufficient power to help clarify the associations between Big Five personality traits and marital satisfaction. To put these samples into context, together the BHPS and HILDA samples included 5,916 couples or 11,832 individuals. This represents more people than the total participants of all 40 studies included in the Heller et al. (2004) meta-analysis that demonstrated reliable actor effects personality on marital satisfaction. The BHPS sample alone included 3,277 couples, almost twice as many participants as the 3,848 individuals represented by the ten separate studies included in the single meta-analysis to date examining partner effects of personality (Malouff et al., 2010).

Not only are the BHPS and HILDA samples larger than those used in previous analyses, but they represent the full spectrum of legally married residents of the United Kingdom, Australia, and Germany. The large sample sizes and the inclusion of a wide variety of ages and marital lengths provided a valuable opportunity to address the inconsistencies and confusion in the existing literature with sufficient statistical power to detect even small effects of personality. An additional benefit of using representative panel studies to address these questions is that these representative samples are free from potential bias associated with many studies that rely on volunteer participants who are particularly motivated to be part of research examining relationships. Also, by using multiple samples, the results could be cross-validated in separate samples with different measures of personality and satisfaction to further clarify the effects of personality. Finally, by using the Actor-Partner Interdependence model to appropriately control for the main effects of personality, these analyses provided an unmatched opportunity to estimate the associations between personality similarity and relationship satisfaction.

Consistent with existing research, the data from these nationally representative samples replicated the consistent actor effects previously found for the Big Five personality traits and relationship satisfaction. Self-reports of personality were reliably associated with reports of relationship and life satisfaction across each of the three samples. The current studies add to the extensive literature demonstrating intrapersonal effects of personality.

In addition, this study provided support for the intrapersonal effects of personality in marriage and provided estimates of the effects of partner's personality for relationship satisfaction using larger samples than previously available. The question of how

personality traits relate to the satisfaction of a romantic partner is a particularly challenging one to answer. Specifically, not only must researchers avoid selection biases often inherent in relationship studies and obtain data from both members of the couple, the sample must also be large enough to provide sufficient power to detect an effect even without the benefit of shared method biases. The three nationally representative studies examined here were particularly well-suited to address these concerns.

These challenges related to measuring interpersonal effects of personality have limited the available research and resulted in inconsistent evidence across studies, hampering the development of theory regarding the consequences of personality in relationships. By addressing the methodological issues of selective recruitment, statistical power, and appropriately controlling for the main effects of personality, these studies provide a potential explanation for the inconsistencies in the existing literature. They also help to develop the body of evidence regarding interpersonal and dyadic effects of personality. Specifically, they demonstrate the importance of controlling for main effects of personality and rule out insufficient power as an alternative explanation for the lack of significant similarity effects.

The general pattern of evidence did not reveal any consistent evidence that personality similarity is reliably associated with relationship or life satisfaction. However, a primary goal of these analyses was to test whether the conclusions drawn regarding personality similarity are dependent on the dyadic index of similarity used and whether this could help explain inconsistencies in the existing literature. To this aim, analyses were repeated using several different indexes of similarity that captured different types of similarity. The evidence was clear for similarity in elevation, the average value

of personality scores. Using both the absolute difference and discrepancy measures of similarity across both the BHPS and HILDA samples, there was no consistent evidence that similarity was associated with relationship satisfaction. Together with the previous studies that used appropriate statistical controls for personality, these findings clarify that similarity in elevation or mean scores is not an important factor for relationship functioning. In other words, couples who are more discrepant on the Big Five traits are no more likely to be particularly satisfied or unsatisfied with their relationships.

When similarity in shape, or the pattern of scores was tested by the profile correlation index of similarity the BHPS again showed no association between profile similarity and relationship satisfaction. Couples with a more similar pattern of personality scores were no more or less satisfied than couples who showed different profiles. However, the results from the HILDA diverged, indicating that couples with more similar profiles were more satisfied. There are several potential explanations for this divergence. The failure to find consistent effects could result from the different personality measures used; it is possible that the larger item set for the HILDA personality measure may have allowed for a more precise measure of profile shape. However, the failure to find the same profile similarity effects in the BHPS is still surprising considering the personality measure it included is brief but reliable and the large sample size should have provided sufficient power to pick up consistent but small effects. Another possibility is that culture is a moderator for the effect of profile similarity. Although personality and the Big Five traits are generally considered universal and not culturally specific (McCrae & Costa, 1997), cultural differences cannot be ruled out by the current analyses and may play an important role in the expectations

and interactions inherent in marital relationships. In the end, it is not possible to prove that an association does *not* exist in a single study, and demonstrating the lack of a similarity effect is a conservative test. Only future research with additional measures and sufficiently large samples will be able to clarify the current inconsistencies regarding profile similarity.

Despite finding some inconsistencies across samples, these studies provide clear evidence that the personality traits of both an individual and his or her spouse are important for relationship satisfaction. There is also consistent evidence that similarity or differences in the mean levels of these traits are not important for relationship success. The discrepancy between samples for the profile correlation index suggests that the configuration of traits may possibly be a more important type of similarity for relationship satisfaction. Importantly, these differences confirm that similarity is not a unitary construct and that analytic choices are of particular importance for testing questions of similarity.

These data also provided an opportunity to extend beyond the specific domain of relationship satisfaction and examine the associations between personality and an overall measure of well-being. The final set of analyses provided strong support for the literature showing that intrapersonal effects of personality are reliable and important. Actor effects across three large and nationally representative samples provided consistent evidence that personality traits are consistently related to well-being. In addition, the life satisfaction analyses provide new evidence of the interpersonal effects of personality. This particularly conservative test showing that a spouse's personality traits are reliably associated with life satisfaction demonstrates that a distal predictor of behavior shapes

satisfaction, even beyond the relationship domain. Although the current studies do not directly address the mechanisms of how these interpersonal effects occur, they are consistent with the vulnerability-stress-adaptation model of marriage and existing evidence regarding interactional processes as a mediator for the link between personality and relationship outcomes (Karney & Bradbury, 1995; Donnellan et al., 2007). In addition, finding that interpersonal effects extend to general life satisfaction suggests that future research into the processes that create these links is likely to help build a more complete understanding of how far-reaching the link is between personal dispositions and relationship outcomes.

Finally, the use of three large samples representing the UK, Australia, and Germany provided a unique opportunity to cross-validate the results. By identifying the consistencies across cultures and the areas of divergence, these analyses can help highlight the effects of personality while also identifying the effects of methodological choices. These analyses demonstrated compelling consistencies across cultures with robust actor effects across the Big Five traits, and consistent interpersonal effects, particularly for Emotional Stability. Perhaps most importantly, the current study shows that after controlling for the main effects of personality, there is no consistent evidence that personality similarity is important for relationship or life satisfaction.

Future Directions

The current studies provide a more comprehensive test of actor, partner and similarity effects of personality for satisfaction in married couples than previously available. However, several questions still remain. First, the ability to use such large and nationally representative samples required a trade-off in terms of the scope of personality

measure used. Research often requires a trade-off between fidelity and breadth.

Although there is good evidence that the brief personality measures used in these samples are valid indicators of the Big Five (e.g., Donnellan & Lucas, 2008), the shorter measures of personality used in these large scale projects inevitably have lower reliability than more comprehensive personality scales. If longer, more reliable measures of personality could be applied in the large samples required for this type of analysis, it is possible that small effects of personality similarity might be uncovered.

Another possibility is that similarity in the broad traits of the Big Five are not related to satisfaction but an investigation of more specific facets of personality have unique dyadic effects. In particular, it might be worth investigating the facets underlying the traits with the most consistent evidence of intrapersonal and interpersonal effects to test for potential dyadic effects. It is possible that the consistent associations between relationship satisfaction and Emotional Stability, Agreeableness, and Conscientiousness might reflect more specific dyadic combinations at the facet level.

Another question that is important to a full understanding of the interpersonal effects of personality similarity is to explore whether similarity predicts future relationship outcomes. The current studies examine cross-sectional associations between partners' personality and satisfaction but it is also possible that personality similarity better predicts the trajectory of a relationship rather than current satisfaction. In fact, a study examining 67 couples over 12 years suggested that greater personality similarity was actually associated with more negative slopes in marital satisfaction trajectories (Shiota & Levenson, 2007). The panel data used in the current studies will yield a unique opportunity to test this question in the coming years with the advantages of large and

nationally representative samples. All three samples are continuing yearly data collection, and the personality data collected in 2005 will provide an opportunity to test personality as a predictor of changes in marital satisfaction. An additional benefit of using longitudinal data of this nature is that behavioral measures can also be included. For example, personality similarity can be tested as a predictor of important life outcomes including marital stability or divorce.

Although the current studies address many of the methodological issues that make it difficult to design a clear test of the effects of personality similarity on relationship satisfaction, future research will continue to refine our understanding of how individual and dyadic variables are related to relationship functioning. For now, the current studies support previous research and provide unique evidence of intrapersonal and interpersonal effects of personality for relationship and life satisfaction. Across several large, nationally representative samples, there is clear evidence of actor and partner effects of personality for both marital and life satisfaction. These studies also show that despite the sufficient statistical power provided by these large samples and the use of different indexes to capture similarity in both elevation and profile shape, there is no consistent evidence that the dyadic variable of similarity matters over and above the actor and partner effects of personality.

Figure 1:
Hypothetical Data to Illustrate Three Forms of Similarity
Adapted from Kenny, Kashy & Cook, 2006, p.324-325

	Dyad 1		Dyad 2		Dyad 3	
	Wife	Husband	Wife	Husband	Wife	Husband
E	1	2	1	0	1	2
A	2	3	2	2	2	3
C	2	3	3	5	3	7
ES	3	4	2	2	2	5
O	4	5	1	0	1	3
Mean	2.4	3.4	1.8	1.8	1.8	4
SD	1.02	1.02	0.75	1.83	0.75	1.79
Discrepancy Index		1.00		0.80		2.20
Correlation Index		1.00		0.99		0.90

Figure 1A: Same shape but different elevation

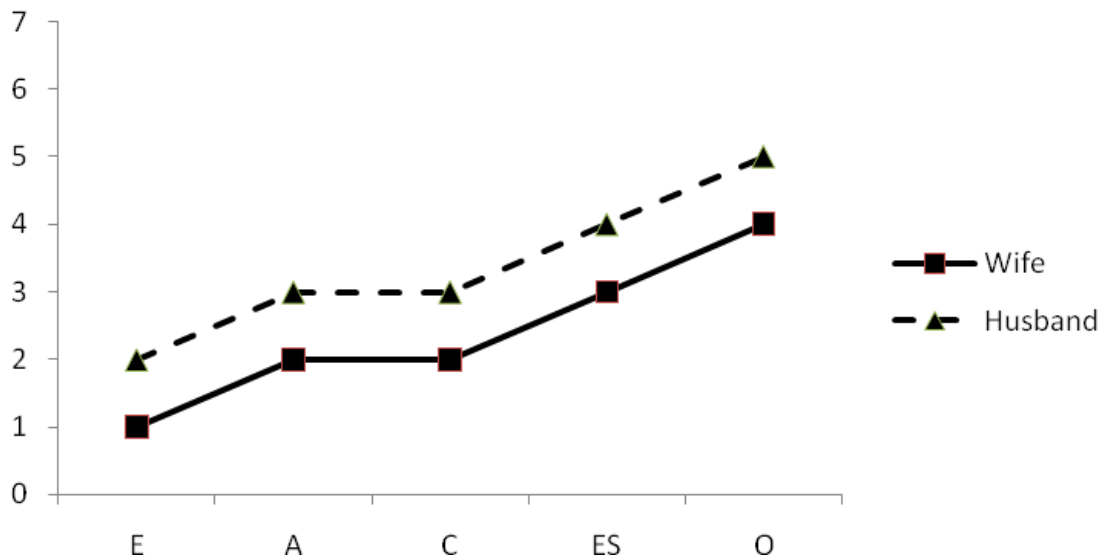


Figure 1B: Same shape but different scatter

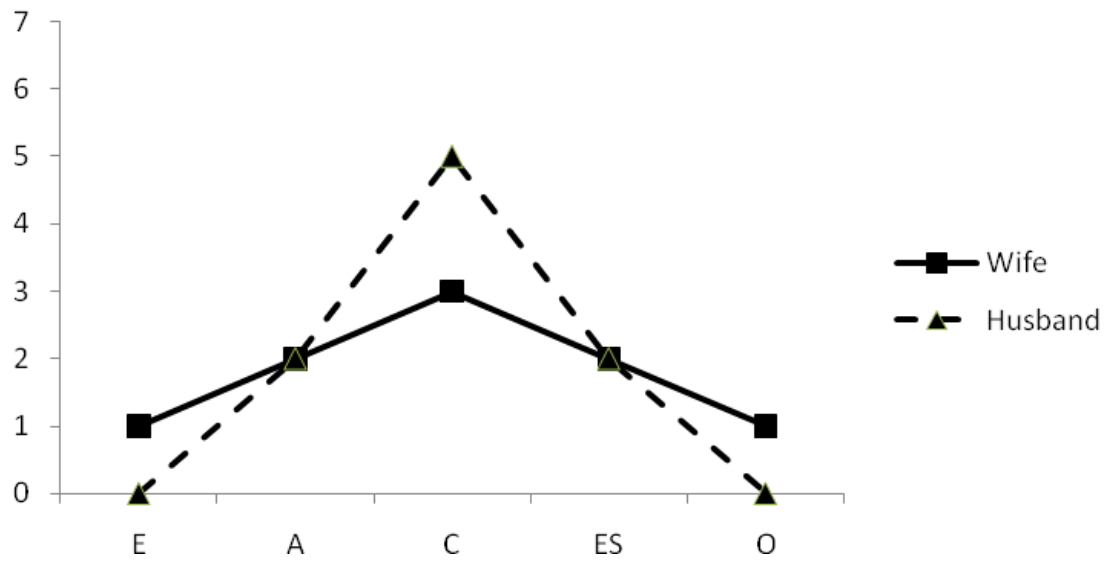
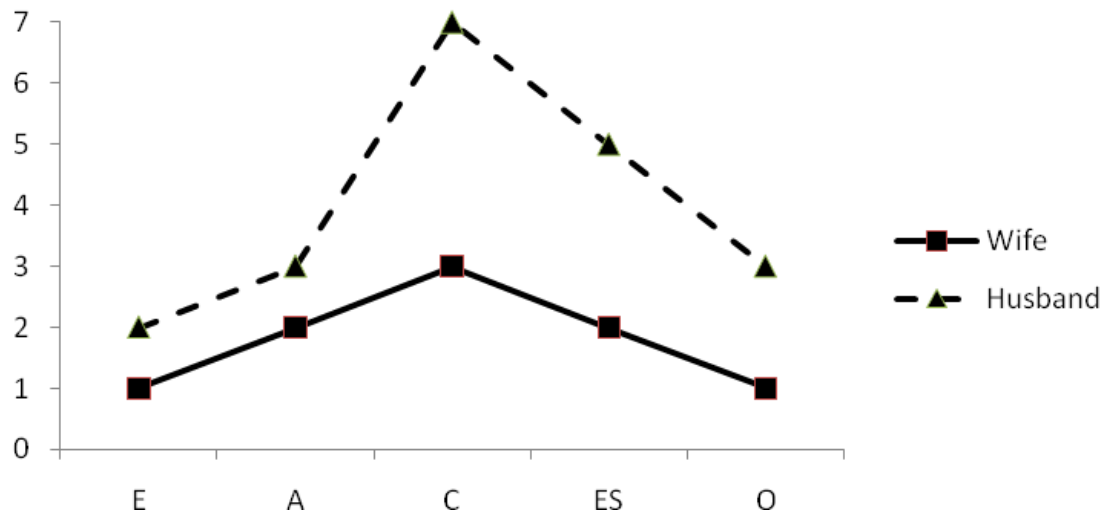


Figure 1C: Same shape but different elevation and scatter



APPENDIX

Table 1:

Descriptive Statistics for Personality and Relationship Satisfaction Variables

	Men Mean (SD)	Women Mean (SD)	d	r between couples
BHPS				
Extraversion	4.29 (1.14)	4.53 (1.19)	-.20*	.03
Agreeableness	5.29 (1.00)	5.65 (.93)	-.37*	.06*
Conscientiousness	5.34 (1.04)	5.49 (1.05)	-.14*	.09*
Emotional Stability	4.76 (1.21)	4.02 (1.29)	.57*	.04*
Openness	4.47 (1.19)	4.36 (1.20)	.10*	.16*
Relationship Satisfaction	6.38 (1.04)	6.27 (1.12)	.10*	.29*
Life Satisfaction	5.26 (1.18)	5.32 (1.22)	-.04	.26*
HILDA				
Extraversion	4.50 (.92)	4.75 (.99)	-.26*	.01
Agreeableness	5.29 (.84)	5.75 (.73)	-.56*	.18*
Conscientiousness	5.17 (.95)	5.41 (.95)	-.25*	.07*
Emotional Stability	5.15 (.98)	5.19 (.98)	-.03	.20*
Openness	4.19 (1.01)	4.08 (1.04)	.11*	.22*
Relationship Satisfaction	8.52 (1.74)	8.27 (1.93)	.13*	.53*
Life Satisfaction	8.00 (1.32)	8.15 (1.35)	-.11	.38*
GSEOP				
Extraversion	4.68 (1.11)	4.88 (1.11)	-.18*	.10*
Agreeableness	5.27 (1.00)	5.62 (.93)	-.35*	.26*
Conscientiousness	5.98 (.91)	6.05 (.86)	-.07*	.31*
Emotional Stability	4.23 (1.18)	3.77 (1.20)	.38*	.16*
Openness	4.38 (1.19)	4.52 (1.23)	-.12*	.34*
Life Satisfaction	7.00 (1.81)	7.05 (1.73)	-.03	.56*

* $p < .05$

Table 2:

Univariate analyses predicting relationship satisfaction as a function of personality, partner personality, and personality similarity (absolute difference between trait factor scores).

	Extraversion	Agreeableness	Conscientiousness	Emotional Stability	Openness
BHPS					
Gender	.054*	.071*	.056*	.039*	.046*
Actor	.076*	.205*	.158*	.103*	.050*
Partner	.015	.078*	.043*	.072*	.012
Absolute Difference	.000	.005	.007	.034*	-.001
Actor X Gender	-.008	-.001	.020	.012	.017
Partner X Gender	.029*	-.010	-.005	-.005	-.022
HILDA					
Gender	.071*	.084*	.069*	.067*	.069*
Actor	.119*	.197*	.116*	.176*	-.085*
Partner	.082*	.133*	.097*	.146*	-.026*
Absolute Difference	-.056*	.006	-.026	-.012	-.055*
Actor X Gender	.001	.019	.022	-.017	.012
Partner X Gender	.003	-.036*	-.016	-.005	-.021

* $p < .05$

Table 3:

Simultaneous analyses predicting relationship satisfaction as a function of personality, partner personality, and absolute differences for all 5 trait factors.

	BHPS	HILDA
Intercept	-.010	.019
Gender	.076*	.093*
Actor effects		
Extraversion	.032*	.044*
Agreeableness	.166*	.135*
Conscientiousness	.081*	.032*
Emotional Stability	.063*	.073*
Openness	-.021	-.086*
Partner effects		
Extraversion	-.011	.017
Agreeableness	.068*	.070*
Conscientiousness	.001	.023
Emotional Stability	.062*	.087*
Openness	-.003	-.017
Absolute Differences		
Extraversion	-.011	-.041*
Agreeableness	.004	.017
Conscientiousness	.003	-.016
Emotional Stability	.010	-.006
Openness	-.010	-.055*
Actor X Gender Interactions		
Extraversion	-.013	-.005
Agreeableness	-.007	.034
Conscientiousness	.019	.022
Emotional Stability	.005	-.038*
Openness	.010	.000
Partner X Gender Interactions		
Extraversion	.037*	.022
Agreeableness	-.008	-.043*
Conscientiousness	.002	-.002
Emotional Stability	-.011	.001
Openness	-.025	-.016

* $p < .05$

Table 4:

Discrepancy Analyses By Traits: Predicting relationship satisfaction as a function of personality, partner personality, and the sum of discrepancies across all 5 trait factors.

	BHPS	HILDA
Intercept	-.012	.011
Gender	.076*	.093*
Discrepancy (trait factors)	-.004	-.058*
Actor effects		
Extraversion	.032*	.045*
Agreeableness	.165*	.130*
Conscientiousness	.081*	.032*
Emotional Stability	.062*	.070*
Openness	-.021	-.086*
Partner effects		
Extraversion	-.011	.018
Agreeableness	.067*	.065*
Conscientiousness	.001	.023
Emotional Stability	.061*	.084*
Openness	-.003	-.017
Actor X Gender Interactions		
Extraversion	-.011	-.001
Agreeableness	-.007	.018
Conscientiousness	.019	.020
Emotional Stability	.009	-.038*
Openness	.009	-.001
Partner X Gender Interactions		
Extraversion	.036*	.018
Agreeableness	-.007	-.028
Conscientiousness	.003	.000
Emotional Stability	-.015	.001
Openness	-.024	-.015

* $p < .05$

Table 5:

Discrepancy Analyses by Item: Predicting relationship satisfaction as a function of personality, partner personality, and the sum of discrepancies across all personality items while controlling for trait factors.

	BHPS	HILDA
Intercept	-.011	.015
Gender	.076*	.093*
Discrepancy (items)	-.004	-.032
Actor effects		
Extraversion	.032*	.043*
Agreeableness	.166*	.132*
Conscientiousness	.081*	.032*
Emotional Stability	.062*	.070*
Openness	-.020	-.088*
Partner effects		
Extraversion	-.011	.016
Agreeableness	.067*	.066*
Conscientiousness	.001	.024
Emotional Stability	.061*	.082*
Openness	-.002	-.019
Actor X Gender Interactions		
Extraversion	-.011	-.000
Agreeableness	-.007	.023
Conscientiousness	.019	.022
Emotional Stability	.008	-.038*
Openness	.009	-.004
Partner X Gender Interactions		
Extraversion	.036*	.017
Agreeableness	-.008	-.033
Conscientiousness	.002	-.002
Emotional Stability	-.014	.001
Openness	-.024	-.013

* $p < .05$

Table 6:

Profile Correlation Analyses by Traits: Predicting relationship satisfaction as a function of personality, partner personality, and profile similarity (of trait factor scores).

	BHPS	HILDA
Intercept	-.013	.012
Gender	.077*	.093*
Profile Correlation (traits)	.005	.070*
Actor effects		
Extraversion	.033*	.052*
Agreeableness	.164*	.121*
Conscientiousness	.081*	.027
Emotional Stability	.063*	.070*
Openness	-.019	-.070*
Partner effects		
Extraversion	-.011	.025
Agreeableness	.067*	.054*
Conscientiousness	-.000	.018
Emotional Stability	.062*	.083*
Openness	-.003	-.001
Actor X Gender Interactions		
Extraversion	-.011	-.000
Agreeableness	-.008	.018
Conscientiousness	.018	.022
Emotional Stability	.009	-.032
Openness	.009	-.001
Partner X Gender Interactions		
Extraversion	.036*	.017
Agreeableness	-.007	-.028
Conscientiousness	.002	.002
Emotional Stability	-.016	-.004
Openness	-.024	-.015

* $p < .05$

Table 7:

Profile Correlation Analyses by Items: Predicting relationship satisfaction as a function of personality, partner personality, and profile similarity (of items) while controlling for trait factor scores.

	BHPS	HILDA
Intercept	-.015	.012
Gender	.076*	.094*
Profile Correlation (items)	.022	.089*
Actor effects		
Extraversion	.034*	.052*
Agreeableness	.161*	.120*
Conscientiousness	.078*	.026
Emotional Stability	.065*	.063*
Openness	-.017	-.069*
Partner effects		
Extraversion	-.009	.025
Agreeableness	.064*	.052*
Conscientiousness	-.002	.016
Emotional Stability	.064*	.077*
Openness	-.001	-.001
Actor X Gender Interactions		
Extraversion	-.012	-.001
Agreeableness	-.009	.019
Conscientiousness	.017	.021
Emotional Stability	.012	-.034*
Openness	.009	-.001
Partner X Gender Interactions		
Extraversion	.036*	.018
Agreeableness	-.004	-.029
Conscientiousness	.003	-.001
Emotional Stability	-.018	-.002
Openness	-.024	-.015

* p < .05

Table 8:

Univariate analyses predicting life satisfaction as a function of personality, partner personality, and personality similarity (absolute difference between trait factor scores).

	Extraversion	Agreeableness	Conscientiousness	Emotional Stability	Openness
BHPS					
Gender	-.011	.007	-.008	-.090*	-.026*
Actor	.125*	.215*	.230*	.337*	.093*
Partner	.019	.055*	.034*	.100*	.017
Absolute Difference	.002	.037 *	.002	.044*	.014
Actor X Gender	.001	-.001	.039*	.019	.018
Partner X Gender	.016	-.005	-.002	.006	.009
HILDA					
Gender	-.041*	-.015	-.044*	-.051*	-.052*
Actor	.187*	.231*	.176*	.259*	-.038*
Partner	-.098*	.095*	.103*	.119*	-.022
Absolute Difference	-.033*	.024	.035*	.031*	-.022
Actor X Gender	.006	.008	.038*	-.013	.013
Partner X Gender	.021	-.011	-.014	.006	.003
GSOEP					
Gender	-.011	-.002	-.013*	-.044*	-.013*
Actor	.134*	.123*	.117*	.263*	.141*
Partner	.076*	.041*	.049*	.119*	.079*
Absolute Difference	-.008	-.038*	-.005	.014	-.021
Actor X Gender	-.003	.006	.020	.040*	.018
Partner X Gender	.018	-.007	-.026*	-.011	.001

* $p < .05$

Table 9:

Simultaneous analyses predicting life satisfaction as a function of personality, partner personality, and absolute differences for all 5 trait factors.

	BHPS	HILDA	GSOEP
Intercept	-.003	.008	-.007
Gender	-.048*	-.019	-.026*
Actor effects			
Extraversion	.030*	.092*	.046*
Agreeableness	.128*	.094*	.055*
Conscientiousness	.131*	.067*	.044*
Emotional Stability	.293*	.162*	.230*
Openness	-.000	-.034*	.086*
Partner effects			
Extraversion	-.018	.041*	.016
Agreeableness	.038*	.016	.005
Conscientiousness	-.002	.041*	.001
Emotional Stability	.093*	.075*	.099*
Openness	.007	-.015	.055*
Absolute Differences			
Extraversion	-.010	-.034*	.014
Agreeableness	.035*	.010	-.025*
Conscientiousness	-.008	.035*	-.004
Emotional Stability	.019	.029	.009
Openness	-.001	-.031*	-.005
Actor X Gender Interactions			
Extraversion	-.003	-.001	-.010
Agreeableness	-.017	.009	-.011
Conscientiousness	.026*	.037*	.004
Emotional Stability	.010	-.030	.035*
Openness	.008	-.001	.024*
Partner X Gender Interactions			
Extraversion	.004	.032*	.017
Agreeableness	-.007	-.013	.002
Conscientiousness	-.009	-.013	-.016
Emotional Stability	.001	.002	-.009
Openness	.012	.005	-.010

* $p < .05$

Table 10:

Discrepancy Analyses By Traits: Predicting life satisfaction as a function of personality, partner personality, and the sum of discrepancies across all 5 trait factors.

	BHPS	HILDA	GSOEP
Intercept	-.007	.006	-.006
Gender	-.048	-.019	-.026*
Discrepancy	.015	.004	-.002
Actor effects			
Extraversion	.031*	.094*	.045*
Agreeableness	.123*	.094*	.058*
Conscientiousness	.133*	.062*	.044*
Emotional Stability	.292*	.157*	.231*
Openness	-.001	-.034*	.087*
Partner effects			
Extraversion	-.017	.043*	.015
Agreeableness	.033*	.016	.008
Conscientiousness	.000	.036*	.001
Emotional Stability	.092*	.070*	.099*
Openness	.006	-.015	.056*
Actor X Gender Interactions			
Extraversion	-.001	.004	-.012
Agreeableness	-.024	.005	-.005
Conscientiousness	.028*	.032*	.004
Emotional Stability	.014	-.030	.037*
Openness	.007	-.002	.024*
Partner X Gender Interactions			
Extraversion	.002	.026	.019
Agreeableness	-.000	-.008	-.004
Conscientiousness	-.002	-.007	-.016
Emotional Stability	-.003	.001	-.011
Openness	.012	.006	-.010

* $p < .05$

Table 11:

Discrepancy Analyses by Item: Predicting life satisfaction as a function of personality, partner personality, and the sum of discrepancies across all personality items while controlling for trait factors.

	BHPS	HILDA	GSOEP
Intercept	-.004	.007	-.005
Gender	-.048*	-.019	-.026*
Discrepancy	.041*	.020	.012
Actor effects			
Extraversion	.032*	.095*	.045*
Agreeableness	.124*	.095*	.059*
Conscientiousness	.135*	.063*	.046*
Emotional Stability	.292*	.158*	.232*
Openness	.002	-.034*	.087*
Partner effects			
Extraversion	-.016	.044*	.015
Agreeableness	.035*	.016	.009
Conscientiousness	.002	.037*	.002
Emotional Stability	.092*	.072*	.100*
Openness	.009	-.015	.056*
Actor X Gender Interactions			
Extraversion	-.001	.005	-.011
Agreeableness	-.002	.007	-.004
Conscientiousness	.029*	.032*	.005
Emotional Stability	.010	-.030	.036*
Openness	.008	-.002	.025*
Partner X Gender Interactions			
Extraversion	.002	.025	.018
Agreeableness	-.002	-.010	-.005
Conscientiousness	-.003	-.007	-.017
Emotional Stability	.000	.001	-.010
Openness	.011	.006	-.011

* p < .05

Table 12:

Profile Correlation Analyses by Traits: Predicting life satisfaction as a function of personality, partner personality, and profile similarity (of trait factor scores).

	BHPS	HILDA	GSOEP
Intercept	-.008	.006	-.004
Gender	-.047*	-.018	-.027*
Profile Correlation (traits)	-.015	-.013	-.009
Actor effects			
Extraversion	.028*	.093*	.045*
Agreeableness	.125*	.097*	.059*
Conscientiousness	.136*	.063*	.046*
Emotional Stability	.290*	.157*	.230*
Openness	-.003	-.037*	.086*
Partner effects			
Extraversion	-.021	.041*	.014
Agreeableness	.037*	.019	.009
Conscientiousness	.003	.038*	.002
Emotional Stability	.090*	.071*	.097*
Openness	.003	-.018	.055*
Actor X Gender Interactions			
Extraversion	-.000	.005	-.012
Agreeableness	-.024	.005	-.004
Conscientiousness	.026*	.032*	.004
Emotional Stability	.014	-.031	.035*
Openness	.006	-.003	.025*
Partner X Gender Interactions			
Extraversion	.001	.026	.019
Agreeableness	.000	-.010	-.005
Conscientiousness	-.002	-.008	-.016
Emotional Stability	-.004	.002	-.009
Openness	.013	.007	-.011

* $p < .05$

Table 13:

Profile Correlation Analyses by Items: Predicting life satisfaction as a function of personality, partner personality, and profile similarity (of item scores).

	BHPS	HILDA	GSOEP
Intercept	-.007	.005	-.003
Gender	-.048*	-.018	-.027*
Profile Correlation (items)	-.015	.005	-.023
Actor effects			
Extraversion	.028*	.095*	.044*
Agreeableness	.125*	.094*	.061*
Conscientiousness	.136*	.061*	.049*
Emotional Stability	.290*	.156*	.229*
Openness	-.003	-.032*	.085*
Partner effects			
Extraversion	-.020	.043*	.013
Agreeableness	.036*	.016	.011
Conscientiousness	.002	.035*	.005
Emotional Stability	.090*	.070*	.096*
Openness	.004	-.013	.054*
Actor X Gender Interactions			
Extraversion	-.001	.005	-.011
Agreeableness	-.024	.004	-.004
Conscientiousness	.027*	.032*	.004
Emotional Stability	.013	-.029	.033*
Openness	.006	-.002	.026*
Partner X Gender Interactions			
Extraversion	.001	.026	.018
Agreeableness	.000	-.009	-.006
Conscientiousness	-.002	-.008	-.016
Emotional Stability	-.004	.001	-.007
Openness	.013	.006	-.012

* $p < .05$

Notes

The data used in Sample 1 of this dissertation were made available through the ESRC Data Archive. The data were originally collected by the ESRC Research Centre on Micro-social Change at the University of Essex (now incorporated within the Institute for Social and Economic Research). Neither the original collectors of the data nor the Archive bear any responsibility for the analyses or interpretations presented here.

Sample 2 of this paper uses confidentialised unit record file from the Household, Income and Labour Dynamics in Australia (HILDA) survey. The HILDA Project was initiated and is funded by the Commonwealth Department of Families, Community Services and Indigenous Affairs (FaCSIA) and is managed by the Melbourne Institute of Applied Economic and Social Research (MIAESR). The findings and views reported in this paper, however, are those of the author and should not be attributed to either FaCSIA or the MIAESR.

The data from Sample 3 were made available by the German Socio-Economic Panel Study (SOEP) at the German Institute for Economic Research (DIW), Berlin.

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