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Predictive Validity and Adjustment of Ideal Partner Preferences Across the Transition Into Romantic Relationships

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Although empirical research has investigated what we ideally seek in a romantic partner for decades, the crucial question of whether ideal partner preferences actually guide our mating decisions in real life has remained largely unanswered. One reason for this is the lack of designs that assess individuals' ideal partner preferences before entering a relationship and then follow up on them over an extended period. In the Göttingen Mate Choice Study (GMCS), a preregistered, large-scale online study, we used such a naturalistic prospective design. We investigated partner preferences across 4 preference domains in a large sample of predominantly heterosexual singles ($N = 763$, aged 18–40 years) and tracked these individuals across a period of 5 months upon a possible transition into romantic relationships. Attesting to their predictive validity, partner preferences prospectively predicted the characteristics of later partners. This was equally true for both sexes, except for vitality-attractiveness where men's preferences were more predictive of their later partners' standing on this dimension than women's. Self-perceived mate value did not moderate the preference-partner characteristics relations. Preferences proved to be relatively stable across the 5 months interval, yet were less stable for those who entered a relationship. Subgroup analyses using a newly developed indicator of preference adjustment toward (vs. away from) partner characteristics revealed that participants adjusted their preferences downward when partners fell short of initial preferences, but showed no consistent adjustment when partners exceeded them. Results and implications are discussed against the background of ongoing controversies in mate choice and romantic relationship research.

Keywords: ideal partner preferences, mate choice, predictive validity, stability, adjustment

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How do people decide with whom they want to be together? Do they know what they want in a romantic partner, and do they choose their partners accordingly? Although empirical research has investigated what we ideally want from and seek in a romantic partner for decades (e.g., Buss, 1989; Kenrick & Keefe, 1992; Schmitt et al., 2003), the crucial question of whether these ideal preferences actually guide with whom we decide to pursue a romantic relationship in real life has remained largely unanswered so far (Campbell & Stanton, 2014). One reason for this is the lack

of designs that assess individuals' ideal partner preferences before entering a relationship and then follow up on them over an extended period of time. In the Göttingen Mate Choice Study (GMCS), we used such a naturalistic prospective design and tracked single individuals across a period of 5 months upon a possible transition into romantic relationships. In the present research, we sought to answer three key research questions: (a) whether partner preferences predict the characteristics of later partners, (b) how stable (vs. malleable) those preferences are, and

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(c) whether those who enter a relationship adjust their preferences toward the characteristics of newly found partners.

Ideal Partner Preferences

For decades, individuals' expectations regarding partners' traits and attributes have fascinated scholars in evolutionary and relationship science alike. Depending on their respective background, researchers have referred to these expectations as mate preferences, ideal standards, or (ideal) partner preferences. As early on as in the 1980s, evolutionary psychologists began to extensively study the content of human partner preferences, their patterning among the sexes, and whether these preferences are reflected in mating decisions such as marriage (e.g., Buss, 1985, 1989; Buss & Barnes, 1986). From an evolutionary point of view, preferences are of utmost importance for reproduction and sexual selection because they determine who is included in and who is excluded from mating (Darwin, 1871). According to this evolutionary perspective, individuals' own preferences motivate them to pursue potential mates with characteristics likely to increase their own reproductive success (see below). The preferences of their potential mates, in turn, influence how likely it is to find a mate and, eventually, to reproduce (Buss, 1989; Symons, 1979).

The Ideal Standards Model (Fletcher, Simpson, Thomas, & Giles, 1999) blends evolutionary perspectives on mating and relationship science perspectives on romantic relationships and postulates that individuals possess chronically accessible standards about what they want in a partner. These ideal preferences are used to evaluate both *actual* partners in existing relationships and *potential* mates whom individuals would consider for a relationship, but are not yet involved with. Previous research has suggested these preferences to exhibit a tripartite structure in that individuals judge both actual and potential partners on three basic dimensions: (a) warmth-trustworthiness, (b) vitality-attractiveness, and (c) status-resources. When guiding partner choice and relationship maintenance, each of these dimensions can be thought of as related to a different route for obtaining a mate who enhances one's own reproductive fitness (Buss & Schmitt, 1993; Gangestad & Simpson, 2000; Simpson, Fletcher, & Campbell, 2001). By being attentive to the degree to which a partner exhibits warmth and can be trusted, an individual may secure a cooperative, committed partner who is also likely to be a good parent. By focusing on a partner's vitality and physical attractiveness, purported indicators of physical condition and genetic quality, individuals may find a mate who is healthier and transfers these heritable qualities to the offspring. In case of men choosing women, high attractiveness may also signal fertility. Paying attention to a partner's status and resources (or the potential to acquire these) may make it more likely to obtain a partner capable to ascend social hierarchies or to form coalitions with resourceful others (especially in the case of women choosing men; e.g., Campbell & Fletcher, 2015; Fletcher & Simpson, 2000), ultimately enhancing one's own social status/resources or that of one's offspring. When it comes to long-term relationships, warmth-trustworthiness has been shown to trump possession of other characteristics: In this context, both men and women ascribe highest importance to this dimension (as compared with the other two) and see kindness (i.e., warmth-trustworthiness) as a necessity rather than a luxury (e.g., Fletcher et al., 1999;

Fletcher, Tither, O'Loughlin, Friesen, & Overall, 2004; Li, Bailey, Kenrick, & Linsenmeier, 2002).

With regard to actual partners in existing relationships, research within the framework of the Ideal Standards Model has established that individuals indeed use their ideal standards to gauge whether their partner fits them, with discrepancies between ideal standards and perceptions of their partner being inversely related to relationship satisfaction (e.g., Fletcher et al., 1999; Meltzer, McNulty, Jackson, & Karney, 2014; for an overview on replications of this finding, see Fletcher, Simpson, Campbell, & Overall, 2013). Further, higher partner discrepancies have been shown to go along with attempts to regulate and change the partner (Overall, Fletcher, & Simpson, 2006), indicating that individuals care about discrepancies and actively seek to influence their partners to reduce them.

With regard to potential partners, one of the key assumptions inherent in the Ideal Standards Model is that partner preferences guide actual mate choices. Put differently, what people say they want in a partner should be predictive of their future partners' characteristics. While this assumption is highly plausible and also predicted by evolutionary theory (Symons, 1979), it has remained largely untested so far. To clarify, there are in fact a number of empirical studies that have drawn conclusions about the predictive validity of partner preferences in mate choice. However, a closer inspection reveals that these conclusions are rather indirect and for the most part open to alternative explanations.

For example, there is evidence that women who indicate stronger preferences for masculinity are indeed in relationships with more masculine-looking men (Burriss, Welling, & Puts, 2011; DeBruine et al., 2006), and that men of higher occupational status not only hold a preference for, but also marry more physically attractive women (Elder, 1969). In addition, partner preferences concerning age seem to match the actual age of individuals' marital (Kenrick & Keefe, 1992) and sexual partners (Antfolk et al., 2015). Yet, the fact that this research exclusively draws on data from *already existing* romantic relationships allows for (at least) two alternative explanations. First, the same matching pattern between preferences and partner characteristics would also result if mate choice was rather random but, once a person enters a relationship, preferences are adjusted to match the actual partners' characteristics. Supporting the notion that such adjustment processes could at least partially account for the preferences-partner characteristics correspondence in existing relationships, Fletcher, Simpson, and Thomas (2000) found that individuals in existing dating relationships change their expectations to fit the characteristics of their partners. Second, the congruence between ideal partner preferences and partner attributes in existing relationships could be the result of a "survival bias." Again, individuals could choose their partners more or less randomly, but the fit of partner preferences and characteristics could determine whether a relationship is stable. If so, relationships with a mismatch between ideal preferences and partner characteristics are less likely to endure and less likely to enter studies investigating existing relationships, again leading to the observed correlation. In summary, while research using concurrent data from existing relationships is consistent with the idea of partner preferences being valid predictors of mate choice (i.e., it does not reject the idea), it does not provide strong evidence.

Another body of research has sought to investigate the predictive validity of partner preferences using speed-dating designs. In

these studies, men and women typically interact for a short period (typically less than 5 min) with a number of potential partners and then indicate for each of these potential partners whether they want to meet them again. Two of these studies (Eastwick & Finkel, 2008; Todd, Penke, Fasolo, & Lenton, 2007) did not find any evidence that ideal partner preferences before the speed-dating event were predictive of whom participants were attracted to and wanted to meet again. Using a large data set from a commercial speed-dating firm, Kurzban and Weeden (2005, 2007) found that individuals' preferences as advertised in their Web based profiles predicted decisions to attend particular speed-dating events (e.g., sessions targeting specific age groups), yet—apart from ethnic group preferences—failed to predict decisions within the events (but see Li et al., 2013). Null results such as the above have been taken to suggest that what individuals say (or think) they desire in a partner might have little to do with the characteristics of those they actually choose as a mate. In a recent meta-analysis, Eastwick, Luchies, Finkel, and Hunt (2014) concluded that the fact that “participants claim to value particular qualities in a mate does not mean that they will preferentially pursue partners who possess such qualities” (p. 647), thereby questioning the key assumption of a preference-partner choice link underlying the bulk of research in this area.

However, evidence from speed-dating studies concerning the predictive validity of ideal partner preferences should be interpreted with caution for at least two reasons. First, it is unclear whether the lack of predictive validity of ideal preferences in speed dating studies is due to an actual absence of the preference-partner characteristics link or rather an artifact of the short time frame during which participants interact. While some attributes such as attractiveness can be easily and accurately assessed (Fletcher, Kerr, Li, & Valentine, 2014), other characteristics such as a person's dependability or trustworthiness might be more difficult to discern during such brief encounters. Consistent with this idea, research on zero-acquaintance judgments has shown that specific traits such as extraversion can be inferred with considerable accuracy even based on minimal information, while other traits such as agreeableness or neuroticism are comparably harder to judge (Borkenau & Liebler, 1993; but see Fetchenhauer, Groothuis, & Pradel, 2010 on altruism). In addition, personality judgments have been shown to be much more accurate when rater and target are familiar with each other (e.g., Borkenau, Mauer, Riemann, Spinath, & Angleitner, 2004). In line with this notion, Miller and Todd (1998) have suggested mate choice in real life to be a sequential selection process, with easily observed attributes such as a potential partner's physical attractiveness being factored in early in the courtship process, yet other traits such as personality dispositions coming into play only later when the relationship progresses. Second (and possibly related to the aforementioned argument), research indicates that the outcome variable of interest in speed-dating studies, initial attraction, does not necessarily translate into long-term interest or choice for a more committed relationship when getting to know the other better. In fact, available data suggests rates of actual relationship formation after speed-dating events to be as low as 4 to 7% (Asendorpf, Penke, & Back, 2011).

Because neither studies with existing couples nor studies using speed-dating paradigms provide unequivocal evidence, answering the question whether ideal partner preferences guide partner

choices requires a more direct approach. Specifically, studies need to focus on actual relationship formation, that is, they need to track the transition from singlehood into a relationship. Campbell and Stanton (2014) conclude in their reexamination of studies included in the Eastwick et al. (2014) meta-analysis that such studies are still lacking. In fact, we are aware of only one study that allows for a direct test of preferences' predictive validity in the context of actual relationship formation. Campbell, Chin, and Stanton (2016) recruited participants while single, assessed their ideal partner preferences and then tracked their relationship status across a period of 5 months. Analyses based on 38 original participants who transitioned into a relationship and their newly found partners revealed a positive association between ideal partner preferences and partner characteristics. Despite the small sample size of this study, its results deliver initial evidence for the predictive validity of partner preferences for mate choice.

In the present research, we aimed to provide an even more conclusive test of the idea that ideal partner preferences predict the characteristics of future romantic partners. To this end, we conducted a large-scale online study with a preregistered prospective design in which we followed up on singles over 5 months across a possible transition into romantic relationships. We hypothesized partner preferences (as indicated by our then-single participants at the T1 assessment) to predict the characteristics of later partners (as reported by the participants at the T2 assessment) 5 months later (Hypothesis 1).

Mate choice is a process inherently characterized by mutuality: A relationship will only come to be if a potential mate who matches one's own preferences is also interested in establishing a relationship. An individual's popularity as a romantic partner can be roughly summarized as his or her overall mate value. Mate value can be seen as an indicator of opportunity, with individuals high in mate value being more likely to find a partner matching one's preferences and individuals of lower mate value having more difficulty to do so. Therefore, it would be beneficial for individuals if they observed and kept track of their mate value based on advances and rejections from potential mates, and adjusted their mate choice decisions accordingly (Penke, Todd, Lenton, & Fasolo, 2007). In the context of the present investigation, we hypothesized individuals with a high mate value to have better chances to realize their preferences in their partner choices. Therefore, we expected mate value to moderate the strength of the association between partner preferences and partner characteristics: Higher mate value should be associated with a stronger relation of T1 preferences and T2 partner attributes (Hypothesis 2).

Stability of Partner Preferences and Preference Adjustment

Despite the large body of research devoted to partner preferences, surprisingly little is known about their temporal stability. To our knowledge, up until now only three studies have directly addressed this issue. In their seminal article, Fletcher et al. (1999; Study 2) investigated the retest reliability of the Ideal Standards Model scales across 3 weeks in a sample of 42 individuals, 20 of which were currently involved in a relationship. Rank order stabilities were high, with a mean retest correlation across the three

dimensions of .83.¹ Shackelford, Schmitt, and Buss (2005) investigated a small sample of 27 married couples and assessed partner preferences in the first and the fourth year of their marriage. Across 18 characteristics, a mean retest correlation of .46 suggested moderate rank-order stability of partner preferences. Yet, because of the low sample sizes these findings should be interpreted with caution. In a recent study, Bleske-Rechek and Ryan (2015) followed a considerably bigger sample of 200 college students from their first to their fourth year in college. Results across 10 partner preference characteristics revealed mostly moderate rank-order stabilities, with a mean retest correlation of .35.

Preferences are likely to be influenced by relationship experiences (Bleske-Rechek & Ryan, 2015). In particular, preferences may undergo pronounced change when entering a relationship with a new partner (as opposed to staying single). One of the reasons for this change may be the characteristics of the partners themselves. Fletcher et al. (2000) have shown individuals in established relationships to reduce ideal-partner discrepancies by changing their expectations to more closely fit with the characteristics of their partner. According to the Ideal Standards Model, such discrepancies can cause strain to a relationship. Adjustments toward the partner's characteristics, therefore, would serve as a means to enhance and maintain the relationship. Given that individuals in newly formed relationships are interested in the progression of these relationships, one might expect them to adjust their preferences toward the characteristics of the new partners. In contrast, preferences of individuals who remain single may in fact be more stable exactly because there is no partner necessitating a change in preferences.

This reasoning leads to two further ideas we aimed to investigate in the present study: First, we expected preferences of those entering a relationship to be less stable than preferences of those who stayed single (Hypothesis 3). Second, for those who entered a relationship over the course of the study, we explored whether T2 preferences may be adjusted toward the characteristics of the newly found partner. In particular, we speculated that this adjustment might be particularly pronounced in those participants where the characteristics of the partner at T2 fall short of the initial T1 preference, while it would be considerably weaker (or absent) in those where the partner exceeds the initial preference. While fully in line with the central tenets of the Ideal Standards Model, ideas pertaining to the role of partners falling short versus exceeding preferences as well as specific ways to test these were not spelled out in detail when we preregistered the current study. Thus, all analyses regarding this last aspect should be regarded as exploratory.

Method

We used data from the Göttingen Mate Choice Study, a large-scale, prospective longitudinal study on mate choice that followed up on singles upon a possible transition into a romantic relationship. The data consist of an initial assessment (T1) and a 5-month follow-up (T2). Research that only entails self-reports does usually not require Institutional Review Board (IRB) approval under German regulations.

The GMCS was preregistered via the Open Science Framework, <https://osf.io/5au99/>. The original preregistration focused on women only and specified a target sample size of $N = 500$ single women.

Hypotheses of the current article pertaining to partner preferences' predictive validity and their stability have been examined earlier in the master thesis of Hannappel (2016) who, because of time constraints, used a smaller subsample of the GMCS consisting entirely of female participants.² In the current research, we decided to use the full sample and investigate female and male participants. The hypotheses investigated in the current article are part of the preregistration for the subproject by Hannappel, except that we investigate all hypotheses for both sexes. Where we deviate from the original plan or conduct exploratory analyses we indicate this explicitly throughout the article.

Participants and Recruitment

To be eligible for participation, individuals had to be German-speaking, at least 18 years old and not involved in a romantic relationship at the time of entering the study (T1). Participants were recruited via mailing lists, Internet forums, and a website for people interested in psychological research (www.psytests.de). As an incentive, participants received individualized personality feedback after completing the first part and a more detailed feedback about their ideal partner preferences and sociosexuality after finishing the second assessment. Students enrolled as social science or psychology majors at the University of Göttingen could receive course credit for completing both assessment waves. All participants who completed both parts could further enter a raffle for an iPad Air.

Analysis sample. Out of the $n = 1,543$ participants who completed the first assessment, 64% ($n = 995$) also finished the second assessment (T2) 5 months later. To be included in the analyses, participants had to (a) identify as either male or female, (b) identify as heterosexual or predominantly heterosexual,³ (c) be between 18 and 40 years of age, and (d) be not involved in more than one relationship at T2. We had to exclude 19 participants because of technical problems and another two participants for admitting they had not been single at T1 in the poststudy comments. This left a total sample of $N = 763$ participants that completed both T1 and T2, thereafter referred to as the analysis sample. Of these participants, 519 were female (68%) and 244 male (32%). Participants mean age was 25.0 years ($SD = 4.8$ years). At the time of the first assessment, 689 participants (90%) reported having at least a high school diploma, and 555 participants (73%) stated their current occupation as being university students.

¹ We calculated the mean retest correlations for Fletcher et al. (1999), Shackelford et al. (2005) and Bleske-Rechek and Ryan (2015) from the correlations coefficients reported in the respective results sections of their articles. Correlation coefficients were Fisher's Z-transformed before averaging and then converted back into mean correlation coefficients via the inverse formula.

² Based on this female subsample, in her master thesis Hannappel (2016) also investigated a number of hypotheses that are not part of the current article.

³ Measured by the 7-point Kinsey Heterosexual-Homosexual Rating Scale (Kinsey et al., 1948/1998), from 1 = *heterosexual* to 7 = *homosexual*. For the analyses of the present article, we included all participants that either chose options 1 – "heterosexual" or 2 – "predominantly heterosexual, only incidentally homosexual" and provided preference ratings with regard to the opposite sex (see Measures below). In the preregistration we indicated we would also run separate analyses for homosexual subjects in case we could recruit enough homosexual participants, but this was not the case.

Relationship sample. While all participants were single at T1, 34% of them ($n = 258$) indicated being in a relationship by T2. Of the newly formed relationships, almost 54% ($n = 139$) were classified as “committed” by the participants, thus constituting the largest group. However, a sizable proportion of 30% ($n = 78$) of newly formed relationships were classified as “affair with potential future prospects,” indicating this to be a rather common form of relationship in our sample of people who were single just 5 months ago. Only 16% of ongoing relationships were classified as an “affair without potential future prospects” ($n = 41$). While writing our preregistration, we failed to anticipate the low willingness of our participants to call their recently started relationship committed and planned to compare singles with those in committed relationships for most analyses. Being aware that estimates of correlations are volatile for samples smaller than 250 participants (Schönbrodt & Perugini, 2013), we now deviated from the preregistration and aggregated across these three relationship types for the sake of precision. We will refer to those 258 participants indicating to be in any sort of relationship at T2 as the “relationship sample.” Of these, 188 participants were female (73%) and 88 male (27%). The mean age in the relationship sample was 25.6 years ($SD = 5.4$ years). In the relationship sample, 232 participants (90%) reported having at least a high school degree, and 172 of them (67%) were university students at T1.

Comparing the relationship sample with the remaining participants revealed that slightly more women than men had found a partner (73 vs. 66%), $\chi^2(1) = 3.88, p = .049$. There was no difference in education (coded as “less than high school degree” vs. “at least high school degree”), $\chi^2(1) = 0.015, p = .902$. Participants in the relationship subsample were, on average, about 1 year older than those who were single at T2 ($M = 25.58$ years vs. $M = 24.68$ years), $t(448.25) = 2.34, p = .020, d = 0.19$. The proportion of university students was also somewhat lower in the relationship subsample (67 vs. 76%), $\chi^2(1) = 6.79, p = .009$, which makes sense given these participants being somewhat older.

Procedure

The study was set up via the formr survey framework (www.formr.org; Arslan & Tata, 2016), an open source software tool developed to set up complex online studies. Participants completed two online surveys, with a time lag of 5 months between T1 and T2. Before starting the T1 survey, an introduction text informed participants about the general procedure and conditions of participation (duration, incentives, and voluntary participation). After confirming to be older than 18 years and not to be in a romantic relationship at the moment, participants started the survey. They first responded to demographic questions regarding sex, age, occupation, and highest educational degree, followed by various personality measures, and a social network assessment not relevant to the current study. Afterward, participants indicated their ideal partner preferences. Finally, participants provided further information about their romantic and sex life (e.g., interest in a long-term relationship) and, if applicable, their contraception method (all of which not relevant to the current study). Immediately after finishing the study, participants received a personalized feedback based on personality data they provided earlier.

Five months after completion of the first survey, participants were invited via e-mail to continue with the second part of the study. To

motivate participation in this follow-up, the raffle for an iPad Air was announced in the email invitation and again on the survey’s introduction page. In the survey, participants indicated their ideal partner preferences for a second time and provided information about current relationships and interim relationships that had ended since T1 (if they had any), including information regarding partners, for example, ratings of partner characteristics. Participants had the opportunity to leave comments at the end of the first and the second survey. After completion of the T2 survey, participants received a detailed personalized feedback about their sociosexuality and their partner preferences.⁴

Measures

Ideal partner preferences and partner’s characteristics.

The scales used to measure ideal partner preferences and partner’s characteristics, respectively, covered four dimensions. The content of the first three dimensions consisted of items marking the preference dimensions identified by Fletcher et al. (1999): warmth-trustworthiness, vitality-attractiveness, and status-resources. For the purpose of the present investigation, these three dimensions were supplemented with items for a fourth dimension, confidence-humor, that contained items tapping the more social aspects of behavior originally contained in Fletcher et al.’s vitality-attractiveness factor (e.g., confident, assertive, and good sense of humor). Each dimension was measured with five items (see Table 1).

At both the first and the second assessment, participants rated how important each characteristic was to them in an ideal partner on a 7-point scale (1 = *not at all important*, 7 = *very important*).⁵ In addition, participants who had entered a relationship by T2 rated their current partner on the same items answering the question “What do you think how [item] is [he/she]?” Partner characteristics (PC) were assessed on a 7-point scale (1 = *not at all*, 7 = *very much*). For descriptive data and reliabilities of the preference and partner characteristics dimensions, see Table 3.

Self-perceived mate value. In addition, at T1, participants also reported their self-perceived mate value on three items taken from the scale by Landolt, Lalumière, and Quinsey (1995). All three items (“Men/Women notice me,” “I seldom receive compliments from men/women” [reversed], “Men/women feel attracted to me”) were measured on a 5-point Likert-scale (1 = *not at all true*, 5 = *absolutely true*). The internal consistency was high, $\alpha = .87$.

Preference change and adjustment to partner characteristics. Rank-order stabilities of partner preferences were calculated as retest correlations (see Analyses and Results below). To quantify adjustment to partner characteristics, we defined the preference adjustment index (PAI). We modeled this indicator after a

⁴ In addition, in the GMCS we aimed to obtain peer ratings about participants’ partners. Therefore, a separate survey for friends and acquaintances of participants, who knew participants’ partners well, was implemented. Unfortunately, because of a low response rate for the peer part of the study, the data basis was not sufficient to be used for further analyses and is thus discarded here.

⁵ For all participants that did not indicate to be “exclusively heterosexual” or “exclusively homosexual,” preferences were assessed with regard to both a female potential partner and a male potential partner. Exclusively hetero- or homosexual participants only indicated their preferences for the sex they were exclusively interested in.

Table 1
Means, Standard Deviations, and Factor Loadings on the Four Dimensions for the Ideal Partner Preference Items at T1

Item	Intended scale	<i>M</i>	<i>SD</i>	Factor loadings				<i>h</i> ²
				WT	VA	SR	CH	
Understanding	WT	6.08	0.95	.73				.53
Supportive	WT	5.96	1.05	.67				.48
Reliable	WT	6.30	0.89	.56				.39
Trustworthy	WT	6.48	0.81	.60				.43
Kind	WT	5.55	1.31	.67				.43
Sexy	VA	5.15	1.32		.69			.52
Attractive	VA	5.48	1.06		.76			.58
Nice body	VA	4.96	1.29		.82			.65
Appealing	VA	6.17	0.94		.47			.38
Athletic	VA	4.55	1.51		.43			.32
Industrious	SR	4.42	1.35			.53		.40
Educated	SR	5.98	0.99					.21
Successful	SR	3.94	1.44			.87		.77
Good occup. prospects	SR	4.51	1.57			.78		.66
Respected	SR	3.54	1.52			.50		.31
Confident	CH	5.19	1.25				.62	.45
Humorous	CH	6.13	0.98				.33	.25
Resourceful	CH	5.07	1.19				.34	.23
Interesting	CH	5.97	0.97				.46	.29
Assertive	CH	4.93	1.25				.58	.45
Variance explained (total = 44%)				12%	12%	11%	8%	

Note. WT = warmth-trustworthiness; VA = vitality-attractiveness; SR = status-resources; CH = confidence-humor. Means, standard deviations, and factor loadings are based on all 763 observations at T1. Factor loadings smaller than .30 are not displayed.

measure of belief revision from the judgment and decision making literature (Harvey & Fischer, 1997) such that it puts the preference adjustment in relation to the discrepancy between initial participant preferences and partner characteristics:

$$PAI = \frac{T1\ preference - T2\ preference}{T1\ preference - T2\ partner\ characteristic}$$

In this formula, the numerator represents the change of preferences, whereas the denominator indicates the discrepancy between what participants initially wanted (T1 preference) and how they rate their current partner's characteristics (PC). If T1 preference and PC are identical, the adjustment indicator is not defined (see Analyses and Results below). Positive PAI values indicate preference adjustments toward the characteristics of the partner and negative values indicate preferences change in the opposite direction. Moreover, the indicator straightforwardly indicates to what extent adjustment of one's ideal partner preferences closes the gap between T1 preference and PC. For example, a value of 1 indicates that participants changed their ideal partner preferences in such a way that the revised preference matches the evaluation of one's partner's attributes perfectly at T2, and a value of 0.5 indicates that 50% of the gap between ideal and partner is closed by the change of partner preferences. We computed an additional measure of preference change for an analysis suggested by one of the reviewers,⁶ namely the raw difference between the T2 and T1 preferences. Subtracting the T1 preference from the T2 preference yields positive values if the preference increases and negative values if the preference decreases from T1 to T2. Other than the PAI, this additional measure can be readily compared between singles and participants who entered relationships (see Analyses and Results below).

Analyses and Results

All statistical analyses were run using R 3.3.2 (www.r-project.org; R Core Team, 2016). In addition to the base version of R, we used the packages dplyr 0.5.0 (Wickham, 2011), effsize 0.7.0 (Torchiano, 2016), ggplot2 2.2.0 (Wickham, 2009), Hmisc 4.0-1 (Harrell, 2016), lm.beta 1.5-1 (Behrendt, 2014), multicon 1.6 (Sherman, 2015), psych 1.6.9 (Revelle, 2016), and yarr 0.1.2 (Phillips, 2016) in our analyses.

Factor Analysis of Preference Items

We began our analyses by testing whether the items of our ideal preferences questionnaire mapped on the intended dimensions.⁷ To this end, we subjected participants' responses to the 20 items of the T1 preference questionnaire to a principal axis factor analysis with oblimin rotation. We forced a solution with four factors and inspected the factor loadings. Our rationale was as follows: Each item should load strongest on the intended factor, and this factor loading should be at least .30. As shown in Table 1, 19 of the 20 items mapped on the intended factor, the exception being the item "educated."⁸ Initially intended to be part of the status-resources dimension, the item educated loaded highest on the confidence-humor factor, but this loading did not exceed the .30 criterion. Therefore, we removed it from the status-resources scale. We

⁶ We are grateful to Daniel Conroy-Beam for suggesting this analysis.

⁷ The first hypothesis of the preregistration pertained to the preference items mapping on their respective dimensions.

⁸ The same factor analysis on the T2 preference questionnaire produces qualitatively similar results.

constructed the scales for T1 and T2 ideal partner preferences and T2 ratings of partner characteristics in accordance with the result of the factor analysis. Internal consistencies of these scales can be obtained from Table 3.

Validity of Participants' Ratings as a Measure of Their Partners' Characteristics

Since we measured partner characteristics by asking participants to rate their partners, there is the risk that these ratings do not capture partners' actual characteristics, for example because participants have a (positively) biased perception of their partners. In response to the review process (and therefore, not as part of the preregistration), we decided to address this potential problem by empirically investigating the validity of partner ratings using data from an unrelated sample of 160 heterosexual couples. Participants' age ranged from 18 to 60 years ($M_{\text{male}} = 27.06$ years, $M_{\text{female}} = 24.48$ years), and, on average, they had been in a relationship with each other for 3 years and 6 months. In the validation study, both partners rated themselves and their partner on the 20 items, allowing us to test the agreement between these ratings for the four preference dimensions (see Funder & West, 1993). The relevant results are displayed in Table 2.

In line with previous research (Murray, Holmes, & Griffin, 1996), both male and female participants rated their partners more positively on all four dimensions than the partners did themselves, suggesting that focal partners were reluctant to describe themselves too positively, that their partners rated them overly positive, or a combination of both. However, despite this apparent bias, there was substantial agreement between participants' self-ratings and their

partners' ratings. Agreement was strongest for vitality-attractiveness and status-resources and still moderate for confidence-humor. Agreement was markedly lower for warmth-trustworthiness, arguably because of a ceiling effect in the partner ratings. The average agreement between the self-ratings on the four dimensions and corresponding ratings by the respective partners was $r = .40$ for male participants and $r = .36$ for female participants. This magnitude of agreement is well in line with previous findings on self-other agreement in couples (e.g., Connelly & Ones, 2010) and suggests that our focal participants' ratings of their partners are valid proxies of those partners' actual characteristics.

Descriptive Data and Intercorrelations

Table 3 shows descriptive data and intercorrelations for T1 and T2 ideal partner preferences and T2 ratings of partner characteristics in the GMCS. Consistent with previous research, we found a marked ceiling effect for the warmth-trustworthiness preference, indicating that participants value this dimension highly in a romantic partner (e.g., Cottrell, Neuberg, & Li, 2007; Fletcher et al., 1999). The correlations between the various T1 preferences and T2 partner characteristics provided first evidence for Hypothesis 1. Each T1 preference was significantly correlated with the corresponding T2 partner rating. In addition, correlations between corresponding dimensions (e.g., T1 preference and T2 partner rating of confidence-humor) were descriptively stronger than correlations involving noncorresponding dimensions (e.g., T1 preferences for confidence-humor and the T2 rating of partners' warmth-trustworthiness). An exception was the warmth-trustworthiness preference, which descriptively ap-

Table 2
Intercorrelations and Descriptive Statistics for Self-Ratings and Ratings by Partners in the Validation Study

Correlations of self-ratings and ratings by partners										
Male participants					Female participants					
	Self-rating	Rating by female partner				Self-rating	Rating by male partner			
		WT	VA	SR	CH		WT	VA	SR	CH
		WT	.19	-.04	.08		-.07	WT	.20	-.02
VA	-.04	.50	.05	.18	VA	-.03	.45	.22	.11	
SR	.13	.09	.50	.16	SR	.02	.04	.49	.06	
CH	.03	.04	.13	.40	CH	-.07	-.02	.12	.30	

Descriptive statistics of self-ratings and ratings by partners											
Male participants					Female participants						
	Self-rating		Rating by female partner		<i>d</i>	Self-rating		Rating by male partner		<i>d</i>	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
WT	5.74	0.72	6.30	0.74	0.60	WT	5.77	0.82	6.23	0.75	0.46
VA	4.50	1.11	5.64	0.92	1.12	VA	4.61	1.03	5.75	0.83	1.15
SR	4.95	0.97	5.38	1.03	0.42	SR	4.85	0.99	5.43	1.01	0.58
CH	5.29	0.77	5.64	0.76	0.42	CH	5.02	0.92	5.39	0.77	0.37

Note. WT = warmth-trustworthiness; VA = vitality-attractiveness; SR = status-resources; CH = confidence-humor. Means, standard deviations, and correlations are based on data from 160 male participants and 160 female participants. In the upper panel, boldface type indicates significant correlations. The thresholds for statistical significance of the correlations at the .05, .01, and .001 levels are .16, .23, and .26, respectively. In the lower panel, boldface type indicates that the mean differences underlying the effect sizes *d* are significant as indicated by a paired t-test with 159 degrees of freedom. All mean differences between self-ratings and ratings by partners are significant at $p < .001$.

Table 3
Means, Standard Deviations, Internal Consistencies, and Intercorrelations of Partner Preferences and Partner Characteristics

Variable	<i>M</i>	<i>SD</i>	<i>d</i>	T1 preferences				T2 preferences				T2 partner characteristics			
				WT	VA	SR	CH	WT	VA	SR	CH	WT	VA	SR	CH
T1 preferences															
WT	6.07	0.73		<u>.77</u>											
VA	5.26	0.90		.12	<u>.78</u>										
SR	4.10	1.15		.23	.30	<u>.78</u>									
CH	5.46	0.75		.34	.35	.39	<u>.67</u>								
T2 preferences															
WT	5.96	0.72	−0.17***	.56	.04	.16	.15	<u>.78</u>							
VA	4.97	0.83	−0.43***	.10	.69	.29	.25	.19	<u>.77</u>						
SR	4.05	1.05	−0.07†	.18	.23	.73	.32	.24	.36	<u>.80</u>					
CH	5.31	0.75	−0.21***	.17	.19	.30	.59	.38	.37	.43	<u>.70</u>				
T2 partner characteristics															
WT	5.71	1.01		.14 ^c	−.06 [#]	.01 [#]	.05 [#]	.38	.07	.03	.24	<u>.86</u>			
VA	5.46	0.95		.19	.23 ^c	.11	.17 [#]	.26	.23	.01	.19	.18	<u>.83</u>		
SR	5.06	0.98		.17	.14	.22 ^c	.14 [#]	.19	.29	.28	.32	.36	.30	<u>.75</u>	
CH	5.43	0.84		.24	.06 [#]	.08 [#]	.35 ^c	.30	.07	.06	.44	.35	.39	.38	<u>.75</u>

Note. WT = warmth-trustworthiness; VA = vitality-attractiveness; SR = status-resources; CH = confidence-humor. Means, standard deviations, and correlations involving T1 and T2 preferences based on 763 cases. The threshold for statistical significance at the .05, .01, and .001 levels are .08, .10, and .12, respectively. Data involving T2 partner characteristics are based on the subset of 257 participants who were in a relationship at T2 and reported their partner's characteristics. The respective correlation coefficients are statistically significant at the .05, .01, and .001 levels at values of .13, .17, and .21, respectively. The underlined diagonal entries of the correlation matrix represent the internal consistencies of the respective scales (Cronbach's α). The means of the T2 preferences were compared with the corresponding means of the T1 preferences using paired *t*-tests with 762 degrees of freedom; effect sizes (*d*) and statistical significance are displayed for these comparisons. Superscript *c* denotes corresponding T1 preference-T2 partner characteristics correlations. Superscript # denotes, by column, the noncorresponding correlations that are significantly smaller based on a tests of differences between dependent correlations with *N* = 257 observations.

† $p < .10$. *** $p < .001$.

peared to be more strongly associated with the other partner characteristics than with partner warmth-trustworthiness on the level of zero-order correlations. Separate one-tailed tests for differences between dependent correlations confirmed that corresponding preference-partner correlations for the remaining three dimensions tended to be significantly larger than the three noncorresponding correlations. Two of these differences did not reach statistical significance. The first was the difference between the corresponding correlation of T1 vitality-attractiveness preference and the noncorresponding correlation of T1 vitality-attractiveness preference and T2 partner ratings of status-resources ($p = .087$). The second was the difference between the corresponding correlation of status-resources and the noncorresponding correlation of T1 status-resources preference and T2 partner ratings of vitality-attractiveness ($p = .071$, see also Table 3).

Predictive Validity of Partner Preferences

We proceeded by testing the hypothesis that initial partner preferences predict the characteristics of later partners. These analyses rest on a subsample of 257 participants who had transitioned into a relationship at T2 and reported both ideal partner preferences and their partner's characteristics at T2 (one participant who had transitioned into a relationship at T2 failed to report the partner characteristics). When conceiving of the study, we planned to gather data from women only. Hence, the preregistration had focused exclusively on women (see Method above), and the hypothesis predicting partner attributes from ideal partner preferences was formulated as a simple association. However, because it is conceivable that the predictive validity of T1 partner preferences varies by participants' sex, we predicted each T2 partner characteristic (*z*-standardized) from the corresponding T1

preference (*z*-standardized), participants' sex, and their interaction. The results of these analyses for all dimensions are displayed in Table 4 as well as in Figure 1.

In line with Hypothesis 1, T1 preferences were predictive of partner characteristics at T2 for the dimensions of vitality-attractiveness, status-resources, and confidence-humor. In the case of warmth-trustworthiness, the dimension exhibiting a marked ceiling effect, the association was in the expected direction but not statistically significant.⁹ Interestingly, the predictive validities of the T1 preferences were not moderated by participants' sex, with the exception of vitality-attractiveness. Here, we found a significant effect of the T1 preference and an interaction of T1 preference and participant sex. To disentangle this interaction, we analyzed the simple slopes in separate regression analyses for male and female participants. In these regressions, we predicted the standardized T2 rating of partners' vitality attractiveness from the corresponding standardized T1 preference. We found a small but significant effect for female participants, $\beta = .18$, $p = .021$, but the effect was substantially larger in the male subsample, $\beta = .48$, $p < .001$. For all four dimensions, the results of the regression

⁹ As mentioned earlier, we collapsed across different types of relationships when investigating the predictive validity of partner preferences for the sake of precision. A reviewer asked us to test for potential moderating effects of relationship type on the associations between preferences and choice. Only for confidence-humor we found a marginally significant moderation effect such that for participants who indicated to entertain an "affair without potential future prospects" the association of the confidence-humor preference and partner characteristics was somewhat decreased. Results for all moderation analyses can be found in the supplemental online material, Table S1.

analyses remained unchanged when controlling for participants' age at T1 (z -standardized). In sum, the results largely support Hypothesis 1 by indicating that T1 preferences are predictive of T2 ratings of partner characteristics.¹⁰

The moderating role of self-perceived mate value. In accordance with the preregistration, we also tested for a moderating effect of self-perceived mate value on the predictive validities of preferences (Hypothesis 2). The respective hypothesis stated that participants' self-perceived mate value (measured at T1) moderates the strength of the relation of T1 partner preferences and T2 partner characteristics. Specifically, individuals who feel that they have a higher value on the mating market should be better able to realize their preferences in actual mate choices, resulting in a higher preference-partner characteristics association. Since we originally planned to test female participants only, we also accounted for the possibility that participants' sex might influence the potential moderating effect (i.e., we tested the three-way-interaction). The results of the analyses are displayed in Table 5. As can be seen, self-rated T1 mate value did not moderate the relation between T1 partner preferences and ratings of partner characteristics at T2 for any dimension. Thus, in this study neither men nor women adjusted their actual romantic partner choices relative to their initial partner ideals according to their self-perceived mate value.¹¹

Profile correlations. In addition to the univariate analyses reported above, we were also interested to investigate the match between initial partner preferences and the characteristics of later partners in a multivariate fashion and computed *overall* and *distinctive* profile correlations. In the context of the present study, profile correlations are correlations between one participant's T1 partner preferences and the corresponding T2 partner ratings, meaning that we obtain one correlation coefficient per participant in the relationship sample. These coefficients are then averaged (using Fischer's Z -transformation) to obtain the mean correlation between participants' T1 preferences and their partners' attributes at T2.

The overall profile correlation quantifies the match between individuals' ideal preferences with their partners' characteristics. One interesting question that we can address when using profile correlations is to what degree the match between preferences and partner characteristics reflects the correspondence of normative preferences (i.e., wanting what the average person wants in a partner) and normative partner characteristics (i.e., rating one's

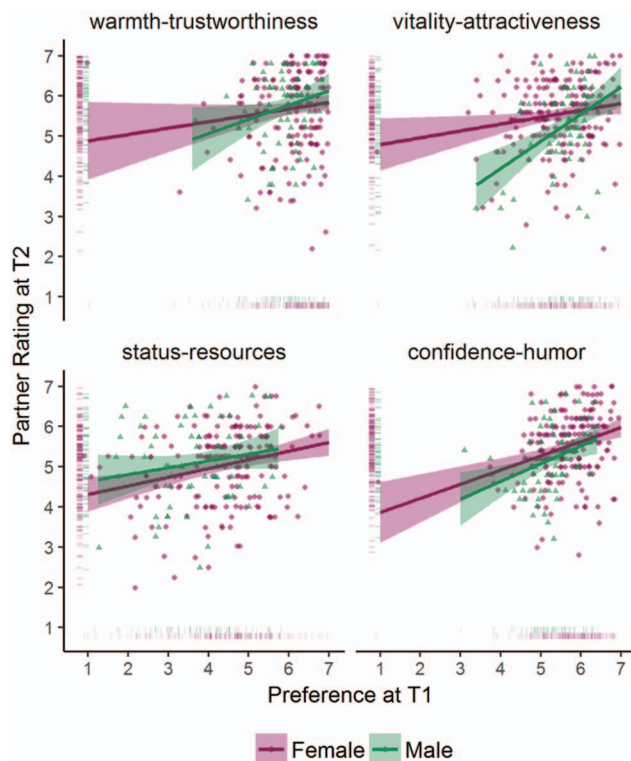


Figure 1. Predictive validity of partner preferences. Scatterplots show the T1 preference and reported T2 partner characteristics by participants' sex for each of the four dimensions. Data from female participants are shown as red circles, whereas green triangles represent data from male participants. The bold red and green lines represent the simple slopes derived from the regression models displayed in Table 4. The red and green areas represent the corresponding 95% confidence bands. The rugs at the bottom and left margins of the plots show the distribution of the data.

partner in a way that resembles the average partner rating) rather than a distinctive preferences-partner match. To this end, we can calculate distinctive profile correlations by eliminating the shared normative component in both the T1 preferences and the T2 partner ratings. We did so by regressing each participant's T1 preferences on the mean preference rating across all participants and extracting the residuals of this regression. These residuals represent participants' idiosyncratic preferences. Likewise, we extracted the unique partner characteristics by regressing each T2 partner rating on the mean of those ratings and extracting the residuals. Distinctive profile correlations are the correlations of a person's T1 preference residuals and the corresponding T2 partner characteristics residuals.

We first calculated the overall profile correlations based on the four preference dimensions (i.e., a profile consisting of the four scale values), obtaining an average profile correlation of $r = .47$.

¹⁰ This is also true when we focus on only those participants who labelled their relationship as "committed." Results for these analyses can be found in the supplemental online material, Table S2.

¹¹ Again, these results stay largely unchanged when analyzing only participants who labelled their relationship as "committed." For details, see the supplemental online material, Table S3.

Table 4
Standardized Parameter Estimates of Models Predicting T2 Partner Characteristics From Participants' T1 Partner Preferences and Participant Sex ($N = 257$)

Predictor	WT	VA	SR	CH
T1 preference	.12 [†]	.15*	.26***	.31***
Sex	.05	-.22***	.08	-.08
T1 preference × Sex	.07	.22**	-.03	.04
R^2	.03	.11	.06	.13

Note. WT = warmth-trustworthiness; VA = vitality-attractiveness; SR = status-resources; CH = confidence-humor. Participant sex was dummy coded (0 = female, 1 = male).

[†] $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Table 5
Standardized Parameter Estimates of Models Predicting Partner Characteristics at T2 From T1 Partner Preferences, Self-Perceived Mate Value, and Participant Sex ($N = 257$)

Predictor	WT	VA	SR	CH
T1 preference	.16	.15 [†]	.25**	.26*
T1 mate value (MV)	.05	.02	.02	.03
Sex	.07	-.18*	.11	-.08
T1 preference × MV	-.05	.00	.02	.06
T1 preference × Sex	.03	.18*	-.03	.03
MV × Sex	.10	.06	.04	.08
T1 preference × MV × Sex	.08	-.06	-.11	-.01
R^2	.04	.12	.07	.14

Note. WT = warmth-trustworthiness; VA = vitality-attractiveness; SR = status-resources; CH = confidence-humor. Participant sex was dummy coded (0 = female; 1 = male).

[†] $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

The distinctive profile correlations were substantially lower at an average of $r = .29$. However, a test of the Fischer's Z -transformed distinctive correlations against zero showed that the distinct component was different from zero, $t(255) = 3.85$, $p < .001$. When splitting the data set by participants' sex, the average profile correlation was somewhat higher among female participants, but the difference was not statistically different ($r = .50$ vs. $r = .41$, $z = 0.77$, $p = .441$). The distinctive correlations were somewhat lower in the female than in the male subgroup, but again, this difference was not significant ($r = .30$ vs. $r = .36$, $z = -0.52$, $p = .603$).

We ran a similar analysis on item level (i.e., a profile consisted of the 20 raw items scores), finding an overall profile correlation of .29. Again, the average distinctive profile correlation was substantially lower at .15, yet still significantly different from zero, $t(255) = 7.20$, $p < .001$. We again analyzed the female and male participants separately. Female and male participants differed neither with regard to the average overall profile correlations ($r = .28$ vs. $r = .33$, $z = -0.37$, $p = .711$) nor with regard to the distinctive correlations ($r = .15$ vs. $r = .16$, $z = -0.07$, $p = .944$).

Together, these analyses further corroborate our first hypothesis. While they suggest a notable normative component to preference-based mate choice, they also suggest that idiosyncrasies in participants' T1 preferences were predictive of the idiosyncrasies they perceived in their later partners.

Stability of Partner Preferences

We next investigated the temporal stability of ideal partner preferences by correlating the T1 and T2 ratings of each dimension. As can be seen from Table 3, partner preferences were rather stable over the 5-month period between T1 and T2. The mean of the four rank-order correlation coefficients (using Fisher's Z transformation) was substantial at .65.

We then proceeded by testing Hypothesis 3, which stated that rank-order stability of ideal partner preferences would be higher in participants who remained single at T2 ($n = 505$) compared with those who transitioned into a relationship ($n = 258$).¹² To this end, we first computed the retest correlations of the T1 and T2 assessments for each preference dimension separately for both sub-

groups. We then tested the directional hypothesis that, for each dimension, the respective correlation coefficient was lower in the subgroup who transitioned into a relationship. Table 6 shows the correlations and 95% confidence intervals (CIs) by participants' T2 relationship status, as well as the parameter estimate of the one-tailed Z test comparing these correlations. As can be seen, temporal stability was consistently lower in the subgroup of participants who had transitioned into a relationship by T2 as compared with those who remained single. Averaged across all four dimensions, the retest correlation was significantly greater for singles than for participants who were in a relationship at T2 ($r = .69$ vs. $r = .57$), $Z = 2.55$, $p = .005$.

Again, we split the data by sex to explore possible differences in the female and the male subsample (see Table 6). The pattern of reduced stability among those entering relationships was found to be more consistent in women across all dimensions, though these differences failed to reach significance for status-resources and confidence-humor. In men, three of the four dimensions showed the same pattern at least descriptively, but the difference was significant only for confidence-humor. We caution against overinterpreting these results, however, because of the rather small sample sizes for the male subgroups. Overall, the results support Hypothesis 3: Partner preferences of those that entered a relationship appeared to be less stable than preferences of those that stayed single.

Adjustment of Partner Preferences

We sought to conclude our analyses by exploring a potential explanation for the reduced temporal stability of ideal partner preferences in participants who were in a relationship at T2. Again, these analyses rest on the subsample of 257 participants who had transitioned into a relationship at T2 and reported both ideal partner preferences and their partner's characteristics at T2.

To quantify how strongly participants adjusted their preferences toward their partner, we first calculated the preference adjustment index (PAI, see Method section above) for each preference dimension. The PAI is not defined if the rating of a T2 partner attribute is equal to the corresponding ideal partner preference at T1. These cases can be interpreted as a person having found exactly what they looked for in a partner for a specific preference dimension, rendering adjustments toward the partner characteristics unnecessary. In our data, the PAI was undefined for warmth-trustworthiness in 29 cases (11%), for vitality-attractiveness in 17 cases (7%), and for status-resources and confidence-humor in 23 cases (9%) each. These cases had to be excluded from all further analyses. We then computed one grouping variable for each preference dimension indicating whether the rated partner attribute at T2 fell short of the corresponding T1 preference or exceeded it.

We tested for differences in PAI between participants whose partners had fallen short of their T1 preferences and those whose partner had exceeded them. Remember that positive PAI scores indicate a downward adjustment when the partner fell short of the T1 preference and an increase when the partner exceeded it. We

¹² The preregistration mentioned lower rank-order stability of preferences for those entering a "committed" relationship. For full transparency, rank-order stabilities for all relationship types are provided in the supplemental online material, Table S4.

Table 6
Correlations of T1 and T2 Measures of Ideal Partner Preferences [and 95% Confidence Intervals] by Participants' T2 Relationship Status

Dimension	Full sample	T2 singles	T2 in relationship	Z
All participants				
WT	.56 [.51; .61]	.60 [.54; .65]	.50 [.40; .59]	1.81*
VA	.69 [.65; .72]	.72 [.68; .76]	.60 [.52; .67]	2.84**
SR	.73 [.70; .76]	.76 [.72; .80]	.67 [.60; .73]	2.41**
CH	.59 [.54; .64]	.64 [.59; .69]	.48 [.38; .57]	3.15***
Female participants only				
WT	.52 [.45; .58]	.59 [.51; .65]	.42 [.30; .54]	2.38**
VA	.67 [.62; .71]	.71 [.65; .76]	.56 [.46; .66]	2.58**
SR	.70 [.65; .74]	.73 [.68; .78]	.66 [.57; .73]	1.61 [†]
CH	.47 [.40; .53]	.51 [.43; .59]	.40 [.27; .51]	1.57 [†]
Male participants only				
WT	.66 [.58; .72]	.63 [.54; .72]	.73 [.60; .82]	-1.21
VA	.74 [.67; .79]	.74 [.67; .80]	.70 [.56; .81]	0.55
SR	.75 [.69; .80]	.78 [.71; .83]	.68 [.53; .79]	1.47 [†]
CH	.77 [.71; .82]	.80 [.73; .84]	.67 [.52; .78]	1.90*

Note. WT = warmth-trustworthiness; VA = vitality-attractiveness; SR = status-resources; CH = confidence-humor. The analyses are based on 505 T2 singles (331 female, 174 male) and 258 participants in relationships (188 female, 70 male). The last column reports the parameter estimates of one-tailed z-tests testing the hypothesis that temporal stability of ideal partner preferences is greater in T2 singles.
[†] $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

ran the analyses using independent sample *t* tests with degrees of freedom adjusted for heterogeneity of variances. For warmth-trustworthiness, there was no significant difference ($M = 0.28$ vs. $M = 0.23$, $t(122.97) = 0.27$, $p = .790$, $d = 0.04$), meaning that participants whose partners fell short of the T1 preference decreased their preference to roughly the same extent as those with partners exceeding the T1 preferences increased it. However, the analyses revealed stronger preference adjustments when partners fell short of the reported T1 preference for vitality-attractiveness ($M = 0.74$ vs. $M = -0.61$, $t(230.45) = 6.83$, $p < .001$, $d = 0.89$), status-resources ($M = 0.72$ vs. $M = -0.24$, $t(88.45) = 4.25$, $p < .001$, $d = 0.69$), and confidence-humor ($M = 0.62$ vs. $M = -0.07$, $t(156.27) = 3.94$, $p < .001$, $d = 0.55$). These results suggest that downward adjustments among participants whose partners did not meet their initially stated ideal standard were greater than the upward adjustments among those whose partners exceeded the T1 preferences. Thus participants whose partners fell short of their initial preferences closed the gap between ideal preferences and partner characteristics to a greater degree.

One potential problem of the PAI is that it can produce very large values when the discrepancy between a participant's T1 preference and the corresponding partner attribute at T2 is small. Therefore, we conducted a robustness analysis by truncating the PAI values to discount outliers. Such truncation is common in research on judgment and decision-making using similar indices of opinion change (e.g., Gino, Brooks, & Schweitzer, 2012; Soll & Larrick, 2009). We truncated the PAI by excluding the 5% most extreme values on both sides of the distribution. Specifically, we excluded values smaller than the 5th percentile and those larger than the 95th percentile. We then repeated the analysis reported above.

The results remained qualitatively identical, although the differences between the two subgroups were less extreme. For warmth-trustworthiness, there was no difference in PAI scores between

participants whose partners fell short of versus exceeded the T1 preference ($M = 0.25$ vs. $M = 0.26$, $t(135.32) = -0.12$, $p = .904$, $d = -0.02$). However, we found greater PAI scores among participants whose partners fell short of the T1 preference ratings for vitality-attractiveness ($M = 0.46$ vs. $M = -0.27$, $t(197.37) = 6.38$, $p < .001$, $d = 0.89$), status-resources ($M = 0.36$ vs. $M = -0.08$, $t(62.52) = 3.60$, $p < .001$, $d = 0.67$), and confidence-humor ($M = 0.49$ vs. $M = 0.12$, $t(171.96) = 3.66$, $p < .001$, $d = 0.53$). These results show that the pattern observed above was not due to extreme outliers (note also the similarity of the effect size estimates between the two analyses). The results are also displayed in Figure 2.

Note that the mean PAI scores of participants whose partners fell short of the ideal preferences they stated at T1 are consistently greater than zero (as can be seen from the 95% CIs excluding zero). In contrast, participants whose partners exceeded the reported T1 preferences show no systematic pattern (some adjustment toward the partner attributes for WT and CH, adjustment in the opposite direction for VA, and no significant adjustment for SR). In this vein, averaging the mean PAI scores across the four dimensions yields an adjustment of 39% toward the characteristics of T2 partners if the partner fell short of the T1 preference, while the corresponding adjustment was only 1% when partners exceeded the T1 preference.

We also tested for possible effects of participants' sex in separate 2(participant sex: female vs. male) × 2(partner attribute: falls short of vs. exceeds T1 preference) analysis of variances (ANOVAs) with the PAI scores as the dependent variable. There were no main effects of participant sex for any of the four preference dimensions (all $ps > .10$), nor were there significant interactions (all $ps > .23$). When excluding the 5% most extreme PAI values on both sides of the spectrum, the results did not change: Neither the main effects of participant sex nor the interaction effects were statistically significant (all $ps > .12$). Thus, men and women participating in our study

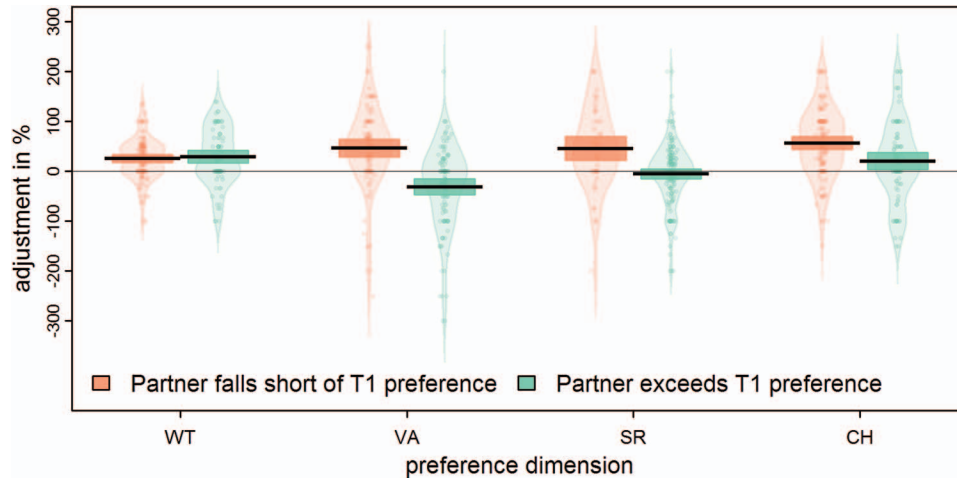


Figure 2. Pirate plots of PAI scores by preference dimension. The black vertical lines represent the mean PAI scores. Rectangles behind the mean bars denote the 95% CIs of the mean. The bean shapes represent the estimated densities of the PAI scores, while the jittered points denote the actual data. WT = warmth-trustworthiness; VA = vitality-attractiveness; SR = status-resources; CH = confidence-humor; PAI = preference adjustment index.

seemed to exhibit similar tendencies to adjust their preferences when partners fell short of their initial expectations.

So far, our PAI analyses suggest systematic downward adjustments of ideal partner preferences among those participants whose partners fell short. However, our descriptive data of T1 and T2 partner preferences suggests a general downward trend for all four dimensions (see Table 3). It is conceivable that downward adjustments are not specific to participants whose partners did not quite meet their expectations, but could also occur in those who remained singles—for example, because they realized that they may have to lower their standards to find a partner. Therefore, we ran an additional analysis on the full sample in which we investigated the change in preferences between T1 and T2. We compared the change in preferences between participants in relationships with partners falling short of their preferences, participants in relationships with partners exceeding their preferences and participants who stayed single. This analysis confirmed that there were downward adjustments for singles on three of the four dimensions, the exception being status-resources. However, consistent with our PAI analyses, being in a relationship with a partner falling short of T1 preferences was associated with stronger downward adjustments on all four dimensions. The results are displayed in Figure 3.

Discussion

In the Göttingen Mate Choice Study, we investigated the predictive validity of ideal partner preferences as well as their stability. To this end, we followed a large sample of singles ($N = 763$) over a 5-month period. Roughly one-third of participants ($n = 258$) transitioned into a relationship. Among these participants, ideal partner preferences prospectively predicted reported characteristics of later partners, thus confirming our first preregistered hypothesis. This was true when looking at these associations in univariate regressions as well as when taking into account the multivariate nature of the data by using profile corre-

lations. Men and women did not differ substantially with regard to predictive validity across the preference dimensions, except for vitality-attractiveness where men's preferences were more predictive of their later partner's standing on this dimension. Contrary to our second preregistered hypothesis, mate value did not moderate any of the preference-partner characteristics associations.

We found substantial rank-order stabilities of partner preferences, which were well within the range of values found for broad personality traits (Roberts & DelVecchio, 2000). As put forward in our third preregistered hypothesis, rank-order stabilities were smaller in those that entered a relationship (defined slightly differently than stated in the preregistration, see Method), suggesting that those individuals might have undergone substantial changes in their preferences. Finally, we conducted subgroup analyses into possible adjustments to characteristics of later partners. Results of these exploratory analyses revealed that those entering a relationship with a partner who fell short of their initial preferences consistently changed their preferences to match the characteristics of their partner better. Again, results for stability and adjustment were largely similar across the sexes.

The current study contributes to the ongoing debate about the relevance of partner preferences for actual mate choice. Null results such as those of the aforementioned speed-dating studies have been taken to suggest that “any account containing the assumption (...) that the stated preference for a specific attribute translates into a revealed preference (...) could be in need of revision” (Eastwick et al., 2014, p. 647). Indeed, if one could establish that mate preferences do not predict mate choice in humans, unlike any other sexually reproducing species, this would mean humans are a very special species in terms of mate choice not previously recognized and call for a dramatic reorganization of how people approach applying evolutionary theory to human mating behavior. The results of the current study, however, are in stark contrast to the pessimistic view on partner preferences' predictive

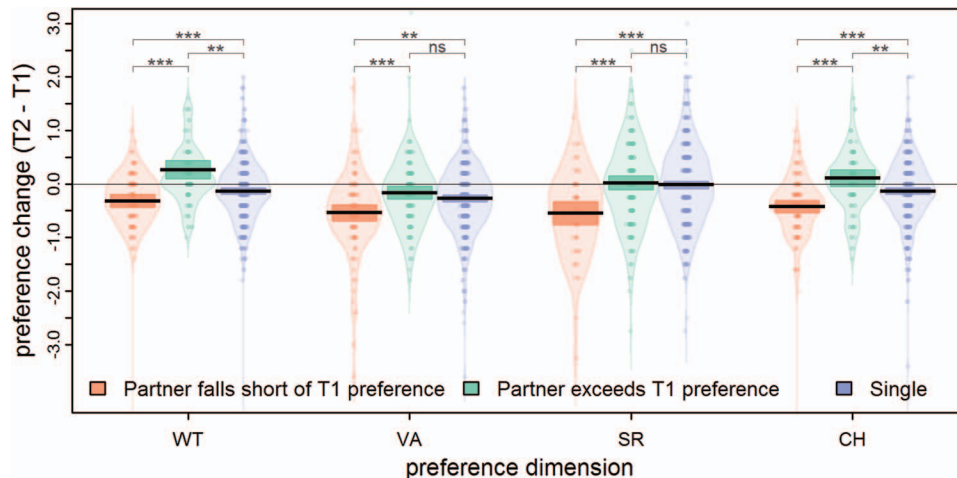


Figure 3. Pirate plots of preference change in Likert scale units between T1 and T2 by preference dimension and participant group. Scales for both preference ratings ranged from 1 to 7. Participants in relationships are divided into two categories based on whether their partners exceeded or fell short of the corresponding T1 preference. Positive values indicate preference increases and negative values indicate preference decreases from T1 to T2. The black vertical lines represent the mean preference change. The rectangles behind the mean bars denote the 95% confidence intervals (CIs) of the mean. The bean shapes represent the estimated densities of the change scores, while the jittered points denote the actual data. We used two-tailed *t* tests for independent samples for the pairwise comparisons between the participant groups. Sample size for singles is 505 participants. The sample sizes for the two relationship subgroups vary between preference dimensions because partners do not necessarily fall short of or exceed all four T1 preferences. Sample sizes for participants whose partners exceeded the T1 preference are 96, 125, 180, and 105 for WT, VA, SR, and CH, respectively. The corresponding sample sizes for participants whose partners fell short of the T1 preferences are 132, 110, 60, and 129, respectively. Participants whose partners exactly matched the T1 preference were excluded from the analysis ($N_s = 29, 22, 17, \text{ and } 23$). WT = warmth-trustworthiness; VA = vitality-attractiveness; SR = status-resources; CH = confidence-humor. ** $p < .01$, *** $p < .001$.

validity articulated by the recent meta-analysis of Eastwick and colleagues (2014). As such, they are in line with functional ideas predicting the existence of partner preferences that motivate mating behavior in humans (Symons, 1979) and further, substantiate the idea that the ability to detect these very associations between ideal preferences and partner characteristics rests on the design of the study (see Campbell & Stanton, 2014). The necessary features of such studies seem to be that they are (a) prospective and (b) capture the transition from singlehood into a new relationship. In fact, to our knowledge, so far there is only one other published study by Campbell et al. (2016) that used such a design, albeit with a much smaller sample size ($N = 38$ couples). The remarkable consistency of the results attained in both of these studies suggests that rejecting the idea that preferences do predict mate choices may have been premature.

In our study, the hypothesis pertaining to the predictive validity of partner preferences received considerable support across all of the four investigated dimensions. Overall, effect sizes were rather modest in magnitude. However, this does not necessarily imply weak predictive validity of preferences in general. There are at least three factors that may have limited the amount of variance explained in the current study. The first is the possibility of an incomplete picture; it might well be that we only captured a fraction of the relevant attributes in our survey. We have begun addressing this issue by extending the three original factors by Fletcher et al. (1999) by a fourth dimension, confidence-humor.

Interestingly, confidence-humor proved to be the most predictive dimension in the current study. There are other attributes relevant in people's mate choice that our study did not capture. Studies of assortative mating indicate that romantic couples are particularly similar for physical attractiveness, intelligence, education, height, socioeconomic status, religiousness, political beliefs, attitudes, values ethnicity, and age (Vandenberg, 1972; Zietsch, Verweij, Heath, & Martin, 2011). These couple similarities are not due to convergence of the couples over the duration of the relationship (Mascie-Taylor, 1989; Watson et al., 2004). Instead, behavioral genetic designs suggest that both homogamy (i.e., greater proximity to more similar potential partners) and direct phenotypic assortment (i.e., active mate choice) may explain these couple similarities (Reynolds, Baker, & Pedersen, 1996, 2000; Zietsch et al., 2011). Anecdotal evidence that we did not assess preferences comprehensively stems from poststudy comments provided by some of our participants who complained that some characteristics they considered very important for their choices were indeed missing in our survey.

Yet, even if preferences might be predictive of whom individuals pursue as a potential partner, the inherent *mutuality* of mate choice and the basic *availability* of persons that one is interested in may limit preferences' capacity to predict actual relationship formation (e.g., Zietsch et al., 2011). With regard to *mutuality*, it has been suggested that individuals should calibrate their mating aspirations to their own attractiveness as a mate and further, that

individuals characterized by high mate value should be more successful in finding a mate that matches their ideals (Penke et al., 2007). This would translate into a higher predictive validity of ideal preferences for high mate value individuals. In our study, we tested for such a moderating effect of self-perceived mate value on the relation between partner preferences and partner characteristics, yet did not find evidence for it on any of the four dimensions. However, we refrain from drawing strong conclusions from the absence of these effects for two reasons. First, self-perceived mate value as assessed with the scale by Landolt et al. (1995) bears the risk that participants hold misconceptions about their value as a potential mate. Second, the current operationalization of mate value merely focused on receiving attention from the opposite sex. As such, it might not have captured the breadth of characteristics that make for a valuable mate in the context of a long-term relationship. Arguably, when operationalizing mate value differently, the discussed moderation effect could emerge. A viable alternative operationalization of mate value consists of peer- or potential partner ratings of attractiveness as a (long-term) romantic partner. Another possibility to operationalize mate value is the euclidean distance metric suggested by Conroy-Beam, Götz, and Buss (2016) who used the (reverse-scored) multivariate discrepancy of self-rated mating-relevant characteristics from other-sex preference profiles in the mating pool as an indicator of mate value. In fact, a recent study applying this distance metric in computer simulations and to data from established couples showed robust and theoretically consistent effects of mate value (Conroy-Beam & Buss, 2016b). In the current study, we could not apply this multivariate mate value metric because of a lack of self-ratings on the relevant items from our focal participants. However, we would like to encourage researchers to make use of this metric in future studies and set up their studies accordingly.

Third, with regard to *availability* of potential mates, it might well be that some relationships with specific individuals very much in line with one's preferences simply did not come to be because these individuals were unavailable—for example because these individuals were currently engaged in another relationship or because of a large geographical distance. While such possibilities were indicated to us in the poststudy comments by some of the participants, being (temporarily) unavailable may have limited the chances that preferences could have translated into relationship choices across the relatively short time frame of 5 months. Future studies should thus try to look at partner preferences' predictive validity across a more extended period.¹³

Importantly, evidence from a recent study using computer simulations and mated couples (Conroy-Beam & Buss, 2016a) suggests that constraining factors such as mutuality of choice and availability of suitable partners result in a significant-but-relatively weak relationship of preferences and actual choices. These results are strikingly consistent with the effects obtained in our prospective study and strongly suggest that constraints on partner choice do in fact impose an upper limit on how strongly preferences can actually predict individual partner characteristics even when preferences are powerfully motivating.

In our study, we found lower rank-order stabilities of preferences in those that entered a relationship across the study period and further, attained evidence that those with partners falling short of initial preferences adjusted their respective preference so that it better matched their newly found partner's characteristics. Accord-

ing to the Ideal Standards Model (Fletcher et al., 1999), such downward adjustments of preferences may be functional in reducing strain that may otherwise result from preference-partner discrepancies. Future research may wish to determine whether such adjustments are related to more favorable relationship development (i.e., better relationship quality and/or less relationship conflict) or increased relationship stability (i.e., lower probability to split up).

It was noteworthy how participants who managed to transition into a relationship self-classified these relationships. If anything, we would have expected the lion's share of the new relationships to be classified as "committed." While the committed group was indeed the largest, we were somewhat surprised by 30% of the new relationships to be classified as "an affair with potential future prospects." We suggest that this category was picked by those of our participants that did not see their newly formed relationships as fully committed yet. This might be due to the fact that they were not exactly sure where this relationship might be going or considered themselves and their partner in something like a "test phase" before making a decision whether to fully commit or not. In any case, we take it as indication that the distinction between committed/long-term relationship and more casual/short-term relationships, as often found in relationship research, might be an oversimplification, especially when it comes to the phase of relationship formation.

Strengths of the Current Research

The current research has several strengths that increase our confidence in the findings. First, we recruited a large sample of singles and followed up on these participants until they possibly transitioned into a relationship. With this, we answered the call of Campbell and Stanton (2014, p. 490) for using prospective longitudinal designs to test partner preferences' predictive validity "in earnest." Second, we preregistered our study including its design and key hypotheses pertaining to predictive validity and diminished stability in those entering a relationship, thereby limiting researcher degrees of freedom. Third, the large analysis and relationship samples put us in a good position to investigate our focal hypotheses with adequate power and further enabled us to estimate the associations we were most interested in with considerable precision (Schönbrodt & Perugini, 2013).

Limitations and Further Directions for Future Research

Our study has some limitations that need to be addressed. First, while we strived for a sample more diverse than typical student samples, participants of our study were on average still highly educated and comparatively young: the vast majority had at least a high school degree and a large proportion were university students. Furthermore, women by far outnumbered men in our sample. Because it is conceivable that the relative importance of specific preference dimensions varies by education, age, and sex, this may limit the generalizability of our findings.

¹³ Extending the study period to, for example, several years or even decades would also allow to investigate the (in-)consistency of partner attributes across a series of consecutive choices for romantic partners (see Eastwick, Harden, Shukusky, Morgan, & Joel, 2017).

Second, for the present research, we had to rely on data reported by the focal participants. While the prospective design of our study allowed us to rule out that assessment of the partner characteristics influenced initial preferences, thus overcoming a major limitation inherent in studies concurrently investigating preferences and partner characteristics (e.g., Burriss et al., 2011; DeBruine et al., 2006), we cannot rule out that participants' assessments of partner characteristics were subject to systematic bias. For example, our focal participants may have portrayed their partners in a more positive light than objectively warranted. Such positive biases are well documented in relationship research (Murray, 1999; Murray & Holmes, 1997; Murray et al., 1996). Much of this bias may be rooted in processes of motivated construal such that individuals overstate the case for commitment to their relationship by exaggerating positive qualities of their partners while at the same time downplaying their partners' faults (Murray, 1999). Given that focal participants in our study had entered their relationships very recently (at maximum 5 months before the T2 assessment), a phase likely to be characterized by a high motivation to "make it work" and to strengthen relationship commitment, it is highly conceivable that participants saw their partners through such rose-colored glasses (Murray & Holmes, 1997). Our validation study, in which participants rated their partners and themselves on the same 20 items as used in the GMCS, also showed a tendency to rate partners more positively. More important, however, and in line with previous research on self-other agreement in romantic partners (Connelly & Ones, 2010), we also found substantial agreement between participants' ratings of the partners and the partners' own ratings of their standing on the respective trait. This bolsters our confidence in the validity of the focal participants' ratings used in the current study. To speak with Murray (1999, p. 24) individuals may "base their perceptions on a kernel of truth" (resulting in substantial self-other agreement), but "construe this reality in the most positive light possible" (leading to overly favorable perceptions of the partner).

Still, inasmuch as such biased perceptions would not only include rating the partner more positively in general, but doing so selectively in those areas one sees as most important, biased partner ratings could artificially inflate the predictive validity of partner preferences stated at T1. Therefore, future studies should try to circumvent this potential limitation by adding reports of the partners themselves and/or peers familiar with both members of the couple (Campbell et al., 2016; Campbell & Stanton, 2014).

Third, while our results on the predictive validity of partner preferences are consistent with preference fulfillment through active partner choice, part of these associations may stem from more passive selection mechanisms. For instance, participants may spend their lives in social environments in which they regularly encounter a sizable number of relatively well-matching "potentials" (vs. less well-matching potentials from other environments). If this were the case, even choosing a mate at random would result in preference-partner characteristics associations. Differentiating between these two possibilities would require some knowledge of the social network of focal participants, particularly their potential mates. The crucial question would then boil down to whether the chosen potential romantic partners score higher on the relevant characteristics than the average nonchosen potential partner. Accordingly, future studies should delve deeper into participants'

social environments and their respective "pools" of potential romantic partners.

Fourth, given that we used a newly developed indicator of preferences adjustment, the PAI, some reflection on this indicator seems to be in order. The way our preference adjustment indicator was constructed and interpreted makes the assumption that differences between T1 and T2 preferences reflect the dynamics of adjustment—namely, to the newly found partner's characteristics. However, preferences might also generally change slightly between T1 and T2 for reasons other than specific relationship experiences tied to the later partner. Participants who are more (as opposed to less) flexible in their preferences may, then, simply be more likely to find partners because they are exploring a wider region of the trait space. Further, T2 preferences may approximate chosen partners better because they are closer to the preferences that actually motivated participants' partner choice. Future studies using a more fine-grained assessment of partner preferences and relationship experiences at multiple measurement occasions with shorter intervals in-between may help to disentangle these complexities. Note also that, technically, our measures of ideal preferences and the ratings of partner attributes used slightly different scales. Concerning the former, participants reported how important that trait was to them in an ideal partner, whereas the partner ratings stated how much of that trait participants considered their partners to have. Although these operationalizations are consistent with the bulk of previous research on partner preferences (e.g., Buss, 1989; Fletcher et al., 1999), they allow for an alternative interpretation of the adjustment of ideal preferences we observed. Instead of adjusting their aspiration level, participants might have decreased the relative importance of a specific trait while maintaining their initial aspiration level. That is, a person who desires an extremely attractive partner could still maintain that desire after pairing with a moderately attractive partner, yet simply place less weight on attractiveness. To provide a clear answer to the question which of these two interpretations is more accurate, future studies should aim to disentangle the relative importance of specific traits, on the one hand, and the desired trait levels, on the other.

Finally, the limited time frame of our study and the fact that it only involved two measurement points prevented us from investigating the role preference adjustment to characteristics of a newly found partner plays for *relationship development* and *relationship stability*. The Ideal Standards Model postulates that discrepancies between ideal preferences and characteristics of a partner might cause strain to a relationship. Individuals should be motivated to minimize these discrepancies. For example, individuals could adjust their own preferences, as appeared to be the case in our study. However, there are other ways to bridge the gap that we were unable to investigate, such as attempting to change the partner (Overall et al., 2006). Therefore, besides exploring the role of adjustment, future work on newly formed relationships should also investigate which additional strategies individuals might use to cope with partners falling short of their ideal preferences and how those strategies relate to consecutive relationship satisfaction and longer-term relationship stability.

Conclusion

Do we get what we are looking for when choosing a romantic partner? This question has intrigued researchers and laypeople

alike. Previous empirical evidence has drawn a somewhat pessimistic picture, suggesting that mate choice might be rather unrelated to our partner ideals. Using a naturalistic prospective design, the current study suggests a more optimistic view. Our partner choices seem, at least to some degree, to be guided by what we consider desirable in romantic partners while we are single. Contrary to what has been proposed in the literature, this process was not moderated by self-perceived mate value. While we showed high levels of temporal stability for ideal partner preferences over a 5-month period, we also found that preferences get flexibly adjusted among those whose partners fell short of their initial expectations. This hints toward a potentially adaptive mechanism for romantic relationship consolidation and maintenance. Future research should explore whether the ability to adjust one's partner preferences is conducive to the process of forming and maintaining romantic relationships.

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