Journal of Research in Personality 104 (2023) 104378

Contents lists available at ScienceDirect

Journal of Research in Personality

journal homepage: www.elsevier.com/locate/jrp

Trait and facet personality similarity and relationship and life satisfaction in romantic couples

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ARTICLE INFO

Keywords:
Personality similarity
Dyadic polynomial regression analysis
Response surface analysis
Personality facets
Big Five personality
Actor-partner interdependence models

ABSTRACT

Previous research has shown that personality similarity plays a negligible role in explaining the life and relationship satisfaction of couples. However, similarity in more proximally measured personality (i.e., facets) might explain additional variance in partners' well-being. The current study examined if in a sample of 1294 female-male romantic couples individual and partner personality traits and facets were associated with life and relationship satisfaction in expected ways. Similarity in personality traits and facets was not robustly associated with either life or relationship satisfaction of partners. The results are discussed in the context of the predictive validity of personality facets.

1. Introduction

Similar people tend to like each other (e.g., Byrne & Nelson, 1965). Additionally, romantic partners are similar on a host of characteristics, such as age, attitudes, intelligence, and personality (Luo, 2017). However, does similarity in personality also matter for couple members' satisfaction? This research question has been addressed by several studies indicating that personality trait similarity exerts a small effect on how satisfied partners are with their relationships and lives (Dyrenforth et al., 2010; van Scheppingen et al., 2019; Weidmann et al., 2016, 2017). One potential limitation of this work, however, is that it examines personality similarity at a broad level—the superordinate Big Five traits. It might be more informative to examine whether similarity in personality facets—smaller, more specific descriptors of personality—matters for couple members' satisfaction. For example, research has shown that it is important to consider personality facets (e.g., Jackson et al., 2009; Schwaba et al., 2020, 2022) as they can enhance the predictive value of personality for different life outcomes (e.g., Chopik & Lee, 2022; Danner et al., 2021; Deventer et al., 2019; Paunonen & Ashton, 2001; F. Y. Wu et al., 2022). The current study examined personality similarity at the personality facet level, beyond their actor and partner contributions, in predicting life and relationship satisfaction in a large couple sample.

1.1. Similarity in the context of close relationships

That similarity is assortative and a key driver for attraction is one of the more reliably demonstrated effects in social and personality research (e.g., Luo, 2017; Montoya et al., 2008). A great deal of attention has also been paid to modeling whether similarity in psychological characteristics *between existing couple members* is associated with well-being, relationship satisfaction, quality, and longevity (e.g., Brandstätter et al., 2018; Chopik & Lucas, 2019; Holman & Horstman, 2019; Hudson & Fraley, 2014; Lampis et al., 2018; Leikas et al., 2018; Rammstedt et al., 2013; van Scheppingen et al., 2019; Wang et al., 2018; Weidmann et al., 2016, 2017; R. Wu et al., 2020).

Most studies on the similarity in personality traits use the Big Five taxonomy of personality— agreeableness, conscientiousness, extraversion, neuroticism (or negative emotionality), and openness to experience (or open-mindedness; John & Srivastava, 1999). Across many different studies, including those with large numbers of diverse couples, personality similarity contributes very little in terms of explaining how satisfied couple members are with their relationships and their lives. This is particularly true when both individual (i.e., actor) and spousal (i.e., partner) effects are controlled for—an important consideration in isolating the unique predictive validity of personality *similarity* on life

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https://doi.org/10.1016/j.jrp.2023.104378
Received 15 September 2022; Received in revised form 17 April 2023; Accepted 24 April 2023
Available online 27 April 2023

and relational happiness (e.g., Chopik & Lucas, 2019; Furler et al., 2013; Leikas et al., 2018; van Scheppingen et al., 2019; Weidmann et al., 2017). In other words, the *main effects* of each partner's personality are more highly associated with relationship and life satisfaction than how *similar* the two partners are on a given trait. Specifically, it is generally the case that having higher levels of traits such as agreeableness and conscientiousness (and lower levels of traits like negative emotionality) is associated with better relational and individual well-being (Weidmann et al., 2016). The same is seen, less consistently, for higher levels of extraversion and open-mindedness (Chopik & Lucas, 2019; van Scheppingen et al., 2019).

This observation, that personality similarity is a relatively small predictor of relationship and life satisfaction relative to actor and partner effects, is seen when testing similarity in a variety of different ways, whether it be using absolute (or squared) difference scores between partners' traits, profile agreement, intraclass correlations, responsive surface analyses, after accounting for stereotype accuracy, and more (e.g., Arrànz Becker, 2013; Chopik & Lucas, 2019; Dyrenforth et al., 2010; Furler et al., 2013; Wang et al., 2018; Weidmann et al., 2017). Substantive interpretations of this work have often focused on the overwhelming influence of actor and partner effects, or that actual similarity might not drive relationship evaluations. In the current study, we focus on a different possibility: that conceptualizing personality similarity on such a broad level as the superordinate Big Five personality traits might reflect a test too broad to detect a similarity-satisfaction link.

1.2. Integrating facet-level information into the study of personality similarity

Although there is some disagreement about the best way to define personality, the most dominant model to date is the Big Five personality taxonomy. And even though this taxonomy is a useful descriptive model, its broadness often means that the specificity of a personality description can be lost (Soto & John, 2009). As a result, researchers have worked to develop a hierarchical model of personality traits (e.g., Costa & McCrae, 1991, 1995, 1998; Soto & John, 2017a) in which lower order traits (i.e., facets) provide more specific information than the broader Big Five traits yet remain subsumed under their higher-order structure.

Formal examinations of facets have proved useful in strengthening the understanding of associations between personality and important life outcomes beyond their higher-order traits (e.g., Chopik & Lee, 2022; Danner et al., 2021; Mund & Neyer, 2014; Paunonen & Ashton, 2001; F. Y. Wu et al., 2022). Further, facets often explain variance that their superordinate traits do not explain, going beyond the predictive validity of personality traits (e.g., Paunonen, 1998; Paunonen & Ashton, 2001; Schimmack et al., 2004). Thus, it could be the case that similarity in personality *facets* has the potential to be a better predictor of variation in relationship and life satisfaction than similarity in traits. In addition, personality facets are better predictors of various behaviors than trait factors (Paunonen & Ashton, 2001). In the context of romantic relationships, facets could capture the day-to-day experience of couples more closely compared to broader personality traits. This is in line with recent findings suggesting similarities in partners' perceptions of daily situations are associated with relationship satisfaction and positive development in relationship satisfaction over time (Rentzsch et al., 2022). Thus, in the present paper, we entertain the idea that modeling the effects of personality similarity at the broad, Big Five level might miss the important predictive power that facets have. Thus, studying similarity in more specific characteristics might provide additional insight into whether personality similarity is important for life and relationship satisfaction.

Lastly, it has been argued that conclusions based on trait-level effects need to be tested on the facet level to ensure that the associations are reliably based on the whole trait and not on a single underlying facet that drives the trait-level effect (Mõttus, 2016). Thus, even if consistent trait similarity effects would be obtained for satisfaction in romantic couples, researchers first need to ensure that these similarity effects are based on the superordinate personality trait (e.g., conscientiousness) and not on a similarity effect of a single driving facet (e.g., responsibility).

Even though the present research focuses on *similarity* in personality facets and its association with satisfaction in couples, similarity effects need to be contextualized from the backdrop of actor and partner effects of personality facets. Research on personality facets in romantic couples is generally rare to date. One study of 118 couples found that both partners' facets of negative and positive emotionality (i.e., measured with the Multidimensional Personality Questionnaire) were associated with marital satisfaction on the actor and partner level (Stroud et al., 2010). While the facets of negative emotionality mirrored the effects on the trait level, some facets of positive emotionality went in different directions, highlighting the importance of considering traits *and* facets' actor and partner effects in couples. Regarding similarity effects of personality facets, Nemechek and Olson (1999) examined personality trait- and facet-level similarity (using difference scores) and marital adjustment in 99 couples. While the authors found significant similarity effects for several facets (e.g., depression, a facet of neuroticism; openness to feeling, a facet of open-mindedness), these analyses did not control for simple actor (i.e., someone's personality predicting their own outcome) or partner (i.e., someone's personality predicting their partner's outcome) effects. The research to date highlights the necessity of implementing lower-level personality measures into studies measuring personality similarity and relationship outcomes.

1.3. The present study

The current study[2] examined actor, partner, and similarity effects of Big Five personality traits and facets on relationship and life satisfaction in romantic couples. Although previous research has identified only small effects of personality trait similarity on relationship and life satisfaction, it is possible that considering lower-order personality characteristics (i.e., facets) might provide unique information about how personality (of individuals and their spouses) is associated with relationship and life satisfaction. We chose life and relationship satisfaction as outcome variables because both measures are associated with personality traits and facets (Malouff et al., 2010; Stewart et al., 2022; Stroud et al., 2010; Weidmann et al., 2016). Including these satisfaction measures provides a clearer picture of whether actor, partner, and similarity effects are only found for contextualized satisfaction (i.e., relationship satisfaction) and/or also for broader satisfaction (i.e., life satisfaction). We collected data on 1,294 couples who provided information on their personalities, their relationship satisfaction, and their life satisfaction. Based on that data, we examined if being similar on personality traits and facets was associated with higher individual and relational well-being using dyadic polynomial regression and response surface analysis.

We pre-registered our research questions and analytic approach (see https://osf.io/j7xgk for non-blinded pre-registration). Data, R code, output files, and study materials can be found on our OSF site (htt

[2] The two first authors were involved in conceptualizing the study, analyzing the data, and writing the manuscript, the second first author was also involved in the data collection. The third, fourth, and fifth author were involved in writing the manuscript. The sixth author was involved in reviewing the manuscript. The last author was involved in conceptualizing the study, collecting the data, and reviewing the manuscript.

ps://osf.io/kze6c/).

1.3.1. Research questions

We pre-registered the following overarching and more specific research questions and hypotheses: Is partner similarity related to relationship satisfaction and life satisfaction when measured on the trait and the facet level? Specifically, we examined similarity on the facets of extraversion (i.e., sociability, assertiveness, energy level), agreeableness (i.e., compassion, respectfulness, trust), conscientiousness (i.e., organization, productiveness, responsibility), negative emotionality (i.e., anxiety, depression, emotional volatility), and open-mindedness (i.e., intellectual curiosity, aesthetic sensitivity, creative imagination). We sought to explain variation in both partners' relationship satisfaction and life satisfaction as a function of the main effects of each personality facet from individuals, their partner, and the similarity between the two (see OSF pre-registration for full articulation of the research questions). We also examined the effects of broader Big Five personality traits as a method of comparing these effects.

1.3.2. Hypotheses

Based on previous research (van Scheppingen et al., 2019; Weidmann et al., 2017), we did not expect partner similarity in Big Five traits to play an important role in relationship satisfaction and life satisfaction. However, we explored whether partner similarity on the facet level matters for relationship satisfaction and life satisfaction. We treated this question as exploratory because of competing evidence regarding the predictive power of facets. On the one hand, the now significant number of studies examining personality similarity in trait-like constructs finds little predictive utility (or even consistency) in predicting life and relationship outcomes. On the other hand, the utility of facets is meant to provide more specific information that is not captured when examining associations at the broad trait level. In this way, similarity in more specific individual difference tendencies may emerge as *stronger* predictors of relationship and life satisfaction. But there is more evidence that similarity has little effect on relationship satisfaction and life satisfaction. Thus, we did not make firm hypotheses either way but pre-registered our analytic approach. Finally, we report the magnitude of actor and partner main effects for both facets and broader traits. We do not have formal hypotheses about the exact or relative magnitude of these facets as there have been so few studies examining the role of facets in a dyadic context (e.g., Kurdek, 1997) and none to our knowledge that examined all Big Five facets in one investigation.

2. Method

To answer our research questions, we use data from two samples. Both are existing cross-sectional data sets that administered online questionnaires to romantic couples. Both samples were combined for the data analysis because they shared the exact same measures. The larger combined sample informs our conclusions more than analyzing two smaller samples separately (Schimmack, 2012). Full copies of both surveys are available on the project's OSF site (https://osf.io/kze6c/).

2.1. Participants and procedure

Participants were 1,294 romantic couples (N = 2,588 individuals) combined from two sampling efforts recruited through Qualtrics Panels. One of the data sets (25.9% of the full sample; n = 335 couples) comes from a report on partner perceptions of humor styles (Purol & Chopik, 2022); the Big Five personality data collected in this study has not yet been reported. No reports have emerged from the other data set (74.1% of the full sample; n = 959 couples). Participants were compensated $10 each for completing the survey.

On average, couples had been together 30 years (SD = 17.02 years). Participants ranged in age from 19 to 89 (M = 58.14, SD = 15.72). The sample was predominantly White (86.3%), followed by Asian (4.7%), Hispanic/Latino (3.4%), Black (2.7%), and 2.9% other races/ethnicities. The analytic sample was composed of male–female couples.[3]

We collected as many participants as possible given the funds available to us. Thus, there was no formal stopping rule. Because the samples were so similar, they were combined to maximize statistical power. Using Ackerman et al.'s (2016) APIMPower shinyapp, we estimated that (with 1,294 couples) we could estimate actor and partner effects as small as $\beta = 0.066$ with 80% at p =.01 and assuming that dyadic effects are largely indistinguishable by gender, an average cross-partner correlation of Big Five traits of $r = 0.13$, and single-item life satisfaction of $r = 0.36$ (Chopik & Lucas, 2019; van Scheppingen et al., 2019). Regarding the power to detect a similarity effect, a recent study conducted a simulation for their sample of $N = 940$ and concluded that the power to detect a similarity effect was 97% (Humberg et al., 2019). In addition, using the simulation code provided by Schönbrodt et al. (2018), we found that with a sample of 1,294 couples, the power to detect significant squared effects, an interaction effect, and a similarity effect was > 99%. Thus, we are confident that our sample is large enough to detect potential similarity effects.

2.2. Measures

Means, standard deviations, and reliability statistics for the measures can be found in Table 1.

2.2.1. Big Five personality traits and facets

Personality traits were measured using the Short Form of the Big Five Inventory-2 (BFI-2-S; Soto & John, 2017b). The questionnaire contains 30 items that ask individuals to rate the extent to which each statement

Table 1
Reliabilities, means, and standard deviations for male and female partners.

Trait/facet	Reliability	Male partner		Female partner	
		M	*SD*	*M*	*SD*
Relationship satisfaction	0.96	4.47	0.75	4.42	0.80
Life satisfaction	–	3.80	0.94	3.74	0.95
Extraversion	0.71	3.40	0.75	3.23	0.76
Agreeableness	0.81	3.76	0.76	4.06	0.69
Conscientiousness	0.80	3.90	0.77	4.00	0.76
Negative emotionality	0.84	2.19	0.81	2.51	0.88
Open-mindedness	0.73	3.39	0.80	3.48	0.74
Sociability	0.63	3.15	1.06	3.25	1.03
Assertiveness	0.65	3.54	0.98	2.99	1.01
Energy level	0.68	3.52	1.01	3.47	1.03
Compassion	0.61	3.84	0.91	4.23	0.78
Respectfulness	0.57	3.99	0.86	4.26	0.77
Trust	0.61	3.45	0.95	3.69	0.93
Organization	0.74	3.72	1.10	3.91	1.05
Productiveness	0.59	3.93	0.89	3.95	0.90
Responsibility	0.46	4.05	0.79	4.15	0.76
Anxiety	0.67	2.41	1.00	2.83	1.06
Depression	0.67	1.91	0.87	2.15	0.98
Emotional volatility	0.63	2.25	0.97	2.57	1.02
Aesthetic sensitivity	0.53	3.08	1.08	3.44	0.98
Intellectual curiosity	0.45	3.47	0.94	3.32	0.89
Creative imagination	0.56	3.63	0.95	3.66	0.92

Note. No reliability is reported for life satisfaction because it is based on one item. Reliability of facets are correlations between the two items.

[3] We refer to these gender pairings throughout given that labeling a couple type as a particular orientation (e.g., a heterosexual relationship) makes inferences about the couple members' sexual orientation that might not be accurate (e.g., bisexual people might find themselves in any of these relationship types).There were additional gender pairings available (e.g., male-male couples). However, their numbers were too small to justify inclusion in the current study, even to check for invariance across relationship type.

accurately describes them (i.e., "I am someone who…") on a scale ranging from 1 (*disagree strongly*) to 5 (*agree strongly*). With 6 items per trait, the BFI-2-S measures the personality domains of extraversion, agreeableness, conscientiousness, negative emotionality, and open-mindedness. Responses were averaged to create composites for each dimension.

For the BFI-2-S, 15 facets (three for each trait) can be calculated, each of which contains two items. For extraversion, the facets are sociability, assertiveness, and energy level. For agreeableness, the facets are compassion, respectfulness, and trust. For conscientiousness, the facets are organization, productiveness, and responsibility. For negative emotionality, the facets are anxiety, depression, and emotional volatility. For open-mindedness, the facets are intellectual curiosity, aesthetic sensitivity, and creative imagination.

2.2.2. Relationship satisfaction

Relationship satisfaction was measured with the five-item version of the Quality of Marriage Index (Norton, 1983). Participants provide their agreement on a scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*) about how satisfied they are with their current romantic relationship (e.g., "We have a good relationship"),

2.2.3. Life satisfaction

A single-item indicator of life satisfaction was administered that asked, "How satisfied are you with your life as a whole these days?" was answered on a 5-point scale ranging from 1 (*not at all satisfied*) to 5 (*completely satisfied*). Single-item measures of life satisfaction have comparable validity to longer-form measures (Cheung & Lucas, 2014; Lucas & Donnellan, 2012).

2.3. Analytic approach

We pre-registered our analytic approach on the Open Science Framework. We used dyadic polynomial regression and response surface analyses to examine the link between personality similarity and satisfaction (Edwards, 2002; Humberg et al., 2019; Schönbrodt et al., 2018; Weidmann et al., 2017). The dyadic polynomial regression models were estimated using the lavaan package (Rosseel, 2012) in R (R Core Team, 2021). Response surface analyses were conducted using the RSA package Version 0.10.4 in R (Schönbrodt & Humberg, 2021). We used robust maximum likelihood (MLR) estimators and the full-information maximum likelihood approach to handle missing data (Allison, 2003) as recommended by Schönbrodt and colleagues (2018).

Based on the actor-partner interdependence model (e.g., Kenny et al., 2006), we computed dyadic path models with regression coefficients of female and male partners' personality traits (or facets; X, Y, respectively), their interaction (XY), and both of their higher-order terms (X^2, Y^2, respectively). Both partners' relationship (or life) satisfactions (Z_F, Z_M, respectively) were regressed on the polynomial predictors of both partners. Equation 1 describes these dyadic second-order polynomial regressions:

Equation 1.

$$Z_F = b10 + b11X + b12Y + b13XY + b14X^2 + b15Y^2 + e1$$

$$Z_M = b20 + b22X + b21Y + b23XY + b25X^2 + b24Y^2 + e2$$

In Equation 1, the coefficients $b11$ and $b21$ as well as $b14$ and $b24$ indicate actor effects (intrapersonal effects from one partner's personality trait [or facet] to that same partner's relationship [or life] satisfaction). The coefficients $b12$ and $b22$, as well as $b15$ and $b25$, indicate partner effects (interpersonal effects from one partner's personality trait [or facet] to the other partner's relationship [or life] satisfaction). The coefficients $b13$ and $b23$ indicate the interaction regression coefficients.

Using these polynomial regression coefficients, we created surface parameters (a1, a2, a3, and a4), on which the three-dimensional response surface plots are based on. These response surface plots include the line of congruence (LOC; X = Y) and the line of incongruence (LOIC; X = −Y), which depict whether a similarity effect is present. The LOC is based on the parameters a1 and a2. The parameter a2 signifies whether the LOC is linear or curvilinear and is created from the polynomial regression coefficients ($b13 + b14 + b15$ for women's outcomes and $b23 + b24 + b25$ for men's outcomes) while a1 signifies whether the LOC is above the point (0,0) and is also created from the polynomial regression coefficients ($b11 + b12$ for women's outcomes and $b21 + b22$ for men's outcomes). If a2 = 0, a1 signifies the slope of a linear line. The LOIC is based on the parameters a3 and a4. These are also created by the polynomial regression coefficients. a3 is based on $b11$ - $b12$ for women's outcomes and $b21$ - $b22$ for men's outcomes, while a4 is based on $b13$ - $b14 + b15$ for women's outcomes and $b23$ - $b24 + b25$ for men's outcomes. Similar to the parameters a2 and a1, a4 indicates whether the LOIC on the surface is linear or curvilinear while a3 indicates whether the LOIC is above the point (0,0) (see Schönbrodt et al., 2018 for more details).

We first ran all APIM for each trait and facet separately (e.g., modeling the main effects of sociability on relationship satisfaction in isolation of all other traits and facets). Afterwards, we ran all dyadic polynomial regression analyses (DPR) for each trait and facet separately (e.g., modeling the cross-partner interaction and higher-order terms for sociability in addition to the aforementioned APIM model). We then compared the model fit between the more complex DPR models and the more parsimonious APIM (retaining the APIM if the model fit was significantly worse with the more complex models). Based on the results of the chi-squared model difference test, we report either the APIM or the DPR analysis results for each trait or facet. We also tested, with a chi-square difference test, whether the effects could be set equal across female and male partners (as seen in Supplemental Tables 1 and 2). In the vast majority of cases, the effects for men and women could be set to equal (so the estimates for men and women will be the same in the tables). However, for the few exceptions, we report the results from unconstrained models (so the estimates for men and women will differ in the tables).

For the purposes of the present study, a similarity effect refers to partners' similar values on a trait/a facet predicting *higher* levels of satisfaction—irrespective of where they stand on the personality dimension. Taking agreeableness as an example, a similarity effect would mean that couples are happiest if they are similarly agreeable, similarly moderately agreeable, or similarly disagreeable (Humberg et al., 2019; Schönbrodt et al., 2018). To reach valid conclusions about whether such similarity effects are present, we followed the guidelines by Humberg and colleagues (2019). We centered all predictor variables and examined their variance inflation factor (VIF) prior to analysis to ensure that multicollinearity was not a problem. We then ran APIM and DPR analyses for each trait and facet separately. Based on the parameters provided by the DPR analyses, we computed the RSA parameters a1 to a4 and the parameters p10 and p11 relating to the first principal axis. A similarity effect is present if (1) the p10 parameter is non-significant, (2) the confidence interval of p11 includes 1, (3) the a4 parameter is significantly negative, (4) the a3 parameter is non-significant, (5) if the a2 parameter is non-significant, and (6) if the a1 parameter is non-significant. Often, a1-a4 parameters are interpreted separately (e.g., a significant a1value is said to indicate that matches at high values have different outcomes than matches at low values). However, this is an oversimplification; the test of a single RSA parameter in isolation cannot indicate a similarity effect (Humberg et al., 2019). These more stringent criteria provide a checklist for correctly identifying similarity effects.

We report effect sizes (standardized and unstandardized regression coefficients), confidence intervals (99% CI), and the explained variance of each model (R^2). Significant effects are interpreted based on a p-value < 0.01 in light of the large number of models computed. Following our pre-registered contingency plan (i.e., if age and relationship duration were too highly correlated at 0.70 or above), we only controlled for relationship duration in our analyses (they were correlated at $r = 0.80$ in the sample).

2.3.1. Supplementary analyses

In addition to testing the similarity effects of personality traits and facets, we ran two supplementary analyses: (1) We tested traditional actor-partner interdependence models with "sets" of facets of each trait together to simultaneously predict relationship or life satisfaction. For example, this would involve the actor and partner effects for three extraversion facets ($n = 6$ effects) run simultaneously predicting relationship or life satisfaction. (2) We ran traditional actor-partner interdependence models with all the facets ($n = 30$ effects) included in one model to see how their magnitude was affected by accounting for the shared variance among all the facets. The results of these analyses are reported in the Supplementary Material and described briefly below.

3. Results

The reliabilities for the study variables and their means, and standard deviations for female and male partners, are shown in Table 1. The correlations between study variables in female partners, male partners, and between partners can be found in Table 2.

3.1. Actor-partner interdependence models

Multicollinearity between variables, as measured with VIF, was sufficiently low (all factors < 2.13, displayed in Supplemental Table 3); we proceeded with all planned analyses. As displayed in Table 3, each Big Five trait, as well as all facets of those traits, demonstrated significant actor and partner effects for both men and women when examining relationship satisfaction (all *ps* < 0.005). As seen in Table 4, a similar pattern of results was observed for life satisfaction; all traits and facets demonstrated significant actor and partner effects for both men and women (all *ps* < 0.01) except aesthetic sensitivity and intellectual curiosity, two facets of open-mindedness, which both had nonsignificant partner effects (p =.017 and 0.133, respectively).

Among the traits, negative emotionality had the strongest actor effects on both relationship satisfaction (β_{female} = -0.304; β_{male} = -0.247) and life satisfaction (β_{female} = -0.516; β_{male} = -0.468). Agreeableness had the strongest partner effect for relationship satisfaction in women (β_{female} = 0.270), and negative emotionality had the strongest partner effect for relationship satisfaction in men (β_{male} = -0.287). Conscientiousness had the strongest partner effect for life satisfaction (β_{female} = 0.230; β_{male} = 0.224). Among the facets, depression (a facet of negative emotionality) had the strongest actor effect for both relationship satisfaction (β_{female} = -0.304; β_{male} = -0.329) and life satisfaction (β_{female} = -0.518; β_{male} = -0.460). Respectfulness (a facet of agreeableness) had the strongest partner effect for relationship satisfaction (β_{female} = 0.277; β_{male} = 0.259), and anxiety (a facet of negative emotionality) had the strongest partner effect for life satisfaction (β_{female} = -0.217; β_{male} = -0.228).

Regarding the explained variance of personality traits (i.e., models that explained the most variance in each outcome), negative emotionality explained the largest portion of the variance in female relationship satisfaction and both partners' life satisfaction (see Table 5). Agreeableness explained the largest portion of the variance in male relationship satisfaction. Open-mindedness explained the smallest portion of the variance in both partners' relationship and life satisfaction. Among the facets, depression explained the largest portion of the variance in female and male partners' relationship and life satisfaction. In contrast, assertiveness explained the smallest portion of the variance in female and male relationship satisfaction. Intellectual curiosity and aesthetic sensitivity explained the smallest portion of the variance in female and male life satisfaction.

3.2. Dyadic polynomial regression and response surface analyses

In most cases, when comparing the APIMs to the DPR models, chi-squared model difference tests revealed that the simpler APIMs did

Table 2
Correlations between key variables for female and male partners.

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	Relationship satisfaction	**0.74**	**0.49**	**0.18**	**0.32**	**0.25**	**−0.31**	**0.13**	**0.14**	0.07	**0.20**	**0.29**	**0.32**	**0.21**	**0.14**	**0.23**	**0.29**	**−0.22**	**−0.35**	**−0.24**	0.07	0.10	**0.14**	0.05
2	Life satisfaction	**0.53**	**0.59**	**0.30**	**0.35**	**0.30**	**−0.51**	**0.12**	**0.16**	**0.15**	**0.35**	**0.28**	**0.29**	**0.30**	**0.19**	**0.28**	**0.30**	**−0.44**	**−0.51**	**−0.36**	0.06	0.09	**0.14**	0.05
3	Extraversion	**0.19**	**0.36**	**0.09**	**0.22**	**0.35**	**−0.38**	**0.30**	**0.75**	**0.76**	**0.71**	**0.21**	**0.13**	**0.20**	**0.20**	**0.40**	**0.30**	**−0.31**	**−0.43**	**−0.23**	**0.17**	**0.22**	**0.35**	**−0.09**
4	Agreeableness	**0.33**	**0.32**	**0.22**	**0.24**	**0.35**	**−0.46**	**0.26**	**0.16**	**0.02**	**0.30**	**0.84**	**0.84**	**0.83**	**0.20**	**0.28**	**0.42**	**−0.38**	**−0.36**	**−0.43**	**0.22**	**0.20**	**0.20**	0.04
5	Conscientiousness	**0.21**	**0.34**	**0.37**	**0.40**	**0.14**	**−0.44**	**0.25**	**0.09**	**0.28**	**0.42**	**0.30**	**0.36**	**0.22**	**0.85**	**0.83**	**0.80**	**−0.33**	**−0.43**	**−0.36**	**0.12**	**0.22**	**0.28**	**0.11**
6	Negative emotionality	**−0.40**	**−0.57**	**−0.44**	**−0.41**	**−0.47**	**0.28**	**−0.17**	**−0.21**	**−0.22**	**−0.41**	**−0.33**	**−0.39**	**−0.44**	**−0.28**	**−0.40**	**−0.45**	**0.88**	**0.84**	**0.84**	**−0.07**	**−0.16**	**−0.20**	**−0.15**
7	Open-mindedness	**0.12**	**0.13**	**0.30**	**0.29**	**0.22**	**−0.22**	**0.26**	**0.17**	**0.26**	**0.26**	**0.25**	**0.22**	**0.19**	**0.12**	**0.31**	**0.21**	**−0.13**	**−0.14**	**−0.16**	**0.80**	**0.80**	**0.81**	**−0.09**
8	Sociability	**0.14**	**0.22**	**0.74**	**0.21**	**0.11**	**−0.27**	**0.13**	**−0.01**	**0.38**	**0.27**	**0.19**	0.07	**0.15**	0.02	**0.13**	**0.10**	**−0.17**	**−0.26**	**−0.11**	0.10	0.10	**0.21**	−0.05
9	Assertiveness	**0.06**	**0.15**	**0.75**	0.00	**0.26**	**−0.27**	**0.27**	**0.33**	−0.01	**0.32**	0.05	−0.01	0.01	**0.14**	**0.33**	**0.24**	**−0.15**	**−0.30**	**−0.12**	**0.11**	**0.22**	**0.30**	−0.09
10	Energy level	**0.22**	**0.42**	**0.74**	**0.29**	**0.46**	**−0.45**	**0.25**	**0.31**	**0.34**	**0.24**	**0.23**	**0.24**	**0.29**	**0.29**	**0.44**	**0.34**	**−0.36**	**−0.40**	**−0.29**	**0.17**	**0.18**	**0.28**	−0.07
11	Compassion	**0.26**	**0.24**	**0.18**	**0.83**	**0.34**	**−0.26**	**0.27**	**0.19**	0.00	**0.20**	**0.21**	**0.60**	**0.53**	**0.17**	**0.24**	**0.37**	**−0.26**	**−0.28**	**−0.31**	**0.23**	**0.17**	**0.20**	0.02
12	Respectfulness	**0.28**	**0.26**	**0.16**	**0.84**	**0.41**	**−0.38**	**0.24**	**0.14**	−0.02	**0.24**	**0.61**	**0.21**	**0.53**	**0.22**	**0.28**	**0.45**	**−0.29**	**−0.30**	**−0.40**	**0.18**	**0.19**	**0.17**	0.05
13	Trust	**0.28**	**0.31**	**0.21**	**0.84**	**0.26**	**−0.37**	**0.21**	**0.19**	0.01	**0.27**	**0.51**	**0.55**	**0.18**	**0.11**	**0.20**	**0.26**	**−0.39**	**−0.33**	**−0.39**	**0.15**	**0.16**	**0.14**	0.04
14	Organization	**0.15**	**0.27**	**0.25**	**0.25**	**0.87**	**−0.35**	**0.09**	**0.05**	**0.17**	**0.35**	**0.21**	**0.27**	**0.17**	0.02	**0.52**	**0.52**	**−0.22**	**−0.29**	**−0.20**	0.06	0.10	**0.14**	0.06
15	Productiveness	**0.17**	**0.30**	**0.40**	**0.34**	**0.85**	**−0.42**	**0.27**	**0.15**	**0.29**	**0.45**	**0.27**	**0.36**	**0.23**	**0.58**	**0.11**	**0.56**	**−0.30**	**−0.39**	**−0.33**	**0.15**	**0.27**	**0.33**	0.07
16	Responsibility	**0.24**	**0.31**	**0.31**	**0.45**	**0.80**	**−0.45**	**0.23**	**0.11**	**0.20**	**0.38**	**0.40**	**0.45**	**0.29**	**0.53**	**0.56**	**0.24**	**−0.32**	**−0.41**	**−0.41**	**0.09**	**0.19**	**0.25**	**0.15**
17	Anxiety	**−0.32**	**−0.50**	**−0.39**	**−0.31**	**−0.35**	**0.88**	**−0.17**	**−0.24**	**−0.24**	**−0.40**	**−0.17**	**−0.27**	**−0.31**	**−0.26**	**−0.29**	**−0.33**	**0.14**	**0.64**	**0.59**	−0.07	−0.10	**−0.16**	−0.08
18	Depression	**−0.39**	**−0.56**	**−0.47**	**−0.37**	**−0.48**	**0.87**	**−0.20**	**−0.29**	**−0.27**	**−0.48**	**−0.26**	**−0.35**	**−0.32**	**−0.35**	**−0.46**	**−0.43**	**0.66**	**0.32**	**0.55**	−0.04	**−0.14**	**−0.18**	**−0.15**
19	Emotional volatility	**−0.32**	**−0.42**	**−0.29**	**−0.38**	**−0.41**	**0.85**	**−0.21**	**−0.17**	**−0.19**	**−0.29**	**−0.24**	**−0.37**	**−0.34**	**−0.31**	**−0.34**	**−0.42**	**0.61**	**0.60**	**0.24**	−0.07	**−0.16**	**−0.18**	**−0.16**
20	Aesthetic sensitivity	**0.11**	**0.08**	**0.15**	**0.24**	**0.10**	**−0.12**	**0.81**	**0.08**	**0.13**	**0.14**	**0.22**	**0.20**	**0.19**	0.01	**0.15**	**0.13**	**−0.09**	**−0.12**	**−0.12**	**0.25**	**0.44**	**0.45**	**−0.14**
21	Intellectual curiosity	**0.05**	**0.08**	**0.22**	**0.18**	**0.17**	**−0.17**	**0.76**	**0.05**	**0.25**	**0.19**	**0.16**	**0.15**	**0.13**	**0.07**	**0.20**	**0.18**	**−0.14**	**−0.14**	**−0.17**	**0.40**	**0.24**	**0.54**	**−0.05**
22	Creative imagination	**0.12**	**0.15**	**0.34**	**0.26**	**0.26**	**−0.24**	**0.82**	**0.19**	**0.29**	**0.29**	**0.25**	**0.23**	**0.18**	**0.14**	**0.29**	**0.24**	**−0.18**	**−0.22**	**−0.21**	**0.51**	**0.45**	**0.18**	−0.02
23	Relationship duration	0.06	0.03	−0.01	**0.12**	**0.15**	**−0.17**	−0.10	**0.09**	−0.05	−0.06	**0.14**	**0.14**	0.03	**0.10**	**0.13**	**0.16**	−0.08	**−0.17**	**−0.21**	−0.04	**−0.10**	0.00	–

Note. Correlations above the diagonal are for female partners, correlations below the diagonal for male partners. Correlations on the diagonal (in gray) reflect between-partner correlations. Bold correlations are significant (p <.01). Between-partner correlations are on the diagonal (in grey).

Table 3
Actor-partner interdependence model results for relationship satisfaction as outcome (constrained).

Trait / facet	Female relationship satisfaction								Male relationship satisfaction							
	Actor effect				Partner effect				Actor effect				Partner effect			
	β	*b*	99% CI	*p*	β	*b*	99% CI	*p*	β	*b*	99% CI	*p*	β	*b*	99% CI	*p*
Extraversion	**0.170**	0.178	[0.125, 0.231]	<0.001	**0.146**	0.155	[0.103, 0.206]	<0.001	**0.178**	0.178	[0.125, 0.231]	<0.001	**0.157**	0.155	[0.103, 0.206]	<0.001
Agreeableness	**0.238**	0.273	[0.221, 0.325]	<0.001	**0.270**	0.283	[0.230, 0.336]	<0.001	**0.275**	0.273	[0.221, 0.325]	<0.001	**0.260**	0.283	[0.230, 0.336]	<0.001
Conscientiousness	**0.191**	0.198	[0.145, 0.251]	<0.001	**0.228**	0.234	[0.181, 0.288]	<0.001	**0.202**	0.198	[0.145, 0.251]	<0.001	**0.236**	0.234	[0.181, 0.288]	<0.001
Negative emotionality[a]	**-0.304**	-0.335	[-0.374, -0.234]	<0.001	**-0.238**	-0.236	[-0.312, -0.159]	<0.001	**-0.329**	-0.247	[-0.313, -0.181]	<0.001	**-0.287**	-0.215	[-0.286, -0.145]	<0.001
Open-mindedness	**0.088**	0.095	[0.040, 0.150]	<0.001	**0.130**	0.130	[0.077, 0.183]	<0.001	**0.128**	0.095	[0.183-0.130]	<0.001	**0.100**	0.130	[0.040, 0.150]	<0.001
Sociability	**0.127**	0.098	[0.059, 0.137]	<0.001	**0.086**	0.065	[0.027, 0.103]	<0.001	**0.139**	0.098	[0.059, 0.137]	<0.001	**0.089**	0.065	[0.027, 0.103]	<0.001
Assertiveness	**0.070**	0.055	[0.016, 0.094]	<0.001	**0.059**	0.048	[0.009, 0.087]	0.002	**0.055**	0.055	[0.016, 0.094]	<0.001	**0.064**	0.048	[0.009, 0.087]	0.002
Energy level	**0.166**	0.129	[0.091, 0.166]	<0.001	**0.174**	0.137	[0.100, 0.174]	<0.001	**0.173**	0.129	[0.091, 0.166]	<0.001	**0.187**	0.137	[0.174, 0.137]	<0.001
Compassion	**0.196**	0.201	[0.152, 0.250]	<0.001	**0.253**	0.222	[0.173, 0.271]	<0.001	**0.241**	0.201	[0.152, 0.250]	<0.001	**0.229**	0.222	[0.152, 0.250]	<0.001
Respectfulness	**0.221**	0.229	[0.182, 0.275]	<0.001	**0.277**	0.254	[0.206, 0.303]	<0.001	**0.262**	0.229	[0.182, 0.275]	<0.001	**0.259**	0.254	[0.206, 0.303]	<0.001
Trust	**0.199**	0.170	[0.131, 0.209]	<0.001	**0.181**	0.151	[0.113, 0.190]	<0.001	**0.215**	0.170	[0.131, 0.209]	<0.001	**0.187**	0.151	[0.113, 0.190]	<0.001
Organization	**0.126**	0.095	[0.058, 0.133]	<0.001	**0.163**	0.118	[0.081, 0.155]	<0.001	**0.138**	0.095	[0.133, 0.095]	<0.001	**0.164**	0.118	[0.81, 0.155]	<0.001
Productiveness	**0.165**	0.145	[0.101, 0.189]	<0.001	**0.186**	0.165	[0.119, 0.211]	<0.001	**0.172**	0.145	[0.101, 0.189]	<0.001	**0.198**	0.165	[0.119, 0.211]	<0.001
Responsibility	**0.199**	0.209	[0.156, 0.262]	<0.001	**0.239**	0.240	[0.188, 0.293]	<0.001	**0.218**	0.209	[0.156, 0.262]	<0.001	**0.242**	0.240	[0.188, 0.293]	<0.001
Anxiety[a]	**-0.274**	-0.219	[-0.274, -0.164]	<0.001	**-0.198**	-0.158	[-0.217, -0.099]	<0.001	**-0.238**	-0.179	[-0.230, -0.127]	<0.001	**-0.179**	-0.134	[-0.188, 0.080]	<0.001
Depression	**-0.304**	-0.247	[-0.290, -0.204]	<0.001	**-0.217**	-0.199	[-0.241, -0.150]	<0.001	**-0.285**	-0.247	[-0.290, -0.204]	<0.001	**-0.259**	-0.199	[-0.241, -0.157]	<0.001
Emotional volatility[a]	**-0.275**	-0.217	[-0.276, -0.158]	<0.001	**-0.241**	-0.193	[-0.259, -0.127]	<0.001	**-0.248**	-0.183	[-0.240, -0.126]	<0.001	**-0.186**	-0.144	[-0.205, -0.083]	<0.001
Aesthetic sensitivity	**0.068**	0.055	[0.015, 0.095]	<0.001	**0.101**	0.075	[0.035, 0.114]	<0.001	**0.079**	0.055	[0.015, 0.095]	<0.001	**0.098**	0.075	[0.035, 0.114]	<0.001
Intellectual curiosity	**0.054**	0.048	[0.004, 0.092]	0.005	**0.092**	0.079	[0.035, 0.122]	<0.001	**0.048**	0.048	[0.004, 0.092]	0.005	**0.093**	0.079	[0.035, 0.122]	<0.001
Creative imagination	**0.102**	0.088	[0.046, 0.131]	<0.001	**0.126**	0.106	[0.064, 0.149]	<0.001	**0.111**	0.088	[0.046, 0.131]	<0.001	**0.126**	0.106	[0.064, 0.149]	<0.001

Note. Regression coefficients in bold are significant ($p < .01$). Model fits: CFIs $\geq$ 0.993, RMSEAs $\leq$ 0.055, SRMRs $\leq$ 0.018. [a]For negative emotionality, anxiety, and emotional volatility, the chi-square model comparisons suggested that actor and partner effects were not equal across couple members (see Supplemental Table 1). Thus, we report the unconstrained results of these models.

Table 4
Actor-partner interdependence model results for life satisfaction as outcome (constrained).

Trait / facet	Female life satisfaction								Male life satisfaction							
	Actor effect				Partner effect				Actor effect				Partner effect			
	β	*b*	99% CI	*p*	β	*b*	99% CI	*p*	β	*b*	99% CI	*p*	β	*b*	99% CI	*p*
Extraversion	**0.323**	0.399	[0.338, 0.459]	<0.001	**0.162**	0.202	[0.144, 0.261]	<0.001	**0.316**	0.399	[0.338-0.459]	<0.001	**0.162**	0.202	[0.144, 0.261]	<0.001
Agreeableness	**0.272**	0.372	[0.308, 0.435]	<0.001	**0.219**	0.272	[0.211, 0.333]	<0.001	**0.298**	0.372	[0.308-0.435]	<0.001	**0.199**	0.272	[0.211, 0.333]	<0.001
Conscientiousness	**0.294**	0.363	[0.302, 0.423]	<0.001	**0.230**	0.280	[0.219, 0.342]	<0.001	**0.293**	0.363	[0.302-0.423]	<0.001	**0.224**	0.280	[0.219, 0.342]	<0.001
Negative emotionality	**-0.516**	-0.550	[-0.603, -0.497]	<0.001	**-0.206**	-0.240	[-0.291, -0.189]	<0.001	**-0.468**	-0.550	[-0.603, -0.497]	<0.001	**-0.223**	-0.240	[-0.291, -0.189]	<0.001
Open-mindedness	**0.106**	0.135	[0.071, 0.199]	<0.001	**0.060**	0.072	[0.010, 0.134]	0.003	**0.114**	0.135	[0.071, 0.199]	<0.001	**0.057**	0.072	[0.010, 0.134]	0.003
Sociability	**0.191**	0.175	[0.128, 0.222]	<0.001	**0.117**	0.105	[0.059, 0.150]	<0.001	**0.195**	0.175	[0.128, 0.222]	<0.001	**0.114**	0.105	[0.059, 0.150]	<0.001
Assertiveness	**0.159**	0.149	[0.099, 0.198]	<0.001	**0.060**	0.058	[0.008, 0.107]	0.003	**0.155**	0.149	[0.099, 0.198]	<0.001	**0.062**	0.058	[0.008, 0.107]	0.003
Energy level	**0.361**	0.330	[0.285, 0.375]	<0.001	**0.163**	0.151	[0.108, 0.194]	<0.001	**0.350**	0.330	[0.285, 0.375]	<0.001	**0.162**	0.151	[0.108, 0.194]	<0.001
Compassion	**0.204**	0.249	[0.193, 0.304]	<0.001	**0.190**	0.198	[0.142, 0.255]	<0.001	**0.238**	0.249	[0.193, 0.304]	<0.001	**0.163**	0.198	[0.142, 0.255]	<0.001
Respectfulness	**0.221**	0.271	[0.212, 0.331]	<0.001	**0.195**	0.213	[0.156, 0.271]	<0.001	**0.248**	0.271	[0.212, 0.331]	<0.001	**0.173**	0.213	[0.156, 0.271]	<0.001
Trust	**0.267**	0.273	[0.222, 0.323]	<0.001	**0.190**	0.189	[0.142, 0.236]	<0.001	**0.275**	0.273	[0.222, 0.323]	<0.001	**0.187**	0.189	[0.142, 0.236]	<0.001
Organization	**0.218**	0.197	[0.151, 0.242]	<0.001	**0.198**	0.171	[0.125, 0.217]	<0.001	**0.227**	0.197	[0.151, 0.242]	<0.001	**0.189**	0.171	[0.125, 0.217]	<0.001
Productiveness	**0.271**	0.282	[0.229, 0.335]	<0.001	**0.187**	0.197	[0.144, 0.250]	<0.001	**0.265**	0.282	[0.229, 0.335]	<0.001	**0.187**	0.197	[0.144, 0.250]	<0.001
Responsibility	**0.259**	0.321	[0.257, 0.385]	<0.001	**0.203**	0.243	[0.181, 0.305]	<0.001	**0.267**	0.321	[0.257, 0.385]	<0.001	**0.194**	0.243	[0.181, 0.305]	<0.001
Anxiety	**-0.454**	-0.403	[-0.447, -0.359]	<0.001	**-0.217**	-0.204	[-0.247, -0.161]	<0.001	**-0.424**	-0.403	[-0.447, -0.359]	<0.001	**-0.228**	-0.204	[-0.247, -0.161]	<0.001
Depression	**-0.518**	-0.500	[-0.550, -0.451]	<0.001	**-0.185**	-0.201	[-0.153, -0.201]	<0.001	**-0.460**	-0.500	[-0.550, -0.451]	<0.001	**-0.208**	-0.201	[-0.153, -0.201]	<0.001
Emotional volatility	**-0.366**	-0.339	[-0.388, -0.291]	<0.001	**-0.184**	-0.178	[-0.226, -0.131]	<0.001	**-0.346**	-0.339	[-0.388, -0.291]	<0.001	**-0.191**	-0.178	[-0.226, -0.131]	<0.001
Aesthetic sensitivity	**0.059**	0.057	[0.011, 0.104]	0.002	0.049	0.043	[-0.003, 0.090]	0.017	**0.065**	0.057	[0.011, 0.104]	0.002	0.045	0.043	[-0.003, 0.090]	0.017
Intellectual curiosity	**0.075**	0.080	[0.028, 0.133]	<0.001	0.030	0.030	[-0.022, -0.082]	0.133	**0.080**	0.080	[0.028, 0.133]	<0.001	0.029	0.030	[-0.022, -0.082]	0.133
Creative imagination	**0.130**	0.134	[0.081, 0.188]	<0.001	**0.077**	0.077	[0.026, 0.129]	<0.001	**0.135**	0.134	[0.081, 0.188]	<0.001	**0.076**	0.077	[0.026, 0.129]	<0.001

Note. Regression coefficients in bold are significant ($p < .01$). Model fits: CFIs $\geq$ 0.993, RMSEAs $\leq$ 0.046, SRMRs $\leq$ 0.017. All model comparisons suggested that effects were equal across couple members (see Supplemental Table 1), although the standardized effect sizes do occasionally vary between men and women (but the unstandardized estimates and p-values do not).

Table 5
Explained variance (R^2) of the actor-partner interdependence models.

Trait / facet	Relationship Satisfaction		Life Satisfaction	
	Female	Male	Female	Male
Extraversion	0.059	0.064	0.140	0.137
Agreeableness	0.163	0.178	0.149	0.157
Conscientiousness	0.102	0.109	0.154	0.152
Negative emotionality	0.209	0.171	0.355	0.318
Open-mindedness	0.035	0.036	0.019	0.022
Sociability	0.027	0.030	0.050	0.053
Assertiveness	0.012	0.012	0.029	0.030
Energy level	0.076	0.083	0.185	0.178
Compassion	0.126	0.135	0.094	0.101
Respectfulness	0.153	0.165	0.104	0.110
Trust	0.089	0.098	0.126	0.131
Organization	0.047	0.049	0.088	0.090
Productiveness	0.072	0.078	0.119	0.117
Responsibility	0.120	0.129	0.129	0.131
Anxiety	0.143	0.110	0.279	0.259
Depression	0.178	0.190	0.350	0.307
Emotional volatility	0.156	0.114	0.190	0.180
Aesthetic sensitivity	0.022	0.023	0.008	0.010
Intellectual curiosity	0.018	0.018	0.008	0.011
Creative imagination	0.035	0.038	0.027	0.030

Note. For relationship satisfaction as outcome, the models with negative emotionality, anxiety, and emotional volatility, actor and partner effects were not set equal across couple members.

not have a worse fit for the data than the more complex DPR models (see Supplemental Table 4 for all chi-squared model difference test results). There were, however, some exceptions.

In the following sections, we examine the DPR results with respect to Humberg's (2019) six steps.

3.2.1. Relationship satisfaction

When modeling relationship satisfaction, the trait effects of conscientiousness and open-mindedness, as well as the facet effects of sociability, organization, responsibility, and aesthetic sensitivity were better modeled with DPR models ($ps \leq 0.001$). The DPR results for these six exceptions can be found in Supplemental Tables 5 and 6. The RSA results can be found in Tables 6 and 7. Table 8 displays the steps proposed by Humberg and colleagues (2019) to examine evidence for a similarity effect on relationship satisfaction for conscientiousness, open-mindedness, sociability, organization, responsibility, and aesthetic sensitivity. For any of these traits and facets, no steps were completed in a way to suggest that there was a similarity effect for relationship satisfaction.

Supplemental Figures 1–6 show the response surface plots for conscientiousness, open-mindedness, sociability, organization, responsibility, and aesthetic sensitivity, respectively, in predicting relationship satisfaction for female and male partners. The plots also suggest that there is not per se a similarity effect for these personality traits and facets. Rather, the effects are more in line with a rising ridge or additive effect: the highest levels of relationship satisfaction were predicted if both partners reported higher levels in the respective personality trait or facet.

3.2.2. Life satisfaction

When modeling life satisfaction, the trait effects of agreeableness, negative emotionality, and open-mindedness, as well as the facet effects of sociability, respectfulness, anxiety, and intellectual curiosity were better depicted with DPR models ($ps < 0.008$). The DPR results are displayed in Supplemental Tables 7 and 8. The RSA results can be found in Tables 9 and 10. As shown in Table 11 (and similar to the results for relationship satisfaction), for any of these traits and facets, no steps were completed in a way to suggest that there was a similarity effect for life satisfaction.

Supplemental Figures 7–12 show the response surface plots for

Table 6
Response surface parameters for female relationship satisfaction as outcome (constrained).

Trait/facet	a1				a2				a3				a4			
	β	*b*	99% CI	*p*	β	*b*	99% CI	*p*	β	*b*	99% CI	*p*	β	*b*	99% CI	*p*
Conscientiousness[a]	**0.382**	0.399	[0.323, 0.475]	<0.001	-0.177	-0.168	[-0.296, -0.040]	0.010	-0.007	-0.005	[-0.105, 0.096]	0.928	**-0.191**	-0.185	[-0.315, -0.055]	0.005
Open-mindedness	**0.200**	0.206	[0.134, 0.278]	<0.001	-0.029	-0.014	[-0.112, 0.084]	0.778	-0.047	-0.041	[-0.081, -0.001]	0.043	**-0.231**	-0.249	[-0.376, -0.122]	<0.001
Sociability	**0.209**	0.160	[0.108, 0.212]	<0.001	0.025	0.017	[-0.033, 0.067]	0.511	0.039	0.032	[0.008, 0.056]	0.010	**-0.148**	-0.097	[-0.158, -0.035]	0.002
Organization[a]	**0.292**	0.218	[0.155, 0.281]	<0.001	-0.017	-0.002	[-0.073, 0.069]	0.958	0.008	0.010	[-0.061, 0.082]	0.773	-0.107	-0.062	[-0.134, 0.010]	0.089
Responsibility	**0.371**	0.380	[0.317, 0.444]	<0.001	-0.152	-0.129	[-0.232, 0.025]	0.015	-0.026	-0.020	[-0.061, 0.022]	0.348	-0.189	-0.173	[-0.307, -0.039]	0.011
Aesthetic sensitivity	**0.157**	0.121	[0.070, 0.172]	<0.001	-0.011	-0.003	[-0.051, −045]	0.906	-0.034	-0.021	[-0.054, 0.013]	0.229	**-0.170**	-0.108	[-0.176, -0.040]	0.002

Note. Regression coefficients in bold are significant ($p < .01$). Model fits: CFIs ≥ 0.992, RMSEAs ≤ 0.031, SRMRs ≤ 0.015. [a]For conscientiousness and organization, the chi-square model comparisons suggested that actor and partner effects were not equal across couple members. Thus, we report the unconstrained results of these models (i.e., the estimates will differ between men and women across tables; see Supplemental Table 2).

Table 7
Response surface parameters for male relationship satisfaction as outcome (constrained).

Trait/facet	a1				a2				a3				a4			
	β	*b*	99% CI	*p*	β	*b*	99% CI	*p*	β	*b*	99% CI	*p*	β	*b*	99% CI	*p*
Conscientiousness[a]	**0.340**	0.344	[0.263, 0.405]	<0.001	-0.127	-0.101	[-0.204, 0.003]	0.056	-0.065	-0.066	[-0.167, 0.035]	0.201	**-0.216**	-0.208	[-0.342, -0.074]	0.002
Open-mindedness	**0.209**	0.206	[0.134, 0.278]	<0.001	-0.034	-0.014	[-0.112, 0.084]	0.778	-0.035	-0.041	[-0.081, -0.001]	0.043	**-0.248**	-0.249	[-0.376, -0.122]	<0.001
Sociability	**0.223**	0.160	[0.108, 0.212]	<0.001	0.026	0.017	[-0.033, 0.067]	0.511	0.047	0.032	[0.008, 0.056]	0.010	**-0.159**	-0.097	[-0.158, -0.035]	0.002
Organization[a]	**0.321**	0.163	[0.107, 0.220]	<0.001	0.072	0.054	[-0.004, 0.112]	0.068	-0.098	-0.072	[-0.148, 0.004]	0.065	-0.155	-0.089	[-0.159, -0.019]	0.012
Responsibility	**0.389**	0.380	[0.317, 0.444]	<0.001	-0.157	-0.129	[-0.232, 0.025]	0.015	-0.013	-0.020	[-0.061, 0.022]	0.348	-0.196	-0.173	[-0.307, -0.039]	0.011
Aesthetic sensitivity	**0.164**	0.121	[0.070, 0.172]	<0.001	-0.012	-0.003	[-0.051, -0.045]	0.906	-0.020	-0.021	[-0.054, 0.013]	0.229	**-0.181**	-0.108	[-0.176, -0.040]	0.002

Note. Regression coefficients in bold are significant ($p < .01$). Model fits: CFIs $\geq$ 0.992, RMSEAs $\leq$ 0.031, SRMRs $\leq$ 0.015. [a]For conscientiousness and organization, the chi-square model comparisons suggested that actor and partner effects were not equal across couple members. Thus, we report the unconstrained results of these models (i.e., the estimates will differ between men and women across tables; see Supplemental Table 2).

agreeableness, negative emotionality, open-mindedness, sociability, respectfulness, and anxiety, respectively, in predicting life satisfaction for female and male partners. The plots also suggest that there is not per se a similarity effect for these personality traits and facets. In the case of agreeableness, open-mindedness, sociability, and respectfulness, a rising ridge or additive effect might come closest to describing the effects: the highest levels of life satisfaction are present if both partners reported higher levels in these traits/facets. In the case of negative emotionality and anxiety, the plots indicate a declining ridge pattern: the highest life satisfaction was present when both partners, and especially female partners, reported lower anxiety levels.

3.3. Supplementary analyses

In addition to testing each Big Five trait and facet as individual predictors of satisfaction, we also pre-registered two sets of supplementary analyses. First, we ran APIMs that included the facets of one of each trait as simultaneous predictors (e.g., one model included sociability, assertiveness, and energy level) predicting either relationship or life satisfaction. Second, we ran APIMS with all facets of all traits as simultaneous predictors of either relationship or life satisfaction. These supplementary analyses will provide further knowledge on the magnitude of the effects of facets and how they are affected by accounting for the shared variance among the facets.

The results of the first set of analyses (all [i.e., 3] facets of a single trait as simultaneous predictors) can be found in Supplemental Table 9 (for relationship satisfaction) and Supplemental Table 10 (for life satisfaction; Supplemental Table 11 shows the chi-squared model difference test for the gender-constraints of these models). The results of the second set of analyses (all facets of each trait [i.e., 15] as simultaneous predictors) can be found in Supplemental Table 12 (for relationship satisfaction) and Supplemental Table 13 (for life satisfaction). Controlling for the facets simultaneously generally reduced the number of significant associations, although the estimates were generally small, even in the main analyses. In the Discussion section, we will briefly summarize these results as we compare them with the main findings of the present study.

4. Discussion

The present study examined the actor, partner, and similarity effects of the Big Five personality traits and facets on partners' relationship and life satisfaction. Echoing the findings of pre-existing literature, we found no similarity effects of partners' personality traits on relationship and life satisfaction. We found that similarity in personality facets was negligible in explaining contextualized satisfaction (i.e., relationship satisfaction) and broad satisfaction (i.e., life satisfaction), similar to previous studies on personality traits. However, our study provided useful descriptive information in quantifying the contribution of partner facets in predicting relationship and life satisfaction.

4.1. Actor and partner effects of personality traits and facets

In line with previous dyadic findings (e.g., Chopik & Lucas, 2019; Weidmann et al., 2016), we found that the Big Five traits were significantly related to both partners' well-being. Specifically, more extraverted, agreeable, conscientious, and open-minded and less negatively emotional participants and their partners reported higher relationship and life satisfaction. The effect sizes were small to medium in size and strongest for negative emotionality. That neuroticism (or negative emotionality) is linked to lower relationship satisfaction and life satisfaction has been found in several studies (e.g., Weidmann et al., 2016; Steel et al., 2008). Highly neurotic individuals and partners might experience lower relationship satisfaction because of greater aggressive externalization during conflict discussions, lower sexual satisfaction, and less positive interpretation biases in their relationships (e.g., Finn

Table 8
Checking the Humberg et al (2019) Criteria for the DPR Results with relationship satisfaction.

Humberg et al. (2019) criteria	Conscientiousness		Open-mindedness		Sociability		Organization		Responsibility		Aesthetic sensitivity	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
(1) p10 parameter is non-significant	x	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
(2) the confidence interval of p11 includes 1		✔	✔	✔	✔	✔	x	✔	✔	✔	✔	✔
(3) the a4 parameter is significantly negative		✔	✔	✔	✔	✔		x	x	x	✔	✔
(4) the a3 parameter is non-significant		✔	✔	✔	x	x					✔	✔
(5) the a2 parameter is non-significant		✔	✔	✔							✔	✔
(6) the a1 parameter is non-significant		x	x	x							x	x

Note. The p10 for female partners in the model with conscientiousness was $\beta = 0.572$, b = 0.623, 99%CI [0.016, 1.231], $p = .008$.

et al., 2013; Fisher & McNulty, 2008; Vater & Schröder-Abé, 2015). Moreover, neurotic individuals tend to be less healthy, less socially competent, and more likely to experience negative life events, which might explain their lower life satisfaction levels (e.g., Fogle et al., 2002; Gale et al., 2013; Ho et al., 2008).

In terms of personality facets, all facets were linked to both partners' relationship satisfaction and life satisfaction—except for aesthetic sensitivity and intellectual curiosity, which were only linked to the person's own life satisfaction but not the partner's. The facets explained a significant portion of the variance in relationship and life satisfaction when tested in isolation from each other. Examining facet-level associations revealed some unique insights. For example, we discovered that energy level (for extraversion), respectfulness (for agreeableness), responsibility (for conscientiousness), depression and emotional volatility (for negative emotionality), and creative imagination (for open-mindedness) may explain why some of the superordinate traits are related to relationship satisfaction among both individuals and their partners (i.e., these facets had the largest associations with relationship satisfaction and were larger predictors than associations seen at the broader trait level).

The same was true for life satisfaction, but these results were a little more heterogeneous across actors and partners. For example, energy level and creative imagination emerged as the larger predictors for individuals' life satisfaction (as they were for relationship satisfaction). But, beyond these consistencies, the largest predictors of life satisfaction differed between partners. For agreeableness, trust was the largest actor effect, but respectfulness was the largest partner effect (although there were largely comparable). For conscientiousness, productiveness emerged as the largest actor effect, while responsibility emerged as the largest partner effect. Finally, for negative emotionality, depression emerged as the largest actor effect, and anxiety emerged as the largest partner effect. In other words, when predicting life satisfaction, it was not the same consistent set of actor and partner facets that were predicting higher life satisfaction to the same degree in both partners.

Importantly, when tested as simultaneous predictors (see Supplemental Tables 12 and 13), we found only a few significant actor and partner effects for agreeableness and negative emotionality facets for relationship and life satisfaction. Specifically, depression and anxiety tended to be the most robust predictors of life and relationship satisfaction. Examining depression and anxiety as simultaneous predictors may be particularly important. As seen in Table 2, these two facets are significantly correlated with almost every other facet and trait (with the sole exceptions of aesthetic sensitivity and intellectual curiosity), as well as both relationship and life satisfaction. Testing these facets as simultaneous predictors allowed us to control for the variance that they share with other facets. Thus, even though facets seem to play an important role for satisfaction in couples, the findings suggest that it is important to analyze them simultaneously to make more informed conclusions.

4.2. Evaluating the similarity findings: traits

People are more likely to be attracted to someone who has a similar personality to them and to choose partners who are more like them (Byrne & Nelson, 1965; Luo, 2017). But does being with someone similar in terms of personality traits relate to how satisfied people are in their relationship and how happy they are in life? Combining two age-heterogeneous couple samples showed no evidence for similarity effects of personality traits on both partners' life and relationship satisfaction. Although, for some personality traits, the more complex DPR model characterized the data better than a simpler APIM, when following the guidelines set by Humberg and colleagues (2019), there were no significant similarity effects for personality traits. Previous research using dyadic polynomial regression analyses has found limited evidence for personality traits' influence on relationship satisfaction or quality (e.g., Leikas et al., 2018; van Scheppingen et al., 2019; Weidmann et al., 2017). However, these previous dyadic studies have not used the criteria proposed by Humberg et al. (2019) to evaluate the existence of similarity effects for the Big Five personality traits. These criteria ensure that each response surface parameter is analyzed in the appropriate context—along with the other parameters—to make more accurate conclusions regarding similarity effects. Incorporating these more stringent criteria in the present study, therefore, enabled us to find a more systematized way to substantiate the lack of evidence for personality trait similarity effects for couples' satisfaction.

4.3. Evaluating the similarity findings: facets

The present study aimed to examine potential personality similarity effects by taking a facet-level approach, one that has an appreciation for smaller, more specific units of personality under the taxonomy of the Big Five. Above the actor and partner effects of personality facets, the higher-order terms of the dyadic polynomial regression analyses only characterized the data better for some (8 out of 30) models. Nevertheless, when using the criteria for similarity effects set by Humberg and colleagues (2019), we found no evidence for similarity effects on the facet level. These findings highlight the importance of controlling for baseline personality (i.e., actor and partner effects) when assessing the importance of personality similarity.

Furthermore, the present study provides initial evidence that similarity in facets, which have been shown to be more closely associated with behaviors (Paunonen & Ashton, 2001), is not more strongly associated with higher levels of relationship and life satisfaction in couples. Together with the recent evidence on the effect of similarity in situation perceptions in couples (Rentzsch et al., 2022), it could be the case that similarity in *perceptions* contributes to a couple's satisfaction rather than similarity in personality. Perceiving the world similarly can promote "joint action" (Rentzsch et al., 2022) but also joint emotion about a specific situation. Sharing perceptions, thoughts, and beliefs may also contribute to a sense of shared reality (i.e., the subjective experience of sharing an inner state) between the members of a couple, which may motivate partners to engage and interact with one another in similar and synchronous ways (Rossignac-Milon et al., 2021). This could also include similarity in attachment styles and how partners perceive each other and the relationship as a safe haven in times of distress (Wang et al., 2022). In contrast, being similarly or less similarly productive (or sociable or depressed) in general, for instance, without any

Table 9
Response surface parameters for female life satisfaction as outcome (constrained).

Trait/facet	a1				a2				a3				a4			
	β	*b*	99% CI	*p*	β	*b*	99% CI	*p*	β	*b*	99% CI	*p*	β	*b*	99% CI	*p*
Agreeableness[a]	**0.483**	0.641	[0.552, 0.730]	<0.001	0.055	0.121	[0.009, 0.232]	0.034	0.118	0.184	[0.041, 0.328]	0.012	-0.007	0.018	[-0.168, 0.203]	0.852
Negative emotionality	**-0.694**	-0.763	[-0.824, -0.702]	<0.001	**-0.113**	-0.109	[-0.171, -0.048]	0.001	**-0.282**	-0.281	[-0.333, -0.230]	<0.001	-0.012	0.007	[-0.007, 0.092]	0.870
Open-mindedness[a]	**0.168**	0.211	[0.119, 0.304]	<0.001	-0.010	0.019	[-0.090, 0.128]	0.733	0.080	0.107	[-0.007, 0.221]	0.067	**-0.204**	-0.249	[-0.389, -0.110]	<0.001
Sociability	**0.303**	0.275	[0.215, 0.335]	<0.001	0.030	0.024	[-0.039, 0.087]	0.455	**0.072**	0.069	[0.034, 0.104]	<0.001	**-0.163**	-0.126	[-0.187, -0.065]	<0.001
Respectfulness[a]	**0.442**	0.525	[0.439, 0.611]	<0.001	**0.106**	0.178	[0.070, 0.287]	0.001	**0.124**	0.175	[0.046, 0.304]	0.008	-0.004	0.027	[-0.114, 0.168]	0.708
Anxiety	**-0.664**	-0.602	[-0.655, -0.548]	<0.001	-0.091	-0.065	[-0.118, -0.013]	0.015	**-0.219**	-0.182	[-0.220, -0.145]	<0.001	0.003	0.008	[-0.049, 0.065]	0.780
Intellectual curiosity	**0.097**	0.102	[0.037, 0.167]	0.002	0.084	0.086	[0.019, 0.154]	0.012	0.042	0.047	[0.000, 0.092]	0.045	-0.088	-0.091	[-0.196, 0.015]	0.092

Note. Regression coefficients in bold are significant (p <.01). Model fits: CFIs ≥ 0.984, RMSEAs ≤ 0.038, SRMRs ≤ 0.015. [a]For agreeableness, open-mindedness, and respectfulness, the chi-square model comparisons suggested that actor and partner effects were not equal across couple members. Thus, we report the unconstrained results of these models (i.e., the estimates will differ between men and women across tables; see Supplemental Table 2).

Table 10
Response surface parameters for male life satisfaction as outcome (constrained).

Trait/facet	a1				a2				a3				a4			
	β	*b*	99% CI	*p*	β	*b*	99% CI	*p*	β	*b*	99% CI	*p*	β	*b*	99% CI	*p*
Agreeableness[a]	**0.446**	0.576	[0.488, 0.664]	<0.001	-0.032	-0.016	[-0.119, 0.088]	0.765	0.075	0.070	[-0.062, 0.202]	0.296	-0.056	-0.056	[-0.229, 0.117]	0.524
Negative emotionality	**-0.671**	-0.763	[-0.824, -0.702]	<0.001	**-0.096**	-0.109	[-0.171, -0.048]	0.001	**-0.211**	-0.281	[-0.333, -0.230]	<0.001	0.005	0.007	[-0.007, 0.092]	0.870
Open-mindedness[a]	**0.130**	0.158	[0.075, 0.241]	<0.001	0.004	0.032	[-0.060, 0.123]	0.498	0.027	0.028	[-0.091, 0.147]	0.646	-0.089	-0.096	[-0.259, 0.066]	0.245
Sociability	**0.305**	0.275	[0.215, 0.335]	<0.001	0.029	0.024	[-0.039, 0.087]	0.455	**0.080**	0.069	[0.034, 0.104]	<0.001	**-0.164**	-0.126	[-0.187, -0.065]	<0.001
Respectfulness[a]	**0.383**	0.440	[0.351, 0.529]	<0.001	0.019	0.051	[-0.067, 0.169]	0.396	0.053	0.035	[-0.094, 0.165]	0.594	-0.036	-0.024	[-0.166, 0.117]	0.737
Anxiety	**-0.648**	-0.602	[-0.655, -0.548]	<0.001	-0.080	-0.065	[-0.118, -0.013]	0.015	**-0.178**	-0.182	[-0.220, -0.145]	<0.001	0.013	0.008	[-0.049, 0.065]	0.780
Intellectual curiosity	0.100	0.102	[0.037, 0.167]	0.002	0.084	0.086	[0.019, 0.154]	0.012	0.048	0.047	[0.000, 0.092]	0.045	-0.089	-0.091	[-0.196, 0.015]	0.092

Note. Regression coefficients in bold are significant (p <.01). Model fits: CFIs ≥ 0.984, RMSEAs ≤ 0.038, SRMRs ≤ 0.015. [a]For agreeableness, open-mindedness, and respectfulness, the chi-square model comparisons suggested that actor and partner effects were not equal across couple members. Thus, we report the unconstrained results of these models (i.e., the estimates will differ between men and women across tables; see Supplemental Table 2).

Table 11
Checking the Humberg et al (2019) criteria for the DPR results with life satisfaction.

Humberg et al. (2019) criteria	Agreeableness		Negative emotionality		Open-mindedness		Sociability		Respectfulness		Anxiety	
	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
(1) p10 parameter is non-significant	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
(2) the confidence interval of p11 includes 1	x	✔	x	x	x	✔	✔	✔	x	✔	x	x
(3) the a4 parameter is significantly negative		✔				x	✔	✔		x		
(4) the a3 parameter is non-significant		x					x	x				
(5) the a2 parameter is non-significant												
(6) the a1 parameter is non-significant												

Note. The confidence intervals of the p11 parameters were as follows: For female partners in the model with agreeableness: 99%CI [-0.214, 0.444], for female and male partners in the model with negative emotionality: 99%CI [-4.722, 0.190], and for female partners in the model with open-mindedness: 99%CI [-0.009, 0.853].

contextualization of that similarity, might not be as important for a romantic couple's satisfaction.

Moreover, previous research suggests that similarities *in values, attitudes, and goals* (Arrànz Becker, 2013; Leikas et al., 2018) might be more important for satisfaction compared to the similarity in personality traits. Thus, in addition to a shared relationship reality, how romantic partners prioritize specific values, attitudes, and goals could influence their joint goals and their support for individual goal strivings (Fitzsimons et al., 2015), which potentially also impacts their satisfaction with their relationship and life. Thus, future similarity studies that include the similarity in values, attitudes, and goals in partners could be better able to detect effects on life and relationship satisfaction.

4.4. Limitations and future directions

The current study had many strengths. It used a large sample of romantic couples across the adult lifespan, collected information on personality traits and facets, and applied a rigorous analytic approach to characterize possible similarity effects. Nevertheless, some limitations need to be acknowledged.

First, we examined the associations between personality similarity and couples' satisfaction with cross-sectional data. It could be the case that personality and life/relationship satisfaction mutually influence each other. For instance, if couple members are dissatisfied with their relationship or some other shared aspect in their lives, that could cause both couples to have higher (and similar) levels of depression. Future research should examine how personality similarity *changes* in light of life/relationship satisfaction changes in romantic couples.

Second, despite the broad consensus that facets do exist below the broader Big Five, the exact content and number of facets vary greatly by measure, including the degree to which each facet also taps into Big Five traits that are not its superordinate descriptor (Schwaba et al., 2020). Relatedly, the reliability of the facet measure varied greatly (i.e., 0.45 - 0.74), which might make the results less replicable across personality measures. With this in mind, our findings cannot be generalized across all existing facets assessed with other trait instruments.

Third, it could be the case that similarity in traits and facets is only conducive to satisfaction if that similarity is *perceived* by both partners (e.g., Decuyper et al., 2012) or if it is linked to areas of partners' lives that matter to them individually. It would be interesting to test these possibilities in future research to examine if perceived similarity is beneficial to all romantic couples, or if similarity is beneficial to some, depending on what relationship context matters to them individually.

Fourth, the present study's findings might not be generalizable to a non-Western cultural context. Given that our study and previous literature is based on samples from North America and Europe (e.g., Chopik & Lucas, 2019; van Scheppingen et al., 2019; Weidmann et al., 2017), we do not know whether cultural influences moderate the link between personality similarity and satisfaction in romantic couples. Previous research, however, finds that culture affects how similar people view themselves to others (Ott-Holland et al., 2014), which might have implications for future research that tests whether perceived similarity in personality traits and facets is associated with higher satisfaction in couples.

Finally, although the focus of the current report was on personality similarity, we did not examine mechanisms linking variation in mean-levels of personality facets to relationship and life satisfaction. In other words, why are personality facets associated with life and relationship outcomes? For example, having a partner high in organization might reduce feelings of uncertainty for individuals. Likewise, anxiety and depression in individuals and partners might be associated with more negative attributions, leading them to behave in ways that compromise their relationships (e.g., making accusations, missing opportunities to enhance their relationship, being on edge in partner interactions). For less obvious traits, such as aesthetic creativity, creative people may be more spontaneous and thoughtful when it comes to things like dates and gifts, which would create a positive effect on the relationship. Unfortunately, the current study was agnostic to exactly why personality facets would be associated with better relationship and life satisfaction, although this work has been done at the broader trait level (e.g., Donnellan et al., 2007). Future research should examine the consequences of personality facets more specifically.

4.5. Conclusion

Our examination of personality facets in relation to relationship and life satisfaction was consistent with past reports: personality similarity had largely no significant effect on relationship and life satisfaction, whether measured on the trait or on the facet level. By taking a more detailed look into the effects of personality traits *and* facets, the present study was able to generalize the near-zero effects of partner similarity to the more specific level of personality facets as well. However, it provides some initial evidence of exactly which components of broader personality traits are more strongly associated with relationship and life outcomes.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgments

The research in this publication was supported by a Postdoc.Mobility Fellowship (P400PS_186724) of the Swiss National Science Foundation granted to Rebekka Weidmann, by the Michigan State University, and by the National Institute on Aging under Award Number 1R03AG054705-01A1 granted to William J. Chopik.

Appendix A. Supplementary material

Supplementary data to this article can be found online at https://doi.org/10.1016/j.jrp.2023.104378.

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