

Women and Men are the Barometers of Relationships: Testing the Predictive Power of Women's and Men's Relationship Satisfaction

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There is a longstanding belief in relationship science and popular opinion that women are the barometers in mixed-gender relationships such that their perceptions about the partnership carry more weight than men's in predicting future relationship satisfaction, but this idea has yet to be rigorously tested. We analyze data from two studies to test within-person links between men's and women's relationship satisfaction on their own and their partner's next-day and next-year satisfaction. Study 1 combined nine daily diary datasets from Canada and the United States with 901 mixed-gender couples who provided 29,541 daily reports of relationship satisfaction. Study 2 analyzed five annual waves of data from the German Family Panel (pairfam) that surveyed 3,405 mixedgender couples who provided 21,115 relationship satisfaction reports. Latent curve models with structured residuals (LCM-SR) revealed that in both studies, men's and women's relationship satisfaction significantly predicted their own and their partner's relationship satisfaction, with no gender differences in the magnitude of these effects. Results underscore the interdependence of romantic partners' satisfaction and indicate that both men and women jointly shape romantic relationship satisfaction.

couples | daily diary | gender differences | longitudinal | relationship satisfaction

Over the course of romantic relationships, people often experience ups and downs in how satisfied they are with their partnership (1). When these types of fluctuations occur in mixed-gender relationships, it is widely believed that changes in women's satisfaction are likely to be more consequential for the couple's future satisfaction than are changes in men's satisfaction; from the popular saying "happy wife, happy life" to the longstanding idea in relationship science that women serve as relational experts or barometers (2), women's relational views are consistently thought of as more predictive of how each partner feels in the future than are men's.

Surprisingly, however, there is very little empirical research that has directly tested this idea, despite large bodies of research examining gender differences in relationship experiences (3) and predictors of short-term (4) and long-term (5) changes in relationship satisfaction. Accordingly, this investigation aims to advance our understanding of this core relational dynamic across two studies. Specifically, we examine how fluctuations in men's and women's satisfaction are associated with subsequent changes in next-day and next-year satisfaction for themselves (actor effects) and their partner (partner effects). To do so, we use daily diary data from 901 mixed-gender couples who collectively provided 29,541 daily satisfaction ratings (Study 1) as well as annual panel data from 3,405 mixed gender couples who collectively provided 21,115 annual satisfaction ratings over 5 y (Study 2).

Theoretical Perspectives. The notion that women serve as barometers in mixed-gender relationships was first introduced as a post hoc explanation for findings showing that wives' behaviors during a problem-solving discussion differed between distressed and nondistressed couples whereas husbands' behaviors did not (2). Since then, this idea has expanded to encompass the fact that variables from women (e.g., mental health and conflict behaviors) are often significantly associated with their own and their partner's relationship outcomes whereas variables from men are not (6, 7).

Theoretical grounding for the barometer idea has been limited, so we draw on evolutionary and social psychological perspectives to elaborate why fluctuations in women's satisfaction may be more consequential for both partners' future relationship satisfaction than fluctuations in men's satisfaction. Evolved psychological mechanisms are thought to have led women to become especially attuned to the quality of intimate partnerships to aid in selecting an optimal mate (8, 9). As a result, women's appraisals

Significance

Individuals commonly experience ups and downs in their romantic relationships. It is widely believed that when these changes occur in mixed-gender partnerships, women's relationship perceptions carry more weight than men's in predicting future relationship satisfaction. This study tested this idea using data from nine studies that assessed 901 mixed-gender couples daily for up to 21 d and from 3,405 mixed-gender couples assessed annually across 5 y. Analysis of more than 50,000 relationship satisfaction reports revealed that men's and women's relationship satisfaction were equally strong predictors of their own and their partner's next-day and next-year satisfaction. These findings challenge the notion that women's perceptions about their relationship are more consequential than men's and highlight the interconnectedness of partners in romantic relationships.

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of relationship satisfaction should be more accurate and thus more prognostic than men's appraisals of relationship satisfaction. Alternatively, scholars have argued that societal structures dictate that the successful performance of gender roles requires women to attend to the emotional needs of family members and take responsibility for maintaining relationships (10, 11). Accordingly, women's views about their relationships are likely to affect couple dynamics more than those of men.

Evidence to Date. Although there have been some investigations into the potential enhanced predictive power of women's relationship appraisals (e.g., commitment) and individual characteristics (e.g., personality) relative to men's for future relationship satisfaction (6, 7, 12-14), we located only two studies that considered the influence of men's and women's relationship satisfaction on future satisfaction. In the first, Dewitte and Mayer (15) drew on daily reports from a sample of 66 mixedgender couples across 21 d and found significant actor effects for both men and women (higher relationship satisfaction today predicted higher satisfaction tomorrow) and a significant partner effect only from women's relationship satisfaction today to men's satisfaction tomorrow. Direct comparison of the partner effects, however, revealed no differences between the significant women-to-men's satisfaction path and the nonsignificant mento-women's satisfaction path (actor coefficients were not compared). These initial findings appear to cast doubt on the notion that women's ratings of relationship satisfaction will be more predictive of next-day relationship satisfaction compared to men's ratings of satisfaction. We note, however, that this study focused on the analysis of between-person variation, or how men and women with higher versus lower scores on relationship satisfaction rank on future relationship satisfaction relative to other men and women. To rigorously assess the barometer idea, we need an analysis at the within-person level at which it is theorized: for a given couple, fluctuations in women's relationship satisfaction from their average level of satisfaction should more strongly predict their own and their partner's future satisfaction compared to men's fluctuations. Analysis of between-person differences is unable to speak to these types of within-person processes (16).

The second study did assess within-person effects of satisfaction, but also had significant methodological limitations that leave open questions about the degree to which men's and women's satisfaction is predictive of their own and their partner's future satisfaction. Hudson et al. (17) tested withinperson partner effects of men's and women's relationship satisfaction over 2-mo intervals among 172 mixed-gender couples, finding higher-than-average relationship satisfaction for men predicted a within-person increase in women's satisfaction 2 mo later, but women's satisfaction did not predict men's future satisfaction. The relative strength of these coefficients was not compared, however, and actor paths evaluating how each partner's satisfaction was associated with their own future satisfaction were not included. These limitations make it difficult to assess the robustness of the partner paths and impossible to determine whether these findings challenge expectations arising from the barometer idea and relevant theory.

Present Study. To address these limitations, we present two studies. In Study 1, we conducted an integrative data analysis (18) of nine daily diary studies of 901 mixed-gender couples. In Study 2, we analyzed five annual waves of data from 3,405 mixed-gender couples from the German Family Panel (pairfam) study (19). Collectively, these studies contain over 50,000 reports

of relationship satisfaction at daily and yearly intervals, providing the most rigorous test of the barometer hypothesis to date and sufficient power to detect even very small gender differences. Testing the barometer idea across two timescales-day-to-day and year-to-year-is an important feature of this investigation, as there has yet to be any specification of the period over which the barometer phenomenon should be evident. If we extend the barometer metaphor (i.e., something that registers and predicts short-term changes), we might expect more consistent evidence on the daily level, such that fluctuations in women's relationship satisfaction should more robustly predict their own and/or their partner's satisfaction across daily intervals compared to fluctuations in men's relationship satisfaction. Alternatively, prior studies invoked the barometer metaphor to explain findings based on the analysis of long-term panel data (6, 7), indicating many scholars view this as a longer-term process. It is indeed possible that it may take some time for any gender effects to manifest. Analyzing data collected at daily and annual intervals allows for either and/ or both possibilities.

In accordance with the barometer idea, balanced against empirical findings that paint a different but mixed picture, we tentatively hypothesized that fluctuations in women's satisfaction would be a significantly stronger predictor of their own future (i.e., next day or next year) satisfaction than men's fluctuations would be of their own future satisfaction (i.e., women's actor paths would be significantly stronger than men's actor paths). Likewise, we hypothesized that fluctuations in women's satisfaction would be a significantly stronger predictor of their partner's future relationship satisfaction than men's satisfaction fluctuations would be of their partner's future satisfaction (i.e., women's partner paths would be significantly stronger than men's). All hypotheses and analytic decisions for Study 1 were preregistered* and are available at: https://osf.io/mdkn4. The data used in Study 1 and the analytic input code and output for Studies 1 and 2 are available at: https://osf.io/ryvh8. Data for Study 2 can be obtained by contract available at http://www.pairfam.de/en/.

Results

We addressed our research questions with latent curve models with structured residuals [LCM-SR; (20)] that examined the relative strength of men's and women's within-person actor and partner relationship satisfaction associations from one day to the next (Study 1) and from one year to the next (Study 2). A complete analysis plan and preliminary growth curve analyses are detailed in the SI Appendix. In brief, LCM-SR modeling partitions women's and men's relationship satisfaction variance into between-person components, captured in intercept and slope variables, and within-person variation, captured in time-specific residuals. At the between-person level, the latent intercept reflects the betweenperson difference in the initial relationship satisfaction levels and the slope reflects the between-person difference in intraindividual change trajectories (e.g., some people may increase, others decrease, and some remain stable). Covariances among the growth parameters (intercepts and slopes) can test the between-person cross-sectional (e.g., intercept-to-intercept) and longitudinal (e.g., intercept-to-slope, and slope-to-slope) relationship satisfaction associations. At the within-person level, within-time covariances capture the concurrent associations among men's and women's within-person satisfaction fluctuations at a given point in time. The main paths of interest in the current study were the 1)

^{*}Study 2 was added in response to reviewer feedback and was thus not pre-registered.

within-person autoregressive paths (e.g., women's next-day or next-year relationship satisfaction residual regressed on their satisfaction residual), which reflect continuity in how deviations from one's average trajectory influences future fluctuations, as well as the 2) within-person cross-lagged paths, which indicate the extent to which each partner's satisfaction fluctuations predict the other's next-day or next-year deviations in satisfaction.

Results for the LCM-SR models in Study 1 and Study 2 are displayed in Table 1. At the between-person level, in both studies, men's and women's initial relationship satisfaction were positively associated, such that men reporting higher initial levels of satisfaction were partnered with women reporting higher initial levels of satisfaction. Additionally, in both studies, men's initial satisfaction was significantly positively associated with women's slopes, such that women reported greater increases (in Study 1) or more gradual decreases (in Study 2) in relationship satisfaction to the extent that they were partnered with men who reported higher initial levels of satisfaction. There was also one between-person association unique to each study. In Study 1, men's and women's relationship satisfaction slopes were positively associated; men who reported greater increases in satisfaction over the study were partnered with women who reported greater increases in satisfaction over the study. In Study 2, women's relationship satisfaction intercepts were positively associated with men's satisfaction slopes; women who reported higher initial relationship satisfaction were partnered with men who decreased less in satisfaction over the study.

The within-person results exhibited the same patterns in Studies 1 and 2. There was a positive concurrent (i.e., within-time) link between each partner's relationship satisfaction: at times when men experienced higher relationship satisfaction than they typically did, their female partner tended to experience higher relationship satisfaction than they typically did (and vice versa). Turning to our main research questions regarding predictive effects, there were significant positive autoregressive (actor) paths for men and women. These findings indicate that after experiencing higher relationship satisfaction than they typically did, men and women continued to report higher than average satisfaction the next day (Study 1) or the next year (Study 2). Additionally, there were significant positive cross-lagged (partner) paths from each partner's relationship satisfaction to the other's satisfaction: After men reported higher satisfaction than they typically did, women reported heightened satisfaction the next day (Study 1) or next year (Study 2), and after women reported higher satisfaction than they typically did, men reported higher-than-average satisfaction the next day (Study 1) or next year (Study 2).

To empirically test the barometer idea, we then constrained the autoregressive and cross-lagged paths between men and women to be equal to determine whether the significant effects from women's satisfaction to their own and their partner's future satisfaction were stronger than the significant effects from men's satisfaction to their own and their partner's future satisfaction. Application of these equality constraints did not worsen model fit in Study 1 (cross-lagged paths: χ^2_{diff} [1] = 0.039, P = 0.843; autoregressive paths: χ^2_{diff} [1] = 0.102, P = 0.749; autoregressive paths: χ^2_{diff} [1] = 0.106), indicating men's and women's relationship satisfaction were equally predictive of their own and their partner's satisfaction the next day (Study 1) and the next year (Study 2).

Discussion

Counter to expectations from long-held views in relationship science, our analysis of over 50,000 reports of relationship satisfaction from more than 4,000 mixed-gender couples found no evidence that women's satisfaction was a stronger predictor of couples' relationship satisfaction than men's satisfaction at the daily or

Table 1. Study 1 and study 2 unstandardized latent curve model with structured residuals results testing associations between men's and women's relationship satisfaction across days and years

	Study 1 21 Diary Days (<i>n</i> = 901 couples)				Study 2 5 Annual Waves (<i>n</i> = 3,405 couples)			
Between-Person Results	1.	2.	3.	4.	1.	2.	3.	4.
1. M. Sat. Intercept 2. M. Sat. Slope	- 0.03 [-0.05, 0.11]	-			- 0.17 [-0.31, 0.65]	-		
3. W. Sat. Intercept	0.35 [†] [0.28, 0.42]	0.05 [–0.02, 0.13]	-		0.47 [†] [0.29, 0.64]	0.55 [†] [0.33, 0.76]	-	
4. W. Sat. Slope	0.10 [†] [0.02, 0.17]	0.10 [†] [—0.01, 0.20]	0.04 [–0.05, 0.12]	-	0.26 [†] [0.07, 0.46]	_0.25 [_0.53, 0.04]	_0.27 [_0.66, 0.13]	-
Within-Person Results* Concurrent Associations M. Sat. \leftrightarrow W. Sat		0.29 [†] [0.27, 0.30]				0.42 [†] [0.32, 0.	52]	
Actor Paths M. Sat. $_{T-1} \rightarrow M$. Sat. W. Sat. $_{T-1} \rightarrow W$. Sat. Partner Paths		0.16 [†] [0.14, 0.19] 0.18 [†] [0.16, 0.20]				0.11 [†] [0.06, 0.17] 0.06 [†] [0.01, 0.10]		
$\begin{array}{l} \text{M. Sat.}_{T-1} \rightarrow \text{W. Sat.}\\ \text{W. Sat.}_{T-1} \rightarrow \text{M. Sat.} \end{array}$		0.05^{\dagger} [0.03, 0.07] 0.05^{\dagger} [0.03, 0.06]				0.07 [†] [0.03, 0.11] 0.07 [†] [0.03, 0.10]		

Note: Unstandardized estimates [95% CI] from the unconstrained models. M = Men. W = Women. Sat. = Relationship Satisfaction. T = Time. In Study 1, the intercepts and slopes were regressed on study membership dummy variables; these details are displayed in SI Appendix, Table S2. Study 1 model fit indices: χ^2 [1,188] = 1,991.400; RMSEA = 0.027, 90% CI [0.025–0.029]; CFI = 0.953; TLI = 0.953; SRMR = 0.066. Study 2 model fit indices: χ^2 [3] = 46.315; RMSEA = 0.009, 90% CI [0.000–0.016]; CFI = 0.997; TLI = 0.997; SRMR = 0.027. *The within-person paths were a priori constrained to equality across days (Study 1) and waves (Study 2). *P < 0.05.

yearly level. Rather, when either men or women experienced higher relationship satisfaction relative to their own average, both they and their partner were likely to report higher-than-average satisfaction in the future (and conversely, when they reported lower satisfaction than they typically did, both partners reported lower-than-average satisfaction the following day and year).

These findings have several important implications. First, they challenge the idea that women are more likely than men to be the barometers of relationships. Although women may have evolved heightened attunement to the quality of their partnership (8, 9) and take on the lion's share of responsibility for managing family relationships (10, 11, 21, 22), it seems that women's satisfaction does not take primacy in foretelling relationship satisfaction in the near- or long-term. Thus, when it comes to forecasting how satisfying one's union will be the next day or next year, women *and* men are the barometers of relationships. These findings dovetail with a larger literature showing that women and men are more similar than different (23).

Second, fluctuations in relationship dynamics at one time extend beyond that specific moment, given evidence of significant next-day and next-year actor and partner effects. These findings are meaningful because they suggest that relative highs and lows in satisfaction linger. That is, Study 1 showed that after experiencing relatively high (or low) satisfaction relative to their own daily mean, men and women continued to report relative increases (or decreases) the next day, suggesting a type of emotional residue in which partners take some time to return to their typical baseline (i.e., their own mean). Similar patterns play out on an annual basis as well: in Study 2, partners experiencing a relative high (or low) relative to their annual mean continue to experience a relative high (or low) the following year. Couples' relationship dynamics might thus reflect virtuous (higher satisfaction predicts higher satisfaction) or vicious (lower satisfaction predicts lower satisfaction) patterns.

Third, the findings provide evidence for partner influences on one's own relationship satisfaction across micro- and macrotime intervals. A core tenet of interdependence theory is that partners exhibit mutual influence on one another (24), and examination of actor and partner influences is a core feature of widely used analytic models for studying couples such as the actor-partner interdependence model (25). Nonetheless, evidence for partner effects within romantic relationships is not always robust, with one study of 43 dyadic datasets finding that partner-reported variables had no significant effects beyond actor-reported variables on relationship satisfaction (26). Here we show that when it comes to daily dynamics and long-term development from one year to the next, however, the satisfaction of one's partner provides unique explanatory power beyond one's own relationship satisfaction for how satisfied someone will be the next day and even the next year. Although the partner effects were relatively small in magnitude (effect size r was 0.21 in Study 1 and 0.08 in Study 2 vs. effect size r for the actor effect was 0.62 in Study 1 and 0.08 in Study 2), these patterns again hint at the potential for recurring dynamics within relationships, with one partner's relative highs or lows having lingering effects on the other's sentiments.

Although we have provided a rigorous test of the barometer idea among large, diverse samples of mixed-gender couples who provided more than 50,000 reports of their relationship satisfaction at daily and yearly intervals, study limitations must also be acknowledged. First, the use of different samples to test the barometer idea at daily and yearly intervals does not allow for direct comparisons of the relative magnitude of the two effects. Second, we examined our research question with data from Canada, the United States, and Germany so findings are restricted to Western countries. More broadly, we focused here on associations between men's and women's relationship satisfaction. This is the most widely studied relationship variable, but it is still possible that women's perceptions would be uniquely predictive of other relationship outcomes besides relationship satisfaction. For example, given that women are more likely to initiate divorce than men (27), women's reports of commitment and relationship satisfaction may be more strongly associated with future stability compared to men's reports (13, 14). Such questions should be addressed in future work.

Notwithstanding these limitations, this study indicates that relationship satisfaction tomorrow or even next year can be predicted by higher- or lower-than-typical satisfaction in either partner today or this year. This important insight into the interdependent nature of relationship satisfaction as it unfolds in couples' lives challenges long-held views about women as the barometer of mixed-gender relationships and has significant practical implications, suggesting that men and women have the potential to create or disrupt negative patterns or capitalize on positive interactions in their romantic relationship. Clinical intervention aimed at increasing both partners' awareness of their satisfaction fluctuations, coupled with skills that help partners contain and cope with their frustrations when things do not go well and capitalize when they do, may prevent the development of relationship distress and promote positive relationship functioning in daily life and years into the future.

Materials and Methods

Study 1.

Procedures. In Study 1, we selected nine dyadic daily experience studies conducted in Canada and the United States for inclusion in an integrative data analysis. All studies included both partners' reports on their relationship satisfaction, our focal variable of interest, each day for up to 28 consecutive days. In six studies, daily diary data were collected for 21 or more days and three studies gathered daily assessments across 14 d. We computed analyses using 21 d of data. Given our research question, we filtered the datasets to include only mixedgender couples who completed at least three daily surveys over the course of the study. This resulted in our preregistered sample size of 902 couples. When we began analyzing the data, however, we removed one additional couple because they never answered the relationship satisfaction item (despite completing three diary days). Thus, we drew on data provided by 901 couples from nine daily diary studies who collectively provided 29,541 daily assessments of relationship satisfaction and completed 86.27% of the daily surveys within their given study. Five studies gathered data from community-based samples recruited primarily through advertisements posted on websites such as Craigslist and Kijiji. One study gathered data from couples attending a university and the remaining three studies recruited couples from the community and university campuses. All studies received ethics approval from their respective institutions. A detailed description of the procedures for each study is available in the preregistration.

Across studies, men were 30.02 y old, on average (SD = 9.19 y, range from 16 to 78 y) and women's mean age was 28.95 y (SD = 8.89, range from 17 to 78 y). Couples had been partnered for an average of 5.94 y (SD = 5.82 y, range from 2 mo to 58 y). In terms of race, 42.62% of men and 43.49% of women were non-White. Additional information about procedures and demographics for each study is presented in Table 2.

Measures.

Relationship Satisfaction. In all studies, relationship satisfaction was assessed daily with a single item. In Studies a, d, e, and f, participants were directed to think about their relationship on that day and expressed their level agreement with the item: "I felt satisfied with my relationship with my partner." Responses ranged from 1 = not at all to 7 = very much in Study a, 1 = strongly disagree

Table 2. Descriptive information for each study in study 1

Study	N Couples	N Diary Days	Sample Type	% Days Completed	Mean Age (Years)	Mean Relationship Length (Years)	% Non-White [†]	% Married
а	103	21	Community	77.72%	M: 31.17 W: 31.89	4.99	M: 45.63% W: 53.40%	37.00%
b	70	14	Community/ university	83.78%	M: 24.31 W: 22.67	2.16	M: 44.29% W: 55.71%	1.43%
с	93	28*	Community	85.00%	M: 32.71 W: 33.64	7.96	M: 42.22% W: 43.68%	50.80%
d	90	21	Community/ university	77.20%	M: 26.99 W:25.18	4.64	M: 39.53% W: 36.90%	18.18%
е	87	14	University	88.14%	M: 21.67 W: 20.78	1.75	M: 68.97% W: 68.97%	0%
f	100	14	Community	85.82%	M: 27.64 W: 26.54	4.13	M: 67.00% W: 64.89%	24.75%
g	114	21	Community	93.30%	M: 33.16 W: 31.15	8.26	M: 24.56% W: 17.54%	57.89%
h	132	21	Community	92.62%	M: 33.42 W: 31.81	7.78	M: 28.03% W: 33.33%	49.24%
i	112	21	Community/ university	88.16%	M: 33.78 W: 31.91	8.75	M: 34.82% W: 32.14%	48.20%

Note: *The first 21 days of data were used.

[†]Complete race and ethnicity descriptions are available in *SI Appendix*, Table S3.

M = Men. W = Women.

to 7 = strongly agree in Studies d and f, and 1 = not at all true to 7 = very true in Study e. In Studies b and c, the survey included the prompt "Today, with regard to my relationship I felt ..." and participants then responded to a list of items, including: "Satisfaction." Responses in Study b ranged from 1 = not at all to 5 = a lot and from 1 = not at all to 7 = a lot in Study c. A linear transformation was applied to responses in Study b to give it the same range as all other studies: 1 = 1, 2 = 2.5, 3 = 4, 4 = 5.5, and 5 = 7. In Studies g, h, and i, participants were directed to think about their relationship on that day and responded to the item: "How satisfied were you with your relationship?" Responses ranged from 1 = not at all to 7 = extremely in these studies. Although identical items were not included in each study, which is common in integrative data analyses (18), inclusion of the word "satisfaction" in all studies ensured the same underlying construct was assessed on a continuum ranging from very low levels of satisfaction to very high levels of satisfaction for that particular day.

Control Variables. We regressed the relationship satisfaction intercepts and slopes on a series of study membership dummy variables to control for the influence of study membership. The variable for Study h was omitted to serve as the reference group because this study had the largest sample size (28). These results are detailed in the *SI Appendix*.

Study 2.

Procedures. Data from the first five waves of the German Family Panel (pairfam) study (29) were analyzed in Study 2. At baseline, pairfam interviewed a nationally representative sample of 12,402 focal participants from three birth cohorts: adolescents (aged 15 to 17), young adults (aged 25 to 27), and adults nearing midlife (aged 35 to 37). Those in intimate relationships were asked permission to contact their partners to participate in the study, yielding a subsample of 3,743 couples. Focal participants completed annual computer-assisted interviews in their home with an interviewer with self-administered sections for sensitive topics. Partners completed paper and pencil questionnaires and returned them via postage paid envelope. Ethics approval for secondary analyses of these data were granted by the first author's institution. Additional information about pairfam can be found in the pairfam concept paper (19) and from the study website (http://www.pairfam.de/en/).

We filtered the data to select 3,405 mixed-gender couples for use in this study. The 338 couples with the focal participant in the adolescent age cohort were excluded due to differences in teenage relationships compared to adult couples (30). At Wave 1, men were 33.81 y old, on average (SD = 6.36 y; range:

19 to 72 y), and women were 31.05 y (SD = 5.78 y, range: 18 to 74 y). Couples had been in their relationship 8.79 y, on average, (SD = 5.70 y, range: 1 mo to 25 y) and most were married (62.12%). In terms of ethnicity, 90.35% of men and 88.99% of women reported German ethnic origin.

Measures.

Relationship Satisfaction. Relationship satisfaction was assessed with one item from the Relationship Assessment Scale (31): "All in all, how satisfied are you with your relationship?" Response options ranged from 0 = very dissatisfied to 10 = very satisfied.

Data Availability. Anonymized [Analytic Files for Study 1] data have been deposited in Open Science Framework (DOI: 10.17605/OSF.IO/RYVH8). Some study data available (Data for Study 2 are available by contract submitted to the German Family Panel research team. Instructions for how to access these data are presented in the manuscript).

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- L. Campbell, J. A. Simpson, J. G. Boldry, H. Rubin, Trust, variability in relationship evaluations, and relationship processes. *J. Pers. Soc. Psychol.* **99**, 14–31 (2010). 1.
- 2 F. J. Floyd, H. J. Markman, Observational biases in spouse observation: Toward a cognitive/ behavioral model of marriage. J. Consult. Clin. Psychol. **51**, 450–457 (1983).
- E. A. Impett, L. A. Peplau, "'His' and 'her' relationships? A review of the empirical evidence" in The 3 Cambridge Handbook of Personal Relationships, A. L. Vangelisti, D. Perlman, Eds. (Cambridge University Press, ed. 1, 2006), pp. 273-291.
- 4 S. A. Kumar, R. L. Brock, D. DiLillo, Partner support and connection protect couples during pregnancy: A daily diary investigation. J. Marriage Fam. 84, 494-514 (2022).
- J. K. McNulty, A. L. Meltzer, L. A. Neff, B. R. Karney, How both partners' individual differences, stress, and behavior predict change in relationship satisfaction: Extending the VSA model. Proc. Natl. Acad. Sci. U.S.A. 118, 1-10 (2021).
- R. A. Faulkner, M. Davey, A. Davey, Gender-related predictors of change in marital satisfaction and 6 marital conflict. Am. J. Fam. Ther. 33, 61-83 (2005).
- L. A. Kurdek, Gender and marital satisfaction early in marriage: A growth curve approach. J. Marriage Fam. 67, 68-84 (2005).
- D. M. Buss, Evolutionary psychology: A new paradigm for psychological science. Psychol. Inq. 6, 8 1-30 (1995).
- R. L. Trivers, "Parental investment and sexual selection" in Sexual Selection and the Descent of 9 Man: 1871-1971, B. G. Campbell, Ed. (Aldine, 1972), pp. 136-179.
- J. Duncombe, D. Marsden, Love and initimacy: The gender division of emotion and 'emotion work': A neglected aspect of sociological discussion of heterosexual relationships. *Sociol* **27**, 221–241 10 (1993).
- A. H. Eagly, Sex Differences in Social Behavior: A Social-Role Interpretation (Lawrence Erlbaum 11 Associates, Inc, 1987).
- 12 P. M. Bentler, M. D. Newcomb, Longitudinal study of marital success and failure. J. Consult. Clin. Psychol. 46, 1053-1070 (1978).
- D. Schoebi, B. R. Karney, T. N. Bradbury, Stability and change in the first 10 years of marriages 13 Does commitment confer benefits beyond the effects of satisfaction? J. Pers. Soc. Psychol. 102, 729-742 (2012).
- S. M. Stanley et al., Asymmetrically committed relationships. J. Soc. Pers. Relat. 34, 1241-1259 (2017).

- M. Dewitte, A. Mayer, Exploring the link between daily relationship quality, sexual desire, and sexual activity in couples. *Arch. Sex. Behav.* 47, 1675-1686 (2018).
 D. Berry, M. T. Willoughby, On the practical interpretability of cross-lagged panel models: Rethinking a developmental workhorse. *Child Dev.* 88, 1186-1206 (2017).
 N. W. Hudson, R. C. Fraley, C. C. Brumbaugh, A. M. Vicary, Coregulation in romantic partners' threshouse there is the investigation of the proceeding. *Partner* 40, 1047 0177 (2014).

- attachment styles: A longitudinal investigation. Pers. Soc. Psychol. Bull. 40, 845-857 (2014). 18. P. J. Curran, A. M. Hussong, Integrative data analysis: The simultaneous analysis of multiple data
- sets. Psychol. Methods 14, 81-100 (2009). J. Huinink et al., Panel analysis of intimate relationships and family dynamics (pairfam): 19. Conceptual framework and design. J. Fam. Res. 23, 77-101 (2011).
- 20. P. J. Curran, A. L. Howard, S. A. Bainter, S. T. Lane, J. S. McGinley, The separation of betweenperson and within-person components of individual change over time: A latent curve model with structured residuals. J. Consult. Clin. Psychol. 82, 879-894 (2014).
- P. England, The gender revolution: Uneven and stalled. Gend. Soc. 24, 149-166 (2010).
- R. M. Horne, M. D. Johnson, N. L. Galambos, H. J. Krahn, Time, money, or gender? Predictors of 22. the division of household labour across life stages. Sex Roles 78, 731-743 (2018).
- 23
- Hyde, The gender similarities hypothesis. Am. Psychol. **60**, 581–592 (2005).
 H. H. Kelley, J. Thibaut, Interpersonal Relations: A Theory of Interdependence (Wiley, 1978). 24.
- D. A. Kenny, D. A. Kashy, W. L. Cook, Dyadic Data Analysis (Guilford Press, 2006). 25
- S. Joel et al., Machine learning uncovers the most robust self-report predictors of relationship quality 26.
- Sterrar, Machine Learning Lucoses are insport possible predictions of readonsing dama across 43 longitudinal couples studies. *Proc. Natl. Acad. Sci. U.S.A.* **11**, 19061–19071 (2020).
 B. Hewitt, M. Western, J. Baxter, Who decides? The social characteristics of who initiates marital separation. *J. Marriage Fam.* **68**, 1165–1177 (2006). 27
- A. M. Hussong et al., Approaches for creating comparable measures of alcohol use symptoms: 28 Harmonization with eight studies of criminal justice populations. Drug Alcohol Depend. 194, 59-68 (2019).
- 29. J. Brüderl et al., The German Family Panel: Study Design and Cumulated Field Report Waves 1 to 6 (University of Munich, 2015).
- W. A. Collins, D. P. Welsh, W. Furman, Adolescent romantic relationships. Annu. Rev. Psychol. 60, 30 631-652 (2009).
- S. S. Hendrick, A. Dicke, C. Hendrick, The relationship assessment scale. J. Soc. Pers. Relat. 15, 31. 137-142 (1998).