Predicting Relationship and Life Satisfaction From Personality in Nationally Representative Samples From Three Countries: The Relative Importance of Actor, Partner, and Similarity Effects

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Three very large, nationally representative samples of married couples were used to examine the relative importance of 3 types of personality effects on relationship and life satisfaction: actor effects, partner effects, and similarity effects. Using data sets from Australia (N = 5,278), the United Kingdom (N = 6,554), and Germany (N = 11,418) provided an opportunity to test whether effects replicated across samples. Actor effects accounted for approximately 6% of the variance in relationship satisfaction and between 10% and 15% of the variance in life satisfaction. Partner effects (which were largest for Agreeableness, Conscientiousness, and Emotional Stability) accounted for between 1% and 3% of the variance in relationship satisfaction and between 1% and 2% of the variance in life satisfaction. Couple similarity consistently explained less than .5% of the variance in life and relationship satisfaction after controlling for actor and partner effects.

Keywords: Big Five, similarity, relationship satisfaction, life satisfaction, dyadic data analysis

Why are some people satisfied in their marriages, whereas others are dissatisfied? Why are some married individuals happy and satisfied with life in general, whereas others are unhappy? Although there are many possible ways to address these questions, we consider how the personality traits of both spouses relate to relationship and life satisfaction. The importance of this focus is evident in the long-standing interest in the personality correlates of happy and satisfied relationships (e.g., Kelly & Conley, 1987; Terman & Buttenweiser, 1935). Indeed, the links between personality and relationship satisfaction have received considerable attention in recent years, as researchers have worked to merge evidence regarding the intrapersonal and interpersonal influences of personality for individuals involved in close relationships (e.g., Barelds, 2005; Gattis, Berns, Simpson, & Christensen, 2004; Gaunt, 2006; Glicksohn & Golan, 2001; Gonzaga, Campos, & Bradbury, 2007; Luo et al., 2008; Luo & Klohnen, 2005; D. Watson, Hubbard, & Wiese, 2000). In the present article, we extend this literature by examining how a person's own personality attributes and his or her spouse's attributes combine to predict relationship and life satisfaction using three very large, nationally representative samples of married couples. Using these data sets, we examined three types of personality effects: *actor effects*, which estimate the relationship between a person's personality and that person's satisfaction; *partner effects*, which estimate the relationship between a person's personality and his or her spouse's satisfaction; and *similarity effects*, which (broadly speaking) estimate whether having a partner whose personality is similar to one's own is associated with higher satisfaction.

Personality and Relationship Satisfaction

Theory and research suggest that the personality traits that individuals bring to a relationship should be related to marital satisfaction.

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Sample 2 of this article was made available through the Economic and Social Research Council (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. The data from Sample 3 were made available by the German Socio-Economic Panel Study at the German Institute for Economic Research (DIW), Berlin.

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Specifically, the *intrapersonal approach* to understanding marital distress is predicated on the notion that the personality attributes of individuals involved in marriage help to shape the qualities of that relationship (see, e.g., Kelly & Conley, 1987). Likewise, a common theme in contemporary approaches to understanding the individual factors associated with marital quality and stability is that personality traits are relatively distal predictors of martial outcomes (e.g., Donnellan, Assad, Robins, & Conger, 2007; Karney & Bradbury, 1995; Kelly & Conley, 1987; Robins, Caspi, & Moffitt, 2000). The idea is that personal dispositions are related both to day-to-day interactions and to dyadic adaptations to external stressors. These factors, in turn, have more proximal influences on relationship quality and stability (Karney & Bradbury, 1995). Accordingly, personality traits are thought to serve as "enduring vulnerabilities" for marital distress (Karney & Bradbury, 1995).

As it stands, many studies have shown that an individual's traits are in fact associated with his or her own relationship satisfaction (e.g., Robins et al., 2000; D. Watson et al., 2000). Specifically, according to a meta-analytic review of the Big Five personality traits presented by Heller, Watson, and Ilies (2004), Emotional Stability, Agreeableness, and Conscientiousness are the personality traits with the most robust actor effects for relationship satisfaction (average *r*s = .26, .24, and .22, respectively). Individuals who are higher in each of these attributes report higher levels of relationship satisfaction.

Although the effects of a person's personality on his or her own satisfaction have been well established, the literature examining partner effects (i.e., the interpersonal consequences of personality) for married couples is less extensive and less consistent. Several studies have examined the degree to which a person's personality attributes predict his or her romantic partner's satisfaction, but the findings have not always replicated across samples and measures (e.g., Barelds, 2005; Botwin, Buss, & Shackelford, 1997; Donnellan et al., 2007; Luo et al., 2008; Robins et al., 2000; D. Watson et al., 2000). The trait with the most consistent evidence for partner effects is Emotional Stability. Having a partner low in Emotional Stability or high in Negative Emotionality is associated with higher levels of relationship dissatisfaction (e.g., Barelds, 2005; Botwin et al., 1997; Donnellan et al., 2007; Robins et al., 2000), and even a greater risk of marital dissolution (Kurdek, 1993).

Despite this evidence, however, partner effects often fail to replicate across studies. For example, one study found that Agreeableness, Openness, and Emotional Stability showed small but consistent partner effects (D. Watson et al., 2004). However, another study reported that partners' Extraversion and Agreeableness were the only Big Five traits that were significant predictors of marital quality (Barelds, 2005). Other inconsistencies emerge regarding gender differences or differences between married versus dating couples. D. 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.

Recently, Malouff, Thorsteinsson, Schutte, Bhullar, and Rooke (2010) conducted a meta-analysis of partner effects on relationship satisfaction. Consistent with our narrative review, this meta-analysis showed that associations were generally small, with Neuroticism exhibiting the strongest correlations (average $r = -.22$). Agreeableness and Conscientiousness had the next strongest associations (with average correlations of .15 and .12, respectively), whereas Extraversion and Openness were virtually uncorrelated with relationship satisfaction (*r*s of .06 and .03, respectively). Thus, inconsistencies in the literature regarding partner effects may result from insufficient statistical power, as partner effects are generally smaller in magnitude than actor effects. This is likely due in part to the lack of shared method variance, as partner effects are generally based on one person's report of his or her personality and the other person's report of his or her satisfaction. Therefore, larger sample sizes than are typically used may be required to detect these effects. Cooper and Sheldon (2002) summarized the literature on personality and relationships and reported that the average sample size was 169 couples (*Mdn* = 81). Likewise, Karney and Bradbury (1995) noted that much of the relationship research they analyzed also had relatively small sample sizes (33% had 100 or fewer participants). Thus, an important goal for current research is to take advantage of large-sample studies that have the power to detect what may be subtle but important partner effects.

Couple Similarity and Satisfaction

The results reviewed above reveal that personality traits can have both actor and partner effects. There is now increasing interest in moving beyond these fairly straightforward connections between personality traits and relationship outcomes to evaluate whether couple-level characteristics are related to marital outcomes. In particular, recent studies have pointed to the importance of personality similarity between partners as a factor that is associated with marital satisfaction. Indeed, Gonzaga et al. (2007) suggested that "being similar to a partner at a moment in time, or converging toward a partner across time, seems to have positive effects on relationship functioning" (p. 36). Drawing from the vulnerability-stress-adaptation model of marriage (Karney & Bradbury, 1995) and the idea that personality traits are enduring vulnerabilities and strengths that shape behavior in interactions, Gonzaga and his colleagues argued that couples with more similar personalities share more similar emotional experiences during interactions. Similarity in emotional experiences then leads to more successful interactions between couple members, which can then explain associations between similarity and relationship success. These and related theories (Anderson, Keltner, & John, 2003) suggest that personality similarity itself is important for relationship success, even beyond the influence of the individuals' personality traits.

The idea that similarity is correlated with relationship outcomes is supported by evidence from Gaunt (2006), who found that similarity in gendered traits was associated with relationship measures. Correlations were generally small (i.e., less than .15), with a few moderately sized effects around .30 (with more similar partners reporting more positive relationship outcomes). Other studies, including those by Blum and Mehrabian (1999), Caspi and Herbener (1990), Luo and Klohnen (2005), Luo et al. (2008), Robins et al. (2000), and Russell and Wells (1991), also found significant associations between indices of similarity and relationship satisfaction (with a wide range of small to medium-sized correlations). However, several other studies have failed

to find similarity effects. For example, Gattis et al. (2004) did not find spousal 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, and Donnellan et al. (2007) found no evidence that personality similarity predicted relationship outcomes. Likewise, Big Five personality similarity did not predict enhanced relationship satisfaction in a community sample of couples in their 40s and 60s (Shiota & Levenson, 2007; see also Eysenck & Wakefield, 1981; Glicksohn & Golan, 2001; Zentner, 2005). Thus, the overall literature only provides mixed empirical support for the hypothesis that couples with more similar personalities are actually happier couples.

One important issue in providing a clear interpretation of the similarity literature is that there are a variety of ways to measure similarity, and the choice of method involves both theoretical concerns and statistical complexities (see Chapter 12 of Kenny, Kashy, & Cook, 2006, for a complete discussion). Most previous studies have focused on one of two different kinds of similarity coefficients: discrepancy scores and profile correlations (see, e.g., Luo et al., 2008). Discrepancy scores reflect the difference between two partners' personalities, and they are calculated simply by taking the absolute value of the difference between both partner's scores on a given trait (or series of traits) to provide an overall index of personality discrepancy in terms of the difference in trait level between partners. That is, two spouses who have very different personalities will have relatively high scores, whereas two spouses who have similar personalities will have relatively lower scores. These coefficients have an intuitive meaning and are frequently used in the relationships literature (see Griffin, Murray, & Gonzalez, 1999).

A second type of similarity measure, the profile correlation, has been used in recent articles by Gaunt (2006), Gonzaga et al. (2007), and Luo et al. (2008). These correlations capture similarity in the configuration of personality traits across dyad members, and therefore index how well the dyad members "match" across a set of personality traits (see Cronbach & Gleser, 1953). The precise psychological meaning of these coefficients is less straightforward than discrepancy scores because the resulting index is much further from the underlying data. Because they reflect similarity over the entire profile of scores, however, profile-correlation-based indices are thought by some to provide additional information about similarity that cannot be obtained from discrepancy scores. Emerging research tends to support the idea that similarity as indexed by profile correlations is related to marital satisfaction (for a review, see Luo et al., 2008). In fact, these kinds of effects sometimes emerge even when correlations with discrepancy scores have been close to zero. Therefore, an important goal of the present research was to determine the extent to which results vary depending on which of these two broad classes of indices is used to assess similarity.

A second issue concerns the extent to which true differences in couple similarity are responsible for the association between similarity indices and relationship outcomes. Methodological experts dating back to Cronbach (1955) have noted that measures of similarity like the profile correlation are composites of different sources of variance. Thus, there is a possibility that sources of variance that are unrelated to actual similarity may affect associations between the broader index and outcomes like relationship satisfaction. The component of the profile similarity coefficient that has received the most attention is known as the "stereotype effect" (Acitelli, Kenny, & Weiner, 2001; Furr, 2008; Kenny & Acitelli, 1994; Kenny et al., 2006). Here, the term *stereotype* is used descriptively to refer to "a typical way of responding" (Kenny & Acitelli, 1994, p. 419). Given the existence of these typical patterns of responding, the expected value of a profile correlation between two randomly paired individuals is not zero.

An example outside of the personality domain is instructive. Say that the key question concerns the effects of food-preference similarity on marital satisfaction. The food-preference inventory asks about preferences for a variety of foods, including liver, lima beans, chocolate cake, and ice cream. Doubtless, the average preference scores for liver and lima beans will be lower than those for cake and ice cream. If two spouses both dislike liver and lima beans and both like cake and ice cream, they will have a relatively high profile correlation. The stereotype effect captures the "extent to which a person's responses tend to match the profile of responses of other people in the sample" (Kenny & Acitelli, 1994, p. 419). This increased "agreement" is sometimes referred to as *stereotype accuracy* in the literature to reflect that observed similarity is attributable, in part, to the fact that people have a tendency to respond to items in a normative or stereotypical fashion (see Kenny et al., 2006, pp. 330–334).

Importantly, concerns about stereotype effects are not limited to the size of the profile correlation. Instead, they also extend to the associations between the profile correlation and criterion variables. Kenny and Acitelli (1994) stressed that "stereotype effects need to be considered because of their possible influence on the correlation between marital quality and similarity" (p. 419). Quite simply, participants who provide a "typical" or normative personality response may also provide a normative response to measures of relationship and life satisfaction. As proposed by Kenny and Acitelli (1994): "People who give stereotypic responses may tend to say that they are satisfied in their relationship" (p. 420). Kenny and Acitelli argued that stereotype effects must be controlled in analyses involving profile correlations in order to remove this potential source of confounding. Indeed, Kenny and Acitelli wanted to make sure that the literature on similarity does not simply reflect the "similarity of endorsing stereotypes and marital satisfaction" (p. 427). Acitelli et al. (2001) concluded that "it is likely that many of the previously published correlations of dyadic indices [i.e., profile correlations] with relational outcomes would weaken and even disappear if suitable controls for stereotype endorsement had been made. Some sort of adjustment for stereotypes would seem necessary" (p. 183; see also Furr, 2008). Thus, a second goal when examining the similarity effects was to understand the extent to which stereotype accuracy inflates the associations between profile correlations and relationship outcomes.

We concede that other researchers may not share our concerns over stereotype effects with respect to the profile correlation. Here, we would point out that the adjustments that are typically used to correct for stereotype accuracy are very simple. For instance, the most common approach (which we used in our analyses) is to compute personality profiles that are based on standardized personality scores (standardizing using the grand means and standard

deviations across the whole sample) rather than using raw scores to compute profile correlations. It is not usually the case that such a straightforward and seemingly innocuous transformation would substantially affect predictor-criterion conclusions in other areas of personality psychology (e.g., standardizing two raw variables does not affect their correlation). Thus, at the very least, these analyses have the potential to demonstrate the sensitivity of results using profile coefficients to subtle differences in how these coefficients are calculated.[1]

A final and very important issue has to do with controls for "main effects" when conducting similarity analyses (Karney & Bradbury, 1995). All couple similarity indices are essentially interaction terms created from the personality scores of the two individuals involved in the relationship. Just as it is important to control for main effects in a regression analysis that tests interactions (e.g., Aiken & West, 1991), it is necessary to control for each relationship partner's personality when assessing the effect of their personality similarity (Griffin et al., 1999; Kenny & Acitelli, 1994; but see Brauer & Judd, 2000, for an alternative perspective).

Consider a hypothetical couple in which one partner is high on Emotional Stability, one partner is low on Emotional Stability, and both are relatively dissatisfied with their relationship. If researchers only examine the association between personality (dis)similarity and relationship satisfaction using discrepancy scores without controlling for the absolute level of the two partners' scores on Emotional Stability, they would likely conclude that being dissimilar is bad for relationships. However, large differences between a couple's scores on an attribute occur when one spouse scores high on the trait and the other spouse scores low. If there are main effects of Emotional Stability on relationship satisfaction (i.e., actor or partner effects, or both), then the fact that there is one partner who scores low on this important dimension could account for the lowered satisfaction of the couple. Because similarity indices are always dependent on the partners' individual levels, no conclusions about the effects of similarity should be made without first controlling for the "main effects" of personality. This holds for both discrepancy scores and profile correlations.

Indeed, although Karney and Bradbury (1995) found meta-analytic evidence that personality similarity was associated with relationship satisfaction, they noted that most studies they examined did not control for main effects. Thus, they cautioned that "the possibility remains that homogamy itself does not affect marital outcomes beyond the initial levels of the particular variables" (p. 21). It is possible that some of the inconsistency in the literature with respect to similarity effects may reflect differences in methodological rigor across studies. For example, a recent study that found significant similarity effects in terms of profile correlations did not thoroughly control for each partner's personality (Gonzaga et al., 2007). That is, although Gonzaga et al. included some controls in their analyses, they did not present analyses in which the main effects of all of the attributes that went into the similarity index were controlled. Instead, in their tests of the effects of overall profile similarity, Gonzaga et al. conducted five additional analyses controlling for the couple's averaged personality, one Big Five trait at a time (e.g., they predicted relationship satisfaction from the profile correlation and the average of the husband's and wife's Extraversion).[2] Our concern is that the profile correlation is essentially an interaction that is based on all traits, and so we argue that all traits must be controlled simultaneously in the analysis to provide unambiguous support for similarity effects.[3] Thus, a final goal for our analysis of similarity effects was to demonstrate that similarity effects that may emerge with discrepancy or profile-correlation-based approaches often result from uncontrolled actor and partner effects.

Personality and Life Satisfaction

As a final research question, we extend our analyses to a more distal outcome that could potentially be associated with married couples' personality attributes: overall life satisfaction. In previous research, a person's personality traits have been consistently linked with his or her life satisfaction. A recent meta-analysis found that such "actor" effects are particularly pronounced for Emotional Stability and Extraversion (average $r = .38$ and .28, respectively; Steel, Schmidt, & Shultz, 2008; see also Heller et al., 2004) such that more stable and extraverted individuals were more satisfied with their lives. Correlations with Conscientiousness and Agreeableness were smaller, but still small to medium in size (average $r = .22$ and .14, respectively), whereas correlations between Openness and life satisfaction were very close to zero (average $r = .03$). The robust links between a person's personality and his or her subjective well-being, combined with the fact that few demographic characteristics are strongly associated with well-being, have led some to conclude that relative to the effects of a

[1] Another issue concerns the use of the Pearson *r* versus the ICC. Although there seems to be a preference for the Pearson *r* in relationship research (see, e.g., Gonzaga et al., 2007; Luo et al., 2008), we believe that the ICC is more appropriate, as it captures similarity in both profile level and shape (see Kenny et al., 2006; Murray, Holmes, Bellavia, Griffin, & Dolderman, 2002). We adopted a broad approach by calculating results for both the Pearson *r* and the ICC. We also examined the correlation of profile agreement or r_{pa} proposed by McCrae (2008), which places greater weight on similarity for extreme values on personality traits (e.g., couples where both individuals have large *z* scores) rather than similarity for less extreme values (e.g., couples where both individuals are about average on a trait; see McCrae, 1993). However, results were generally consistent across the various profile-correlation indices, and thus, we only report the detailed results for the ICC. Full results are available from Portia S. Dyrenforth upon request.

[2] In fact, Gonzaga et al. (2007) provided us with the correlation matrix for the larger of their two studies, and when the main effects of all personality traits were included in the analysis, the similarity coefficients became very small and were not statistically significant.

[3] It is also true that Luo et al. (2008) conducted analyses using much larger sample sizes and found results consistent with Gonzaga et al. (2007). However, there is still some concern with their analyses. They constructed their profile correlations from personality items but only controlled for the actor and partner effects for the broader personality scales. Our view is that the most appropriate "controls" in these similarity analyses are the actor and partner effects associated with the constituent elements of the profile correlation. For instance, when examining the effects of similarity on "social potency," Luo et al. controlled for partners' overall social potency. However, some subscales from the social potency domain (such as "Extroversion versus Introversion") will likely correlate more strongly with satisfaction outcomes than will others (such as "logical versus affective orientation" or "divergent thinking"). Thus, without controlling for these constituent elements, it is impossible to determine whether the similarity effects have an effect over and above the main effects themselves.

person's personality attributes, external life circumstances have little effect on his or her well-being (see Lucas & Diener, 2008, for a review).

However, as is the case for relationship satisfaction, spouses are generally quite similar to one another in their levels of life satisfaction, and this similarity cannot be explained by assortative mating effects alone (Schimmack & Lucas, 2008). This means that something other than an individual's own personality—something that is shared between the two members of the couple—affects their life satisfaction in similar ways. One of the many possible factors that could lead to these shared effects is the personalities of the partners themselves, including partner effects and personality similarity. However, few if any studies have examined these effects, and thus, examining the links between couple personality and life satisfaction can help shed light on more distal outcomes that might be related to partner and similarity effects.

Overview

Previous studies that have examined associations between personality traits and relationship outcomes have three important limitations. First, because partner effects and similarity effects are likely to be relatively small, existing studies may not have had sufficient power to detect such effects on a consistent basis. This may explain some of the apparent inconsistencies that have emerged in the literature. Second, existing studies often rely on samples of participants who know that they are participating in a study on relationships and relationship outcomes. Such studies may be likely to attract couples who are substantially different from average couples. For instance, couples who are having relationship problems may participate to gain insight in these problems, or couples who feel particularly close may participate to affirm the quality of their relationship or to demonstrate the characteristics that they believe are responsible for their success. For this reason, it is useful to employ more representative samples to get a potentially more accurate sense of the associations between personality traits and relationship outcomes. Finally, we make sure to control for the actor and partner effects of personality attributes before evaluating similarity effects.

To estimate the effects of personality and personality similarity on relationship and life satisfaction, we used data available from three large, nationally representative studies. Participants in all of these panel studies were interviewed yearly regarding a variety of individual and household demographics, economic conditions, values, and opinions. These large panel studies provide the unique opportunity to examine personality effects for married couples that vary widely in age, relationship length, and other demographic attributes. Each of these studies measured participants' standing on the Big Five factors of personality and life satisfaction. Two of the studies also measured relationship satisfaction.

Method

Analytic technique. Multilevel modeling was used in the analyses reported here in order to estimate the actor-partner interdependence Model (APIM; Kenny et al., 2006). The APIM is a model of interpersonal influence that suggests that the attributes of both partners in a dyad are associated with each individual's outcomes such as relationship satisfaction. In the current context, a*ctor effects* capture the associations between an individual's personality trait and his or her own level of satisfaction. *Partner effects* capture the association between an individual's personality and his or her partner's level of satisfaction. *Similarity effects* reflect the unique contribution of personality similarity, once the main effects of each partner's personality are controlled. This approach treats the individual as the lower level unit and couple as the upper level unit. Actor and partner predictors are lower level predictors, and similarity indices are upper level predictors. The general form of the lower level model we estimated was:

$$Y_{ij} = b_{0j} + b_{1j} \times G_{ij} + b_{2j} \times Act_{ij} + b_{3j} \times Part_{ij} + b_{4j} \times (G_{ij} \times Act_{ij}) + b_{5j} \times (G_{ij} \times Part_{ij}) + e_{ij}.$$

In this equation, Y_{ij} is the outcome score (either relationship or life satisfaction) for person i in couple j. G is used to represent the person's gender, *Act* represents the person's own score on one of the personality dimensions, and *Part* represents the person's partner's score on that personality dimension. By including the interactions between gender and the actor and partner effects, we are allowing for there to be differences in the size of actor or partner effects for husbands and wives. The similarity index is then a predictor in the upper level equations:

$$b_{0j} = a_0 + a_1 \times Sim_j + d_j$$

$$b_{1j} = c_0 + c_1 \times Sim_j$$

$$b_{2j} = g_0$$

$$b_{3j} = k_0$$

$$b_{4j} = m_0$$

$$b_{5j} = n_0.$$

Note that the similarity variable, denoted as *Sim* in the equations, is a predictor of the intercept, b_{0j}, and the gender effect, b_{1j}. Thus, a_1 assesses whether similarity predicts satisfaction on average, and c_1 assesses whether the effect of similarity on satisfaction differs for men and women. Although it is technically possible to include similarity as a moderator of the actor and partner effects, we did not do so in our analyses. Finally, the nonindependence between the two partners' satisfaction scores was modeled in the random component of the intercepts, d_j.

Sample 1: Household Income and Labour Dynamics in Australia (HILDA) survey. The HILDA is a household-based Australian panel study that has been conducted since 2000 (Watson, 2005). After selecting those couples who were legally married and for whom personality, relationship satisfaction, and life satisfaction data were collected from both spouses in 2005, this sample included 2,639 couples (N = 5,278). In this sample, the husbands were an average of 50.96 (SD = 14.64) years old and wives were an average of 48.49 (SD = 14.28) years old. The couples in this sample had been married an average of 22.78 (SD = 15.88) years.

Measures. *Marital satisfaction* was assessed by asking respondents to report how satisfied or dissatisfied they felt about

their relationship with their partner using an 11-point scale (ranging from 0 [*completely dissatisfied*] to 10 [*completely satisfied*]; $M = 8.39$, $SD = 1.84$). For this sample, the correlation between husbands and wives relationship satisfaction was $r(2637) = .53$. Participants also reported on *life satisfaction* using a one-item measure with endpoints ranging from 0 (*completely dissatisfied*) to 10 (*completely satisfied*) ($M = 8.08$, $SD = 1.33$), between partners, $r[2637] = .38$.[4] The HILDA contains a measure of *personality* based on Saucier's (1994) adjective 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 ($\alpha = .77$). Agreeableness ($\alpha = .78$), Conscientiousness ($\alpha = .80$), and Emotional Stability ($\alpha = .79$) and were each assessed using seven adjective ratings; and Openness ($\alpha = .74$) was assessed using six adjective ratings (a seventh item, "traditional," was dropped because it was slightly negatively correlated with the other six Openness items). All traits were scored such that higher scores indicate more desirable responses (e.g., high scores on Emotional Stability reflect low scores on Neuroticism).

Sample 2: British Household Panel Study (BHPS; University of Essex, 2008). The 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 of Big Five personality traits for the first time (see Donnellan & Lucas, 2008). Therefore, to investigate personality similarity effects, those participants who were legally married and provided data in that wave of assessment were included in the present analyses. This includes 3,277 heterosexual couples for whom personality, relationship satisfaction, and life 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 ($SD = 14.08$). Among the subsample of 1,837 couples for whom marriage length information was available, the average marriage length was 21.40 ($SD = 16.04$) years.

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 7-point scale ranging 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 $r(3275) = .29$. Participants reported their *life satisfaction* using a one-item measure with endpoints ranging from 1 (*not at all satisfied*) to 7 (*completely satisfied*) ($M = 5.29$, $SD = 1.20$), between partners, $r[3275] = .26$. *Personality* was assessed using a 15-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 $\alpha = .52$, Emotional Stability $\alpha = .67$, and Openness $\alpha = .67$).

Although the internal consistency for these brief personality measures is lower than traditional recommendations for reliability, this represents a necessary trade-off to obtain personality data from representative samples this large because survey space is at such a premium. Furthermore, in constructing very short measures, internal consistency is often sacrificed in order to maintain breadth of coverage. As a result, internal consistency estimates may be lower than the true reliability of the measure. For example, Donnellan and Lucas (2008) used data from the Gosling-Potter Internet Personality Project ($N = 628{,}640$) to examine the correlations between the three-item scales and the remaining items from the BFI (which represents alternate-form reliability). In this Internet sample, the reliabilities were comparable to those found in the present studies (αs ranging from .52 to .68). However, the correlations between these brief measures and the full BFI scales ranged from .86 to .90, and (more importantly) the correlations between the three-item scales used in the present studies and the five- to seven-item scales constructed from the remaining nonoverlapping items in each BFI scale ranged from .70 to .73.

Sample 3: German Socio-Economic Panel Study (GSOEP; German Institute for Economic Research, 2008). The GSOEP is a household panel study of people living in Germany. Since 1984, the survey has assessed a variety of social and demographic characteristics of participants. In 2005, the GSOEP included the same 15-item measure of Big Five personality used in the British sample. After selecting those participants who were legally married and for whom personality and life satisfaction data are available for both spouses (relationship satisfaction was not measured in this study), this sample included 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 were an average of 51.0 ($SD = 13.6$) years old. The average length of marriage was 25.38 years ($SD = 14.90$).

Measures. *Life satisfaction* was assessed in this German sample using a single item indicating how satisfied or dissatisfied they felt about their life overall ranging from 0 (*not at all satisfied*) to 10 (*completely satisfied)* ($M = 7.02$, $SD = 1.78$). The correlation between wives' and husbands' life satisfaction scores was $r(5707) = .56$. *Personality* was assessed using the same 15-item measure used in the British sample except that it was administered in German. The reliabilities of these short scales were generally comparable to those in the British sample (Extraversion $\alpha = .64$, Agreeableness $\alpha = .51$, Conscientiousness $\alpha = .60$, Emotional Stability $\alpha = .61$, and Openness $\alpha = .64$).

Results

Overview. As noted above, multilevel modeling was used for all analyses. We conducted two sets of analyses . The first set of analyses focused on one Big Five personality dimension at a time. These analyses predicted satisfaction as a function of the actor, partner, and (dis)similarity effect (measured as the absolute value of the difference between the two partner's scores) for a single personality dimension. Thus, this set of analyses involved estimating five separate models. One goal of these analyses was to estimate actor and partner effects for each personality dimension,

[4] To address any concern regarding skewness of the marital satisfaction and life satisfaction variables, we reanalyzed the data using square-root-transformed life and relationship satisfaction variables to improve normality. Using the transformed outcome variables did not change any of the resulting conclusions across any of the three samples.

and another was to see whether discrepancies in individual traits are associated with satisfaction. It is possible, for instance, that similarity effects may emerge for some traits but not for others.

The second set of analyses focused on measures of similarity in which similarity was operationalized as a multivariate construct. That is, similarity was measured either by an aggregate measure of discrepancy or by a profile correlation. These analyses were designed to answer three questions: (a) Is aggregate similarity associated with relationship and life satisfaction? (b) Do these associations differ for discrepancy-based indices and profile-correlation-based indices? and (c) Are the associations robust to corrections for stereotype accuracy and actor and partner effects?

These analyses involved estimating a series of models that assessed the associations between satisfaction and one of three indices that measure similarity across the Big Five traits: the average discrepancy, the intraclass correlation (ICC) based on raw personality scores, and the ICC based on standardized scores. The average discrepancy is computed by averaging the five univariate discrepancy scores into a single value that provides a general measure of (dis)similarity. The two ICC similarity measures are both profile correlations that are computed by correlating one person's scores on the Big Five traits with his or her spouse's scores on these traits.[5] When the correlation is based on the raw trait scores, the ICC provides an estimate of couple similarity that does not adjust for stereotype effects. However, when the ICC is computed using standardized scores, it provides a measure of similarity that factors out stereotype effects. To calculate this adjusted index, participants' Big Five trait scores were standardized using the grand mean and standard deviation, and the ICCs were calculated using these standardized scores. Standardization or mean deviation are among the simplest recommended procedures for removing stereotype effects (Kenny et al., 2006, pp. 332–333).

When we examined our multivariate measures of similarity, we specified two models. In the first, we examined the association between each index and satisfaction while controlling only for gender (these models also included an interaction between gender and the index). This analysis—although not recommended by methodologists—provides a useful comparison with past research that has failed to adequately control for main effects. We then went on to test the same models while simultaneously controlling for the actor and partner effects for all five personality factors. The main effect of gender, as well as interactions between all model parameters and gender, were included in these analyses. Descriptive statistics for each of the Big Five personality factors, trait-by-trait discrepancies, and aggregate similarity indices are presented in Table 1.

Predicting relationship satisfaction using actor personality, partner personality, and personality discrepancies for individual traits. We first examined whether actor, partner, and similarity effects were associated with relationship satisfaction on a trait-by-trait basis. We conducted these analyses on just the Australian and British data sets because relationship satisfaction was not assessed in the German sample. In these APIM analyses, a person's relationship satisfaction was predicted to be a function of the person's own standing on one personality attribute, his or her partner's standing on that attribute, and the absolute value of the discrepancy between the person's score on the attribute and his or her partner's score. Thus, similarity was modeled as the absolute difference between the two partners' scores, and a negative effect for discrepancy on satisfaction implies that partners who are more similar are more satisfied. Analyses also included the main effect of gender, and these analyses allowed the actor, partner, and discrepancy effects to vary by gender. The main effect for gender was statistically significant in both data sets, indicating that, on average, men had slightly higher relationship satisfaction scores than did women (Australian sample for men $M = 8.52$, $SD = 1.74$, and for women $M = 8.27$, $SD = 1.93$), $t(2638) = 7.05$, $d = 0.14$) (British sample for men $M = 6.38$, $SD = 1.04$, and for women $M = 6.27$, $SD = 1.12$); $t(3276) = 4.56$, $p < .01$, $d = 0.10$. However, because few gender interactions were found, those that did emerge are discussed in the text and are not presented in the tables.

Three general findings are apparent in Table 2: (a) A person's own personality was related to his or her relationship satisfaction, (b) a person's partner's personality was associated with the person's satisfaction, and (c) there was relatively little evidence that discrepancy scores were related to relationship satisfaction. Considering first the actor effects, a person's own personality traits were consistently related to relationship satisfaction. In both samples, people who were more agreeable, extraverted, conscientious, and emotionally stable reported higher relationship satisfaction than did those who scored lower on these traits. The one inconsistent finding was for openness. Scores on this trait were negatively associated with satisfaction in the Australian sample, whereas they were positively associated with satisfaction in the British data. However, in both studies, the effects for openness were the weakest among the five traits that were assessed.

Second, the presence of statistically detectable partner effects suggests that a person's relationship satisfaction is also related to his or her partner's personality, though the size of these partner effects tends to be smaller than the size of the actor effects. For the Australian couples, the partner effects are just slightly weaker than the actor effects, whereas for the British sample, the partner effects are considerably weaker. Together, these findings suggest that independent of a person's own personality, having a partner who is more agreeable, extraverted, conscientious, and emotionally stable is associated with a person's relationship satisfaction. A gender interaction with partner's Agreeableness emerged for the Australian data set (standardized $b = -.035$, $p < .05$), such that women with more agreeable husbands were especially satisfied (standardized $b = .166$, $p < .01$), whereas the level of the wife's Agreeableness was less predictive of the men's satisfaction (standardized $b = .096$, $p < .01$). This effect did not replicate in the British data. In the BHPS, the only gender interaction that occurred was with partners' Extraversion (standardized $b = .029$, $p < .05$). There was a positive and statistically significant partner effect for men (standardized $b = .044$, $p < .01$), showing that men with more extraverted wives were more satisfied, and a very slightly negative partner effect for women (standardized $b = -.015$, *ns*). Again, however, this effect was not replicated in the Australian data.

Finally, as is apparent from the estimates in Table 2, evidence in support of a similarity hypothesis was weak when considering

[5] We report analyses using profile correlations that are calculated at the trait level. However, the same results emerge when item-level profile correlations are used.

Table 1
Means and Standard Deviations for the Big Five Predictors, Individual Discrepancy Scores, and the Six Indices of Personality Similarity

	HILDA (Australia)		BHPS (UK)		GSOEP (Germany)	
Variable	*M*	*SD*	*M*	*SD*	*M*	*SD*
Individual predictors						
Agreeableness	5.52	.82	5.47	.98	5.45	.98
Extraversion	4.63	.96	4.41	1.17	4.78	1.12
Conscientiousness	5.29	.95	5.41	1.05	6.01	.89
Emotional Stability	5.17	.98	4.39	1.30	4.00	1.21
Openness to Experience	4.14	1.02	4.41	1.20	4.45	1.22
Individual discrepancies						
Agreeableness	0.86	0.69	1.06	0.87	0.94	0.80
Extraversion	1.08	0.83	1.30	0.99	1.16	0.96
Conscientiousness	1.03	0.81	1.12	0.87	0.74	0.73
Emotional Stability	0.98	0.75	1.49	1.16	1.25	1.01
Openness to Experience	1.00	0.80	1.23	0.95	1.08	0.90
Similarity indices						
Average discrepancy	0.99	0.42	1.24	0.50	1.03	0.48
Intraclass (raw)	0.22	0.46	0.12	0.43	0.40	0.40
Intraclass (standardized)	−0.03	0.47	−0.09	0.43	0.08	0.48

Note. HILDA = Household Income and Labour Dynamics in Australia; BHPS = British Household Panel Study; GSOEP = German Socio-Economic Panel Study.

discrepancy scores for the individual traits. In the Australian sample, statistically significant similarity effects emerged for just two traits—Extraversion and Openness—and these were modest in size. However, neither of these effects was replicated in the British sample. In this second sample, the only statistically significant similarity effect to emerge was for the trait of Emotional Stability (an effect that was not replicated in the Australian data). Thus, even with the power to detect very small effects, only inconsistent trait-specific similarity effects emerged across these two samples.[6]

Predicting relationship satisfaction using overall similarity indices. Our next set of analyses examined whether overall indices of personality similarity across all traits predicted relationship satisfaction above and beyond the actor and partner effects of the constituent traits (see Table 1 for the means and standard deviations). As noted above, three different overall similarity measures were examined, and two models were estimated for each index. The first model included only the gender main effect, the similarity effect, and a Gender × Similarity interaction. Although such a model is not recommended by methodologists, we estimated it to see how strongly similarity coefficients predict relationship satisfaction before the individual partners' personalities are controlled. In the second model, we followed the recommendations in the literature (e.g., Karney & Bradbury, 1995; Kenny et al., 2006) and included the actor effects and partner effects for all five personality traits to control for the main effects of the partners' personalities. The gender main effect and gender interactions with actor effects, partner effects, and the similarity index were also included in these models. Because no significant interactions between gender and similarity emerged, these effects are not included in the tables. Table 3 presents the regression coefficients for the similarity indices for these two models.

As is apparent in Table 3, the two data sets provided somewhat different pictures of the association between personality similarity and relationship satisfaction. In the Australian sample, before controlling for the main effects of the partners' personality, the various similarity indices were consistently related to relationship satisfaction. The standardized *b*s ranged from .099 to .196, with the highest associations emerging for the ICC index based on unstandardized responses. Importantly, the second column shows that controlling for the main effects resulted in similarity effects that are lower, with coefficients ranging from −.058 to .082. These results therefore underscore the importance of including a thorough set of controls to avoid producing upwardly biased effect size estimates.

The estimates for the British sample were quite a bit smaller than those from the Australian data, though two important consistent findings emerged. First, the largest coefficients were those for the ICC based on raw scores. In fact, in the British sample, these were the only statistically significant effects. Second, once the main effects of personality traits were controlled, these coefficients dropped considerably. After controlling for actor and partner effects, the three similarity indices consistently provided little evidence in favor of the importance of personality similarity. Thus, in the British sample, there is no evidence that overall similarity is associated with relationship satisfaction once the personalities of the partners are controlled.

To aid in the interpretation of the size of these effects, we estimated a series of multilevel models that allowed us to compute a pseudo-R^2 for the set of actor effects (over and above gender),

[6] One additional possibility is that rather than similarity, some unique combination of traits is associated with satisfaction. Although such synergistic hypotheses (see Robins et al., 2000) are beyond the scope of the present article, we did examine whether the simple interaction of actor and partner scores on each of the Big Five traits predicted satisfaction. The results for this measure were very similar to those found using the other indices.

Table 2
Standardized Regression Coefficients Predicting Relationship Satisfaction in the HILDA (Australia) and BHPS (UK) Using Separate Trait-by-Trait Analyses

Effect	Agreeableness	Extraversion	Conscientiousness	Emotional stability	Openness to experience
HILDA (Australia)					
Actor	.199**	.121**	.115**	.176**	−.085**
Partner	.131**	.080**	.098**	.146**	−.027*
Discrepancy	.006	−.056**	−.026	−.012	−.055**
BHPS (UK)					
Actor	.206**	.077**	.157**	.106**	.050**
Partner	.078**	.014	.044**	.068**	.012
Discrepancy	.005	.000	.007	.034*	−.001

Note. The gender main effect, as well as gender interactions with actor, partner, and discrepancy effects, were included in the analysis, but are not displayed in the table. The absolute value of the discrepancy between the two partner's personality scores are used as predictors. HILDA = Household Income and Labour Dynamics in Australia; BHPS = British Household Panel Study.
* $p < .05$. ** $p < .01$.

the set of partner effects (over and above gender and actor effects), and each similarity index (over and above gender, actor, and partner effects). Hereafter, we simply refer to these values as R^2. The first model included only the gender main effect; the second model included gender and the actor effects for all of the Big Five traits; the third model included gender, the actor effects, and the partner effects for all of the Big Five; and the fourth model(s) included gender, the actor effects, the partner effects, and the similarity index. We used maximum likelihood estimation for these analyses, and we computed the R^2 and the chi-square difference tests corresponding to this R^2 value for each block of predictors.

For the Australian sample, the set of five actor effects had an $R^2 = .063$, $\chi^2(5, 5{,}278) = 219.04$, and the set of five partner effects had an $R^2 = .032$, $\chi^2(5, 5{,}278) = 150.23$. The R^2 value for each of the similarity indices was quite small (although all were statistically significant), with $R^2 = .004$, $\chi^2(1, 5{,}278) = 14.43$, for the average discrepancy index, $R^2 = .005$, $\chi^2(1, 5{,}278) = 17.46$, for the ICC index based on the raw scores, and $R^2 = .005$, $\chi^2(1, 5{,}278) = 17.55$, for the ICC based on the standardized scores. For the British sample, the set of five actor effects had an $R^2 = .055$, $\chi^2(5, 6{,}554) = 322.23$, and the set of five partner effects had an $R^2 = .010$, $\chi^2(5, 6{,}554) = 60.20$. The R^2 values for all three of the similarity indices were virtually zero (i.e., they were zero beyond three decimal places), and none was statistically significant. Taken together, these two studies show that a person's own personality accounts for approximately 6% of the variance in his or her relationship satisfaction, the person's partner's personality accounts for an additional 2% of the variance (though this estimate varied somewhat across studies), and personality similarity accounts for less than .5% (often much less).

Table 3
Standardized Regression Coefficients Predicting Relationship Satisfaction in the HILDA (Australia) and BHPS (UK), Controlling for Gender, Actor, and Partner Effects, Along With Gender Interactions, and Controlling Only for Gender

Similarity index	Similarity when only gender is controlled[a]	Similarity when gender, actor, and partner effects are controlled[b]
HILDA (Australia)		
Mean discrepancy	−.114**	−.058**
Intraclass (raw)	.196**	.082**
Intraclass (standardized)	.099**	.064**
BHPS (UK)		
Mean discrepancy	−.013	−.004
Intraclass (raw)	.062**	.026
Intraclass (standardized)	.018	.025

Note. HILDA = Household Income and Labour Dynamics in Australia; BHPS = British Household Panel Study.
[a] In these analyses, the gender main effect and the gender interaction with the similarity index were also included in the model but are not displayed in the table. [b] In these analyses, the gender, actor, and partner main effects, as well as gender interactions with actor, partner, and the similarity index, were included in the analysis, but are not displayed in the table.
** $p < .01$.

Predicting life satisfaction. We repeated all analyses on all three data sets using life satisfaction as a dependent variable. Table 4 presents the results for the trait-by-trait analyses examining the degree to which a person's life satisfaction can be predicted by that person's personality, the person's partner's personality, and the discrepancy between the two partners' personalities. These analyses also included the main effect of gender, and we allowed the actor, partner, and discrepancy effects to vary by gender. As was the case for relationship satisfaction, there was evidence of a very slight gender main effect for life satisfaction, although it differed in direction from relationship satisfaction, with women reporting higher life satisfaction than men (Australian sample for men, $M = 8.0$, $SD = 1.32$; for women, $M = 8.15$, $SD = 1.35$), $t(2638) = 4.92$, $p < .01$, $d = -0.11$ (British sample for men, $M = 5.26$, $SD = 1.18$; for women, $M = 5.32$, $SD = 1.22$); $t(3226) = 2.14$, $p < .05$, $d = -0.05$ (German sample for men, $M = 6.99$, $SD = 1.82$; for women, $M = 7.05$, $SD = 1.74$); $t(5676) = 2.68$, $p < .01$, $d = -0.03$. Few statistically significant gender differences emerged, and these are noted in the text.

As can be seen in Table 4, a person's personality is related to his or her own life satisfaction, and the effects tend to be somewhat larger than the actor effects for relationship satisfaction. Consistent with results reported by Steel et al. (2008), Emotional Stability is

Table 4
Standardized Regression Coefficients Predicting Life Satisfaction in the HILDA (Australia), BHPS (UK), and GSOEP (Germany) Using Separate Trait-by-Trait Analyses

Variable	Agreeableness	Extraversion	Conscientiousness	Emotional stability	Openness to experience
HILDA (Australia)					
Actor	.238**	.188**	.177**	.259**	−.039**
Partner	.089**	.097**	.102**	.119**	−.021
Discrepancy	.024	−.033*	.034*	.031*	−.022
BHPS (UK)					
Actor	.212**	.125**	.229**	.339**	.093**
Partner	.059**	.020	.035**	.097**	.017
Discrepancy	.037*	.002	.002	.044**	.014
GSOEP (Germany)					
Actor	.121**	.134**	.117**	.263**	.142**
Partner	.043**	.076**	.048**	.119**	.078**
Discrepancy	−.038**	−.008	−.005	.014	−.021

Note. The main effects of gender, and gender interactions with actor, partner, and discrepancy effects, were included in the analysis, but are not displayed in the table. The absolute value of the discrepancy between the two partner's personality scores are used as predictors. HILDA = Household Income and Labour Dynamics in Australia; BHPS = British Household Panel Study; GSOEP = German Socio-Economic Panel Study.
* $p < .05$. ** $p < .01$.

consistently the strongest predictor of life satisfaction. In contrast to Steel et al.'s analysis, however, Agreeableness appears to be the next strongest predictor, followed by Extraversion and Conscientiousness. Openness exhibited the weakest associations with life satisfaction in the Australian and British samples, though it was similar in size to the effects of Agreeableness, Extraversion, and Conscientiousness in the German sample.

A gender interaction for actor conscientiousness was consistent across data sets. Most notably, the actor effect for conscientiousness was consistently stronger for men than for women (Australian sample: interaction standardized $b = .039$, $p < .01$; for men, standardized $b = .216$, $p < .01$ vs. for women, standardized $b = .138$, $p < .01$. British sample: interaction standardized $b = .038$, $p < .01$; for men, standardized $b = .266$, $p < .01$ vs. for women, standardized $b = .191$, $p < .01$. German sample: interaction standardized $b = .023$, $p < .05$; for men, standardized $b = .140$, $p < .01$ vs. for women, standardized $b = .094$, $p < .01$). The only other gender interaction for actor effects occurred for emotional stability in the German sample such that effects were stronger for men than for women (interaction standardized $b = .039$, $p < .01$; for men, standardized $b = .303$, $p < .01$ vs. for women, standardized $b = .223$, $p < .01$). This effect did not replicate across samples.

In addition to robust actor effects, there was also evidence that, independent of a person's own personality, the personality attributes of the partner also predict life satisfaction. However, as was the case for relationship satisfaction, the partner effects were considerably smaller than the actor effects. The partner effect for Emotional Stability was consistently the largest across the three studies, though effects were also relatively consistent for Agreeableness and Conscientiousness. Partner effects for Extraversion were significant in two of the three samples. Together, these results indicate that regardless of one's own personality, having a partner who is an emotionally stable, agreeable, extraverted, and conscientious person is generally predictive of higher levels of life satisfaction.

The only gender interaction with the partner effects was for conscientiousness in the German sample (standardized $b = -.023$, $p < .05$). This interaction suggests that having a conscientious husband was related to the wife's life satisfaction (standardized $b = .072$, $p < .01$), whereas having a more conscientious wife was not related to the husband's life satisfaction (standardized $b = .025$, *ns*).

Finally, Tables 4 and 5 lend little support for the similarity hypothesis for life satisfaction. The standardized regression coef-

Table 5
Standardized Regression Coefficients Predicting Life Satisfaction in the HILDA (Australia), BHPS (UK), and GSOEP (Germany), Controlling for Gender, Actor, and Partner Effects, Along With Gender Interactions, and Controlling Only For Gender

Similarity index	Similarity when only gender is controlled[a]	Similarity when gender, actor, and partner main effects are controlled[b]
HILDA (Australia)		
Mean discrepancy	−.053**	.004
Intraclass (raw)	.121**	.002
Intraclass (standardized)	.043**	.017
BHPS (UK)		
Mean discrepancy	−.008	.015
Intraclass (raw)	.002	.004
Intraclass (standardized)	−.002	.007
GSOEP (Germany)		
Mean discrepancy	−.061**	−.002
Intraclass (raw)	−.045**	−.002
Intraclass (standardized)	.017	.001

Note. HILDA = Household Income and Labour Dynamics in Australia; BHPS = British Household Panel Study; GSOEP = German Socio-Economic Panel Study.
[a] In these analyses, the gender main effect and the gender interaction with the similarity index were also included in the model but are not displayed in the table. [b] In these analyses, the gender, actor, and partner main effects, as well as gender interactions with actor, partner, and the similarity index, were included in the analysis, but are not displayed in the table.
** $p < .01$.

ficients for the absolute discrepancy scores reported in Table 4 are generally small, and no significant discrepancy effect emerged across more than one study. Similarly, the results presented in Table 5 also tell a very consistent and simple story: Once the effects of both partners' personality have been controlled, there is little evidence that personality similarity predicts life satisfaction.

We again estimated a series of hierarchically nested multilevel models using maximum likelihood estimation so that we could determine the relative contribution of actor effects, partner effects, and similarity effects. For the Australian sample, the set of five actor effects had an $R^2 = .102$, $\chi^2(5, 5{,}278) = 452.02$, and the set of five partner effects had an $R^2 = .017$, $\chi^2(5, 5{,}278) = 88.85$. For the British sample, the set of five actor effects had an $R^2 = .151$, $\chi^2(5, 6{,}554) = 997.31$, and the set of five partner effects had an $R^2 = .011$, $\chi^2(5, 6{,}554) = 69.43$. For the German sample, these values were $R^2 = .104$, $\chi^2(5, 11{,}418) = 962.45$, for actor effects and $R^2 = .022$, $\chi^2(5, 11{,}418) = 213.93$, for partner effects. The R^2 values for the similarity indices were all smaller than .0005, and none attained statistical significance. Thus, across the three studies, actor effects accounted for about 12% of the variance, partner effects accounted for about 2% of the variance, and similarity accounted for virtually no variance in the life satisfaction measures.

Discussion

The goal of the present study was to provide a comprehensive evaluation of how well the personality characteristics of both spouses statistically predict relationship and life satisfaction using the largest samples of married couples to date.[7] We investigated three types of personality effects: actor, partner, and similarity effects. In general, we found robust evidence for medium-sized actor effects and small but consistent partner effects. In contrast, similarity effects accounted for only a very small proportion of the variance relative to actor and partner effects. Taken together, these findings provide strong evidence that personality traits are relevant to the study of relationship and life satisfaction, and the take-home message is that most of the personality–relationship "action" is driven by actor and partner effects.

In terms of main effects for personality traits, Emotional Stability, Agreeableness, and Conscientiousness were the traits with the most consistent actor and partner effects for predicting judgments of relationship satisfaction. Although the actor effect results are consistent with the existing literature (e.g., Heller et al., 2004; D. Watson et al., 2000), the presence of consistent partner effects for these traits represents a unique and important finding. Although recent meta-analytic work has documented the existence of these small effects (Malouff et al., 2010), this meta-analysis focused only on zero-order correlations. Our study demonstrates that these effects are maintained even when actor effects are controlled.

Partner effects are important because they are by definition interpersonal effects. In other words, they are impressive because the effects of one person's personality are seen on another person's relationship outcomes. The presence of these effects helps bolster the claim that personality traits play an important role in relationship functioning. Importantly, partner effects cannot be attributed to shared method variance because different individuals are providing information about personality and marital satisfaction. Overall, the present results provide consistent support for the idea that Emotional Stability, Agreeableness, and Conscientiousness seem to be the "Big Three" personality traits for statistically predicting marital satisfaction.

Personality traits also had consistent actor and partner effects when predicting life satisfaction. Indeed, although actor effects for Emotional Stability, Extraversion, Agreeableness, and Conscientiousness replicated existing research concerning the personality correlates of life satisfaction (e.g., Heller et al., 2004; Steel et al., 2008), the evidence of partner effects is new. These results indicate that attributes of intimate partners affect an individual's overall level of life satisfaction and point to ways of extending the literature on the correlates of life satisfaction (see Diener, Suh, Lucas, & Smith, 1999, for an overview). Specifically, partner effects for Emotional Stability and Agreeableness were replicable and unqualified by gender. As such, these results suggest that the personalities of relationship partners matter when predicting an individual's own level of life satisfaction.

Perhaps the most important novel contribution of this work is the systematic examination of the ways that various similarity indices are associated with relationship and life satisfaction. In past work, researchers have debated which index should be used when examining the association between similarity and relationship outcomes. Our analyses systematically tested the associations when the most commonly used indices were used. An important contribution of this research is the demonstration that although some similarity indices were associated with relationship and life satisfaction, these were the indices that were least desirable from a methodological standpoint. When sources of variance related to main effects or stereotype accuracy were systematically removed, similarity effects became increasingly small (and the very small effects that remained were inconsistent across studies). For instance, when testing similarity effects using profile correlations, we found larger effect sizes for the ICC based on raw scores compared with the ICC based on standardized scores. As noted in the introduction, one concern is that indices based on raw scores might be inflated by normative response patterns given that the raw score indices typically show higher average levels of similarity than standardized indices (see Table 1).[8] Moreover, profile correlations based on the raw scores had the largest associations with marital satisfaction (see Table 3). The concern, as identified by Kenny et al. (2006), is that such indices might be plagued by artifacts that can lead to spurious correlations.

Given these concerns, we believe that profile correlation indices based on standardized or mean-deviated scores are more appropri-

[7] The nationally representative samples used in these analyses include couples with a broad distribution of ages. Therefore, we tested marriage length (which is highly correlated with age) as a potential moderator of the similarity effects for relationship satisfaction. There were no two-way interactions between similarity and marriage length. Although a few significant three-way interactions between similarity, marriage length, and gender were statistically significant, none of these interactions replicated across the studies.

[8] Indeed, we computed a profile similarity correlation for the average score for husbands' and the average score for wives' across all the Big Five traits, and these correlations were. 96 for the Australians, .81 for the British couples, and .95 for the German sample. Taken together, these results provide evidence that, as Kenny et al. (2006) suggested, "stereotype accuracy" inflates estimates of similarity.

ate than indices based on raw scores. Indeed, Kenny et al. (2006) seem to favor profile correlations that are based on some standardization procedure, a recommendation that is consistent with how personality profile correlations are typically calculated in personality research (e.g., McCrae, 2008). The most salient point is that the profile correlation index based on standardized scores had the smallest effect sizes in our data, suggesting that very large samples will be required to reliably detect similarity effects using these measures. All in all, we believe that a considerable amount of caution is required when evaluating existing research that relies on profile correlations from unstandardized data, particularly when mean levels are not controlled.

The extent to which personality similarity matters for relationship outcomes is the topic of ongoing research and sometimes contentious debate. It seems likely that an important step toward clarifying the seemingly contradictory evidence is to understand how different methods affect the conclusions that are drawn. Although the choice of an appropriate index of similarity appears complex, the results of these three studies demonstrate that it is actually quite straightforward. In fact, the results only differ across indices when recommended procedures are not used. As long as actor and partner effects are controlled, and standardized scores are used to compute profile correlations, the results remain consistent regardless of the similarity index used. That is, the evidence that personality similarity effects predict relationship outcomes in these data is generally weak. By understanding the importance of using appropriate controls, it should be possible to move beyond the debate regarding which similarity index is best, as personality similarity was not systematically associated with relationship outcomes in very large data sets.

There are some limitations of the present analyses that warrant discussion. Most notably, the nature of large panel studies typically dictates the use of abbreviated measures. This means that we focused on broad personality constructs assessed with relatively few items (though the Australian sample included a personality measure that was similar to more widely used scales). The relatively low reliability for our measures may have attenuated coefficients. In other words, our results are probably lower bound effect size estimates. Likewise, it is possible that more targeted measures of specific facets of the Big Five—or even measures of additional traits and characteristics—would provide larger effect sizes. Thus, future research should supplement the study of broad personality traits with investigations of the narrower facets of personality within and outside of the Big Five domain. Future research should also continue to examine the specific mechanisms that link broad traits with relationship satisfaction and life satisfaction.

In closing, it appears that actor and partner effects of personality are more robust and consistent than similarity effects when predicting marital and life satisfaction. We can now return to our opening questions and provide answers based on results from three large national data sets from three Western countries: Satisfying relationships are systematically associated with individuals' own and their partners' personalities. Likewise, it seems that for some people, general happiness is related to both their own personality and the personality attributes of their partners. In short, although the personalities of both members of married couples seem to matter for judgments of relationship satisfaction and life satisfaction, having similar personalities is not necessarily a key ingredient for happiness.

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