PARTNER ACCURACY IN HUMOR PERCEPTION AND ASSOCIATIONS WITH RELATIONSHIP SATISFACTION

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ABSTRACT

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Partners tend to evaluate each other's personalities and behavior with some degree of accuracy and inaccuracy or idealism. A person's humor style—the degree to which they use positive (i.e., affiliative) or negative (i.e., aggressive) forms of humor—is highly subjective, evaluative, and important for people's relationship satisfaction. The current study extends work on partner perception by examining accuracy and bias in people's perception of their partners' humor styles. I recruited 261 heterosexual couples (N = 522 individuals; M_{age} = 65.42, SD = 12.31) who completed self- and partner-reports of humor styles. Truth and Bias modeling revealed that, although bias varied across styles of humor, participants consistently demonstrated accuracy in their judgements of their partner's humor styles. In general, relationship satisfaction was positively associated with individuals reporting their partners using positive forms of humor (i.e. affiliative and self-enhancing humor). Relationship satisfaction was negatively associated with individuals reporting their partners using aggressive forms of humor. Bias forces were moderated by relationship satisfaction such that assumed similarity biases were stronger among those in particularly satisfying relationships. The results are discussed in the context of the origins of truth and bias in partner reports of humor in close relationships.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

INTRODUCTION

Perceptions of romantic partners have been the subject of research and theory in the field of close relationships (e.g., Neff & Karney, 2005). Do we see our significant others as they really are? Research to date suggests that we tend see our partners with a mixture of idealism and reality—evaluating them more positively than others might, while, at the same time, being capable of accurately identifying our partner's faults and flaws (Fletcher, 2015; Fletcher & Kerr, 2010; Neff & Karney, 2005). The vast majority of research on partner perception has been focused on constructs for which there is some relative consensus or a set of criterion behaviors (e.g., people generally agree on what makes someone physically attractive, extroverted; Bashour, 2006; Eisenthal et al., 2006). Relatively less work has been conducted on constructs like humor, which are seen as desirable in partners, important for relationship initiation and maintenance, and very subjective (Barelds & Barelds-Dijkstra, 2010; Lundy et al., 1998; McGee & Shevlin, 2009; Ziv & Gadish, 1989). Are people accurate or biased in how they perceive their partners' humor styles? In the current study, I used the Truth and Bias Model to examine bias and accuracy in partner perceptions of humor styles among 261 couples (West & Kenny, 2011). I also examined how relationship satisfaction was associated with partner perceptions of different *types* of humor (i.e., positive humor, such as self-enhancing and affiliative humor, and negative humor, such as self-deprecating or aggressive humor).

Partner Perception

People have a unique perspective of their romantic partner. Spending time and sharing experiences with another person allows for insight into their personality, habits, and quirks. Of course, this increased exposure to our romantic partners does not necessarily mean that we are the most *accurate* judges of them. Both lay wisdom and psychological research suggest that

people sometimes see their partners as “better” than they really are (e.g., "love is blind"; Geher, 2000; Hall & Taylor, 1976; Swami et al., 2009). How individuals perceive their partners—and if their perceptions are accurate—can impact satisfaction within these relationships (Neff & Karney, 2005). Below, I discuss the ways in which the accuracy of partner perception has been theorized to be associated with relationship outcomes.

Ignorance is Bliss?

Seeing your partner more positively than they are (i.e., through “rose-tinted glasses”) is common (Endo et al., 2000; Hall & Taylor, 1976; Solomon & Vazire, 2014). In general, individuals tend to believe that their relationships are more postive than the relationships of those around them (Endo et al., 2000). People evaluate their partners more favorably on positive traits (like attractiveness and warmth) than others and even more positively than partners themselves (Murray et al., 2000; Solomon & Vazire, 2014). There is some evidence that this type of positive bias may also be good for relationship satisfaction. For example, in a study of long-term couples, Murray et. al (2000) found that individuals who were satisfied with their relationship had especially inflated views of their partner’s virtues—seeing them as higher in positive interpersonal qualities (like warmth, attractiveness, and skill) than ratings provided by both the partner themselves and their partner’s close friend. Interestingly, satisfied individuals who showed this positive bias had spouses, who, in turn, evaluated them with a similarly benevolent bias. In this way, couples who see each other as unrealistically positive may be more satisfied their relationships.

People also display a tendency to see their partner as similar to themselves—even when this may not be the case (Montoya et al., 2008; Morry, 2005, 2007; Morry et al., 2011; Schul & Vinokur, 2000). This phenomenon has been referred to by many names in the person-perception

literature (e.g., assumed similarity, social projection, false consensus), but each describes the tendency to ascribe our own traits and qualities to others. While it may be true that people are similar to close others in their lives (Caspi et al., 1992; Gruber-Baldini et al., 1995; Lee et al., 2009), it is also true that people tend to overestimate this similarity (Cho & Knowles, 2013; Lee et al., 2009). This overestimation is seen in both cross-sectional and longitudinal work: people consistently tend to ascribe their own feelings within a relationship (e.g. depression, satisfaction, financial strain) to their partner (Kenny & Acitelli, 2001; Marks & Miller, 1987; Schul & Vinokur, 2000). Theoretically, this sort of bias may be good for relationship satisfaction. The attraction-similarity hypothesis, for example suggests that because people may be attracted to those who are similar to them, perceiving your partner as more similar to you may make you especially satisfied in the relationship (Montoya et al., 2008; Morry, 2005, 2007; Morry et al., 2011). These findings suggest that believing a partner is similar to you, even if it is not necessarily true, may be associated with relationship satisfaction.

Bias and Accuracy

Of course, intuition may tell you that satisfying long-term relationships cannot survive on rose-tinted glasses alone. At some point, being accurate about a partner's strengths and weaknesses would be beneficial. The literature on partner biases in perception aligns with this intuition. Specifically, both accuracy and bias co-exist in perceptions of romantic partners (Fletcher, 2015; Fletcher & Kerr, 2010; Neff & Karney, 2005). In a series of longitudinal studies, Neff & Karney (2005) suggested that happy couples hold *global adoration* for each other, with nearly half of couples giving their partner the highest possible rank on broad evaluations like "I feel that my spouse has a number of good qualities," and "I feel positively about my spouse." However, they also found evidence of *specific accuracy* (i.e., spouses were less universally

positive and more accurate when asked to evaluate their partner's specific traits, like "My partner is always prepared," and "My partner is quick to understand things."). Importantly, this study also found evidence that specific accuracy may be beneficial for long-term relationships. In the first of two studies, wives who were more accurate (i.e., their evaluations more closely matched their husbands' self-evaluations) provided more positive support in the relationship and were less likely to get divorced over time (Neff & Karney, 2005). A second study replicated and extended this effect: wives who were more accurate provided more support, felt more capable in resolving conflicts with their partner, and were less likely to get divorced over time (Neff & Karney, 2005). Interestingly, these effects were not found in husbands, although this may be at least partially explained by the female-skewed workload in relationship maintenance (Acitelli & Young, 1996; Christensen & Heavey, 1990).

Other models of romantic partner perception revolve around a similar blend of accuracy and bias. Fletcher and Kerr (2010) propose that partner perception involves two distinct cognitive components: mean-level bias (in which people generally inflate their partner's positive traits) and tracking accuracy (in which, despite their bias, people are able to identify which traits their partners are lower or higher in). For example, an individual may rate themselves as a 6 on attractiveness and a 4 on kindness. Their partner may rate them as an 8 and a 6 on the same constructs, respectively. The partner's inflated evaluation (by two points for each construct) demonstrates a mean-level bias—they consistently see their partner as more attractive and kinder than the partner sees themselves. However, the partner also rated the individual as lower in kindness than attractiveness, duplicating the pattern of scores that the individual themselves reported. This demonstrates tracking accuracy—both partners agree that the individual is less kind than they are attractive. Individuals, despite their inflated evaluations of significant others,

also appear to see them with a kernel of truth. Fletcher and Kerr (2010) offered strong evidence for a cognitive theory of partner perception by meta-analyzing 98 studies examining tracking accuracy, 48 of which also involved elements of mean-level bias. They found a strong effect for tracking accuracy (r = .47, Z = 23.85, p < .001, 95% CI [.44, .50]) and a smaller effect of positive mean-level bias (r = .09, Z = 3.51, p < .001, 95% CI [.04, .13]). Importantly, participants' accuracy in the rank ordering of their partner's traits was unrelated to their use of mean-level bias (ps > .50), suggesting that even though partners may show high tracking accuracy, this does not mean that they show more or less mean-level bias.

Within this meta-analysis, Fletcher and Kerr (2010) were also able to identify a handful of studies which linked mean-level bias and tracking accuracy to relationship quality. While they found evidence that positive mean-level bias was associated with higher relationship quality (r = .36, p < .001), accuracy was not significantly associated with relationship quality (r = .03, p = .42). Perhaps, as the authors suggest, individuals use mean-level biases, but not accuracy, when evaluating whether they are enjoying their relationships. These findings echo that of Murray et al. (2000), suggesting that seeing our partners with a certain amount of positive bias may be beneficial for relationship satisfaction.

Importantly, much of this research has examined partner bias and accuracy with respect to constructs that have some relative consensus—most people agree on what the construct looks like in others (e.g., extraversion, conscientiousness, attractiveness; Albright et al., 1988). But what about constructs that are more subjective—like humor? Humor is often characterized as an extremely subjective experience (Castro et al., 2017; Ziv & Gadish, 1989), and yet, it plays an important role in relationship satisfaction (Barelds & Barelds-Dijkstra, 2010; Lundy et al., 1998; McGee & Shevlin, 2009; Ziv & Gadish, 1989). Based on the field's current understanding of

partner perceptions, it is not yet known how accurate perceptions about partner humor may be and whether relationship satisfaction is associated with accuracy and bias in these perceptions.

Humor and Romantic Relationships

Particular styles of humor influence social relationships in different ways. Humor at school and in the workplace is positively associated with collegiality, job satisfaction, creativity, and job commitment, and is negatively associated with burnout and emotional exhaustion (Burford, 1987; Decker, 1987; Holmes, 2006; Mesmer-Magnus et al., 2012; Romero & Cruthirds, 2006; Stogdill, 1972). Other research has acknowledged the importance of humor in relationships with family and friends. Positive humor is often used to reduce interpersonal tension, build bonds, and signal solidarity between people (Burns & Pearson, 2011; Gonzales & Mierop, 2004). However, much of the current literature has focused on the importance of humor within close romantic relationships. And for good reason—sense of humor (especially an individual's perception of their partners' humor) has been shown to predict higher relationship satisfaction (Barelds & Barelds-Dijkstra, 2010; Hall, 2013, 2017; Ziv & Avner 1989). Below, I briefly review the literature surrounding humor and close relationships, including how different *types* of humor have implications for people's relationships.

Individuals often cite humor as an important factor in both how they initially choose a partner and how relationships are happily maintained—people like funny partners and want to be in relationships with funny people (Anderson, 1968; Lundy et al., 1998; McGee & Shevlin, 2009; Ziv & Gadish, 1989). However, the relationship between humor and a happy relationship is not always a straightforward one. Humor is not universally positive, and different types of humor (i.e., adaptive and maladaptive humor) are associated with different relationship outcomes.

Adaptive Humor

As is likely expected, positive displays of humor in romantic relationships are largely predictive of happier relationships (Hall, 2013, 2017; Lundy et al., 1998; McGee & Shevlin, 2009; Ziv & Gadish, 1989). In a recent meta-analysis of humor style and relationship satisfaction, Hall (2017) found that positive humor (e.g., humor used to connect to or communicate with a partner, release tension, appreciate a partner, make a partner laugh) was consistently associated with higher relationship satisfaction. Some work suggests that couples who simply appreciate humor more may experience more intimacy within a relationship (Barelds & Barelds-Dijkstra, 2010). Hall (2013) suggests that humor may influence relationship satisfaction because it serves unique communicative functions. Specifically, positive humor allows partners to share enjoyment, share affection, and let go of tensions and conflict. Findings such as these have served to combat the notion that humor plays "a limited role in intimate, long-term relationships" as some have claimed (Barelds & Barelds-Dijkstra, 2010)—suggesting instead that positive humor is an important facet in maintaining happy relationships.

Maladaptive Humor

Of course, negative humor is not tied to the same rosy relationships outcomes as positive humor (Butzer & Kuiper, 2008; De Koning & Weiss, 2002; Hall 2017). In the meta-analysis discussed above, Hall (2017) found that negative humor (e.g., humor used to attack or demean a partner, humor used to put down others, self-deprecating humor) was consistently associated with lower relationship satisfaction. Other work echoes these findings (Butzer & Kuiper, 2008; De Koning & Weiss, 2002). De Koning and Weiss (2002), for example, found that negative humor (characterized with items such as "my partner uses humor to put me down," and "I can feel really hurt by some of my partner's jokes.") was associated with lower marital satisfaction

and intimacy. Further, maladaptive humor was also associated with individuals' active withdrawal from a partner's demands—further jeopardizing close relationships.

Self-deprecating and self-defeating humor can create challenges for romantic relationships, even if the target of the maladaptive humor is oneself and not a partner or the relationship specifically. Those who have a self-deprecating humor style also tend to have lower self-esteem, greater depression and anxiety, and judge themselves as less competent (Kuiper et al., 2004; Stieger et al., 2011). Individuals with lower self-esteem and self-worth often report lower relationship satisfaction and believe their partners sees them less positively (Sciangula & Morry, 2009). The negative relationship cognitions resulting from lower levels of self-esteem create a self-reinforcing cycle: lower self-esteem negatively colors relationship experiences, leads individual to devalue partners, and exacerbates minor problems and relationship threats—ultimately leading to negative relationship behaviors and partners being burdened with protecting their feelings, undermining relationships and can lower self-esteem (Downey & Feldman, 1996; Downey et al., 1998; Lemay Jr & Dudley, 2011; Murray et al., 2003; Murray et al., 2002). Longitudinal research has produced similar findings. Over time, decreases in self-esteem are associated with similar decreases in a partner's relationship satisfaction (Erol & Orth, 2014).

Humor that is exceptionally aggressive can also serve as a "red flag" for other, more problematic behaviors. For example, previous research has shown that men who enjoy sexist jokes are more likely to endorse rape-myth beliefs (e.g., that women lie about rape, want to be raped), to force sex, and to participate in more psychological, physical, and sexual aggression (Ryan & Kanjorski, 1998). This humor style captures more than just problematic beliefs, as men with sexist beliefs who are then exposed to sexist humor show an increase in real-world prejudicial decision-making and behavior (Ford et al., 2008). This research suggests that, in a

heterosexual relationship, a man with an exceptionally aggressive humor style may even pose a threat to his partner.

In evaluating how adaptive and maladaptive humor is associated with relationship outcomes, the degree to which humor styles impact relationships likely depends on people's perceptions of their partners' humor styles. However, to date, the literature is agnostic on whether people are accurate or biased with respect to how they evaluate their partner's humor styles, and how this accuracy and bias is associated with relationship satisfaction. In the current study, I redress this gap by examining accuracy (i.e., truth) and bias in partner reports of humor styles.

THE CURRENT STUDY

Research regarding humor in close relationships suggests that it plays a salient role in how satisfied individuals are. This may be surprising when considering, as stated before, the subjective nature of humor (Castro et al., 2017; Ziv & Gadish, 1989) and some inconsistent effects when predicting individual satisfaction from partner-reported humor styles (Barelds & Barelds-Dijkstra, 2010). Because of this subjectivity, it may largely be an individual's *perception* of their partner's humor may be associated with (or depend on) their relationship satisfaction. Unfortunately, as the literature stands, there is very little descriptive information about the degree and direction in which people are biased about their partner's humor styles.

Knowing the magnitude and direction of bias will help us understand if partners over- or underestimate their partners humor and to what degree (i.e., directional bias). For example, do people downplay the degree to which their partner uses aggressive forms of humor or play up their use of positive forms of humor? Knowing whether partners have some degree of insight into how their partner views their own humor is also important (i.e., truth or accuracy). In other words, do partners agree in their evaluations of humor? Finally, knowing some sources of bias is also informative—do people assume that their partner has a particular humor style because they have that same humor style (i.e., assumed-similarity)? Do people think their partner adopts an aggressive humor style because they have an aggressive humor style? Are partners more accurate or biased when assessing different kinds (i.e., maladaptive vs. adaptive) of humor? Each of these questions, in their own right, provide a more complete picture of how partners view each other. However, in an extension of this research, I also examine relationship satisfaction as a possible moderator of these accuracy and bias effects—do people in more satisfying relationships had a greater degree of directional bias, accuracy, and assumed-similarity bias?

METHOD

Participants and Procedure

Participants were 261 heterosexual couples between the ages of 29-87 (M = 65.42, SD = 12.31) and recruited through the survey software company Qualtrics. Participants were compensated $10 each for completing the survey. On average, couples had been together for roughly 37 years (SD = 14.85), although this ranged from 3 to 65.5 years. Participants were largely white (89.5%), with roughly 5% of the sample identifying as Asian, 2.1% identifying as Black or African American, 1.7% identifying as Hispanic or Latino, and the remaining 1.9% identifying as Native Hawaiian/Pacific Islander, American Indian/Alaska Native, or multiracial.

Measures

Humor Styles

Self- and partner-reports of humor styles were measured using the Humor Styles Questionnaire (HSQ), developed by (Martin et al., 2003). Four dimensions of humor styles exist, capturing both adaptive (self-enhancing, affiliative) and maladaptive (self-defeating, aggressive) types of humor. The 32-item measure includes four subscales, each consisting of 8 items. Each subscale captures one type of humor: self-enhancing (e.g., "If I am feeling depressed, I can usually cheer myself up with humor."), affiliative (e.g., "I laugh and joke a lot with my closest friends."), self-defeating (e.g., "I let people laugh at me or make fun at my expense more than I should."), and aggressive (e.g., "If someone makes a mistake, I will often tease them about it."). Each item asks participants how much they agree with a statement about their own humor using a 7-point Likert scale ranging from 1 (*totally disagree*) to 7 (*totally agree*). Responses were averaged to yield scores for each of the subscales.[1]

[1] At my proposal meeting, it was suggested that individual humor styles may share a high degree of overlap with other more traditionally studied psychological characteristics (e.g., Big Five personality). In a separate,

Partners were asked to complete both a self-report and partner-report of the HSQ. The same questions were asked in each style of report, although the partner-report asked the participant to answer the questions with their partner in mind (e.g. "My partner laughs and jokes a lot with their closest friends," "If someone makes a mistake, my partner will often tease them about it."). In these analyses (discussed further in the analytic approach below), partner-reports served as the outcome judgement, while partner self-reports served as the truth variable. Reliabilities were high for each scale for both self- and partner-reports (affiliative: $\alpha_{self} = .89$, $\alpha_{other} = .89$; self-enhancing: $\alpha_{self} = .87$, $\alpha_{other} = .86$; self-deprecating $\alpha_{self} = .72$, $\alpha_{other} = .70$; and aggressive $\alpha_{self} = .82$, $\alpha_{other} = .79$).

Relationship Satisfaction

Relationship satisfaction was measured with a modified version of the Couples Satisfaction Index (CSI; Funk & Rogge, 2007). This shorted version of the scale is a 5-item measure which asks participants' agreement on a scale ranging from 1(*strongly disagree*) to 5(*strongly agree*) about how satisfied they are with their current romantic relationship (e.g., "We have a good relationship," and "My relationship with my partner makes me happy"). Reliability for this measure was extremely high ($\alpha = .97$).

Ancillary Measures

Other variables of interest were measured including, attachment orientation (Fraley et al., 2011), Big Five personality traits (Soto & John, 2017), self-rated health (Idler & Benyamini, 1997), and a single-item measure of subjective well-being (Cheung & Lucas, 2014). These

measurement-focused study of individuals from a student subject pool (N = 227), I examined associations between the HSQ and a measure of Big Five personality traits (Soto & John, 2017). I found that, although there was modest overlap between the HSQ and Big Five personality traits, they were not so highly correlated to suggest that they were measuring the same construct: affiliative humor (rs ≤ |.29|), self-enhancement (rs ≤ |.32|), self-deprecation (rs ≤ |.19|), and aggressive (rs ≤ |.44|).

measures were beyond the scope of the thesis and will not be discussed further.

Analytic Approach

Truth and Bias Model

The accuracy of partner judgements was assessed with the Truth and Bias (T&B) Model (West & Kenny, 2011). This model was selected for its ability to model accuracy and bias as independent constructs simultaneously while allowing for moderators of these effects. The T&B model conceptualizes partner judgement (i.e., if a person thinks their partner uses aggressive humor) as a result of several forces: 1) *directional bias* (i.e., a tendency to under/over evaluate others, conceptually similar to Fletcher and Kerr's mean-level bias), 2) *truth force* (i.e., the extent to which the perceiver is "drawn" to the *truth value*, conceptually similar to Fletcher and Kerr's tracking accuracy), and 3) *bias* (i.e., any another non-truth value that the perceiver bases their judgment on; in this case, this bias of interest is assumed similarity; West & Kenny, 2011; Wood et al., 2017). This approach also allows for modeling *moderator variables*—variables that influence the strength of either the truth or bias forces.

The basic model can be formally expressed as follows:

$$J_{Ci} = b_0 + tT_{Ci} + bB_{Ci} + E_i$$

where J_{Ci} is person *i*'s judgment of their partners' humor style; b_0 or the intercept is the directional bias (i.e., the degree to which a person is biased to perceive their partner as using more/less humor than they really do); T_{Ci} is the truth variable (i.e., the partners' actual amount of humor); t is the truth force (i.e., the strength of the effect of the partner's actual [i.e., self-reported] humor on the persons' judgment of their partner); B_{Ci} is the bias variable (i.e., to test assumed similarity, this is the person's own humor style predicting their judgment of their partner's humor style); b is the bias force (i.e., the strength of the effect of a person's own humor

style on their judgement of their partner); and E_i is random error. The subscript C indicates which variables have been grand mean centered according to the truth variable (i.e., a target's self-reported humor style).

When the variables have been centered in this way, directional bias (b_0) can be interpreted as the average estimate of a partners' humor when controlling for truth (their partner's actual usage of humor) in their judgement. This value—the intercept—reflects the difference between the person's judgement of their partner and the truth (their partner's self-reported humor score). This value is a measure of mean-level bias, and the interpretation of this value will determine if mean-level biases play a significant role in people's perceptions of their partner's humor: a significant positive intercept would suggest that people are indeed positively biased when evaluating their partner's humor. A significant negative intercept would suggest that people are negatively biased when evaluating their partner's humor. Truth force (t) can be interpreted as a traditional regression coefficient (i.e., a significant positive value would indicate that people are indeed using the "truth" when evaluating their partner's humor) (Reifman, 2020; West & Kenny, 2011; Wood et al., 2017). Bias force (b) can also be interpreted as a traditional regression coefficient (i.e., a significant positive value would indicate that people are assuming similarity between their own rating and the rating they provide of their partner).

Moderation of Truth and Bias by Relationship Satisfaction

To address the question of whether relationship satisfaction is associated with partner perception, an individual's relationship satisfaction will be included as a moderator in the model; this model can be expressed formally as follows:

$$J_{Ci} = (b_0 + sS_i) + (tT_{Ci} + t_S T_{Ci} S_i) + (bB_{Ci} + b_S B_{Ci} S_i) + E_i$$

where S_i is person i's relationship satisfaction (centered with the grand mean of relationship

satisfaction); s is the overall effect of a person's relationship satisfaction on their judgement (estimating the moderating effect of satisfaction on directional bias; if positive, this means that satisfaction has a positive effect on directional bias); t_S is the overall effect of a person's relationship satisfaction on the truth force (i.e., determining if the truth force is stronger when relationship satisfaction is higher or lower); $T_{Ci}\,S_i$ is the interaction between satisfaction and the truth variable (i.e., determining if humor style and relationship satisfaction are related in predicting partner reports of humor style); b_S is the overall effect of a person's relationship satisfaction on the bias force (i.e., determining if assumed similarity is stronger when relationship satisfaction is higher or lower); and $B_{Ci}S_i$ is the interaction between satisfaction and the bias variable (i.e., determining if assumed similarity and relationship satisfaction are related in predicting partner reports of humor style). Moderation of the truth force (t_S) and moderation of the bias force (b_s) can be interpreted as traditional two-way interaction regression coefficients (Reifman, 2020; West & Kenny, 2011; Wood et al., 2017). Humor style reports were centered using the truth variable, and relationship satisfaction was mean-centered prior to the analyses. Based on previous work finding gender differences in how partners perceive each other (Neff & Karney, 2005), gender was also examined as a moderating variable of truth and bias forces.

RESULTS

Humor Styles

Descriptive data for humor style and relationship satisfaction are displayed in Table 1. Affiliative humor was the highest reported style of humor in both self- and partner-reports. Each report of affiliative humor spanned the full range of possible values (1-7), with a mean of 4.78 (*SD* = 1.21) for self-reported humor and 4.82 (*SD* = 1.20) for partner-reported humor. This was followed by self-enhancing humor, which was the second most common style of humor reported by both individuals and their partners (*M* for self-report = 4.58, *SD* = 1.03; *M* for partner-report = 4.51, *SD* = 1.05). The maladaptive humor styles were less common: self-deprecating (*M* for self-report = 3.38, *SD* = .92; *M* for partner-report = 3.34, *SD* = .90) and aggressive (*M* for self-report = 2.94, *SD* = 1.08; *M* for partner-report = 3.09, *SD* = 1.08) humor styles were the least reported.

Accuracy and Bias

In accordance with T&B modeling, each variable (the judgement variable [i.e., an individual's report of their partner's humor style], the truth variable [i.e., the partner's self-report of their own humor], and the bias variable [i.e., an individual's report of their own humor]) was centered on the mean of the truth variable. Truth and bias models were completed for each humor style. Gender was effect coded (-1 = women; 1 = men). Each model included interaction terms for relationship satisfaction (as formally expressed above) and gender on truth and bias variables. The results of each model are presented below and in Tables 2-5. I first began by describing the directional biases, the truth forces, and the bias forces. Then, I described whether or not these factors were moderated by gender and relationship satisfaction.

Affiliative Humor

The results of the T&B model for affiliative humor are presented in Table 2. The intercept for this model was non-significant (b =.06, p = .07), indicating that no directional bias was present in this judgement of partner humor. The bias force was also not significant (b =.04, p = .24), indicating that assumed similarity did not play a role in partner's judgements of affiliative humor. The truth force in the judgement, however, was significant and quite large (b =.72, p < .001), indicating that participants were accurate in their judgement of their partner's affiliative humor. This model also indicated a first-order effect of gender, such that women reported that their partners used more affiliative humor than did men (b = -.09, p = .01), and a first-order effect of relationship satisfaction, such that more satisfied people reported that their partners used more affiliative humor (b = .20, p < .001).

Self-enhancing Humor

The results of the T&B model for self-enhancing humor are presented in Table 3. The intercept for this model was small but significant (b = -.10, p = .003), indicating that people slightly underestimated the amount of self-enhancing humor their partner uses. There was also a significant effect of both the truth force (b = .66, p < .001) and the bias force (b = .09, p = .02), indicating that participants relied on both their partner's actual use of humor (demonstrating tracking accuracy) and their own use of humor (demonstrating assumed similarity) when judging their partner's humor. This model also indicated a first-order effect of gender, such that women reported that their partners used more self-enhancing humor than did men (b = -.12, p < .001), and a first-order effect of relationship satisfaction, such that more satisfied people reported that their partners used more self-enhancing humor (b = .26, p < .001).

Self-deprecating Humor

The results of the T&B model for self-deprecating humor are presented in Table 4. The intercept for this model was not significant (b = -.05, p = .10), suggesting that a directional bias was not present in participant's judgements of their partner's self-deprecating humor. Participants demonstrated both tracking accuracy and assumed similarity when judging their partner's humor: both the truth force (b = .51, p < .001) and the bias force (b = .26, p < .001) were significant predictors of judgment. The analysis also found first-order effects of gender, such that women reported that their partner used this sort of humor more than men did (b = -.09, p = .001). There was no first-order effect of relationship satisfaction on partner report of self-deprecating humor (b = .02, p = .56).

Aggressive Humor

The results of the T&B model for aggressive humor are presented in Table 5. The intercept for this model was positive and significant (b = .15, p < .001), indicating that participants consistently overestimated their partner's report of aggressive humor. Again, participants demonstrated both tracking accuracy and assumed similarity, as both the truth force (b = .56, p < .001) and bias force (b = .25, p < .001) were significant. This model also indicated a first-order effect of gender, such that women reported that their partners used more aggressive humor than did men (b = -.16, p < .001), and a first-order effect of relationship satisfaction, such that more dissatisfied people reported that their partners used more aggressive humor (b = -.20, p < .001).

Moderating Effects of Gender and Relationship Satisfaction

Gender

I examined whether gender moderated any of the truth or bias forces (see bottom of

Tables 2-5). The vast majority of effects were not moderated by gender (all *p*s > .08). The one exception was an interaction with the truth force on reports of aggressive humor (b = -.07, p = .04). Specifically, the truth force was stronger for women (b = .62, p < .001) than men (b = .49, p < .001). Thus, altogether, it seems that truth and bias forces are relatively similar across men and women. However, women's ratings of men's aggressive humor more closely matched the truth.

Relationship Satisfaction

I examined whether relationship satisfaction moderated any of the truth or bias forces (see bottom of Tables 2-5). The vast majority of effects were not moderated by satisfaction (all *p*s > .26). There were two exceptions—bias forces in both affiliative (b = .10, p = .005) and aggressive humor (b = .11, p = .01) were moderated by relationship satisfaction.

The decomposition of the relationship satisfaction by bias force interaction for affiliative humor is displayed in Figure 1. For those high in relationship satisfaction, the effect of self-reported humor style on judgments of partner humor (i.e., assumed similarity bias) was significant (b = .19, p < .001). The assumed similarity bias was not significant among those who were low in relationship satisfaction (b = -.047, p = .25). Participants high in affiliative humor also reported that their partner used more affiliative humor.

The decomposition of the relationship satisfaction by bias force interaction for aggressive humor is displayed in Figure 2. For those high in relationship satisfaction (b = .325, p < .001), the effect of self-reported humor style on judgments of partner humor (i.e., assumed similarity bias) was stronger than it was for those who were low in relationship satisfaction (b = .158, p < .001). Participants high in aggressive humor reported that their partner was similarly high. Participants low in aggressive humor who were also satisfied with their

relationships reported that their partners were similarly low in aggressive humor.

Altogether, it seems that truth and bias forces are relatively similar across levels of relationship satisfaction. However, those high in relationship satisfaction tended to show a greater assumed similarity bias in reports of affiliative and aggressive humor.

DISCUSSION

The current study sought to expand the literature on accuracy and bias in romantic relationships to a more subjective topic: humor. Using the T&B model (West & Kenny, 2011), I was able to assess whether couples over or underestimate their partner's humor style (i.e., directional bias), the degree to which couples may be accurate in judging each other's humor style (i.e., tracking accuracy or truth force), and how couples may use cognitive biases (i.e. assumed similarity or bias force) in their judgements of each other's humor. In many ways, the results of this study fit well with existing research on partner perception of other, more objectively rated personal characteristics.

Truth and Bias in Perceptions of Humor Styles

Similar to the predictions made by Fletcher and Kerr's (2010) partner evaluation model—where partner judgements include both mean-level bias and tracking accuracy—participants demonstrated both accuracy and bias in their judgments of self-enhancing, self-deprecating, and aggressive humor. However, mean-level (i.e., directional) bias was only significant for partner judgements of self-enhancing humor (where participants slightly underestimated the amount of humor their partner was using) and aggressive humor (where participants slightly overestimated the amount of humor their partner was using). Because self-enhancing humor is largely private (including items such as "Even when I'm by myself, I'm often amused at the absurdities of life", and "I don't need to be with other people to feel amused—I can usually find things to laugh about even when I'm by myself"), it may be relatively unsurprising that people do not have perfect insight into how their partner uses this type of humor. The overestimation of aggressive humor, on the other hand, may reflect a few different processes. For example, perhaps partners disagree on what is considered aggressive (Pew Research Center, 2019), or perhaps people are

uniquely aware of their partner's aggressive humor (reporting a higher use of aggressive humor), even when their partner may not be aware that they are using aggressive humor. Perhaps more likely, when answering questions about their own problematic humor use, participants may feel the need to answer in a socially desirable way. When reporting on another person's maladaptive humor use, participants may not feel as strong a need to engage in socially desirable responding, causing a discrepancy between report types.

While directional bias was only present for two of the four humor styles, assumed similarity biases were present in each judgment of humor style, with the sole exception of affiliative humor (although it was in the same direction as the other effects; $p = .24$). These findings align with previous work suggesting that, in close romantic relationships, people tend to see their partner has similar to themselves and use their own behaviors and attitudes as information about their partner's behaviors and attitudes (Kenny & Acitelli, 2001; Marks & Miller, 1987). It appears that, at least within close relationships, this effect extends to the category of humor styles. Participants consistently used their own humor style, particularly their maladaptive humor styles, as information in judging their partner's humor style. Interestingly, the assumed similarity bias (for aggressive and affiliative humor) was particularly present for those who are more satisfied in their relationships, a point I specifically discuss in the next section.

Largely, however, these analyses point to an overwhelming effect of accuracy—the truth force was significant and relatively large (all bs > .5) in each analysis. On one hand, this may be relatively unsurprising—romantic partners presumably know each other very well, and, as discussed earlier, accuracy is a cornerstone of partner judgements (Fletcher, 2015; Fletcher & Kerr, 2010; Kenny & Acitelli, 2001; Neff & Karney, 2005). Partners tended to be more accurate

when evaluating their partner's adaptive humor (*b*s for affiliative and self-enhancing humor, respectively: .72, .67) than their maladaptive humor (*b*s for self-deprecating and aggressive humor, respectively: .51, .56). This could reflect a few different processes. Perhaps self- and partner-reports of maladaptive humor styles differ more because they are socially undesirable characteristics, and participants are hesitant to self-report this behavior (or admit that their partner uses these humor styles). Perhaps these kinds of humor are more difficult to observe and track accurately, either due to their uncommon nature (see Table 1), their private nature (in the case of self-deprecating humor), or their subjective nature (in the case of aggressive humor; Pew Research Center 2019).

Although the truth force of aggressive humor was higher for women than men, (indicating that women were slightly more accurate in this judgment), across humor styles, men and women did not differ in their judgements of humor styles. Interestingly, there were also no significant interactions of the truth force by relationship quality, suggesting that those who are satisfied in their relationships see their partner's humor style with the same amount of accuracy as those who are less satisfied. These findings echo that of the meta-analysis conducted by Fletcher and Kerr (2010): there was no evidence that being particularly accurate about a partner's humor was associated with relationship satisfaction for individuals.

The Moderating Role of Relationship Satisfaction on Truth and Bias

The first-order effect of relationship satisfaction was significant in each analysis, with the sole exception of self-deprecating humor. These results here were intuitive—those who were more satisfied reported that their partner used more adaptive humor, including affiliative and self-enhancing humor. Those who were less satisfied reported that their partner used more aggressive humor. This echoes much of the previously discussed work on humor and relationship

satisfaction—positive humor is good for relationships, and negative humor damages relationships (Butzer & Kuiper, 2008; De Koning & Weiss, 2002; Hall, 2013, 2017; Lundy, Tan, & Cunningham, 1998; McGee & Shevlin, 2009; Ziv, 1988). However, there was no first-order effect of relationship satisfaction on partner reports of self-deprecating humor, which may be surprising when considering how damaging self-deprecation and low self-esteem can be for interpersonal relationships (Downey & Feldman, 1996; Downey et al., 1998; Erol & Orth, 2014; Lemay Jr & Dudley, 2011; Murray et al., 2003; Murray et al., 2002). As previously mentioned, of all the humor styles, self-deprecating humor had the lowest truth force, indicating that it was the most difficult for partners to gauge accurately. Perhaps a more accurate judgement of a partner's tendency to self-deprecate would be reveal stronger associations with poorer relationship outcomes.

The significant interaction of assumed similarity and relationship satisfaction for aggressive and affiliative humor indicated those who were more satisfied showed a stronger assumed similarity bias (i.e., their self-ratings were more strongly associated with the judgments of their partners). These findings offer more evidence for a link between relationship satisfaction and assumed similarity—when people are in satisfying relationships, they tend to see more similarities between them and their partners, controlling for the accuracy of their judgments (Fletcher & Kerr, 2010; Montoya et al., 2008; Morry, 2005, 2007; Morry et al., 2011; Murray et al., 2000).

Limitations and Future Directions

This study had several strengths, including a large sample of couples, an analytic technique uniquely positioned to capture both accuracy and bias in partner perceptions, and the inclusion of relationship satisfaction as a moderator of accuracy and bias in partner perceptions.

Nevertheless, there were limitations to this study that need to be addressed by future research. First, this study relied on reports from couple members only. This allowed me to determine how individuals' perceptions of their partners differed from partners' self-perceptions. However, it did not allow me to make any claims about the uniqueness of partner perceptions (i.e., are they uniquely biased compared to friends or family members?) and whether a target's self-reports represent the genuine truth about humor (an assumption of the T&B model). For example, if an individual reports that their partner uses very little aggressive humor, and their partner reports that they use a lot of aggressive humor, who is correct? To continue the example, if a third informant also reports that a partner uses a lot of aggressive humor, it would suggest that the individual is seeing their partner uniquely—in a way that others do not. Getting reports from more informants (e.g., friends who know the partner, or third-party strangers watching them behave) would allow me to more accurately examine if individuals see their partner in an accurate or biased light. This sort of study design would also allow for the examination of other person-perception biases that are not couple-specific (Malloy & Kenny, 1986; Snijders & Kenny, 1999).

It is also possible that people are aware of their biased perceptions of their partner (e.g., "I know my partner doesn't think they use a lot of self-deprecating humor, but I think they do.") Solomon & Vazire (2014) found this to be the case—when evaluating their partner's attractiveness, partners consistently rated their partner as more attractive than partners rated themselves. However, partners were also able to accurately estimate their partner's self-report. This indicates that partners were aware of their inflated evaluations—and the same may be true for other inflated evaluations of characteristics like humor or humor styles. In order to address this possibility, future research should incorporate partner meta-perceptions of humor by asking

individuals to estimate how their partner would complete a self-report measure of humor styles.

Perhaps one of the largest limitations of this study is its reliance on cross-sectional data. This is especially problematic when considering the role of relationship satisfaction in predicting or moderating the magnitude of truth and bias forces. Does relationship satisfaction give rise to greater or reduced truth and bias forces? Or do truth and bias forces give rise to higher or lower relationship satisfaction? To date, much of the work on partner perceptions conceptualized relationship satisfaction as an outcome—that being positively biased unidirectionally leads to better relationships. Future longitudinal work will be able to examine the origins of partner perceptions in a way that cross-sectional work cannot. For example, future work can examine how or when in a relationship people may achieve accuracy or begin to use biases, how accuracy and biases change over time, and the directionality of the association between partner humor use and relationship satisfaction.

CONCLUSION

The current study sought to examine accuracy and bias in humor perceptions in romantic relationships. I found that partners demonstrated both accuracy and bias in their judgements of their partner's humor style. Participants occasionally demonstrated directional bias, underestimating their partner's use of self-enhancing humor and overestimating their partner's use of aggressive humor. Participants more consistently demonstrated assumed similarity biases, using their own humor style to evaluate their partner's use of self-enhancing, self-deprecating, and aggressive humor. Participants most consistently demonstrated accuracy, basing their judgment of their partner's humor use on what partners actually reported. However, participants may have been more accurate when evaluating adaptive humor styles. Men and women were largely similar in their accuracy and biases. People in highly satisfying relationships showed a stronger assumed similarity bias, albeit only for affiliative and aggressive humor. Overall, however, the most consistent effect in the current work was that of accuracy—participant's accuracy was never moderated by relationship satisfaction.

Previous research has found that partners evaluate each other with a blend of accuracy and bias. I found the same to be the case with a more subjective characteristic that has implications for people's relationships—partners' humor styles. There is a general assumption that a little bit of positive bias can be a good thing for relationships (Fletcher & Kerr, 2010; Montoya et al., 2008; Morry, 2005, 2007; Morry et al., 2011; Murray et al., 2000). However, future research can more carefully examine the antecedents and consequences of partner judgments of humor through the use of multi-informant, longitudinal data. The current study provides important descriptive information for how people make judgments about their partners' humor and points to several future directions for how couples view themselves, their partners,

and their relationships.

APPENDICES

APPENDIX A:

Tables

Table 1.

Descriptive Data for Relationship Satisfaction and Humor Styles

		N	Minimum	Maximum	*M*	*SD*
Self-report						
	Affiliative	522	1.00	7.00	4.78	1.21
	Self-enhancing	522	1.00	7.00	4.58	1.03
	Self-deprecating	522	1.00	6.25	3.38	0.92
	Aggressive	522	1.00	6.75	2.94	1.08
Partner-report						
	Affiliative	522	1.00	7.00	4.83	1.20
	Self-enhancing	522	1.25	7.00	4.51	1.05
	Self-deprecating	522	1.00	6.75	3.34	0.90
	Aggressive	522	1.00	6.13	3.09	1.08
Relationship satisfaction		516	1.00	5.00	4.49	0.740

Table 2.

Truth and Bias Model Predicting Directional Bias, Tracking Accuracy, and Assumed Similarity in Partner Reports Of Affiliative Humor

	b	*S.E.*	*t (df)*	*p*	95% CI: LB	95% CI: UB
Intercept (Directional bias)	0.062	0.034	1.831 (254)	0.068	-0.005	0.129
Truth force (Tracking accuracy)	0.724	0.032	22.784 (414)	< 0.001	0.662	0.787
Bias force (Assumed similarity)	0.038	0.032	1.186 (414)	0.236	-0.025	0.101
Gender	-0.093	0.037	-2.535 (256)	0.012	-0.166	-0.021
Relationship satisfaction	0.197	0.043	4.523 (313)	< 0.001	0.111	0.282
Truth force × Gender	0.052	0.030	1.714 (452)	0.087	-0.008	0.111
Bias force × Gender	-0.054	0.031	-1.770 (454)	0.077	-0.114	0.006
Truth force × Relationship satisfaction	-0.034	0.036	-0.958 (508)	0.338	-0.105	0.036
Bias force × Relationship satisfaction	0.097	0.034	2.824 (467)	0.005	0.030	0.165

Table 3.

Truth and Bias Model Predicting Directional Bias, Tracking Accuracy, and Assumed Similarity in Partner Reports of Self-enhancing Humor

	b	*S.E.*	*t (df)*	*p*	95% CI: LB	95% CI: UB
Intercept (Directional bias)	-0.096	0.031	-3.034 (254)	0.003	-0.158	-0.034
Truth force (Tracking accuracy)	0.662	0.035	19.076 (389)	< 0.001	0.594	0.730
Bias force (Assumed similarity)	0.085	0.035	2.420 (394)	0.016	0.016	0.155
Gender	-0.119	0.029	-4.113 (250)	< 0.001	-0.176	-0.062
Relationship satisfaction	0.259	0.048	5.376 (339)	< 0.001	0.164	0.354
Truth force × Gender	0.014	0.035	0.405 (365)	0.686	-0.055	0.083
Bias force × Gender	-0.028	0.035	-0.800 (366)	0.424	-0.098	0.041
Truth force × Relationship satisfaction	0.042	0.039	1.077 (380)	0.282	-0.034	0.118
Bias force × Relationship satisfaction	0.019	0.040	0.470 (419)	0.639	-0.060	0.098

Table 4.

Truth and Bias Model Predicting Directional Bias, Tracking Accuracy, and Assumed Similarity in Partner Reports Of Self-deprecating Humor

	b	*S.E.*	*t (df)*	*p*	95% CI: LB	95% CI: UB
Intercept (Directional bias)	-0.047	0.028	-1.666 (242)	0.097	-0.102	0.008
Truth force (Tracking accuracy)	0.506	0.038	13.381 (358)	< 0.001	0.432	0.580
Bias force (Assumed similarity)	0.261	0.038	6.933 (361)	< 0.001	0.187	0.335
Gender	-0.093	0.028	-3.302 (244)	0.001	-0.148	-0.037
Relationship satisfaction	0.022	0.038	0.591 (310)	0.555	-0.052	0.096
Truth force × Gender	0.002	0.037	0.042 (362)	0.967	-0.072	0.075
Bias force × Gender	-0.028	0.037	-0.765 (364)	0.445	-0.102	0.045
Truth force × Relationship satisfaction	-0.048	0.047	-1.026 (389)	0.305	-0.141	0.044
Bias force × Relationship satisfaction	0.051	0.046	1.118 (352)	0.264	-0.039	0.140

Table 5.

Truth and Bias Model Predicting Directional Bias, Tracking Accuracy, and Assumed Similarity in Partner Reports of Aggressive Humor

	b	*S.E.*	*t (df)*	*p*	95% CI: LB	95% CI: UB
Intercept (Directional bias)	0.153	0.031	4.916 (255)	< 0.001	0.092	0.214
Truth force (Tracking accuracy)	0.556	0.034	16.225 (373)	< 0.001	0.488	0.623
Bias force (Assumed similarity)	0.245	0.034	7.193 (367)	< 0.001	0.178	0.312
Gender	-0.161	0.034	-4.710 (256)	< 0.001	-0.228	-0.094
Relationship satisfaction	-0.195	0.041	-4.810 (299)	< 0.001	-0.275	-0.115
Truth force × Gender	-0.066	0.032	-2.095 (422)	0.037	-0.129	-0.004
Bias force × Gender	0.017	0.031	0.555 (414)	0.579	-0.044	0.079
Truth force × Relationship satisfaction	0.019	0.038	0.501 (444)	0.617	-0.056	0.094
Bias force × Relationship satisfaction	0.106	0.042	2.535 (477)	0.012	0.024	0.187

APPENDIX B:

Figures

Figure 1.

Simple Slopes Analysis of the Moderating Effect of Relationship Satisfaction on Assumed Similarity Bias for Affiliative Humor

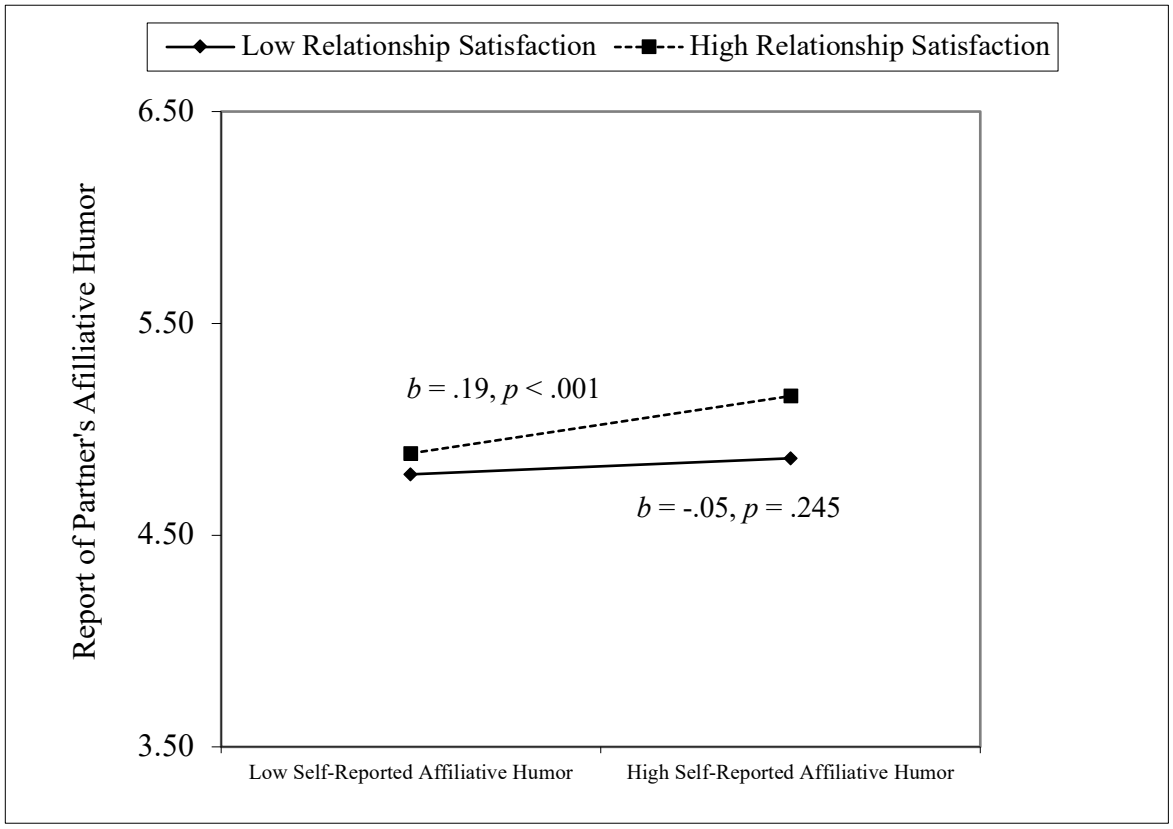
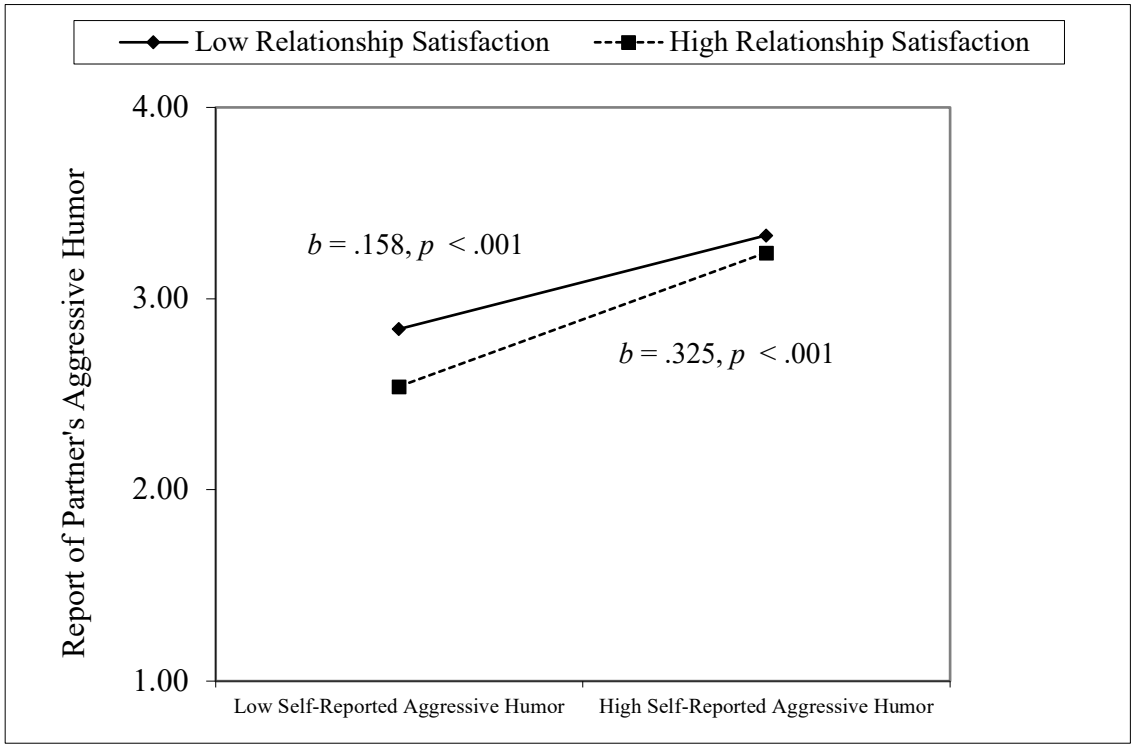


Figure 2.

Simple Slopes Analysis of the Moderating Effect of Relationship Satisfaction on Assumed Similarity Bias for Aggressive Humor



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