Research Articles

Positive and Negative Relationship Evaluation Processes as Predictors of Relationship Satisfaction

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Abstract

Relationship evaluation processes (REPs) are the thought processes people use to evaluate the quality of their romantic relationships (Buckingham et al., 2019, https://doi.org/10.1177/0265407519833798). The present study expanded on previous REP research by developing measures of positive REPs to parallel existing measures of negative REPs, which measure people's tendency to focus on negative relationship behavior and fears about the future of the relationship. Data from a diverse sample of 170 US adults provided an initial confirmation of the validity of the positive REP subscales, which measure people's tendency to focus on positive relationship behavior and hopeful thoughts about the future of the relationship. Multiple regression analysis showed that positive and negative REPs significantly predict relationship satisfaction. Whereas negative REPs were associated with less relationship satisfaction, positive REPs were associated with greater satisfaction. We also examined the roles of depression, neuroticism, and optimism in predicting REPs and satisfaction.

Keywords

Relationship evaluation processes are the thought processes people use to assess the quality of their relationships (Buckingham et al., 2019). Past research suggests that relationship evaluation can involve a variety of processes including comparison to one's personal standards and ideals (Fletcher & Simpson, 2000; Thibaut & Kelley, 1959) social comparison (Buunk & Ybema, 2003; Morry & Sucharyna, 2016), using feedback from oth-

ers, temporal comparison, and observing behavior within one's relationship (Wayment & Campbell, 2000).

Building on existing measures (Smith LeBeau & Buckingham, 2008; Wayment & Campbell, 2000), Buckingham et al. (2019) used exploratory and confirmatory factor analysis to develop the eight-factor Relationship Evaluation Process (REP) scale; this scale measures individual differences in the frequency with which people use various processes to evaluate their romantic relationships. The REP scale includes subscales that measure the following processes: Personal standards, upward social comparison, non-directional social comparison (i.e., comparisons in which no direction is specified), upward past comparison, non-directional past comparison, feedback from others, feared future, and negative behavior. The latter two factors can be characterized as negative REPs because they are patterns of negative thinking in relationship evaluation. Specifically, the feared future subscale measures how frequently people envision their fears about what might happen to their relationship and the negative behavior subscale measures how frequently people think about negative behaviors (e.g., arguing, having difficulty resolving problems) when evaluating their relationship.

Buckingham et al. (2019) found that negative REPs showed moderate to strong negative correlations (r's ranged from -.58 to -.41) with relationship satisfaction, which indicates that people who report more frequent engagement in negative REPs tend to be less satisfied. Regression and structural equation models showed that relationships between negative REPs and satisfaction were significant when controlling for other REPs. Furthermore, the negative REPs significantly mediated the association between neuroticism and satisfaction. This suggests that negative relationship evaluation processing is one of the reasons that people scoring higher in neuroticism tend to experience lower relationship satisfaction (Kelly & Conley, 1987).

Given that there are individual differences in the extent to which people engage in *negative* relationship evaluation processes, it is logical to assume that there are also individual differences in the extent to which people engage in *positive* relationship evaluation processes. The Relationship Evaluation Process Scale (Buckingham et al., 2019) does not include positive relationship evaluation processes, but as we will demonstrate in the following section, past literature provides theoretical and empirical support for their inclusion. The purpose of the present study was to develop measures of positive REPs, test correlations between positive and negative REPs, and examine the extent to which positive and negative REPs are related to relationship satisfaction. We also examined trait variables (neuroticism, depression, and optimism) that may relate to positive and negative REPs.

Positive Thinking in Relationships

Although positive thinking has not previously been studied in the context of relationship evaluation processes, researchers have examined positive relationship thinking in

a broader sense. Cate et al. (1995) constructed a self-report measure of relationship thinking that includes positive affect thinking (e.g., "I reflect on how much I love my partner") and partner thinking (e.g., "I wonder about how close my partner feels to me"). According to Cate et al. (1995), positive affect thinking is "relationship maintaining" (p. 80) because it is positively associated with relationship satisfaction and not significantly associated with conflict. On the other hand, Cate et al. (1995) posit that partner thinking is "distress maintaining" (p. 80) because it is negatively associated with relationship satisfaction and positively associated with conflict. Expanding on this research, Acitelli et al. (1999) used a modified version of Cate et al.'s (1995) positive affect thinking scale and found that positive thinking was directly correlated with relationship satisfaction and that this relationship was stronger among people whose identities are more relational (i.e., people whose identities are more tied to their relationships with others).

Research on positive illusions in relationships also suggests that positive thinking is related to relationship quality (a broad concept that includes satisfaction). On average, people tend to be optimistically biased when thinking about their relationships (Murray & Holmes, 1997). That is, people think they are more likely than others to experience positive outcomes and less likely than others to experience negative outcomes. Furthermore, these positive illusions about relationships predict greater satisfaction, love, trust, and relationship stability (Murray & Holmes, 1997; Reis et al., 2011; Rusbult et al., 2000). Although measures of positive illusions in relationships have participants consider both positive and negative relationship outcomes, they treat the optimistic bias as a unitary construct that includes thinking that one is more likely to experience positive outcomes and less likely to experience negative outcomes. Therefore, research on positive illusions does not tell us the extent to which the benefits of positive illusions are due to optimistic beliefs, lack of pessimistic beliefs, or a combination of both.

Positive Versus Negative Relationship Constructs

Although researchers have not yet disentangled positive and negative aspects of relationship evaluation processes, there is existing research on positive and negative relationship *adjustment* as well as positive and negative relationship *quality*. To investigate relationship adjustment, Whisman and Li (2015) collected data from over 2000 couples on measures of positive adjustment (e.g., perceived support from one's partner) and negative adjustment (e.g., perceived relationship strain). Their factor analysis showed that positive and negative adjustment items loaded onto separate factors, but these factors were strongly correlated (r = -.51). To investigate relationship quality, Rogge et al. (2017) had participants rate their relationship on positive (e.g., enjoyable, pleasant) and negative (e.g., miserable, bad) adjectives using the Positive-Negative Relationship Quality Scale (PN-RQ). As in past studies (e.g., Fincham & Linfield, 1997), these items formed separate dimensions that assess positive and negative relationship quality; Rogge et al. reported a correlation of -.50 between the positive and negative subscales. As further

evidence of the importance of differentiating between positive and negative aspects of relationships, Rogge et al.'s (2017) Study 3 found that a relationship intervention led to a significant decrease in negative relationship quality, but no significant increase in positive relationship quality.

How are positive and negative aspects of relationships weighted in perceived relationship quality? The "bad is stronger than good" phenomenon suggests that negative events outweigh positive events in a broad range of situations (Baumeister et al., 2001). Previous research testing this phenomenon in a relationship context has focused on relationship behaviors rather than perceptions. Gottman and colleagues (e.g., Gottman, 1994; Gottman & Levenson, 1986) found that in laboratory studies of relationship conflict, negative behaviors (e.g., contempt) were more predictive of marital quality than positive behaviors. Based on such findings, Gottman (1994) proposed that successful relationships should have at least a 5:1 ratio of positive to negative interactions. Although some studies support the "bad is stronger than good" principle in relationships, Woodin's (2011) meta-analysis of 64 studies suggests that both positive and negative behaviors during conflict are correlated with relationship satisfaction. This meta-analysis included cross-sectional studies in which couples were videotaped while discussing a source of conflict. Woodin coded behaviors as positive versus negative and low or high in intensity; for example, hostility was coded as high in intensity whereas withdrawal was coded as low in intensity. Woodin found that high intensity negative behavior (i.e., hostility) had a moderate negative association with satisfaction whereas both high and low intensity positive behaviors (i.e., intimacy and problem solving) had moderate positive associations with satisfaction. This suggests that partners are likely to consider both positive and negative factors when assessing the overall quality of their relationships.

Traits, Relationship Evaluation, and Satisfaction

Past research shows that trait variables such as optimism, neuroticism, and depression are associated with relationship satisfaction; we focus on these traits because they are likely to also be related to positive and negative relationship evaluation processes. Moreover, relationship evaluation processes may mediate the relationship between these traits and satisfaction. Optimism is defined, in part, by positive thinking and research shows that optimism is directly related to positive reinterpretation as well as other positive coping mechanisms (Scheier et al., 1994). Similarly, in the domain of romantic relationships, studies show that optimism is associated with relationship satisfaction because optimists are more likely to engage in constructive problem solving (Assad et al., 2007; Neff & Geers, 2013). Based on this evidence, it is logical to expect that those scoring higher in dispositional optimism are also likely to report more positive thinking about their relationships and this may partly explain the relationship between optimism and satisfaction.

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On the other hand, neuroticism and depression are individual difference variables that are negatively correlated with relationship satisfaction (e.g., Cramer, 2004; Kelly & Conley, 1987). Recent research shows that neuroticism and depression are significantly correlated with negative REPs (Buckingham et al., 2019; Griswold, 2019). That is, people who score higher in neuroticism and depression report a greater focus on their partner's negative behaviors as well as their fears about the future of the relationship. Moreover, as mentioned earlier in this paper, Buckingham et al. found that negative REPs (negative behavior and feared future) mediated the relationship between neuroticism and satisfaction. Extending this research, Griswold (2019, 2020) showed that negative behavior (but not feared future) mediated the relationship between depression and satisfaction. This suggests that neuroticism and depression foster a greater reliance on negative REPs which, in turn, predicts lower relationship satisfaction.

Similarly, trait variables may also *moderate* the relationship between relationship evaluation processes and satisfaction, but this possibility has received little attention from researchers. Gable and Poore (2008) used experience-sampling methods to examine approach/avoidance motivation as a moderator of the associations between positive and negative momentary feelings and satisfaction level at the end of the day. This study showed that positive feelings (i.e., passion) were more predictive of (higher) satisfaction for people with stronger relationship approach goals, but negative feelings were more predictive of (lower) satisfaction for people with stronger relationship avoidance goals. This indicates that some people's relationship satisfaction is contingent on the extent to which they are experiencing positive feelings whereas other people's satisfaction is contingent on the extent to which they are experiencing negative feelings. Similarly, there may be individual difference variables that moderate the extent to which people's satisfaction depends on positive versus negative REPs. Relationship satisfaction may be more contingent on positive REPs for optimists than pessimists whereas relationship satisfaction may be more contingent on negative REPs for people who score higher on neuroticism and depression. This could occur because of individual differences in the way people define satisfaction (i.e., satisfaction is the presence of positivity vs. the absence of negativity; Gable & Poore, 2008) and/or because of a confirmation bias that leads individuals to engage in relationship processes that support their trait-based tendencies. Specifically, people scoring high in optimism may place more weight on positive REPs whereas people scoring high in neuroticism or depression may place more weight on negative REPs.

The Present Study

The present study had several a priori objectives, which we list and describe below.

- **Objective 1.** Develop and validate measures of positive REPs.

- **Objective 2.** Examine relationships between positive and negative REPs to determine whether they are best characterized as independent constructs (like positive and negative relationship adjustment and quality) or opposite poles of a unitary construct.
- **Objective 3.** Test the extent to which positive and negative REPs are associated with relationship satisfaction. We expected satisfaction to be directly correlated with positive REPs and inversely correlated with negative REPs. Furthermore, we planned to use multiple regression to test whether each REP measure is a significant predictor of satisfaction when controlling for the other measures.
- **Objective 4.** Test correlations between trait variables (optimism, depression, and neuroticism) and satisfaction and test whether positive and negative REPs mediate such associations.
- **Objective 5.** Test whether individual differences in optimism, depression, and neuroticism moderate the relationships between positive and negative REPs and satisfaction.

Method

Research materials and data for this study are publicly available in the Supplementary Materials.

Participants

Participants were US residents recruited via Amazon's Mechanical Turk platform and were paid $0.75 USD; data collection occurred in Summer, 2019. Participants signed up for a "Study of Relationships" with the inclusion criteria that they must be currently involved in a romantic relationship for at least four weeks; this is the same criteria Buckingham et al. (2019) used in previous research on relationship evaluation processes. The initial sample included 197 participants. Of those, 12 were excluded because they reported that they were not currently involved in a romantic relationship. In addition, 8 participants were missing data for at least one of our focal variables and 7 failed more than one of the attention checks. Therefore, the final sample size for analysis was 170 participants (77 females, 45.3%; 91 males, 53.5%) from 41 different states. The sample was diverse in age (M = 37.31, SD = 11.21), sexual orientation (78.8% heterosexual, 18.2% bisexual, 2.4% gay or lesbian), and race/ethnicity (66.5% Caucasian, 19.4% African American, 7.1% Asian, 5.3% Hispanic, 1.2% Native American, and 0.6% other race/ethnicity).

All participants reported that they were currently involved in a romantic relationship. Participants categorized their relationships as married (47.1%), dating exclusively (21.8%), living together (14.7%), dating casually (12.9%), or engaged (3.5%). In addition, participants reported how long they had been involved in their current relationship. Participants reported being involved in their relationship for 3–5 years (30.6%), over 11

years (19.4%), 6–10 years (14.1%), 1–2 years (14.1%), 7–11 months (13.5%), 2–6 months (6.5%), or 1 month (1.8%).

Measures

For each measure, we have included Cronbach's alpha for each subscale; these alphas are based on data from the current study.

Relationship Evaluation Items

To measure negative REPs, we used the eight-item negative behavior (e.g., "I think about how frequently my partner lets me down;" $\alpha = 0.93$) and six-item feared future (e.g., "I think about my partner leaving me" $\alpha = 0.91$) subscales of the Relationship Evaluation Process Scale (Buckingham et al., 2019). To measure positive REPs, we developed 15 positive behavior items (e.g., "I think about how frequently my partner supports me") and 9 hopeful future items (e.g., "I think about being with my partner forever") to parallel the negative thinking subscales. The authors and a group of research assistants wrote and edited the new items so that they were similar in content to the negative REP items. We also used a modified version of Acitelli et al.'s (1999) Positive Relationship Thinking scale (PRT; $\alpha = 0.82$) so that we could test the convergent validity of the new positive REP scales. We modified the following items from this scale by adding the italicized words (italics are used here to emphasize the changes, but we did not use italics in the actual survey) so that the items explicitly measured positive rather than neutral thinking: "I think about all of the *positive* experiences we have shared together" and "I think about the *good* memories I have of our relationship." Items from the PRT were embedded within REP items and all these items were presented in random order. As in Buckingham et al. (2019), participants were instructed to "think about what kinds of information you use to evaluate your current relationship" when answering the REP items. Participants rated each item on a 5-point scale, indicating how often participants engaged in these thought processes (1 being *never* and 5 being *always*).

Relationship Satisfaction

We used Norton's (1983) Marital Quality Index ($\alpha = 0.93$) to measure relationship satisfaction. The word "marriage" was replaced with "relationship" in a modified version. Items such as "our relationship is strong" and "we have a good relationship," were rated on a 7-point scale with endpoints labeled *strongly disagree* and *strongly agree*.

Trait Measures

We used the neuroticism items from the Big Five Inventory (John, et al., 1991; $\alpha = 0.88$), which included, "I am someone who worries a lot" and "I am someone who gets nervous easily". These items were presented in random order and rated by participants on a

5-point scale with *disagree strongly* and *agree strongly* as the endpoints. Three items were reverse coded.

The Life Orientation Test (Scheier et al., 1994; α = 0.81) was included as a measure of optimism. This scale included 6 optimism items such as "It's easy for me to relax" and "In uncertain times, I usually expect the best" as well as 4 filler items. These items were presented in random order and rated by participants on a 5-point scale with *strongly disagree* and *strongly agree* as the endpoints.

The Beck Depression Inventory (Beck et al., 1996; α = 0.96) consisted of 20 group statements that measure depressive symptoms. These group statements were presented in random order. Participants were asked to choose the statement that best describes how they felt during the past week. Items included sadness, agitation, loss of interest, and worthlessness. The group statement on suicidal thoughts was omitted in the present study to minimize sensitive data collection.

Procedure

After giving informed consent, participants completed the scales in the following order: REP and PRT scales, relationship satisfaction, depression, neuroticism, and optimism. Participants then completed a demographic survey. Three attention check items were embedded within the scales. These items included an instruction to respond in a particular way to indicate that the participant had read the direction.

Results

We used SPSS version 25 for all analyses. Within each set of significance tests (i.e., correlations, multiple regression, mediation, moderation) we used Holm's (1979) procedure to control the family-wise error rate. Our SPSS syntax and excel files showing our calculation of adjusted alphas is available in the Supplementary Materials.

Scale Construction and Validation

We conducted confirmatory factor analysis on the 24 new positive REP items using principal axis factoring with promax rotation and two factors specified. This analysis confirmed two factors with initial eigenvalues of 10.85 and 1.43, respectively. After removing 2 items with factor loadings less than .30, 7 items with cross loadings greater than .30, and 3 items with poor conceptual fit, the Positive Behavior factor (α = .88) consists of 7 items and the Hopeful Future factor consists of 5 items (α = .83). Final items and factor loadings for the positive REP scales are displayed in Table 1; a list of all items with factor loadings and reasons for exclusions is available in the Supplementary Materials. Convergent validity of the new positive REP scales is supported by strong, positive correlations between Acitelli et al.'s (1999) measure of positive relationship

thinking and the positive behavior ($r = .76$, $p < .001$) and hopeful future scales ($r = .76$, $p < .001$).

Table 1

Factor Loadings for Positive Thinking Scale Items

Item	Positive Behavior	Hopeful Future
I think about how many times my partner has said positive things to me	.88	-.18
I think about how frequently my partner and I agree with each other	.73	-.00
I think about how frequently my partner makes time for me	.72	-.01
I think about how frequently my partner goes "above and beyond" for me	.68	.05
I think about how frequently my partner respects me	.66	.04
I think about how frequently my partner "lifts me up"	.61	.19
I think about how often I feel that my partner truly listens to me	.59	.07
I think about being with my partner forever	-.23	.92
I think about future plans with my partner	-.23	.91
I think about sharing experiences with my partner in the future	-.02	.76
I envision my hopes and dreams for what my relationship could be like in the future	.08	.67
I think about the "best case scenario" for the future of my relationship	.12	.50

To what extent are positive and negative REPs associated? We found weak non-significant correlations (see Table 2) between the two measures of positive REPs (positive behavior and hopeful future) and the two measures of negative REPs (negative behavior and feared future). This suggests that our measures of positive and negative REPs are independent constructs rather than opposite poles of a continuum.

Table 2

Correlations Between Unstandardized Variables in Primary Analyses

Variable	1	2	3	4	5	6	7	8	9
1. Positive Behavior	—	**0.807**	-0.022	0.091	**0.825**	**0.592**	-0.007	-0.180	0.153
2. Hopeful Future		—	0.032	0.112	**0.780**	**0.586**	-0.059	-0.182	0.211
3. Negative Behavior			—	**0.842**	-0.174	**-0.408**	**0.555**	**0.418**	**-0.320**
4. Feared Future				—	-0.058	**-0.307**	**0.630**	**0.475**	**-0.452**
5. Positive RT					—	**0.645**	-0.113	-0.200	0.180
6. Satisfaction						—	**-0.279**	-0.248	0.221
7. Depression							—	**0.571**	**-0.549**
8. Neuroticism								—	**-0.549**
9. Optimism									—

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Variable	1	2	3	4	5	6	7	8	9
Mean	3.91	3.96	2.77	2.80	4.27	5.90	47.10	2.83	3.29
Standard Deviation	0.73	0.69	1.02	1.05	0.72	1.12	26.35	0.93	0.84

Note. Significant effects using alphas adjusted with Holm's procedure in bold. RT = Relationship Thinking.

REPs and Relationship Satisfaction

Bivariate correlations showed that both positive and negative REPs were significantly related to relationship satisfaction (see Table 2). Whereas the positive REP scales had strong, positive associations with satisfaction, the negative REP scales had moderate, negative associations with satisfaction. To better understand these relationships, we conducted a multiple regression with the REP measures as predictors of relationship satisfaction. With the four REP measures in the model, hopeful future, $B = .51$, $t = 7.54$, $p < .001$, 95% CI [.38, .65], and positive behavior, $B = .17$, $t = 2.49$, $p = .014$, 95% CI [.04, .31], significantly predicted greater relationship satisfaction whereas negative behavior significantly predicted less relationship satisfaction, $B = -.36$, $t = -3.76$, $p < .001$, 95% CI [-.55, -.17]. Feared future was not significantly related to satisfaction in this analysis, $B = .01$, $t = 0.08$, $p = .937$, 95% CI [-.19, .20].

We also conducted an unplanned analysis to test whether positive REPs explain additional variance in satisfaction when controlling for positive relationship thinking (PRT; Acitelli et al., 1999). To test this, we conducted a two-step hierarchical regression in which we entered PRT as a predictor of relationship satisfaction in the first step and added the two positive REP scales as predictors in the second step. In step one, PRT significantly predicted satisfaction, $B = 1.00$, $t = 10.94$, $p < .001$, 95% CI [0.82, 1.18]. Adding the positive REP scales to the model significantly improved prediction of relationship satisfaction, $\Delta R^2 = .08$, $p < .001$. In step two, PRT remained a significant predictor, $B = 0.60$, $t = 3.81$, $p < .001$, 95% CI [0.29, 0.92]. Hopeful future was also a significant predictor of satisfaction, $B = 0.70$, $t = 5.08$, $p < .001$, 95% CI [0.43, 0.97] whereas positive behavior was not, $B = -0.15$, $t = -1.16$, $p = .248$, 95% CI [-0.41, 0.11].

Do REPs Mediate the Relationships Between Traits and Satisfaction?

In line with previous research, there was a positive correlation between optimism and satisfaction and significant negative correlations between neuroticism and satisfaction as well as between depression and satisfaction (see Table 2). Table 2 also shows correlations between traits and REPs: The relationships were moderate to strong and significant for negative REPs whereas they were weak and non-significant for positive REPs. To examine whether positive and negative REPs mediate relationships between traits and relationship satisfaction, we conducted a series of mediation analyses using Process Model 4. In each analysis, we used one trait variable as the predictor while including

the other trait variables as covariates. The four REP scales were included as parallel mediators. Results of the indirect effects (i.e., mediated paths) are summarized in Table 3. Whereas none of the REPs significantly mediated the relationship between optimism and satisfaction, there were significant indirect effects for both neuroticism and depression. The relationship between neuroticism and satisfaction was significantly mediated by negative behavior (one of the negative REPs). This suggests that people with higher neuroticism tend to think about negative behavior more frequently when evaluating their relationships, and in turn, this is associated with lower relationship satisfaction. Interestingly, the relationship between depression and satisfaction was significantly mediated by both negative behavior and positive behavior. People with higher scores on depression reported thinking about negative and positive behavior more frequently when evaluating their relationships. Whereas thinking about negative behavior was associated with lower relationship satisfaction, thinking about positive behavior was associated with higher relationship satisfaction.

Table 3

Unstandardized Regression Coefficients and 95% Confidence Intervals for Indirect Effects of Relationship Evaluation Processes on Relationship Satisfaction

Mediator	Predictor Variable		
	Optimism	Neuroticism	Depression
Positive Behavior	0.027 [-0.019, 0.088]	-0.024 [-0.080, 0.019]	**0.038 [0.0002, 0.093]**
Hopeful Future	0.076 [-0.045, 0.209]	-0.052 [-0.190, 0.065]	-0.035 [-0.143, 0.073]
Negative Behavior	0.031 [-0.115, 0.049]	**-0.075 [-0.178, -0.004]**	**-0.193 [-0.321, -0.088]**
Feared Future	0.001 [-0.040, 0.025]	-0.002 [-0.046, 0.035]	-0.008 [-0.118, 0.111]

Note. Intervals that do not include zero in bold.

Do Trait Variables Moderate the Relationships Between REPs and Satisfaction?

Before conducting moderation analyses, we standardized the trait variables. We conducted a series of moderation analyses using Process Model 1. In each analysis, one measure of positive or negative REPs was the predictor, a trait variable (i.e., optimism, neuroticism, or depression) was the moderator, and relationship satisfaction was the criterion. We controlled for the other traits by including them as covariates. Coefficients for the interaction terms are presented in Table 4. Whereas optimism and neuroticism did not significantly moderate the relationships between relationship evaluation processes and satisfaction, depression was a significant moderator for both positive thinking relationship evaluation processes. We unpacked the significant interactions by testing the simple effects of positive behavior and hopeful thinking at low (-1 *SD*), average, and high (+1 *SD*) levels of depression. These analyses showed that positive behavior (see Figure

1) and hopeful thinking (see Figure 2) were stronger predictors of satisfaction among participants with higher levels of depression than among people with lower levels of depression. Specifically, higher scores on positive behavior predicted significantly higher satisfaction scores among people with high, $B = 0.54$, $t = 3.42$, $p < .001$, 95% CI [0.23, 0.85], and average depression scores, $B = 0.24$, $t = 2.31$, $p = .022$, 95% CI [0.04, 0.45], but not among people with low depression scores, $B = 0.09$, $t = 0.71$, $p = .482$, 95% CI [-0.16, 0.34]. In addition, higher scores on hopeful future predicted significantly higher satisfaction scores among people at all three levels of depression, but the coefficients were stronger among people with high, $B = 1.04$, $t = 7.28$, $p < .001$, 95% CI [0.76, 1.33], and average depression scores, $B = 0.73$, $t = 6.16$, $p < .001$, 95% CI [0.49, 0.96], than among people with low depression scores, $B = 0.56$, $t = 3.59$, $p < .001$, 95% CI [0.25, 0.87]. These results suggest that positive REPs are particularly beneficial for people who are more depressed.

Table 4

Partially Standardized Regression Coefficients and Confidence Intervals for Moderated Effects of Relationship Evaluation Processes on Relationship Satisfaction

Predictor	Moderator Variable		
	Optimism	**Neuroticism**	**Depression**
Positive Behavior	-0.102 [-0.240, 0.036]	0.150 [-0.002, 0.302]	**0.202 [0.032, 0.371]**
Hopeful Future	-0.086 [-0.237, 0.064]	0.148 [-0.010, 0.306]	**0.215 [0.034, 0.395]**
Negative Behavior	-0.055 [-0.208, .097]	-0.000 [-0.161, 0.161]	0.084 [-0.066, 0.234]
Feared Future	-0.029 [-0.154, 0.095]	0.024 [-0.109, 0.158]	0.090 [-0.063, 0.243]

Note. Significant interaction effects in bold, $p < .05$.

Figure 1

Satisfaction as a Function of the Interaction Between Depression and Positive Behavior

Figure 2

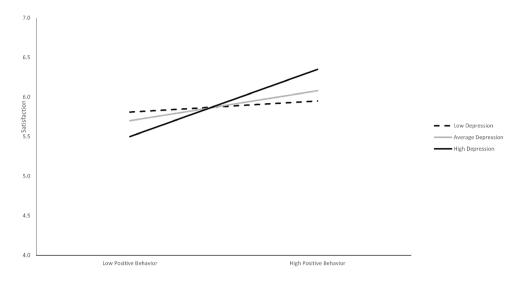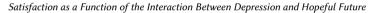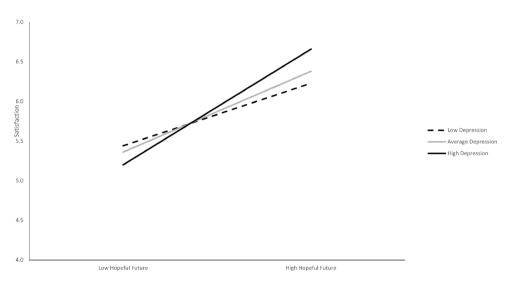*Satisfaction as a Function of the Interaction Between Depression and Hopeful Future*

Discussion

In the present study, we developed new measures of positive relationship evaluation processes. The measures form two subscales (positive behavior and hopeful future) that parallel existing measures of negative relationship evaluation processes (negative behavior and feared future) from the Relationship Evaluation Process Scale (Buckingham et al., 2019). Strong correlations between the new positive REP scales and Acitelli et al.'s (1999) measure of positive relationship thinking help establish the convergent validity of our measures. The present data suggest that our measures of positive and negative REPs represent separate constructs rather than opposite poles of a continuum, which is consistent with research on other relationship constructs such as positive and negative adjustment and relationship quality (Rogge et al., 2017; Whisman & Li, 2015). This suggests that positive and negative perceptions of one's relationship coexist, which makes sense given that (anecdotally at least) even the happiest couples find some aspects of their relationship and/or their partner to be less than ideal.

Moreover, the present study showed that both positive and negative REPs predict relationship satisfaction. Higher scores on positive REPs and lower scores on negative REPs were associated with greater relationship satisfaction. In addition, multiple regression analysis showed that both measures of positive REPs and one measure of negative REPs remained significant predictors of satisfaction when controlling for the other REP measures. This indicates that the new measures of positive REPs add predictive value over and above the existing measures of negative REPs. Furthermore, the present results are consistent with the idea that "good" and "bad" aspects of relationships coexist and are both important predictors of satisfaction (Woodin, 2011), which is inconsistent with the "bad is stronger than good" principle (Baumeister et al., 2001). Whereas Woodin's meta-analysis focused on positive and negative relationship behaviors, the present research extends their findings to relationship perceptions.

Consistent with previous findings (Assad et al., 2007; Cramer, 2004; Kelly & Conley, 1987), higher scores on optimism and lower scores on neuroticism and depression were associated with greater satisfaction. Mediation analyses can shed light on the mechanisms underlying such results. The mediation results from the present study replicate and extend previous findings that negative REPs mediate the relationship between neuroticism and satisfaction (Buckingham et al., 2019) as well as the relationship between depression and satisfaction (Griswold, 2019, 2020). In the present study, negative behavior (but not feared future) significantly mediated the relationship between neuroticism and satisfaction, which replicates Griswold's (2019) finding. The present data also showed that the relationship between depression and satisfaction was mediated by both negative and positive REPs. These indirect effects suggest that people with higher depression scores tend to engage in more negative *and* positive relationship evaluation. Thus, individuals who experience depressive symptoms may miss out on potential benefits of positive REPs because they also tend to engage in negative REPs. Consistent with

this conclusion, the total effect of depression on satisfaction was not significant in our mediation analysis.

The present study also showed that depression moderated the relationship between positive REPs and relationship satisfaction such that engaging in positive REPs was more predictive of satisfaction for people with higher scores on depression. This may indicate that individuals with higher depression scores are particularly attuned to positive thoughts that can boost their relationship satisfaction. This finding counters our expectation that people with higher depression scores would base their satisfaction more on negative thinking. However, as noted above, people with depressive symptoms may miss out on this benefit if they also engage in negative REPs that nullify the benefits of positive thinking. Therefore, future research may focus on developing and testing interventions to help people identify their REPs and to encourage greater use of positive REPs (e.g., focusing on strengths and positive thoughts about the future of the relationship) while also discouraging use of negative REPs such as focusing on negative behaviors or fears about the future of the relationship. The present study suggests that such interventions could be particularly useful for people who are experiencing depressive symptoms.

Positive and negative REPs can be conceptualized as specific measures of positive and negative thinking about relationships. Although participants are instructed to think about the types of information they use to evaluate their relationship when completing the REP, it is possible that the positive and negative REP scales reflect more general tendencies to engage in positive or negative thinking about relationships. Consistent with this idea, the positive REP scales were strongly correlated with Acitelli et al.'s (1999) measure of positive relationship thinking. However, the positive REP scales explained variance in relationship satisfaction when controlling for positive relationship thinking. This shows that specific measures of relationship evaluation processes have predictive utility over and above more general measures of relationship thinking tendencies. This finding suggests that cognitive therapies that address people's thoughts about their relationships may be more successful if they specifically focus on relationship evaluation processes.

While the present study tested a diverse sample of US adults, further research is needed to see whether the present findings can extend to other populations such as clinical populations or people in other countries. More focused studies could also be conducted to examine positive and negative REPs as a function of the stage of the relationship (i.e., new partners vs. long-term partners) as well as whether people are seeking a short-term or long-term partner.

The cross-sectional survey design of the present study precludes causal conclusions. Whereas REPs may cause changes in relationship satisfaction it is also possible that satisfaction determines the use of REPs. Third variables that were not measured in the present study may also explain the associations between REPs and satisfaction.

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Further research using longitudinal and experimental designs will be needed to test causal models of the relationships among traits, REPs, and satisfaction. For example, it would be useful to design an intervention to modify people's use of REPs and test to see if satisfaction improves among those who received the intervention. This type of study could also further examine traits that may moderate the success of the intervention.

Conclusion

The present study provides preliminary evidence to support the existence of positive and negative relationship evaluation processes, which are differently associated with relationship satisfaction. Whereas positive REPs are associated with greater satisfaction, negative REPs are associated with less satisfaction. The development of positive REP scales in the present study complements the existing negative REP scales and therefore provides a means for further testing of the relative impact of positive versus negative relationship evaluation processes. Furthermore, the addition of positive and negative REP scales broadens the relationship evaluation literature beyond past literature which focused on personal standards (Fletcher & Simpson, 2000; Thibaut & Kelley, 1959) and social comparison (Morry & Sucharyna, 2016; Smith LeBeau & Buckingham, 2008). Further research will be needed to better understand associations between positive REPs and other REPs (e.g., personal standards, social comparison, and past comparison) that were not included in the present study and to test the causal impact of engaging in positive and negative REPs.

Supplementary Materials

Supplementary materials include the following items (see Buckingham & Ryan, 2022):

- SPSS data file
- SPSS syntax file
- Qualtrics survey
- Summary of factor analysis
- Summary of Holm procedure for correlations
- Summary of Holm procedure for regressions

- Table of correlations between positive REP and Acitelli's PRT measure

Index of Supplementary Materials

Buckingham, J. T., & Ryan, G. (2022). *Positive and negative relationship evaluation processes* [Data, materials]. OSF. https://doi.org/10.17605/osf.io/xns56

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