The unique and combined benefits of accuracy and positive bias in relationships

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Abstract

An experiment investigated the independent and combined effects of receiving feedback from romantic partners that varied in both accuracy (i.e., profile agreement) and positive bias, as compared with one’s self-perceptions. Both members of 55 romantically involved couples were randomly assigned to receive either high or low levels of accurate or positively biased feedback ostensibly created from a comparison between their self-ratings and their partner’s appraisals. After receiving this feedback, participants rated how positive and intimate they felt in their relationships. As expected, both accuracy and positive bias in partner feedback had independent positive effects. Importantly, positive bias and accuracy were found to operate additively; participants who received feedback that was simultaneously positively biased and accurate rated their relationships particularly positively.

... Love is blind to wrongdoing ... Love rejoices in the truth ...

—1 Corinthians 13

When writing a letter to the church of Corinth, Paul the Apostle appears to have been acutely aware of the dilemma of love. Love is blind to wrongdoing, looking past faults to see virtues, to cherish the positive qualities in others. However, love also rejoices in the truth, seeking insight into the other’s strengths and weaknesses, to better understand the other’s character. Paul the Apostle’s insights on the conflicting nature of love were prescient, as modern-day relationship researchers continue to grapple with the question of whether love is enhanced or diminished by viewing the partner and relationship through rose-colored glasses.

Do people, for example, want their partners to be “blind to wrongdoing,” to perceive them in an overly positive fashion (i.e., in a positively biased and enhancing manner)? Or do people prefer that their partners “rejoice in the truth,” to perceive them in a manner consistent with their own self-views (i.e., accurate and verifying appraisals)? The answer to each of these questions, paradoxically, appears to be “yes.” A good deal of research finds that more positive bias is associated with happiness and longevity (Murray, Holmes, & Griffin, 1996a, 1996b) and that people prefer their partners to view them in a charitable, positively biased fashion (Boyes & Fletcher, 2007). In contrast, other research finds that more accurate interpersonal appraisals are associated
with healthier relationships (De La Ronde & Swann, 1998; Swann, De La Ronde, & Hixon, 1994) and that people tend to express strong desires for authentic, open, and honest relationships (Fletcher, Simpson, Thomas, & Giles, 1999).

These results, at first blush, seem paradoxical given that bias and accuracy do not intuitively go together. However, addressing this dilemma, recent theoretical and empirical work has shown that bias and accuracy (depending on how they are measured) may operate independently, so that it is possible (for example) for relationship and partner judgments to be simultaneously positively biased and reasonably accurate (Fletcher, 2002; Gagné & Lydon, 2004; Kenny & Acitelli, 2001).

Taking an example from Fletcher (2002), consider a hypothetical relationship between Mary and Tom. Assume that across a set of four traits Tom rates himself a 4, 5, 5, and 6 out of 10. Now assume that Mary’s perceptions of Tom on the same set of traits are 5, 6, 6, and 7. It is apparent that Mary’s perceptions are positively biased, with an overall mean difference between perceptions of 1 point on the scale. Mary’s appraisals, however, also perfectly track Tom’s self-perceptions across the four traits, yielding a correlation of +1.0 between the two sets of ratings. Thus, in this example, Mary’s perceptions of Tom denote both positive bias, suggesting partner enhancement, and tracking accuracy, suggesting partner verification or “profile agreement” (Funder & Colvin, 1997). Mary could be equally positively biased but relatively inaccurate in her perceptions of Tom if her ratings were instead 7, 5, 7, and 5—the mean difference between the two sets of ratings is now 1, but the correlation between the ratings is now −.71. Other combinations of ratings are possible that yield high tracking accuracy and no positive bias or low tracking accuracy and no positive bias.

In an overarching fashion, maximum accuracy is obtained in the condition that has no positive bias and maximum correlational accuracy. The term tracking accuracy is used here to describe agreement between partners regarding the relative strengths and weaknesses of one partner’s personality. Other research (De La Ronde & Swann, 1998; Swann, Bosson, & Pelham, 2002) has often used mean differences between partners’ ratings to assess what may be termed absolute accuracy. The two methods of assessing “accuracy” are, however, orthogonal. See Funder and Colvin (1997) for an in-depth discussion on the two methods of assessing accuracy.

Research has shown that positive bias and accuracy in judgments can live together comfortably. For example, Murray, Holmes, Bellavia, Griffin, and Dolderman (2002) found that women who are more egocentric (i.e., who view their partners as more similar to themselves than is warranted—an example of bias) tended to understand their partners more accurately. Sprecher (1999) found that, over time, individuals involved in dating relationships retrospectively rated their earlier levels of love and satisfaction as being on a higher upward trajectory over time than was in fact the case (an example of bias). For example, those individuals who actually had level trajectories of satisfaction over time in the past tended to recall that they had steadily become happier over the same period. Nevertheless, the sample overall quite accurately retrospectively tracked and reported relative increases or decreases in love and satisfaction over past periods in their relationships. In addition, finally, Epley and Dunning (2006, Studies 3 and 4) found evidence that individuals were positively biased when predicting how long their relationships would last but were also quite accurate.

However, no research to our knowledge has investigated how people react to information from their partner that is systematically manipulated in terms of the two dimensions of positive bias and accuracy. Do people, for example, prefer the best of both worlds and rejoice in the receipt of judgments that are both positively biased and accurate? Or, do they care much more about being evaluated positively than accurately? This research experimentally examines these questions.
Positive bias, accuracy, and relationship well-being

In romantic relationships, people tend to perceive their partners more positively than their partners perceive themselves on a number of traits and characteristics (Buunk & Van Yperen, 1991; Fowers, Lyons, Montel, & Shaked, 2001; Helgeson, 1994; Murray & Holmes, 1997; Murray et al., 1996a, 1996b; Van Lange & Rusbult, 1995). This positive bias translates into high levels of relationship satisfaction, low levels of ambivalence and relational conflict, and increased optimism for the future of the relationship. Moreover, these effects are true for both partners (Martz et al., 1998; Murray et al., 1996a; Murray & Holmes, 1997) and apply especially for traits that are central to relationship quality and well-being, such as judgments of commitment, warmth, and loyalty (Boyes & Fletcher, 2007). Additionally, relationships in which partners perceive one another as meeting idealized images of a romantic partner are more likely to survive than relationships in which partners perceive large discrepancies between their partners and their ideals (Fletcher, Simpson, & Thomas, 2000a; Murray et al., 1996b). Being the target of positive bias may satisfy the esteem needs of individuals (i.e., to feel positive and optimistic about the future of their relationship) by fostering a sense of unconditional positive regard, allowing people to feel that their partners see the best in them and thus feel accepted in spite of their faults or imperfections (see also Fowers, Lyons, & Montel, 1996; Murray, 2001; Reis & Shaver, 1988). This state of felt security has been posited as a critical factor for the development of relationship satisfaction and stability (Murray, Holmes, MacDonald, & Ellsworth, 1998).

Accurate interpersonal appraisals that verify one’s self-concept, however, have also been linked to relationship well-being. For example, intimates who possess more accurate perceptions of each other, both positive and negative, report greater intimacy in their relationships (De La Ronde & Swann, 1998) and more effective communication in problem-solving tasks (Kobak & Hazan, 1991). Furthermore, marriages tend to be more stable when partners, particularly wives, have more accurate perceptions of their partner across a number of traits (Neff & Karney, 2005). When the self-concept is verified by more accurate interpersonal appraisals it may satisfy the epistemic needs of individuals (i.e., to accurately understand their relationships) by signaling to people that their partners truly know them. However, appraisals that do not mirror self-views may be threatening because they may call one’s self-knowledge into question and also because they may signal that partners hold false expectations for one another that could cause interpersonal friction.

Moderators of bias and accuracy

This body of seemingly contradictory research has prompted a search for possible moderators of the preference for positively biased versus accurate appraisals. For example, Swann, Griffin, Predmore, and Gaines (1987) demonstrated that people responded with greater positive affect to positively biased feedback (an affective response) and also felt less understood after receiving positively biased feedback (a cognitive response), suggesting that people can have independent affective and cognitive responses to partner feedback. Campbell (2005) recently showed that partners responded favorably to accurate feedback from intimates on traits that tend to be more difficult for others to accurately appraise, whereas they responded favorably to positively biased feedback on traits that tend to be more easily appraised in an accurate manner. Swann and colleagues (1994) have postulated that the positive influence of positively biased appraisals is greatest in short-term relationships, whereas the positive influence of accurate appraisals are greatest in long-term relationships. Indeed, both correlational (Swann et al., 1994) and experimental (Campbell, Lackenbauer, & Muise, 2006) research suggests that people in more long-term committed relationships respond most positively
to partner appraisals that mirror their self-perceptions, whereas people in newer relationships respond more approvingly to partner appraisals that are positively biased.

Although this research has highlighted conditions when the preference for positively biased and accurate feedback from romantic partners is dominant, it has implicitly assumed that the interpersonal evaluations in question are either accurate or positively biased, but not both. As we have already discussed, positively biased feedback is not necessarily the inverse of accurate feedback, meaning that the evaluations intimates have of each other can vary in both accuracy and positive bias independently. Research that focuses on the independent, and combined, effects of each type of feedback in romantic relationship is therefore needed to better understand how people desire to be perceived by their partners.

**Accuracy and bias as independent constructs**

Some research is beginning to investigate the independent effects of positively biased and accurate interpersonal appraisals in romantic contexts. For example, Morling and Epstein (1997) found independent effects of accuracy and positive bias on attraction ratings to hypothetical partners; however, accuracy and positive bias were not manipulated but were assessed by asking participants how accurately and positively biased they felt the hypothetical feedback was. Katz, Anderson, and Beach (1997) also found that accuracy and bias in perceived partner appraisals (how participants felt their partners perceived them) accounted for unique variance in dating females’ feelings of relationship satisfaction and intimacy. Finally, Katz and Beach (2000) manipulated feedback from ostensibly potential dating partners and found that participants responded most positively to feedback that was both accurate and positively biased; however, the effects of accuracy and positive bias were not independent—the accuracy effects were stronger when positive bias was not present. One limitation of this body of research is that it has been correlational in nature or restricted to participant responses to hypothetical potential partners.

Although some correlational research has been premised on the notion of integrating accuracy and positive bias to predict relationship outcomes (Murray et al., 1996a, 1996b; Neff & Karney, 2005), a strong case for the concurrent and positive benefits of each has not been established. For example, although Neff and Karney (2005) acknowledge the importance of both positively biased (global) and accurate (specific) partner perceptions among their newlywed samples, the lack of variability in positive bias prevents analyses of the benefits of positive bias as well as examining different combinations of positive bias and accuracy. In other words, all the newlyweds in their study perceived their partners in an exceedingly positive manner at the global level, not allowing them to test the effects of specific (in)accuracy combined with low global partner perceptions on marital outcomes. Furthermore, Neff and Karney focused exclusively on how people felt when they perceived their partners more or less accurately and not on how people responded to being perceived more or less accurately by their spouses.

Murray and colleagues (1996a, 1996b) have discussed an integrative framework for accuracy and positive bias, but their account about the role of accuracy is limited to pointing out that accuracy and bias may be independent and that some level of accuracy is probably necessary. In their work, they emphasize the findings that the degree of bias has substantial effects on relationship outcomes, whereas individual differences in accuracy do not. Moreover, their related research is all correlational. None of these studies has investigated reactions to feedback provided by actual romantic partners.

**The present research**

In order to address some of the limitations of prior research, this study was designed to experimentally test hypotheses regarding how individuals involved in romantic relationships respond to their partner’s appraisals of them that vary in terms of both positive bias and tracking accuracy. Both relationship partners participated in the research,
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although independently in separate rooms. Although partners were told that they would be presented with a comparison of their self-perceptions across 10 traits with their partner’s perceptions of them on those same traits, the feedback participants received was created by the experimenter. Participants were randomly assigned to receive feedback that varied in terms of bias (no bias vs. positive bias) and tracking accuracy (low accuracy vs. high accuracy), resulting in four experimental conditions. Moreover, the traits selected were related to intimacy and warmth, which prior research has shown are traits highly valued in romantic partners and strongly linked with relationship functioning and satisfaction (Brehm, 1992; Fletcher et al., 1999; see Fletcher & Boyes, 2008, for a review).

Hypotheses

The goal of this research was to extend prior research on the interpersonal effects associated with partner appraisals that vary in terms of accuracy and positive bias. In order to demonstrate that the experimentally assigned feedback was interpreted as accurate and positively biased, respectively, the first set of hypotheses concerned the replication of prior research for the effects of verifying and enhancing appraisals. For instance, previous research has demonstrated that participants report feeling more intimate with, and understood by, their partners when their partners’ appraisals are consistent with their self-perceptions (De La Ronde & Swann, 1998; Swann et al., 1994), whereas other research has demonstrated that confidence in the survival of the relationship increases when positive bias is present in partner appraisals (Rusbult, 1983; see also Gagné & Lydon, 2004).

In this research, it was therefore hypothesized that, overall, people would report feeling more understood by their partners when they received more accurate feedback from them (Hypothesis 1) but would report greater confidence in the survival of the relationship after receiving positively biased feedback (Hypothesis 2). Although possible interactions between types of feedback with other study variables were tested, no specific predictions were made. Overall, this pattern of results would replicate past research and suggest that the feedback manipulations had their intended effects.

The second set of hypotheses focused on the effect of the experimental manipulations on the participants’ perceptions of the general quality of their relationships. Given that prior research has generally demonstrated that people respond positively to either accurate or positively biased feedback from their partners, main effects of each type of feedback were expected to emerge; namely, people should feel more positively about their relationship after receiving accurate feedback compared with relatively inaccurate feedback (Hypothesis 3) and after receiving positively biased feedback compared with feedback that contained no positive bias (Hypothesis 4). Furthermore, because each type of feedback is argued to serve a positive relationship need (epistemic or esteem needs; Gagné & Lydon, 2004), it was expected that the effect of each type of feedback on perceptions of relationship quality or positivity (our primary dependent measure) would be similar in magnitude (Hypothesis 5). Each type of feedback can potentially convey positive information regarding the quality of the relationship, and therefore global perceptions of relationship well-being were expected to be similarly positive when people received one or the other type of feedback. Finally, we expected the effects of accurate and positively biased partner appraisals to be additive; thus, we predicted that participants would respond the most positively to feedback that was both accurate and positively biased (Hypothesis 6). We did not anticipate an interaction effect of accuracy and positive bias, as this would indicate that the effect of receiving one form of feedback is contingent on the presence or absence of the other.

Method

Participants

One hundred and ten individuals, constituting 55 heterosexual couples (M age = 21.5, SD = 3.19), from a large university in
Ontario, Canada, participated in this research. Participants were recruited from the wider campus population via ads placed in the student newspaper and received $10 ($20 per couple) for participation in the study. All couples were involved in their relationship for a minimum of 4 months (average length of relationship $= 22.15$ months, $SD = 16.57$). Forty-eight couples reported dating exclusively, three couples reported being engaged, one couple reported being common law, and three couples reported being married. Couples were randomly assigned to one of four feedback conditions that varied level of positive bias (positive bias vs. no bias) and tracking accuracy (high accuracy vs. low accuracy).

Procedure

After arriving at the laboratory, couples were informed that the study was investigating perspectives in romantic relationships. Each partner was escorted to a private room containing a networked computer and was asked to answer some demographic questions as well as a series of questionnaires measuring their evaluations of themselves, their partner, and their relationship. Upon completion of these scales, participants were informed that computer software was compiling the information provided by both themselves and their partner and that very shortly they would be presented with a comparison of their self-ratings on 10 traits listed in the previous scales with how their partner rated them on these same traits. When the computer indicated that the comparison was ready to view, a line graph with a brief verbal explanation of how to interpret the graph appeared on the screen. Each of the 10 traits on which the comparison was based appeared along the $x$-axis of the graph, and for each participant, the placement of each trait on the $x$-axis was randomly determined. The value of each set of ratings (self-ratings and partner appraisals) appeared on the $y$-axis, but actual numerical values were not placed on this axis, so that people could focus on the comparison of the ratings without being distracted by exact values of each rating. A dotted line was used to represent each participant’s actual self-ratings across the 10 traits, and a solid line was used to represent how the participant was ostensibly perceived by his or her partner.

How people were perceived by their partners was actually manipulated by the researcher to match the condition the participant was randomly assigned. The feedback communicated positive bias or no bias (as indicated by the overall mean difference between self and partner ratings across the 10 traits) and high accuracy or low accuracy (as indicated by the magnitude of the correlation between self and partner ratings across the 10 traits). The graph remained on the screen for 3 min. Participants then completed questionnaires containing the pertinent dependent measures, manipulation checks, and probing questions.

Materials

Self-esteem

The Rosenberg Self-Esteem Questionnaire (SEQ) was used to assess participant’s global sense of self-worth (Rosenberg, 1965). The SEQ contains 10 items (e.g., “I feel that I have a number of good qualities”) and was rated on a 7-point scale ($1 =$ strongly disagree, $7 =$ strongly agree). Scores on each item were averaged with higher scores indicating higher global self-esteem ($\alpha = .79$ for men, $\alpha = .88$ for women).

Perceived relationship quality

This dic-item scale (short form of the Perceived Relationship Quality Components Scale [PRQC] borrowed from Fletcher, Simpson, & Thomas, 2000b) was used to assess participants’ perceptions of relationship quality (e.g., “How satisfied are you with your relationship?”). Participants responded to each item using a 7-point scale (anchored $1 =$ not at all, $7 =$ extremely). Scores on each item were averaged with higher scores indicating greater perceived relationship quality ($\alpha = .65$ for men, $\alpha = .67$ for women).

Self and partner ratings

This scale consisted of 10 interpersonal traits from Fletcher and colleagues’ (1999) ideal
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standards scale. These traits were selected because they have been shown by Fletcher and colleagues (1999) to represent traits that people strongly desire in long-term romantic partners and relationships (see also Murray et al., 1996a). Participants indicated how they thought they compared to other students their own age and gender on each of the traits on a 10-point scale (1 = bottom 5%, 10 = upper 5%; \( \alpha = .78 \) for men, \( \alpha = .86 \) for women). Participants also rated their partner compared to other students the partner’s age and gender on the same 10-point scale (\( \alpha = .91 \) for men, \( \alpha = .87 \) for women). The manipulated feedback that people received regarding how their partners perceived them was tailored to their actual self-perceptions, and having people rate their partners on the same set of traits served to corroborate the veridicality of the feedback.

Manipulated feedback

To manipulate the accuracy and bias of the feedback that people received, each participant was provided with a graph displaying their actual self-ratings on the 10 interpersonal traits (described in preceding sections) and ostensibly their partner’s ratings of them across the same 10 traits as well as a short paragraph describing how to interpret the graph. Participants were randomly assigned to receive feedback that was high or low in accuracy and high or low in positive bias. The criterion used to create the high and low values of accuracy and bias were designed to communicate the intended experimental condition to participants while retaining the believability that the feedback was derived from their partners’ evaluation of them. It is important to note that the goal of this criterion was not to ascertain cutoff values that would demonstrate actual high- and low-level accuracy or bias but rather to sufficiently manipulate the perception of accuracy and positive bias. In the low-accuracy condition, participants received partner feedback that correlated at \( r = .50 \) or less with their self-ratings across the 10 traits (actual average \( r = .37 \)). In the high-accuracy condition, participants received partner feedback that correlated at \( r = .80 \) to \( r = .95 \) with their self-ratings across the 10 traits (actual average \( r = .90 \)). In the low-positive-bias condition, participants received partner feedback that had an overall mean difference from their self-ratings between 0.00 and 0.65 units (on a 10-point scale; actual average difference = 0.08). In the high-bias condition, participants received partner feedback that had an overall mean difference from their self-ratings between 1.25 and 2.10 units (actual average difference = 1.66). The graph stimulus was presented to participants on a computer screen for 3 min.

Relationship Positivity and Intimacy Scale

This 12-item scale, created by the experimenters, was used to assess how satisfied and intimate participants felt in their relationships. Questions therefore addressed the perceived quality and stability of the relationship as well as the degree to which partners self-disclose and understand each other in their relationships (see the Appendix for the items that constitute this scale). Participants were asked to indicate how true each statement was of their relationship on a 7-point scale (1 = not at all, 7 = very much so). Scores on each item were averaged, with higher scores indicating that people felt more positivity and intimacy toward their partners and relationships (\( \alpha = .82 \) for men, \( \alpha = .91 \) for women).

Prediction of relationship survival

This one-item scale (borrowed from Rusbult, 1983) was used to measure how secure or confident participants felt about the future of their relationship. Participants responded to the single item, “How long do you expect your relationship to last?” on a 7-point scale (1 = a week or so, 7 = decades).

Feeling Understood Scale

This three-item scale (borrowed from Swann et al., 1987) assessed the degree to which people felt their partners understood them: “How accurate do you think your partner’s perceptions of you are?” “How much do you agree with your partner’s perceptions of you?” and “How sure are you that your partner truly knows who you are?” Responses
Participants responded on a 7-point scale (1 = not at all, 9 = very much). Scores on each item were averaged, with higher scores indicating that people felt more understood by their partners (α = .81 for men, α = .85 for women).

**Partner Honesty Scale**

This three-item scale (from Campbell et al., 2006) was used as a manipulation check to determine whether participants believed the feedback to be reflective of how their partners actually felt about them and contained the following items: “My partner is not being completely honest,” “My partner probably did not take this questionnaire seriously,” and “The results of this study do not reflect how my partner truly feels about me.” Participants responded on a 7-point scale (1 = not at all, 7 = very much so). Scores on each item were averaged, with higher scores indicating less agreement with the honesty of the feedback (α = .53 for men, α = .89 for women).

**Condition interpretation**

This two-item scale was used as a manipulation check to determine whether participants understood the feedback as intended. Participants were asked to respond to each item in regard to the feedback they had received in the study. The items included were “My partner views me more positively than I view myself” (felt bias) and “My partner views me differently than I view myself” (felt accuracy). Participants responded on a 7-point scale (1 = not at all, 7 = very much so). These items were added after experimentation had started and therefore no condition interpretation data were obtained from the first 13 couples (4 couples from the low-accuracy/low-bias condition and 3 couples from the other conditions).

**Results**

For descriptive purposes, correlations between all study variables for men and women, partialing out the effects of experimental condition, are presented in Table 1. Correlations between dyad members are also presented.

**Data analytic strategy**

Prior to analyses, 14 participants were removed due to technical failures (n = 5) or problems with understanding the feedback (n = 9). In this study, individuals were nested within dyad, and therefore the data were analyzed following procedures recommended by Campbell and Kashy (2002) for dyadic data sets. Specifically, a multilevel modeling (MLM) approach, also known as hierarchical linear modeling, was used to test all our models. In the dyadic case, MLM treats the data from each partner as nested scores within a group that has an n = 2. A benefit of this approach is that the models can be estimated even when data are missing at the lower level (in this case, when the data from one partner

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**Table 1. Zero-order correlations between study variables controlling for experimental conditions**

<table>
<thead>
<tr>
<th>Variables</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Self-ratings</td>
<td>-0.04</td>
<td>0.84**</td>
<td>-0.01</td>
<td>0.25</td>
<td>0.27</td>
<td>-0.12</td>
<td>0.04</td>
<td>-0.03</td>
<td>0.05</td>
<td>-0.19</td>
</tr>
<tr>
<td>2. Partner ratings</td>
<td>0.69**</td>
<td>0.25</td>
<td>0.08</td>
<td>0.34†</td>
<td>0.24</td>
<td>-0.08</td>
<td>0.04</td>
<td>-0.07</td>
<td>0.01</td>
<td>-0.15</td>
</tr>
<tr>
<td>3. Rosenberg SEQ</td>
<td>0.15</td>
<td>0.10</td>
<td>0.14</td>
<td>0.36*</td>
<td>0.39*</td>
<td>0.05</td>
<td>0.51**</td>
<td>-0.23</td>
<td>-0.09</td>
<td>-0.14</td>
</tr>
<tr>
<td>4. PRQC</td>
<td>0.54**</td>
<td>0.49**</td>
<td>0.13</td>
<td>0.57**</td>
<td>0.69**</td>
<td>0.10</td>
<td>0.12</td>
<td>-0.18</td>
<td>-0.09</td>
<td>0.13</td>
</tr>
<tr>
<td>5. RPIS</td>
<td>0.53**</td>
<td>0.61**</td>
<td>0.26</td>
<td>0.57**</td>
<td>0.35*</td>
<td>0.36*</td>
<td>0.38*</td>
<td>-0.17</td>
<td>0.07</td>
<td>0.03</td>
</tr>
<tr>
<td>6. Relationship survival</td>
<td>0.24</td>
<td>0.12</td>
<td>0.05</td>
<td>0.62**</td>
<td>0.57**</td>
<td>0.28†</td>
<td>-0.03</td>
<td>0.13</td>
<td>-0.11</td>
<td>0.10</td>
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<tr>
<td>7. Feeling understood</td>
<td>0.48**</td>
<td>0.60**</td>
<td>0.36*</td>
<td>0.31†</td>
<td>0.79**</td>
<td>0.24</td>
<td>0.15</td>
<td>-0.06</td>
<td>0.10</td>
<td>-0.23</td>
</tr>
<tr>
<td>8. Partner honesty scale</td>
<td>-0.02</td>
<td>-0.11</td>
<td>-0.22</td>
<td>-0.11</td>
<td>-0.27</td>
<td>-0.05</td>
<td>-0.34*</td>
<td>-0.05</td>
<td>-0.08</td>
<td>0.29</td>
</tr>
<tr>
<td>9. Felt bias</td>
<td>-0.21</td>
<td>-0.08</td>
<td>-0.48**</td>
<td>0.04</td>
<td>-0.10</td>
<td>0.04</td>
<td>0.20</td>
<td>0.21</td>
<td>-0.14</td>
<td>0.22</td>
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<tr>
<td>10. Felt accuracy</td>
<td>-0.43**</td>
<td>-0.57**</td>
<td>-0.20</td>
<td>-0.32†</td>
<td>-0.25</td>
<td>0.02</td>
<td>-0.30†</td>
<td>0.23</td>
<td>0.06</td>
<td>0.01</td>
</tr>
</tbody>
</table>

Note. Correlations for females appear below the diagonal, whereas correlations for males appear above the diagonal. Correlations along the diagonal are between dyad members. PRQC = Perceived Relationship Quality Components Scale; RPIS = Relationship Positivity and Intimacy Scale; SEQ = Self-Esteem Questionnaire. †p < .10. *p < .05. **p < .01.
has been removed for the reasons specified in preceding sections). Gender was effect coded (−1 for women, 1 for men), and all continuous predictor variables were grand mean centered. The predictor variables in all models included participant gender, bias condition (−1 for no bias, 1 for positive bias), accuracy condition (−1 for low accuracy, 1 for high accuracy), and the interaction of the bias and accuracy conditions. Interactions between the study variables and participant gender were initially entered into the models, but no significant interactions emerged, so they were removed from the final models. Effect sizes for between-couple (i.e., experimental conditions and relationship length) and within-couple (i.e., gender) variables were estimated using procedures recommended by Kenny, Kashy, and Cook (2006).

Manipulation checks

The following models were conducted to determine whether the manipulated feedback was interpreted as intended and believed by participants.

Condition interpretation

To determine whether participants perceived positive bias in the feedback they obtained, a model containing their response to the felt bias item as the outcome was assessed. Displayed in Table 2 are the regression coefficients for this analysis. As intended, participants in the high-positive-bias condition felt their partners had rated them more positively (M = 5.89, SD = 1.46) than they rated themselves compared with participants in the low-positive-bias condition (M = 4.01, SD = 1.50). The main effects of gender and accuracy as well as the interaction between bias and accuracy were not significant.

The model was conducted once again, this time with the responses to the felt accuracy item as the outcome variable to determine in which conditions participants perceived a lack of accuracy in their partner appraisals.

Table 2. Regression coefficients of the manipulation check analyses

<table>
<thead>
<tr>
<th>Predictor variables</th>
<th>Model</th>
<th>Felt bias</th>
<th>Felt accuracy</th>
<th>Partner honesty scale</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>b</td>
<td>t</td>
<td>d</td>
</tr>
<tr>
<td>Intercept</td>
<td></td>
<td>4.96</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td>0.03</td>
<td>0.16</td>
<td>0.04</td>
</tr>
<tr>
<td>Accuracy</td>
<td></td>
<td>-0.21</td>
<td>-1.47</td>
<td>0.30</td>
</tr>
<tr>
<td>Bias</td>
<td></td>
<td>0.94</td>
<td>6.53***</td>
<td>1.35</td>
</tr>
<tr>
<td>Accuracy × Bias</td>
<td></td>
<td>0.10</td>
<td>0.69</td>
<td>0.14</td>
</tr>
</tbody>
</table>

*p < .05. ***p < .001.
variable with higher scores representing less belief in the feedback. Displayed in Table 2 are the regression coefficients for this analysis. A main effect of accuracy emerged indicating that participants in the high-accuracy condition believed the feedback more \((M = 1.66, SD = 1.01)\) than those in the low-accuracy condition \((M = 2.11, SD = 0.95)\). However, the average responses of participants in both the high- and low-accuracy conditions were significantly different from the midpoint of the scale \((i.e., 4)\), \(t(51) = 16.69, p < .001\) and \(t(43) = 13.12, p < .001\), for men and women, respectively, indicating that both groups tended to believe the feedback. Across all conditions, participants appeared to believe that the feedback represented their partner’s appraisals \((M = 1.87, SD = 1.01)\).

Feeling Understood Scale

This analysis was conducted to determine whether the manipulated accuracy conditions were being interpreted in a self-verifying manner as intended. In this model, the averaged score for the feeling understood scale was included as the outcome variable. The regression coefficients for the analysis are displayed in Table 3. Consistent with Hypothesis 1, a main effect of accuracy emerged such that participants in the high-accuracy condition felt more understood by their partners \((M = 6.10, SD = 0.81)\) than those in the low-accuracy condition \((M = 5.49, SD = 0.86)\). The bias condition did not affect perceptions of being understood by one’s partner, and an interaction between study conditions did not emerge.

Predicted relationship survival

To determine whether the manipulated bias conditions were being interpreted in a self-enhancing manner, the following analysis investigated participants’ predictions for the survival of their relationship. In this model, participants’ response to the predicted relationship survival item was included as the outcome variable. The regression coefficients for the analysis are displayed in Table 3. Consistent with previous self-enhancement research and Hypothesis 2, the observed main effect demonstrates that participants in the positive-bias condition predicted that their relationship

Table 3. Regression coefficients of the convergent validity analyses and main analysis

<table>
<thead>
<tr>
<th>Predictor variables</th>
<th>Feeling understood scale</th>
<th>Predicted relationship survival</th>
<th>Relationship positivity and intimacy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(b)</td>
<td>(t)</td>
<td>(d)</td>
</tr>
<tr>
<td>Intercept</td>
<td>5.80</td>
<td>5.92</td>
<td>5.98</td>
</tr>
<tr>
<td>Gender</td>
<td>0.09</td>
<td>1.23</td>
<td>0.31</td>
</tr>
<tr>
<td>Accuracy</td>
<td>0.30</td>
<td>3.72**</td>
<td>0.77</td>
</tr>
<tr>
<td>Bias</td>
<td>0.03</td>
<td>0.39</td>
<td>0.08</td>
</tr>
<tr>
<td>Accuracy × Bias</td>
<td>-0.06</td>
<td>-0.69</td>
<td>0.14</td>
</tr>
<tr>
<td>Relationship length</td>
<td>0.19</td>
<td>1.61</td>
<td>0.33</td>
</tr>
</tbody>
</table>

\(^{†}p < .10; ^{*}p < .05; ^{**}p < .001.\)
would last longer ($M = 6.29$, $SD = 1.39$) than those in the no-bias condition ($M = 5.54$, $SD = 1.51$). The accuracy of the partner feedback did not significantly affect participants’ relationship survival predictions, and an interaction between study conditions did not emerge.

**Test of primary hypotheses**

The following analyses were conducted to test the primary predictions of this research. Once again, relationship length was added to the model as a covariate along with the interaction terms of relationship length and experimental condition. As with the prior analyses, the interaction terms were not significant in any of the analyses and were subsequently removed from the model.

**Main analysis**

The outcome variable of the model was the averaged responses to the Relationship Positivity and Intimacy Scale (RPIS). The regression coefficients for the analysis are displayed in Table 3. In support of Hypotheses 3 and 4, the main effects of accuracy and bias were significant, and the effects were similar in magnitude. Therefore, participants who were led to believe that their partners had inflated perceptions of them reported more positive ratings on this scale ($M = 6.11$, $SD = 0.09$) compared with those who received nonbiased feedback ($M = 5.81$, $SD = 0.09$). As well, participants who were led to believe that their partners had evaluated them in a manner consistent with their self-evaluations responded more positively ($M = 6.14$, $SD = 0.09$) compared with those who received less accurate partner feedback ($M = 5.79$, $SD = 0.10$).

We speculated that participants should respond in an equally favorable manner when receiving accurate but not positively biased feedback compared with when receiving positively biased but less accurate feedback. The expected means for each feedback condition are shown in Figure 1. In support of Hypothesis 5, the contrast comparing the means between these two conditions was not significant, $F(1,47) = 0.01$, $ns$, indicating that participants responded equally positively to enhancing feedback or verifying feedback. We next contrasted the low-bias/low-accuracy condition to the two conditions with either high-bias or high-accuracy to determine whether receiving either accurate or positively biased feedback was received more warmly than not receiving either type of feedback. This contrast was significant, $F(1,49) = 4.38$, $p < .05$, indicating that participants responded less positively when partner feedback was perceived to be neither enhancing or verifying than when either type of feedback was perceived.

We also hypothesized that people should respond in a particularly favorable manner when they received both accurate and positively biased feedback from their partners. In support of Hypothesis 6, participants responded the most favorably in the high-accuracy/high-bias condition compared with the other three conditions, $F(1,48) = 7.69$, $p < .01$. In contrast, comparing the high-bias/high-accuracy condition to the two conditions with either high-bias or high-accuracy was marginally significant, $F(1,47) = 3.72$, $p = .06$. These results indicate that participants responded more positively when perceiving partner feedback to be both enhancing and verifying than when feedback was solely enhancing or verifying.

**Discriminant validity analyses**

The model testing the primary hypotheses was re-run controlling for responses to other study variables to provide discriminant validity for the primary findings. Separate models were run controlling for belief in partner feedback (Partner Honesty Scale), Perceived Relationship Quality (PRQC–Short Version), and global self-esteem (SEQ). Importantly, the results of these three analyses revealed that controlling for these variables did not change the pattern or significance of the findings reported in preceding sections.

**Alternative explanations**

One alternative explanation for this pattern of effects was that the RPIS was tapping into multiple constructs that are independently associated with the positive effects
of enhancement and accuracy (i.e., satiating esteem and epistemic relationship concerns) rather than a more global assessment of relationship quality. That is, it is possible that the two main effects observed in the main analyses are being driven by responses to different items in the dependent variable. To address this potential alternative explanation, an exploratory factor analysis (EFA) was run on the 12 items from the RPIS, statistically partialing out the effects of the experimental manipulations. The EFA used maximum likelihood extraction and a varimax rotation. Two factors were identified by the maximum likelihood extraction; however, the first factor accounted for 84.6% of the variance in the RPIS items. A second EFA was run on these 12 items without partialing out the effects of the experimental conditions, and it resulted in a similar structure, with one factor accounting for 86.2% of the variation in RPIS responses.

The RPIS was also completed by a separate sample of 60 individuals (47 women) involved in a romantic relationship who did not receive the enhancement and accuracy manipulations. The average age of participant was 19.15 years ($SD = 4.33$), and the average length of relationship was 37.82 months ($SD = 12.88$). To follow up the EFAs run on the RPIS from this experiment, confirmatory factor analyses (CFAs) were conducted on data from these 60 additional participants. The first CFA tested a two-factor model with correlated factors. Items that may have tapped felt understanding were set to load on one factor, whereas items that may have tapped a positive affective response to the feedback were set to load on the second factor. To reduce the number of variables in the CFA, items were split into four groups (with two groups per factor). These groups were formed using items with factor loadings greater than .30 on the two largest factors from the first EFA discussed in preceding sections. This two-factor

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**Figure 1.** Expected means for accuracy and bias conditions on the Relationships Positivity and Intimacy Scale controlling for gender and relationship length.  
*Note.* The bars represent the standard errors for each cell mean.
model displayed adequate fit, $\chi^2(6) = 285.2$, $p < .001$, comparative fit index (CFI) = .93. A one-factor model was also tested. To reduce the number of variables, items were split into three groups of four by sequentially adding items to groups pairwise using the highest and lowest loadings taken from the largest factor from the EFA. This unidimensional model had excellent fit, $\chi^2(3) = 160.8$, $p < .001$, CFI = .99. A $\chi^2$ difference test between these two models showed that the one-factor solution provided a better fit to the data, $\chi^2_{\text{diff}}(3) = 124.5$, $p < .001$. The RPIS, therefore, does not appear to contain two factors (e.g., understanding and positive affect) that may have confounded our main analyses.

Discussion

Although a great deal of research has addressed people’s preferences for either accurate or positively biased feedback from their romantic partners, this is the first research that experimentally assessed responses to feedback, ostensibly from one’s partner, that varied in both tracking accuracy and positive bias. We developed a unique experimental procedure that allowed us to independently manipulate the tracking accuracy and positive bias of partner appraisals by fabricating these partner appraisals based on a person’s self-perceptions across a number of relationship-relevant traits. Importantly, the results of our manipulation check and convergent validity analyses suggested that our manipulations were interpreted by study participants as intended. Consistent with our hypotheses, we demonstrated that people responded equally favorably to being perceived either relatively accurately or in a positively biased manner from their partners, but they responded with the greatest amount of satisfaction to feedback that communicated both accuracy and positive bias. These effects remained even after we statistically controlled for partners’ self-perceived relationship quality, global self-esteem, and perceived honesty of the feedback.

We believe the results of this research are important for at least three reasons. First, our results lend empirical support to the theoretical musings of Fletcher (2002) and Gagné and Lydon (2004) regarding the independence of accuracy and positive bias in interpersonal perceptions. As these researchers point out, both types of feedback provide unique benefits to the relationship: Accurate partner appraisals communicate intimacy and understanding (Swann et al., 1994), whereas positive bias communicates the unconditional positive regard that people require to shield against the insecurities of relationship investment (Murray et al., 1996a). Participants in our study responded positively to each type of feedback when presented independently, suggesting that both accuracy and bias are indeed valued by intimates. The response to feedback that was both positively biased and highly accurate, however, was more positive than receiving feedback that was only biased or accurate, pointing to the additive benefits of feedback that communicates understanding and unconditional positive regard. Consistent with past theoretical work, our findings support the notion that accuracy and positive bias can be independently manipulated simultaneously and demonstrated that people were the most gratified by being perceived by their partners clearly through rose-colored glasses.

Second, our results suggest that future research should perhaps focus less on pitting accuracy-based and enhancing-based hypotheses against one another and instead focus on how the presence or absence of accuracy and positive bias work together in guiding relationship processes. For example, research by Drigotas, Rusbult, Wieselquist, and Whittington (1999), investigating what they have labeled the *Michelangelo effect*, demonstrates one possible process of positively biased yet reasonably accurate feedback. They found that when partner A’s perception of partner B matches B’s ideal self, partner B moves toward this ideal self and the quality of the relationship increased. This form of partner perception (what Drigotas et al., 1999, labeled *partner affirmation*) may be interpreted as containing both accuracy (a correspondence with B’s ideal self) and positive bias (perceiving a partner in an idealistic manner).
Consistent with this research, Murray and colleagues (1996b) have shown that positively biased partner appraisals may serve as a self-fulfilling prophecy—over time people begin to perceive themselves more in line with their partner’s rosy appraisals, thus making the positively biased appraisals self-verifying. In fact, various aspects of relationship functioning may serve to blur the lines between accuracy and positive bias. Put another way, positive bias may lead to accuracy and vice versa through various relationship processes. For example, Bosson and Swann (2001) argue that because people want to be perceived positively by their partners (especially in relationship-relevant domains), they present themselves in ways that uphold such idealized versions of themselves. In this situation, rosy appraisals from the partner are both accurate and positively biased, accurate because the appraisals reflect a valid evaluation of the individual in the context of the relationship and yet positively biased because the appraisals exceed the individual’s self-perceptions. Perhaps positive bias, reasonably anchored to reality, leads to increased accuracy over time as people improve with the support of their romantic partner.

In a similar vein, accuracy may lead to positive bias as people tend to adjust their ideal standards to better match their perceptions of their romantic partner (Fletcher et al., 2000a). Making this adjustment, perhaps, serves as a means of maintaining accurate partner appraisals while fulfilling a need to enhance the partner and relationship by having the partner more closely match one’s ideals. Overall, there is strong support for the idea that accuracy and bias are not in principle opposing forces in romantic relationships but instead can coexist. Research that continues to investigate the unique and combined effects of each type of feedback promises to cast a bright light on our understanding of the maintenance and stability of relationships.

Third, in conjunction with the recent findings of Boyes and Fletcher (2007) showing that people are aware of the positive biases that both themselves and their partners possess in romantic relationships, our results suggest that one key to satisfying relationships may be to see one’s partner accurately while simultaneously being able to infuse this vision with a rosy tint. Stated differently, appreciation of unconditional positive regard by one’s partner may be most valued when it is anchored to reality (as suggested by Murray et al., 1996b), and the receipt of accurate appraisals may be cushioned by a reasonable dollop of positive bias.

Receiving feedback that represents the best of both worlds may not only provide the combined benefits endowed by accuracy and positive bias but also may, over time, lend credibility to such feedback. An individual receiving positively biased feedback that is woefully inaccurate may be left to wonder whether the partner is actually imbuing his or her perception with a rosy tint or, rather, simply following the social norm of providing overly positive feedback. However, individuals receiving accurate feedback without the cushion of positive bias may be left to wonder whether their partner truly values them because they are not implementing the positive bias norm. The receipt of accurate and positively biased feedback may help clarify the benefit of each aspect of the feedback and remove uncertainties. This hypothesis is speculative, and future research is needed to investigate the longitudinal impact of each type of feedback occurring jointly or independently.

This research has some limitations that deserve attention. Most couples in our sample had been together for a fairly long period of time, meaning that we were not able to test our hypotheses for couples in the beginning stages of their romantic relationships. It is reasonable to ask whether our findings would generalize to couples in the early stages of their relationship. For example, based on research by Swann and colleagues (1994) and Campbell and colleagues (2006), it may be the case that people in the early stages of their relationship are less concerned with accurate appraisals from their partners than with positively biased appraisals, because they are searching for positive information indicating being accepted by the new partner.

The established nature of the relationships in this study also restricts the ability to fully test the influence of relationship
satisfaction on our findings. Although controlling for relationship satisfaction did not significantly influence our findings, a sample with a wider range of relationship satisfaction or success may have revealed an interaction. For example, McNulty, O’Mara, and Karney (2008; see Karney, McNulty, & Bradbury, 2004, for a review) have suggested that the adaptive benefits of positively biased partner perceptions may be restricted to more successful couples; the same perceptual motivations may lead to dire consequences (e.g., relationship issues are not dealt with) for weaker or less successful couples. Additionally, it is possible that other factors not assessed in this research moderate people’s responses to each type of appraisal from their partners. For example, when people are deliberating about important decisions in their relationship, they may be more responsive to accurate appraisals from their partners, whereas they may be more responsive to positively biased appraisals when they are focused in implementing decisions that have been already made (cf. Gagné & Lydon, 2001a, 2001b).

Another factor affecting reactions to accuracy and bias may be people’s implicit relationship theories (Fletcher & Kininmonth, 1992; Knee, Nanayakkara, Vietor, Neighbors, & Patrick, 2001). The beliefs people hold about how relationships should progress and what characterizes a successful relationship may affect the meaning they attribute to different forms of partner appraisals. Overall, it is possible that the preference for each type of feedback, and the combined effects of receiving each type of feedback simultaneously, wax and wane depending on the presence of other moderating factors.

The focus on responses to one primary measure of relationship perceptions following the feedback is also a limitation of our research. Focusing on relatively few dependent variables following an experimental manipulation is practical to ensure that the effect of the manipulation remains salient when participants answer the questions, but it would be valuable to identify other important relationship outcome variables affected by accurate and biased partner appraisals. For example, are couples able to negotiate relationship-based conflict more effectively when greater accuracy and positive bias in interpersonal appraisals exist? Furthermore, are relationships more stable when partners both accurately appraise their partners and see them in a more positive light? Future research should address these important questions.

Another potential limitation to the study is the absence of a negative bias condition. A negative bias condition may have provided a more powerful test of the perceived benefits of accurate feedback. For ethical reasons, we did not include a condition where people were told their partners perceived them less positively than they perceived themselves because of the potential for such feedback to cause harm to the relationship. However, the manipulation checks demonstrated that the conditions were perceived as intended, and the results were consistent with our predictions.

In this study, both bias and tracking accuracy were graphically presented to people in such a way that they could readily be perceived. Research findings already canvassed show that both positive bias and tracking accuracy in the judgments of one partner can influence the other partner in various ways and that individuals attain quite high levels of tracking accuracy in their relationships. However, an interesting question here is the extent to which individuals have good meta-awareness of the levels of bias and tracking accuracy in their own or their partners’ judgments. Boyes and Fletcher (2007) convincingly show that individuals possess quite good levels of meta-accuracy about the levels of bias in specific judgments of both their partners and themselves. However, it is quite possible that people are less proficient in assessing the extent to which their judgments are correlated with, for example, the self-judgments of their partner for an array of items, given the more challenging nature of this task. This is an interesting avenue for future research.

Future research may also need to investigate whether the findings of this article generalize to less relationship-central traits, given that preferences for partner feedback are moderated by the qualities of the target traits. For example, Campbell (2005) demonstrated that
positivity responses to verifying or enhancing feedback were moderated by trait visibility and trait importance. However, in this particular study, the feedback was presented as being either positively biased or accurate, not both. Other research (Kenny & Acitelli, 2001; Neff & Karney, 2002, 2005) suggests that partner perceptions may be more positively biased for traits of greater importance to the relationship. Although this research does not directly investigate preferences for different forms of partner feedback, it suggests that relationship-relevant traits are more commonly viewed in a positively biased fashion; thus, receiving biased feedback on such traits may be more expected, and therefore more appreciated, than biased feedback on less relationship-relevant traits. Consistent with this speculation, as already noted, Boyes and Fletcher (2007) demonstrated that partners are aware of one another’s biases, and these biases are more prevalent for “mate evaluation” traits. Further investigation is needed to identify such moderators linked to the findings of this research.

Despite these limitations, this research represents an important step toward establishing the importance of considering the independent, and combined, role of accurate and positively biased interpersonal appraisals in romantic relationships. Our experimental manipulation was effective at communicating the presence or absence of each type of feedback, and our results confirmed that although people do appear to appreciate being perceived either accurately or in a positively biased manner, they feel particularly happy with their relationship when their partner’s perceptions of them are both accurate and positively biased. As our results suggest, the real hallmark of a relationship destined for success may be one where partners see each other for who they really are, but through the rosy lens of love.

References


Appendix

Relationships Positivity and Intimacy Scale (RNPS)

Using the scale below please indicate how true each statement is of your current romantic relationship.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not at all</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Very much so</td>
</tr>
</tbody>
</table>

1. Because we know each others’ weaknesses and/or faults, my partner and I are able to work together toward a satisfying relationship.
2. My relationship with my partner is very secure.
3. My partner and I are motivated to see our relationship in the best possible way.
4. My partner and I can accurately predict each other’s behavior in different situations.
5. My partner and I share our thoughts, feelings, and aspirations with one another.
6. My partner and I are able to see positive features in all aspects of one another.
7. I have few doubts about the future of my relationship with my partner.
8. My partner and I see each other for who we really are.
9. My partner and I are very close and intimate in our relationship.
10. My partner and I understand how each other function.
11. In our relationship, my partner and I take the good with the bad.
12. My partner and I always see the good in each other.