

Effects of similarity of life goals, values, and personality on relationship satisfaction and stability: Findings from a two-wave panel study

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Abstract

Using data from the German Family Panel (pairfam; $n = 3,674$ heterosexual couples), this study examines the impact of partners' individual levels and dyadic similarity concerning life goals, values, and personality traits on relationship satisfaction and union dissolution. Controlling for partners' individual characteristics and for relationship duration, it was found that similarity on specific dimensions and stereotype-adjusted profile correlations exerted significant yet small positive effects on both partners' relationship satisfaction. These effects largely translated into beneficial indirect effects on union dissolution 1 year later (Wave 2, $n = 2,820$). Moderator analyses indicated the existence of some effect heterogeneity across relationship duration and types. Generally, partners' respective individual characteristics appeared to predict relationship outcomes better than dyadic similarity measures.

The insight that “birds of a feather flock together” is not just a popular common saying; it is also one of the most prominent and empirically confirmed principles of human mating. A large yet still growing body of research suggests that partners in romantic relationships tend to be homogamous with respect to demographic variables such as education and religion (Kalmijn, 1998). Although previous research also shows high positive correlations between spouses' ages (Feng & Baker, 1994), a closer look at age differences reveals that women prefer men who are slightly older than themselves, irrespective of their own age, whereas men's preference for significantly younger spouses becomes more pronounced with increasing age (Kenrick & Keefe, 1992). Considerable similarity exists also with respect to values such as

religiosity (Bleske-Rechek, Remker, & Baker, 2009; Botwin, Buss, & Shackelford, 1997; Caspi, Herbener, & Ozer, 1992; Feng & Baker, 1994; Luo & Klohnen, 2005; Watson et al., 2004), attitudes toward marriage (Caspi et al., 1992), and family values (Roest, Dubas, Gerris, & Engels, 2009; Watson et al., 2004). Moreover, previous research suggests a moderate degree of similarity in personality characteristics (Caspi & Herbener, 1990; Gonzaga, Campos, & Bradbury, 2007). Specifically, assortative mating can be observed with respect to personality traits such as conscientiousness (Bleske-Rechek et al., 2009), negative affect and disinhibition (Watson et al., 2004), neuroticism (Russell & Wells, 1991), and extraversion (Buss, 1984). However, one study found negative assortment on extraversion (Watson et al., 2004), and one study failed to find evidence of assortative mating with respect to any personality trait at all (Glicksohn & Golan, 2001).

Two theoretical mechanisms may underlie the high prevalence of intracouple similarity. First, during courtship and at later stages of

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relationship development, a selection process is assumed to be operating in which dissimilar couples are particularly likely to break up, yielding a residual population with an increasing proportion of homogamous pairings (Blackwell & Lichter, 2004). Second, in cases where partners are not perfectly similar initially, they can align to each other and become more similar over time. Processes of alignment have been found for attitudes (Davis & Rusbult, 2001), gender role orientations (Kalmijn, 2005), value orientations (Caspi et al., 1992), lifestyles (Arránz Becker & Lois, 2010), and cognitive abilities (Gruber-Baldini, Schaie, & Willis, 1995). For personality traits, there is less evidence of convergence (Caspi et al., 1992; Gonzaga et al., 2007; Gonzaga, Carter, & Buckwalter, 2010).

Both mechanisms—selection and alignment—can be employed in an analysis of why homogamy is so pervasive. This study focuses solely on selection processes, both for reducing the scope of the analysis and because selection processes are of particular theoretical interest. Selection represents an intriguing link between the empirically demonstrated high prevalence of homogamy and the observed association between partner similarity and relationship satisfaction (reviewed below in detail). Thus, this study examines longitudinally whether the potentially positive effects of actual similarity with regard to (a) life goals, (b) family-related values, and (c) personality traits on relationship satisfaction translate into a lower subsequent risk of separation, thereby contributing through a selection process to an increasing proportion of homogamous couples across time.

These three substantial domains can be subsumed under the overarching topic of personality, comprising both core personality traits and “characteristic adaptations” (Costa & McCrae, 1994) that guide individual action and bridge the gap between personality traits and situation-specific behavior. Together, these dimensions cover a broad range of constructs within an integrative personality framework (McAdams & Pals, 2006).

Similarity and relationship stability: Direct and indirect effects

Although it is intuitively plausible that dissimilarity may lead to selection by promoting relationship instability, there are surprisingly few studies explicitly investigating direct effects of similarity of values and personality on union dissolution. There is no large-scale study examining associations between similarity and relationship stability to date. In their seminal meta-analysis on determinants of marital quality and stability, Karney and Bradbury (1995) cited only three studies linking attitudinal homogamy to marital stability, yielding an average bivariate effect size of 0.28. In a more recent study, Bleske-Rechek and colleagues (2009) found that couples who broke up were more dissimilar in terms of attitudes than stable couples. The effect of personality discrepancies on marital stability appears to be rather small. Karney and Bradbury reported that personality similarity was less predictive of marital stability than attitude similarity; however, this evidence was based on only one study by Kurdek (1993), who found that unstable couples were characterized by higher discrepancy scores for neuroticism and conscientiousness. In contrast, other studies (Bleske-Rechek et al., 2009; Feng & Baker, 1994) yielded no evidence of pronounced personality discrepancies among unstable couples. Finally, it appears that no study yet has considered the effects of profile similarity (e.g., profile correlations) on relationship stability. Hence, there is still a paucity of research exploring links between attitudinal and personality similarity on the one hand and relationship stability on the other.

Apart from its direct stabilizing effects, similarity can also be hypothesized to affect partnership stability indirectly. But what exactly is the primary pathway leading to selection in the first place? A theoretical approach addressing this issue is the social-psychological effectance-arousal model (Byrne, 1971), which utilizes the concept of consensual validation—that the discovery of commonalities with an interaction partner is perceived as intrinsically rewarding (for

a critique, see Rosenbaum, 1986a, 1986b). The basic idea behind consensual validation, which can be traced back to Festinger's (1954) theory of social comparison processes, is that all human beings strive for social confirmation of their world views. If it is true that similar others are more likely to validate our world view than dissimilar others, following the principles of learning through conditioning, individuals will feel attracted to those who are similar because of the gratifications they provide. This line of thought seems to underlie several widely known models of relationship functioning, including exchange theoretical models of marital stability (Lewis & Spanier, 1979) and balance theory (Heider, 1958).

In most domains, it is intuitively plausible that similarity has beneficial effects on partnerships, but some authors have proposed theoretical arguments predicting favorable effects of dyadic *dissimilarity* on certain characteristics. For example, the complementary needs hypothesis put forward by Winch (1958) and Kerckhoff and Davis (1962) claims that with respect to certain attributes such as extraversion or dominance, similarity should have adverse effects on relationship functioning because it means that partners are more likely to compete with each other as they strive to fulfill their individual needs. However, the Winch argument has received little empirical support so far (e.g., Levinger, Senn, & Jorgensen, 1970).

A number of studies in the tradition of exchange theory have focused on a possible link between intracouple similarity and relationship quality. Marital quality and satisfaction have been found to be positively associated with similarity regarding traditional gender role orientations (Lye & Biblarz, 1993), religiosity (Bleske-Rechek et al., 2009), extraversion (Bleske-Rechek et al., 2009; Dyrenforth, Kashy, Donnellan, & Lucas, 2010; Luo, 2009; Russell & Wells, 1991), negative emotionality (Robins, Caspi, & Moffitt, 2000), self-esteem (Bleske-Rechek et al., 2009), disinhibition, and several other traits (Luo & Klohnen, 2005). However, a number of studies have shown weak or inconsistent associations between relationship quality

and similarity in different domains (Dyrenforth et al., 2010; Gattis, Berns, Simpson, & Christensen, 2004; Gaunt, 2006; Watson et al., 2004). In an attempt to shed some light on this somewhat inconsistent empirical evidence, recent studies have augmented the variable-centered approach, which focuses on discrepancies between partners with respect to specific characteristics, with a couple-centered analysis that considers shape similarity computed across multiple items or constructs. Across couples, there is considerable variation in the degree of profile similarity (Klohnen & Mendelsohn, 1998); profile correlations were found to be better predictors of relationship satisfaction than single-dimension discrepancy in, for example, the personality domain (Gaunt, 2006; Gonzaga et al., 2007; Gonzaga et al., 2010; Luo & Klohnen, 2005; Luo et al., 2008). Similarly, profile similarity with respect to attitudes and values has been shown to positively correlate with marital satisfaction (Gaunt, 2006).

Furthermore, there is also evidence that relationship quality positively affects union stability. A meta-analysis conducted by Le and Agnew (2003) and previous work (Karney & Bradbury, 1995) have suggested positive longitudinal associations of moderate size between relationship satisfaction and stability. The question of whether relationship satisfaction mediates the link between similarity and stability remains open, however.

Distinguishing between similarity, actor, and partner effects

Above and beyond similarity effects, partners' respective individual values and personalities may independently predict relationship outcomes. Below, these effects are referred to as "level effects." Studies have shown that family-related values such as traditional gender role orientations and marriage affinity have a positive influence on marital satisfaction (Lye & Biblarz, 1993). The personality traits of neuroticism, negative affectivity, and impulsiveness are negatively associated with relationship satisfaction, whereas extraversion tends to exert slightly positive effects (Botwin et al., 1997; Dyrenforth et al., 2010;

Kelly & Conley, 1987; Malouff, Thorsteinson, Schutte, Bhullar, & Rooke, 2010; Robins et al., 2000). Dyadic analyses suggested that associations within one partner (i.e., actor effects) generally tended to be stronger than cross-partner effects (Dyrenforth et al., 2010; Luo et al., 2008; Robins et al., 2000). Considering level effects on relationship stability, traditional gender role orientations and marriage affinity are negatively related to perceived relationship instability (Lye & Biblarz, 1993). With respect to personality, a clearly destabilizing impact has been found only for neuroticism (Kurdek, 1993). Although neuroticism appears to be slightly positively related to relationship breakup in the Kelly and Conley (1987) study, these results are hard to interpret because no measures of statistical significance were reported.

Aims and hypotheses of this study

This study is designed to extend previous research in several respects. First, it connects two previously separated literatures: research focusing on the association between similarity and relationship quality and research demonstrating a high prevalence of similarity. This study links these two lines of research by investigating whether actual similarity indirectly lowers the risk of separation through the mediating effect of relationship satisfaction. Specifically, it is hypothesized that similarity—measured by absolute differences and profile correlations—(a) exerts a positive effect on relationship satisfaction and (b) thereby indirectly contributes to partnership stability. Empirical support for both hypotheses would lend support to the assertion that selection lies behind the pervasiveness of similarity (i.e., there is an increased risk of union dissolution among dissimilar couples because of dissatisfaction).

Moreover, by drawing on a large sample of heterosexual couples from a prospective two-wave panel study, the following analyses are intended to test the generalizability of previous findings concerning outcomes of couple similarity by examining respondents with very different social backgrounds. This approach might help explain the inconsistent pattern of

findings in previous studies. Several explanations are possible. First, mixed evidence might be a consequence of the very small size of “true” effects; a sample as large as the one utilized in this study might thus be a precondition for the ability to detect these effects at all. Second, effect heterogeneity may be at work such that the assumed positive impact of similarity might be limited to certain relationship types or phases. This can be tested only by conducting careful moderator analyses on large, socially heterogeneous samples.

Potential moderators

According to exchange theoretical filter models such as Murstein’s (1986, 1987) stimulus–value–role model, it can be assumed that throughout the course of partnerships, systematic shifts might occur in the importance of different characteristics for relationship functioning. Whereas stimulus-related, readily perceivable characteristics such as physical attractiveness might be particularly salient for relationship satisfaction at the outset, more covert characteristics (i.e., personality traits) that become visible only after partners have become better acquainted might gain importance at later stages of the partnership. Thus, it can be hypothesized that the impact of similarity is moderated by relationship type or duration. To my cognizance, no previous study has examined shifts in the effect of similarity over the course of the relationship (or between types of relationships) under consideration of interaction effects.

Finally, it seems reasonable to expect the impact of similarity to vary by the level of the respective characteristic. For instance, similar levels of aggressiveness may be conducive to relationship satisfaction and stability only at low levels.

Method

Analytical approach

Because of the dyadic nonindependence of both partners’ partnership-related perceptions, actor–partner interdependence models were computed (Kenny, Kashy, & Cook, 2006),

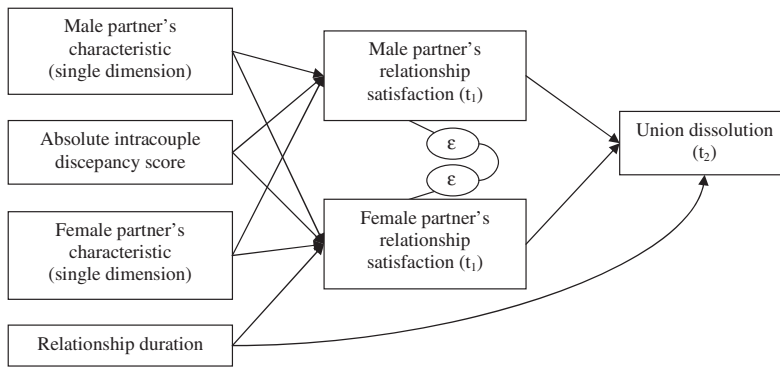


Figure 1. Basic actor-partner interdependence model for the analysis of (dis)similarity on relationship satisfaction and stability.

thereby modeling simultaneous effects of partners' characteristics along with the respective (dis)similarity scores on both partners' perceived relationship satisfaction (Figure 1). All structural equation models were estimated using the Mplus software (Muthén & Muthén, 2010). To reduce model complexity while allowing for a test of potential moderator effects of gender, equality constraints were imposed across male and female partners; if the resulting model fit was acceptable, then actor, partner, and similarity effects were held equal across gender. As a test of complete mediation, direct effects of discrepancy scores on union dissolution were constrained to zero while evaluating the decline in model fit (indicated by $\Delta\chi^2$).

Previous studies have employed two distinct indicators for (dis)similarity. Most studies draw on variable-centered discrepancy measures such as absolute difference scores. However, a second, couple-centered approach involves measures such as similarity of profiles indicated by intracouple correlations.

The study of dyadic discrepancy scores brings up some methodological issues. Most importantly, as Griffin, Murray, and Gonzalez (1999) have described in detail, discrepancy measures of dissimilarity (i.e., absolute difference scores) require controlling for their components (i.e., for level effects) multivariately. Watson and colleagues (2004), who examined similarity effects in various domains (among them, values and personality) on relationship satisfaction while properly controlling for

level effects, could not replicate previous findings of a positive impact of similarity.

Profile correlations capture aspects of similarity complementary to difference scores in that they assess the degree of congruence between the shapes of two individuals' (or groups') attribute profiles (Cronbach & Gleser, 1953). In this study, (Pearson) profile correlations were computed across different characteristics of each subdomain (e.g., across sum scores for several personality traits). A general issue when studying shape similarity is systematic stereotype bias (Kenny et al., 2006, chap. 12; Kenny & Acitelli, 1994). Positive profile correlations may arise not because both partners in a specific relationship are similar but because there is a general stereotypical profile in the population to which most individuals conform, thereby making any (real or even randomly paired) couple appear similar. An obvious and simple solution recommended by Kenny and colleagues (2006, p. 332) is to subtract the respective mean score (computed across dyads) from each individual measure before constructing a profile similarity index. The resulting profile correlations thus reflect "unique similarity" in that they control for stereotypical response behavior (Gonzaga et al., 2010).

With respect to the impact on relationship stability, longitudinal effects on the event of separation are modeled. In the case of panel data, the most common approach for analyzing the occurrence of events is discrete-time survival analysis (Singer & Willett, 2003;

Willett & Singer, 1993). This method has been used in some research on relationship stability, too (Brines & Joyner, 1999). The dependent variable is the conditional duration-specific transition rate to separation between two panel waves, provided that no event of separation has been observed so far. Technically, discrete-time event history analysis can be modeled as a probit regression model (McCullagh & Nelder, 1989), with a process time indicator (i.e., relationship duration) as a covariate and the cumulative-normally distributed probability of breakup between Waves 1 and 2 as the latent dependent variable. Of particular interest in this study was the potential mediating role of relationship satisfaction in the association between similarity and union stability. Hence, both direct and indirect effects of each characteristic and dyadic discrepancy scores on relationship breakup were computed (for the computation of mediator effects in probit models, see MacKinnon, Lockwood, Brown, Wang, & Hoffman, 2007). In addition, a test for complete mediation was conducted by constraining direct effects on separation to zero. This procedure allows assessment of the importance of alternative explanatory mechanisms for destabilizing effects of dissimilarity, apart from relationship satisfaction.

Moderator effects were analyzed either by including product variables (in the case of continuous moderators such as relationship duration) or by χ^2 -based model comparisons between different subgroups (in the case of categorical moderators such as relationship type). Continuous moderators were centered around zero (by subtracting the mean from all observed values) before computing multiplicative terms (Frazier, Tix, & Barron, 2004). For the sake of parsimony, only direct (i.e., not mediated) moderator effects were considered, in separate models for relationship satisfaction and instability.

Measures

Table 1 provides an overview of the variables in the analyses, along with the respondents' basic social and partnership-related characteristics. The factorial structure of the indicators

of relationship satisfaction, life goals, family-related values, and personality traits was validated using principal component analyses (results not shown); this ensured that the various dimensions can be discriminated empirically. The respective items were then aggregated by computing average scores across items for each construct.

The main endogenous variable, *relationship satisfaction*, was measured by two indicators (e.g., "All in all, how satisfied are you with your current relationship?"). Cronbach's α indicated a high internal consistency for this short scale (Table 1).

To determine the duration and breakup of respondents' romantic relationships, information from an interactive Event History Calendar, being part of a computer-assisted personal interview (CAPI) with the primary respondents, was used. In the first wave, the primary respondents were asked to indicate if they currently had a partner with whom they were in a "steady" romantic relationship. If they responded affirmatively, they were asked to provide the first name of that person and when (i.e., year and month) the relationship had started. In the second wave, respondents were shown the partner name from the previous interview (via dependent interviewing with automated preloads) and asked whether the relationship was still intact and, if not, to indicate the month in which it was dissolved. *Union dissolution* was coded as 1 if respondents indicated a separation from the partner from the first interview at any point between the first and second interviews (there were a total of $n = 135$ separations); otherwise, it was coded as 0.

Concerning *life goals*, respondents assessed the relative importance of different areas in the domains of partnership (being in a relationship and having children), education and career, and other goals external to the partnership (social contacts and hobbies). Respondents were asked to distribute a total of 15 tokens among the different goals in a way that best reflected their preferences.

In the domain of values and attitudes, several dimensions were measured. Two items were used for traditional *gender role orientations* (e.g., "Women should be more

Table 1. Descriptive statistics for the studied sample of couples

Wave 1 sample characteristics	Range	No. items	Men				Women				r_{mf}	t_{m-f}
			<i>N</i>	<i>M</i>	<i>SD</i>	α	<i>N</i>	<i>M</i>	<i>SD</i>	α		
Relationship satisfaction	0–10	2	3,619	8.16	1.88	0.88	3,628	8.15	1.95	0.90	0.27**	–0.28
Life goals												
Being in a couple relationship	0–15	1	3,549	4.49	1.80	—	3,586	4.55	1.79	—	0.15**	–1.67
Having children	0–15	1	3,549	1.65	1.89	—	3,586	1.79	2.14	—	0.34**	–3.57*
Career	0–15	1	3,549	3.54	1.80	—	3,586	3.15	1.88	—	0.17**	9.59**
Hobbies	0–15	1	3,549	2.67	1.41	—	3,586	2.59	1.40	—	0.12**	2.20*
Social contacts	0–15	1	3,549	2.97	1.38	—	3,586	3.24	1.49	—	0.11**	–8.32**
Values and attitudes												
Traditional gender role orientation	1–5	2	3,652	2.31	0.90	0.45	3,665	2.15	0.85	0.35	0.33**	9.39**
Marriage affinity	1–5	3	3,628	3.06	1.10	0.65	3,646	2.86	1.12	0.69	0.43**	9.74**
Norms of family solidarity	1–5	1	3,648	4.51	0.80	—	3,651	4.54	0.77	—	0.18**	–1.89
Religiosity	1–6	1	3,456	1.91	1.15	—	3,463	2.05	1.18	—	0.64**	–8.30**
Personality traits												
Social inhibition	1–5	4	3,622	1.91	0.72	0.69	3,645	2.08	0.78	0.70	0.06**	–9.80**
Irritability	1–5	3	3,642	2.29	0.96	0.81	3,657	2.54	0.99	0.80	0.11**	–11.63**
Self-esteem	1–5	3	3,641	4.15	0.74	0.65	3,655	3.91	0.87	0.73	0.12**	13.94**
Emotional autonomy	1–5	3	3,629	4.01	0.73	0.65	3,652	3.92	0.76	0.65	0.14**	5.43**
Respondents' characteristics												
Age	16–75	1	3,548	32.83	7.54	—	3,597	30.20	6.95	—	0.81**	34.38**
Years of schooling	8–20	1	3,357	13.02	2.93	—	3,402	13.00	2.81	—	0.54**	1.20
Religious denomination												
Roman Catholic	0–1	1	3,513	0.33			3,521	0.31				
Protestant	0–1	1	3,513	0.30			3,521	0.34				
Other	0–1	1	3,513	0.08			3,521	0.08				
None	0–1	1	3,513	0.29			3,521	0.27				

Table 1. Continued

Wave 1 sample characteristics	Range	No. items	Total N	M	SD
Couple-level characteristics					
Relationship duration (months)	0–297	1	3,661	100.77	70.52
Married	0–1	1	3,672	0.58	
Nonmarital cohabitation	0–1	1	3,674	0.25	
Number of children in the household	0–10	1	3,674	1.04	1.11
Weighted household income	0–9900	1	3,339	1,434.69	843.19
Separations between Waves 1 and 2	0–1	1	2,820	0.05	

p* < .05. *p* < .01.

concerned about family than about career”). *Marriage affinity* was assessed using three items (e.g., “You should get married if you continually live with your partner”). *Norms of family support* were measured by the item “Parents and children should support each other for a life-time.” As a measure of *religiousness*, one item was used to assess the frequency of churchgoing on a 6-point scale (from 1 = *never* to 6 = *more than once a week*). This indicator was by design not administered to nondenominational respondents (*n* = 1,191); drawing on previous studies using German data sets that have shown 90% of individuals without religious denomination to report never going to church (Lois, 2011), religiousness was coded as 1 in these cases.

With regard to personality traits, *emotional autonomy* was measured by a three-item scale developed by Noom, Dekovic, and Meeus (1999, 2001). Three indicators were used to assess *irritability* (e.g., “When others irritate me, I get furious very quickly”); a longer version of this scale was developed and validated previously by Schwarz and Gödde (1998). Moreover, a self-developed scale consisting of four indicators was used to measure *social inhibition* (e.g., “I feel inhibited in the presence of others”). Finally, *self-esteem* was assessed by a three-item short scale adapted from the Rosenberg (1965) Self-Esteem Scale (e.g., “Sometimes I think I am worthless”). Taking into account the limited number of indicators per dimension, the reliabilities were acceptable (Table 1).

Partnership type was assessed with two questions: whether the respondent was cohabiting with the partner and whether partners were married to each other. Noncohabiting marital couples (*n* = 27) were counted as married. In all analyses, *relationship duration* (in months) at the time of the first interview was used as a control variable to account for shifts in relationship satisfaction over time (see Umberson, Williams, Powers, Chen, & Campbell, 2005) and potential increases in similarity due to processes of either alignment or selection.

Sample

Data were taken from the first two waves of the German Family Panel, an interdisciplinary panel survey devoted to the study

of family processes with annually conducted interviews (Huinink et al., 2011).¹ On the basis of a national random sample, this data set is designed to avoid the problems associated with convenience samples such as an overly homogenous social background, which are of special concern for studies on homogamy (Bleske-Rechek et al., 2009; Karney & Bradbury, 1995). Primary respondents (the so-called anchor participants) were recruited using a two-step random sampling procedure. From a stratified random sample of more than 300 German local population registers, over 12,000 respondents randomly drawn from three birth cohorts (1971–1973, 1981–1983, and 1991–1993) were interviewed face to face. All assessments of the anchor respondents were collected via CAPI; the partner interviews were conducted via paper-and-pencil drop-off questionnaires.

Because the German Family Panel is a multiactor study, self-report assessments on various characteristics were gathered from both partners. From the initially $n = 12,402$ anchor participants in the first wave, $n = 7,234$ (58.5%) reported they had a partner at the time of the first interview; roughly half of the partners ($n = 3,743$, 51.4%) participated in the survey themselves. Probably because the study was framed in terms of studying family processes, there was only a small minority of same-gender couples participating in the first-wave dyadic sample ($n = 35$); because a gendered analytical approach was taken (as detailed in the Method section), these same-gender couples as well as couples with missing information on the partner's gender ($n = 34$) were excluded from the analyses. The resulting final sample for all Wave 1 analyses thus consisted of $n = 3,674$ heterosexual couples. Logistic regression analyses revealed that the older (logit coefficient $b = .05$, $p < .001$) and the more educated ($b = .07$, $p < .001$) the primary respondents were, the more likely their partners were to participate in the survey. Similarly,

anchors' (nontraditional) gender role orientations ($b = -.16$, $p < .001$) and (low) self-esteem ($b = -.08$, $p < .001$) predicted partners' participation. Relationship satisfaction had no effect, however ($b = .00$, *ns*). As can be seen in Table 1, the proportion of missing values on most of the analyzed variables was small, ranging between 0.5% (women's gender role orientations) and 3.4% (male life goal assessments). To avoid bias from listwise deletion of missing values, a full information maximum likelihood estimator was used in the path models for Wave 1 (Acocck, 2005); the proportion of missing values was modest and did not exceed 8.3% in any model.

For the second wave of data collection, all participants who had given their consent were recontacted roughly 1 year later (mean length of the interval between both interviews was 12.3 months, $SD = 1.48$); there was panel attrition in $n = 854$ cases (23.2% of the Wave 1 sample). The longitudinal analyses that considered the effects on relationship breakup at Wave 2 were based on a dyadic longitudinal sample of $n = 2,820$ couples (Table 1). Supplementary logistic regression analyses predicting dropout between the two waves did not yield evidence of systematic bias resulting from attrition, either with respect to relationship satisfaction or in terms of any of the dimensions under study; most importantly, no effects of the similarity measures on dropout emerged (results not shown).

Descriptive statistics about the sample are provided in Table 1, including basic sociodemographic and partnership-related information. On average, male respondents were almost 3 years older than female. Couples' average relationship duration at Wave 1 was roughly 8 years ($M = 100.8$ months), and they had one child on average. Most couples (58%) were married, about one fourth were unmarried cohabitators.

Results

Bivariate results concerning assortative mating

The last two columns in Table 1 display intracouple Pearson correlations and mean

1. This article uses data from the German Family Panel (pairfam), coordinated by Josef Brüderl, Johannes Huinink, Bernhard Nauck, and Sabine Walper. Pairfam is funded as a long-term project by the German Research Foundation.

differences on all characteristics. All dyadic correlations were positive and significant, but their sizes varied considerably. Compared to previous studies (e.g., Kurdek, 2006), the intracouple correlation for relationship satisfaction (Pearson correlation $r = .27$) was rather small; this may, in part, be attributable to the left-skewed distribution (indicated by the relatively high mean, $M > 8$). The highest correlations were found for age and for most value dimensions. In line with previous studies (Malouff et al., 2010), associations for personality traits were generally small.

Despite the positive dyadic correlations, most of the intracouple differences were also significant (see the last column in Table 1). Concerning life goals, women were, on average, slightly more child oriented and emphasized social contacts more than men did, whereas male partners were more career oriented and reported a higher preference for hobbies. In the value domain, women exhibited higher religiousness, whereas men scored higher on traditionalism and marriage affinity. In terms of personality traits, men assessed themselves as lower on social inhibition and irritability, but higher on self-esteem and emotional autonomy. Concerning demographic characteristics, male partners were, on average, about 3 years older, whereas no significant gender difference was found for educational attainment.

Cross-sectional effects on relationship satisfaction

Table 2 displays the findings from a series of models estimating level and similarity effects on partners' relationship satisfaction, based on the first wave of data. With respect to level effects (see columns 2 and 3), partnership-oriented life goals were positively associated with satisfaction, whereas external goals generally had a negative impact. Career orientation represents an interesting special case: Its effects were gender specific. Specifically, the female partner's career orientation exerted a small negative effect on both partners' relationship satisfaction (actor effect $\beta = -.08$, partner effect $\beta = -.06$, both $ps < .01$), whereas men's career orientation had no clear

impact on either partner's satisfaction. Among the values and attitudes examined, a high orientation toward marriage and family solidarity was positively related to satisfaction; a similar but weaker effect was found for religiosity. Gender-specific effects emerged for gender role orientations: The more traditional the female partner was, the higher was her own and her partner's relationship satisfaction (actor effect $\beta = .08$, partner effect $\beta = .06$, both $ps < .01$). In contrast, men's traditional gender role orientations were negatively related to their own satisfaction. In the personality domain, self-esteem and emotional autonomy were associated with higher levels of satisfaction, whereas irritability and social inhibition exerted a negative impact; consistent with previous studies, actor effects generally tended to be stronger than partner effects.

Findings for similarity effects were less conclusive (see the column "Dissimilarity effect" in Table 2). In the domain of life goals, significant but small negative effects emerged for partnership-related goal discrepancies only. Intracouple differences concerning career orientation exhibited a small negative impact on women's (but not men's) relationship satisfaction. Regarding values and attitudes, dissimilar views on family solidarity, gender role orientations, and, to a lesser extent, marriage were associated with lower satisfaction; no impact was found for religious dissimilarity. Surprisingly, none of the expected beneficial similarity effects could be found for the personality traits examined; partners dissimilar in terms of the degree of irritability actually scored slightly higher on relationship satisfaction.

The last three rows in Table 2 display findings regarding the impact of similarity of partners' profiles across different characteristics pertaining to each of the three domains studied. Profile similarity with respect to all three domains was positively associated with relationship satisfaction. However, effect sizes were small.

Longitudinal effects on union dissolution at t_2

Table 3 displays findings from a series of longitudinal path models with union dissolution

Table 2. Level and similarity effects of life goals, attitudes, and personality on relationship satisfaction: Results from actor–partner interdependence models for male and female partners (German Family Panel, Wave 1)

	<i>N</i> > (couples)	Level effects		Dissimilarity effect Male–Female	Model fit $\chi^2(df)$, <i>p</i>
		Actor effect	Partner effect		
Life goals					
Being in a couple relationship	3,658	0.11**	0.04**	–0.07**	0.68(3), <i>p</i> = .88
Having children	3,658	0.06**	0.06**	–0.06**	2.67(3), <i>p</i> = .44
Career	3,658	–0.03/–0.08**	–0.06**/0.01	–0.00/–0.05**	— ^a
Hobbies	3,658	–0.07**	–0.03*	–0.01	0.27(3), <i>p</i> = .97
Social contacts	3,658	–0.05**	–0.03	–0.01	2.12(3), <i>p</i> = .55
Values and attitudes					
Religiosity	3,404	0.04**	0.02	–0.01	0.44(3), <i>p</i> = .93
Traditional gender role orientation	3,658	–0.05**/0.08**	0.06**/–0.03	–0.04**	0.00(1), <i>p</i> = .98
Marriage affinity	3,658	0.11**	0.07**	–0.03*	0.43(3), <i>p</i> = .93
Norms of family solidarity	3,658	0.04**	0.00	–0.06**	0.74(3), <i>p</i> = .86
Personality traits					
Social inhibition	3,658	–0.17**	–0.09**	–0.02	0.02(3), <i>p</i> = .99
Irritability	3,658	–0.15**	–0.11**	0.03*	3.14(3), <i>p</i> = .37
Self-esteem	3,658	0.22**	0.13**	0.02	1.81(3), <i>p</i> = .61
Emotional autonomy	3,658	0.10**	0.07**	0.00	2.56(3), <i>p</i> = .46
Profile correlations				Similarity effect	
Life goals	3,654	—	—	0.04*	1.23(1), <i>p</i> = .27
Values and attitudes	3,315	—	—	0.04**	1.93(1), <i>p</i> = .17
Personality traits	3,654	—	—	0.04*	2.65(1), <i>p</i> = .10

Note. Standardized coefficients based on full information maximum likelihood estimation, with relationship duration as a control variable. Coefficients constrained to equality across gender unless this led to an unacceptable model fit; in case of moderation by gender, the first coefficient refers to effects on male partners' and the second to effects on female partners' satisfaction.

^aModel fit not computed because *df* = 0.

p* < .05. *p* < .01.

Table 3. Direct and indirect effects of level and absolute difference scores in life goals, attitudes, and personality on union dissolution: Results from discrete-time event history models (German Family Panel, Waves 1 and 2)

	N	Level effects		Dissimilarity effects		Model fit $\chi^2(df)$, p
		Total indirect effect ^a	Direct effect	Total indirect effect ^a	Direct effect	
Life goals						
Being in a couple relationship	2,543	−0.017**	−/−0.221**	0.014**	—	6.80(6), p = .34
Having children	2,543	−0.007**	−/−0.173**	0.008**	—	10.61(6), p = .10
Career	2,543	0.002/0.017**	−/ 0.129*	0.007	—	6.11(4), p = .19
Hobbies	2,543	0.010**	−/—	0.004	—	8.80(7), p = .27
Social contacts	2,543	0.007**	−/—	0.001	—	8.25(7), p = .31
Values and attitudes						
Religiosity	2,616	−0.007**	−/—	0.002	—	8.22(7), p = .31
Traditional gender role orientation	2,664	0.009*/−0.010*	−/—	0.010*	—	6.15(7), p = .52
Marriage affinity	2,639	−0.020*	−/—	0.009*	—	4.15(7), p = .76
Norms of family solidarity	2,652	−0.007	−/—	0.011*	—	3.88(7), p = .79
Personality traits						
Social inhibition	2,646	0.030**	−/—	0.005	—	5.47(7), p = .60
Irritability	2,666	0.032**	−/—	−0.007	—	9.64(7), p = .21
Self-esteem	2,661	−0.044**	−/—	−0.002	—	3.54(7), p = .83
Emotional autonomy	2,654	−0.018**	−/—	0.000	—	2.76(7), p = .91

Note. Standardized coefficients are based on weighted least squares estimation, with relationship duration as a control variable. Coefficients were constrained to equality across gender unless this led to an unacceptable model fit. In case of moderation by gender, the first coefficient refers to effects of male partners' and the second to effects of female partners' characteristics. Insignificant direct effects were constrained to zero.

^aMediated through both partners' relationship satisfaction.

*p < .05. **p < .01.

between Waves 1 and 2 as the dependent variable. To test for gender differences in indirect effects and also to increase the parsimony of the models, (a) level and similarity effects on both partners' relationship satisfaction and (b) the paths from relationship satisfaction on union dissolution were constrained to be equal across gender (the last column displays the fit of the constrained final models). As mentioned in the Method section, (c) direct effects of similarity on union stability were constrained to zero unless this led to a poor model fit.

Concerning level effects, life goals and values centered on relationships and family predicted higher partnership stability, mediated through relationship satisfaction. Partnership-external goals, however, tended to predict separation. The largest and most consistent indirect effects were evident for personality traits. Social inhibition and irritability had a destabilizing impact, whereas self-esteem and emotional autonomy tended to stabilize the partnership. In most cases, additional direct effects were trivial. The two gender-specific paths for career and traditional gender role orientation indicated that couples with female partners reporting less traditional values (e.g., high occupational orientation) were under an increased risk of union dissolution, mainly because of their lower relationship satisfaction. Interestingly, couples with male partners adhering to traditional gender roles were characterized by higher union stability.

Moreover, the analyses confirmed the notion that the impact of similarity on satisfaction largely translated into union stability. However, trait-specific dissimilarity effects were again less consistent than level effects. In terms of life goal discrepancies, only the difference scores concerning the importance of being in a couple relationship and having children were indirectly associated with an increased risk of separation, mediated by a lower level of relationship satisfaction. The remaining life goals had no impact on relationship instability, either directly or mediated through satisfaction. Concerning values and attitudes, discrepancies between both partners' traditional gender role orientations, marriage affinity, and norms of

family solidarity all exhibited weak but positive effects on the risk of union dissolution, mediated through relationship satisfaction; the corresponding direct effects were not significant. This suggests that dissimilarity with respect to values related to partnership and family may not only generate dissatisfaction in the short run but that it may also contribute to selection processes increasing the number of attitudinally homogamous couples over time. There were neither direct nor mediated effects of homogamy on single personality traits on relationship stability.

Figure 2 illustrates the finding that the reported positive effects of the profile correlations on relationship satisfaction largely held in a simultaneous multivariate path model. In line with previous studies, partners' relationship satisfaction was negatively associated with the risk of union dissolution 1 year later (t_2). Supplemental analyses yielded no evidence of moderation by gender for any of the depicted effects; for the sake of parsimony, cross-gender equality constraints were thus introduced for all corresponding paths. In addition, modeling relationship satisfaction as a mediator variable led to trivial direct effects of profile correlations on union dissolution. Setting these direct paths to zero did not worsen model fit as indicated by χ^2 difference tests; for three simultaneous constraints, $\Delta\chi^2(3) = 1.57, p = .67$.

Figure 2 represents the fully constrained, most parsimonious and best fitting final model. The most important finding from this mediator analysis was the small but significant indirect effects on union dissolution: For similarity of life goals and values, the corresponding indirect effects, mediated through satisfaction, were $\beta_s = -.011$ and $-.008$, $p < .05$. Note that because the direct effects were constrained to zero, these indirect effects were equal to the total effects. The indirect effect for personality profile similarity did not reach significance ($\beta = -.007, p = .09$). Hence, the mediation model suggested that domain-specific intracouple profile similarity concerning values and life goals exerted a small positive impact on partnership stability by enhancing both partners' satisfaction with the relationship.

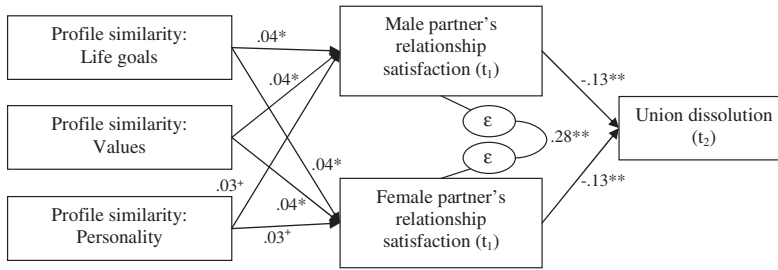


Figure 2. Longitudinal path model predicting union dissolution from (stereotype-adjusted) profile similarity and both partners' relationship satisfaction ($n = 2,381$).

Note: Direct effects of profile similarities on union dissolution were constrained to zero; all corresponding paths on relationship satisfaction were set equal across gender. All depicted coefficients are standardized. Relationship duration was included as a control variable (coefficients not shown). $\chi^2(7) = 6.24$, $p = .72$, root mean square error of approximation = .000, comparative fit index = 1.00.

$^+ p < .1$. $* p < .05$. $** p < .01$.

Moderator effects of relationship type and duration

In a series of moderator analyses, interaction effects between similarity measures and relationship duration on relationship satisfaction were tested first. With respect to trait-specific discrepancy scores, only one significant interaction effect with duration emerged, indicating an increasingly negative impact of differences in social inhibition across partnership duration (interaction effect Difference Score [social inhibition] \times Duration, $\beta = -.04$, $p < .05$). This effect was not significantly different across gender and was thus set equal for male and female partners.

Analogously, moderator effects of relationship type and duration were analyzed for separation; for the sake of simplicity, relationship satisfaction was omitted from these analyses. Concerning effect heterogeneity across relationship duration, two moderator effects emerged: with social inhibition ($\beta = .11$, $p < .01$) and self-esteem ($\beta = .14$, $p < .01$). Consequently, the adverse effect of dissimilarity with respect to these two personality characteristics tended to become stronger throughout the course of the relationship.

Multigroup dyadic path models uncovered some moderator effects of partnership type. Partnership type moderated the impact of profile similarity of life goals on both

relationship satisfaction and stability (direct effects only, in separate analyses for each outcome). Specifically, whereas among cohabiting couples, similar life goal profiles exerted positive effects on relationship satisfaction ($\beta = .04$, $p < .01$, paths set equal across gender), no corresponding effect was found among unmarried couples with separate households ($\beta = -.02$, *ns*). Constraining these effects to be equal across union type led to a poor model fit, $\Delta\chi^2(1) = 8.33$, $p < .01$.

Similarly, congruence of life goal preferences increased union stability only among nonmarital cohabiters ($\beta = .11$, $p < .01$); an equality constraint across partnership types again led to a poor model fit, $\Delta\chi^2(2) = 10.96$, $p < .01$, indicating a significant moderator effect of partnership type.

Additional multigroup moderator analyses were conducted to compare (dis)similarity effects for low versus high levels of the respective attributes. However, none of the moderator effects on relationship satisfaction or stability approached statistical significance.

Discussion

This study was aimed at linking research suggesting a high prevalence of intracouple similarity on a vast array of characteristics to another line of research that has generated, albeit not always consistently, empirical

evidence of positive effects of similarity on relationship quality. It was suspected that partnership stability is the "missing link" between these two research traditions.

With regard to dimension-specific discrepancy scores, the signs of the significant dissimilarity effects on relationship satisfaction were generally negative, as expected. Effect sizes were small, however. This study thus suggests that the impact of trait-specific discrepancies is not very strong, especially when statistically disentangling level and similarity effects (Griffin et al., 1999). The analysis thus offers a methodological explanation for the mixed results in the empirical literature on the outcomes of similarity (Watson et al., 2004). Until more research is available that replicates the purported positive similarity effect while carefully controlling for level effects and relationship duration, findings from previous studies have to be interpreted with caution because it is unclear to what extent similarity effects may have been overestimated. The reported indirect effects of similarity on relationship stability suggest that selection effects reinforcing couple homogamy throughout the course of the relationship are rather small, underscoring the importance of assortative mating processes before the onset of the relationship. However, because of potential convergence over time, careful longitudinal studies are required to disentangle the different origins of couple similarity.

Furthermore, this study provided a unique opportunity to examine effects of similarity in a larger population because the analyzed sample was socially heterogeneous. Future research should continue to address issues of sample homogeneity as has been suggested in the literature (e.g., Karney & Bradbury, 1995). At this point, the possibility cannot be ruled out that the surprisingly small effects of the dis(similarity) measures simply reflect accurate estimates for a population composed of respondents with widely different social backgrounds. Previous research has shown that the context in which partners become acquainted (e.g., inside vs. outside the educational system) determines the degree of homogamy (Kalmijn & Flap, 2001); similarly, it can be suspected that it might also determine the

importance of similarity for relationship functioning. It would thus be desirable to regularly include couples from different social strata in future research on assortative mating and outcomes of similarity.

Another explanation for the small similarity effects is related to the distinction between actual and perceived similarity. In this study, both partners rated their own attributes; however, the resulting measures of actual (dis)similarity do not necessarily reflect the partners' subjective perceptions of similarity. Previous research has shown that partners' egocentrism (i.e., the assumption that the partner is a mirror of oneself) and "positive illusions," not their actual similarity, predict relationship functioning (Murray, Griffin, & Holmes, 1996; Murray, Holmes, Bellavia, & Griffin, 2002; Murray, Holmes, & Griffin, 1996). In this view, a strong association between actual similarity and relationship outcomes is not to be expected.

An interesting finding concerns the role of personality trait similarity. It is striking that although partners' individual personalities had clear effects on their (own) perceptions of relationship satisfaction and on breakup, intra-couple discrepancies on single dimensions generally did not show any impact at all. In contrast, profile similarities tended to be beneficial for both outcomes studied. The higher predictive power of personality profile similarity as compared to discrepancy scores is in line with previous research (Luo & Klohnen, 2005; Luo et al., 2008). The results, especially those concerning level effects, support the notion that the personality domain is particularly influential for the development of romantic relationships (Kelly & Conley, 1987).

Some remarkable results emerged concerning the degree of social invariance of the effects, as indicated by moderator effects. First, it was shown that most of the effects of similarity were not gender specific. With respect to level effects, two moderator effects of gender did emerge, which suggested that traditional gender-specific roles within the couple may yield benefits for relationship satisfaction. However, because of the cross-sectional nature of this part of the

analyses, the causal order behind these associations is not entirely clear. It could also be that previous dissatisfaction with the relationship served to motivate couples (especially women) to prefer occupational independence from the partner and, thus, also to adhere to nontraditional gender role orientations. Second, the reported moderator effects of relationship duration have important implications for future research. The finding that similarity of some personality measures tended to exert stronger effects on relationship outcomes in partnerships of longer duration suggests that, in line with filtering process models (Murstein, 1986), compatibility in terms of personality increases in importance as couples progress from early relationship stages, in which overt characteristics are emphasized, to stages of deeper commitment in which less readily visible traits gain priority. Therefore, studies involving long-term couples might be more likely to find a clear stabilizing impact of personality similarity. This provides another potential explanation for the inconsistent findings in previous studies.

This study also has limitations. Because the data were gathered as part of a large, national survey, measurements of the modeled constructs were less comprehensive in terms of the number of indicators than in other studies primarily dedicated to examine similarity. Thus, the scales used were suboptimal in terms of their psychometric properties (e.g., reliability). Most likely, this problem adversely affected the models' power to detect effects; this issue is particularly pronounced in the study of discrepancy measures because it is known that the reliability of difference scores is generally lower than that of the components (Edwards, 2001) and declines as a function of the size of the positive correlation between them (Griffin et al., 1999). To some degree, the small effects found in this study may thus be a consequence of imperfect reliability. Perhaps future studies that use more reliable scales while employing random sampling procedures can make advances in the estimation of true effect sizes. Moreover, the range of constructs covered in the analysis

is somewhat selective; although it seems reasonable to assume that findings concerning similarity effects may well generalize to other dimensions, future studies are needed for replicating and extending the pattern of results reported here. For instance, previous research (Kalmijn, 2005) suggests that couples show more convergence when the relevance of the respective dimension for the relationship is high (e.g., gender role norms are particularly salient for couples with children); similarly, it might be that the impact of similarity on dimensions unrelated to partnership and family (e.g., political attitudes) is less important for relationship success.

In summary, the analyses presented here extend previous research in several aspects and provide a number of additional insights. It was the first large-scale study to examine longitudinal associations between couple similarity and relationship stability. In terms of actor and partner effects, personality generally turned out to be a better predictor of relationship outcomes than values and life goals. The key finding regarding the impact of similarity was that, after controlling for level effects of the respective characteristics and for relationship duration, the beneficial effects of similarity may be smaller than has sometimes been purported in the literature. In addition, there was some degree of effect heterogeneity throughout the course of the partnership, something that has not been addressed in previous studies. Taken together, the findings may partly explain why previous research on the effect of couple similarity has produced mixed findings that are less consistent and less conclusive than one would expect on theoretical grounds. Future studies may benefit from paying more attention to methodological issues, for instance, by means of moderator analyses, preferably on the basis of longitudinal data.

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