The Influence of Romantic Rejection on Change in Ideal Standards, Ideal Flexibility, and Self-
Perceived Mate Value

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Abstract

Research has shown that ideal romantic standards predict future partner characteristics and influence existing relationships, but how standards develop and change among single individuals has yet to be explored. Using the Ideal Standards Model, the present study sought to determine whether repeated experiences of romantic rejection and acceptance over time influence ideal standards, ideal flexibility, and self-perceived mate value ($N = 208$). Per expectations, results suggest repeated experiences of rejection result in decreases in ideal standards and self-perceived mate value and increases in ideal flexibility, though no effects emerged for acceptance. Given the predictive nature of ideal standards and the influence rejection has on such, findings from this study contribute to a greater understanding of relationship formation processes. OSF:

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According to the Ideal Standards Model (ISM; Fletcher, Simpson, Thomas, & Giles, 1999), people possess conceptualizations of their ideal romantic partner across a range of attributes (warmth-trustworthiness, vitality-attractiveness, and status-resources). Perceptions of potential or current partners can be compared to these ideal standards to evaluate attraction to, or satisfaction with, these partners, as well as to regulate behavior toward them (e.g., to decide to approach a potential partner, or to attempt to change something about a current partner). For example, recent research suggests that individuals tend to enter new relationships with others possessing traits that closely correspond to their own ideal standards (Campbell, Chin, & Stanton, 2016; Gerlach, Arslan, Schultze, Reinhard, & Penke, 2017). Research has also demonstrated that individuals are more satisfied in relationships when they perceive smaller discrepancies between their ideal standards and partner perceptions (Buyukan-Tetik, Campbell, Finkenauer, Karremans, & Kappen, 2017; Campbell, Simpson, Kashy, & Fletcher, 2001; Fletcher et al., 1999; Fletcher, Simpson, & Thomas, 2000). Further, individuals are more apt to attempt to regulate (i.e., change) their partners when they perceive relatively large discrepancies between ideal standards and partner evaluations (Overall, Fletcher, & Simpson, 2006; Overall, Fletcher, Simpson, & Sibley, 2009). When individuals possess higher, compared to lower, ideal standards, they also report less willingness to deviate from their standards (ideal flexibility; Simpson, Fletcher, & Campbell, 2001), and more positive self-perceived mate value (Regan, 1998b).

Ideal standards, however, are not inherently stable. For example, Fletcher and colleagues (2000) found that people tend to change their ideal standards to match their perceptions of their

partners over the course of their first year together (see also Gerlach et al., 2017). This change is thought to occur because partner perceptions are less malleable than ideals, and people may realize that their initial ideals were not realistic. Yet past research has failed to address how ideal standards form and change prior to relationship initiation. Although standards in singles have been shown to be relatively stable compared to the standards of those who enter relationships (Gerlach et al., 2017), prior literature has not addressed factors that may be associated with shifts that do occur. One variable likely to elicit changes in ideal standards is romantic rejection or acceptance. Indeed, Simpson and colleagues (2001) postulated that repeated experiences of rejection would cause a decline in ideal standards, while repeated acceptance of romantic advances would increase standards. The goal of the present research is to test this idea in a longitudinal study of singles who reported their experiences of romantic acceptance and rejection over the course of six months.

Ideal Standards, Flexibility, and Self-Perceived Mate Value

Ideal standards reflect one's hopes and expectations for a romantic partner, and are comprised of three factors: warmth-trustworthiness, vitality-attractiveness, and status-resources (Fletcher et al., 1999; and similarly, Csajbók & Berkics, 2017; Katsena & Dimdins, 2015). Research has consistently shown that ideal standards are consequential to relationships, as individuals evaluate their partners based on the consistency between their ideal and their perception of their partner (Fletcher, 1999). Specifically, people report high relationship quality and satisfaction when their partners more closely match their standards (Campbell, Overall, Rubin, & Lackenbauer, 2013; Campbell et al., 2001; Csajbók & Berkics, 2017; Fletcher et al., 2000; Overall et al., 2006). Furthermore, research suggests that ideal relationship standards and one's willingness to deviate from his or her standards, referred to as ideal flexibility, vary. For

example, some people have high or low standards, and some may be more willing to accept greater discrepancy between current perceptions of a partner (potential or actual) and their standards, while others are less willing (Campbell et al., 2001). Ideal flexibility is closely tied to ideal standards, as individuals with higher standards report less flexibility (Campbell et al., 2001), and it is essential to understanding the association between ideal standards and a variety of relationship outcomes. For example, people may be more flexible regarding short-term relationships than long-term relationships (Kenrick, Groth, Trost, & Sadalla, 1993; Regan, 1998a; Simpson et al., 2001). Additionally, flexibility should be more malleable than ideal standards, such that a person may become more flexible after a couple of unsuccessful dates (or less after some successful ones), but such experiences may not change actual standards. Indeed, standards are expected to only change after repeated positive or negative dating experiences (Simpson et al., 2001). Thus, we predicted that among singles, ideal standards and ideal flexibility would negatively correlate with each other (Hypothesis 1; H1). Further, ideal flexibility was predicted to change more than ideal standards (H2).

Self-perceived mate value is comprised of the characteristics individuals perceive themselves to possess within a particular context that enable them to attract, and maintain mates (Fisher, Cox, Bennet, & Gavric, 2008). Researchers have suggested that humans should have evolved a psychological mechanism to track their mate value and allow them to adjust their mating-related decisions accordingly (e.g., Buss & Schmitt, 1993; Penke, Todd, Lenton, & Fasolo, 2007; Trivers, 1972). Specifically, accurately assessing mate value is useful because it enables people to avoid squandering time seeking mates of higher value whom they likely will not be able to retain, or mates of lower value who would be a waste of time and resources (Regan, 1998b). Accordingly, Kirkpatrick and Ellis (2001) have argued that self-perceived mate

value is determined by social feedback concerning one's attractiveness, comparisons to competition, and successes and failures in mating. Thus, self-perceived mate value is viewed as a construct that is a predictor of mate choices, but is also impacted by experiences in the dating market.

There is both theoretical and empirical support suggesting that ideal standards, ideal flexibility, and self-perceived mate value are closely related. As previously discussed, ideal standards and ideal flexibility are negatively associated, such that people with higher ideal standards have lower flexibility (Campbell et al., 2001; Simpson et al., 2001). Campbell and colleagues (2001) also demonstrated that self-ratings on ideal standards dimensions, which are similar to traits found on more traditional measures of self-perceived mate value (e.g., Mate Value Inventory; Kirsner, Figueredo, & Jacobs, 2003), are highly correlated with ideal standards and flexibility, such that those with high self-ratings have high standards and low flexibility. Campbell and colleagues' (2001) study is the only empirical test of the association between ideal standards, flexibility, and self-perceived mate value using the ISM; however, many other studies demonstrate that high self-ratings are associated with seeking high-quality mates (Buston & Emlen, 2003; Edlund & Sagarin, 2010; Kenrick et al., 1993; Regan, 1998a; Regan, 1998b; Surbey & Brice, 2007; Tadinac & Hromatko, 2007; Todd, Penke, Fasolo, & Lenton, 2007). Additionally, individuals who have high self-esteem (which is positively correlated with self-perceived mate value; Brase & Guy, 2004) and feel more positively about themselves have higher hopes and standards for their ideal partners (Brown & Brown, 2015; Murray, Holmes, & Griffin, 1996a; Murray, Holmes, & Griffin, 1996b). As such, we predicted that individuals with high self-perceived mate value would have higher ideal standards than those with low self-

perceived mate value (H3), and that individuals with high self-perceived mate value would have lower ideal flexibility than those with low self-perceived mate value (H4).

Social Acceptance and Rejection

Social rejection occurs when others signal exclusion, with behaviors ranging from ignoring to active expulsion, while social acceptance occurs when others signal inclusion in a group (e.g., through toleration or pursuit to engage; DeWall & Bushman, 2011). Social rejection often leads to low self-esteem and negative emotions, such as hurt feelings, anger, sadness, depression, and anxiety (Leary, 2010; Leary & Baumeister, 2000), whereas social acceptance is more broadly associated with positive feelings, most notably, high self-esteem (Leary & Baumeister, 2000).

Sociometer theory (Leary & Baumeister, 2000; Leary & Downs, 1995) maintains that self-esteem is part of a system that monitors and regulates people's social acceptance and rejection by others. More specifically, self-esteem is thought to develop as a monitor, or *sociometer*, that observes the social environment for signs of rejection or exclusion and alerts the individual when cues are detected so that the individual may act accordingly to maintain or acquire inclusion. Low self-esteem is viewed as indicative of exclusion and high self-esteem of inclusion. The theory asserts that individuals should be especially attentive to rejection, as ignoring cues of exclusion would be costlier than ignoring those of acceptance. Additionally, Kirkpatrick and Ellis (2001) suggested that there are multiple domains of self-esteem, including that of mating relationships. They posited that individuals have evolved monitors of successful mating (i.e., a mating sociometer), which influence how they perceive themselves as potential partners (i.e., their self-perceived mate value), and therefore their general sense of self-esteem. In support of this notion, studies have shown that self-perceived mate value positively relates to

self-esteem (Brase & Guy, 2004; Penke & Denissen, 2008). The combination of sociometer theory (Leary & Baumeister, 2000; Leary & Downs, 1995) and the mating sociometer (Kirkpatrick & Ellis, 2001) suggests experiences of romantic rejection should lead to decreases in self-perceived mate value, while romantic acceptance should cause the opposite.

Minimal research has explored romantic rejection's impact on self-perceived mate value, but what exists generally suggests a negative association. Rejection in the context of opposite-sex interactions and mating experiences has been shown to decrease self-perceived mate value and self-esteem (Kavanagh, Robins, & Ellis, 2010; Pass, Lindberg, & Park, 2010; Ruan & Zhang, 2012; Zhang, Liu, Li, & Ruan, 2015), while romantic acceptance has been shown to increase self-esteem (Kavanagh et al., 2010).

Simpson and colleagues (2001) theorized that people who experience repeated rejections are likely to decrease their standards, while acceptance should cause an increase. Research guided by the ISM has not yet tested these hypotheses, but some literature supports the notion. Specifically, rejection has been shown to decrease choosiness (Reeve, Kelley, & Welling, 2016), mate expectations (Zhang et al., 2015), and mating aspirations (Kavanagh et al., 2010), while acceptance has been shown to increase mating aspirations (Kavanagh et al., 2010) and self-esteem (Kavanagh, Fletcher, & Ellis, 2014). However, some studies do not find such effects for acceptance (Zhang et al., 2015), which aligns with sociometer theory's argument that acceptance is less impactful than rejection.

The impact of romantic rejection on ideal flexibility has yet to be empirically examined, though one can speculate on the association between these constructs based on the negative correlation between ideal standards and ideal flexibility (Campbell et al., 2001; Simpson et al., 2001). Further, Simpson and colleagues (2001) argued that rejected individuals should expand

their range of acceptable partners (i.e., increase their flexibility), and those who experience success should decrease this range. This theoretical foundation, combined with prior research on the relation between rejection and shifts in ideal standards (e.g., Reeve et al., 2016; Zhang et al., 2015) suggests people who experience romantic rejection will likely increase their ideal flexibility, and those who experience romantic acceptance will likely decrease it.

Past literature, both theoretical and empirical, indicates that romantic rejection should cause a decrease in ideal standards, an increase in ideal flexibility, and a decrease in self-perceived mate value, while acceptance should do the reverse. Therefore, we predicted that individuals who experience more rejection would display a decrease in ideal standards over time (H5), though individuals who experience less rejection (i.e., more acceptance) should either experience no change in their ideal standards, or an increase in their ideal standards over time (H6). We further predicted that individuals who experience more rejection would exhibit an increase in ideal flexibility over time, and those who experience less rejection would exhibit a decrease (H7), and that individuals who experience more rejection would demonstrate a decrease in self-perceived mate value over time, while those who experience less rejection would demonstrate an increase (H8).

Self-Perceived Mate Value as a Moderator

While rejection is anticipated to be associated with increased flexibility, lower ideals, and decreased self-perceived mate value, these effects may be buffered by self-perceived mate value. Although prior research has not explored self-perceived mate value as a moderator of rejection, some literature has explored self-esteem as a moderator. Notably, sociometer theory (Leary & Downs, 1995; Leary & Baumeister, 2000) proposes that individuals with low self-esteem should be more sensitive to rejection than those with high self-esteem, as those with low self-esteem

must focus on becoming socially included. Indeed, individuals with low self-esteem are more susceptible to distress, negative self-evaluation, and decreased state self-esteem after imagining being broken up with (i.e., rejected) by a romantic partner (Waller & MacDonald, 2010), and feel worse about themselves after experiencing a rejection or failure than those with high self-esteem (Brown, 2010). Further, rejection sensitivity, or one's tendency to excessively expect, perceive, and react to rejection, is negatively correlated with self-esteem (Blackhart, Fitzpatrick, & Williamson, 2014; Watson & Nesdale, 2012), suggesting that self-esteem buffers against fear of rejection.

Although less research has explored the association between self-perceived mate value and rejection, self-esteem positively correlates with self-perceived mate value (e.g., Brase & Guy, 2004; Penke & Denissen, 2008), so similar reactions to romantic rejection for individuals with high self-perceived mate value as those with high self-esteem were expected. When combined with previous research suggesting that people who experience rejection experience a decrease in ideal standards, an increase in ideal flexibility (e.g., Simpson et al., 2001), and a decrease in self-perceived mate value (e.g., Zhang et al., 2015), these findings suggest that people with high levels of self-perceived mate value should be less impacted by rejection, and will therefore experience less change in their standards, flexibility, and self-perceived mate value than individuals with low self-perceived mate value. Thus, we predicted that individuals with initially high (versus low) self-perceived mate value would experience less change in ideal standards after experiencing high levels of rejection (H9), as well as less change in ideal flexibility (H10) and self-perceived mate value (H11).

The Current Study

The present study sought to determine the impact of romantic rejection and acceptance on individuals' ideal standards, ideal flexibility, and self-perceived mate value over an extended period among romantically unattached individuals. Many of the studies previously discussed focused on sociometer theory and mating sociometer as grounds for why rejection and acceptance should cause change in these constructs. However, no study has explicitly examined the influence of acceptance and rejection on ideal standards, ideal flexibility, and self-perceived mate value using the ISM among individuals who are single. Further, no study has used longitudinal data to determine the associations of repeated experiences of rejection and acceptance on changes in ideal flexibility or standards. The present research seeks to fill this void by analyzing data from a six-month longitudinal study that recorded ideal standards, ideal flexibility, and self-perceived mate value at the onset and conclusion, and experiences of acceptance and rejection throughout the course of the study. All hypotheses for this study were pre-registered prior to analyses and can be found at osf.io/8vygp/.

Method

Below, we report how we determined our sample size, and outline the data exclusions (if any), manipulations, and measures assessed in this study. Data used in the present research were originally collected for a study that focused on the transition into new romantic relationships (to view the pre-registration, see osf.io/9gf4q/). A priori power analyses were not conducted, as the research involved a pre-existing dataset.

Participants and Recruitment

Participants were recruited via posters and newspaper advertisements placed in various locations in a town in southern Ontario, including a university campus, grocery stores and the

classified website www.kijiji.ca. Individuals interested in the study contacted the researchers through email. Those who met the study's criteria were sent the letter of information, which provided details about what the study would entail. The only screening criterion was that the participants be single at the time of signing up for the study. The initial sample consisted of $N = 425$ single individuals. Full details concerning the sampling approach can be found in Campbell et al. (2016). For inclusion in the present research, participants must have remained single throughout the entire six-month study and responded to the baseline and final survey. Of the original 425 participants, 208 participants (130 females) met these qualifications, and 95 (51 females) reported at least one advance (i.e., approached someone to ask for a date) over the duration of the study. Participants' ages ranged from 16 to 73 ($M = 22.41$, $SD = 6.18$), and the majority of the sample was white (49.5%), followed by Asian (31.3%), East Indian (5.8%), Black North American/African (3.8%), Hispanic (.5%), Other (4.3%) and individuals who selected multiple ethnicities (4.3%).

Procedure

Participants who provided informed consent were then sent seven monthly surveys over the course of six months. Current analyses focus on the measures of ideal standards, ideal flexibility, self-perceived mate value, and accepted and rejected dating advances, though additional items were included for other purposes (see osf.io/me7jp/). The baseline survey (Time 0; T0) contained a wide variety of measures, including demographics and scales assessing self-perceived mate value, ideal standards, and ideal flexibility. This first survey took approximately 30 minutes to complete, and participants were compensated with a \$10.00 CAD Amazon gift card. For participants who remained single, the next five surveys (T1 – T5) included questions regarding participants' recent dating experiences (e.g., number of one-night stands, number of

dates). Participants who indicated that they entered a relationship on one of the monthly surveys were then given a different series of questionnaires related to the new relationship, and were given the opportunity to invite their partners to participate in the study (for more information on this aspect of the study, see Campbell et al., 2016 or osf.io/me7jp/). Each completed monthly survey took approximately 10 minutes and upon completion participants were compensated with a \$5.00 CAD Amazon gift card. The final survey (T6) included most scales from the baseline survey (including ideal standards, ideal flexibility, and self-perceived mate value), and the questions asked on each monthly survey. This survey took approximately 30 minutes to complete and upon completion participants were compensated with a \$10.00 CAD Amazon gift card (a total of \$45 in compensation was offered). Participants were sent a debriefing form that explained the purpose of the study 48 hours after receiving the final survey, regardless of whether they completed all previous surveys or the final survey. This research was conducted in accordance with the ethical guidelines of the American Psychological Association and the materials and procedure were reviewed and approved by the local research ethics board before study initiation.

Materials

Ideal standards. Ideal standards were measured using the 17-item short form of the Ideal Standards Scale (Fletcher et al., 1999). Participants filled out this questionnaire twice – first when they began the study (T0) and again, six months later (T6). Cronbach's α was acceptable, with .84 at T0, and .88 at T6. On both occasions, participants were asked to rate a series of attributes based on how important they were in describing one's ideal partner in a close, romantic relationship. Attributes were rated on a 7-point Likert scale, ranging from 1 (*very unimportant*) to 7 (*extremely important*), and included traits such as “understanding,” “adventurous,” and

“good job.” Participants’ scores were averaged across the items and mean-centered for analyses, with high scores indicating higher standards.

Ideal flexibility. The same 17 items from the short form of the Ideal Standards Scale (Fletcher et al., 1999) were used to measure ideal flexibility at T0 ($\alpha = .89$) and T6 ($\alpha = .92$). Participants were asked to consider their ideal partner and think about the extent to which a potential partner would have to match those ideals for the relationship to be happy and successful. Participants were asked to rate each of the attributes on a 10-point scale, ranging from “0 = 0-10% of my ideal partner” to “9 = 91-100% of my ideal partner”. For example, someone who viewed “understanding” as an extremely important trait could choose 9, meaning that the partner would have to match that characteristic 91-100% to be satisfactory. These scores were averaged and mean-centered for analyses, then reverse-coded so that low scores would indicate low flexibility and high scores high flexibility.

Self-perceived mate value. The 17-item short form of the Ideal Standards Scale (Fletcher et al., 1999) was used to measure self-perceived mate value at T0 ($\alpha = .83$) and T6 ($\alpha = .90$). Participants were asked to rate how characteristic each attribute was of themselves on a 7-point Likert scale ranging from 1 (*not at all characteristic*) to 7 (*very characteristic*). This measure is similar to other measures of self-perceived mate value, such as the Mate Value Inventory (MVI; Kirsner et al., 2003). Participants’ scores were averaged across the items and mean-centered for analyses, with high scores indicating high self-perceived mate value.

Rejection and acceptance. On each of the five monthly surveys (T1-T5) and the sixth, final survey (T6), participants were asked a series of questions regarding their recent dating experiences. Amongst these, participants were asked how many times they had made a successful advance towards a potential partner (“i.e. how many people agreed to go out with you,

called you, etc.”), and how many times they made an unsuccessful advance (“i.e. how many people DID NOT agree to go out with you, call you, etc.”). These responses were summed across all six surveys to create scores representing the total number of rejected (i.e., unsuccessful) advances and total number of accepted (i.e., successful) advances. These two scores were then summed to generate the total number of advances made overall. Each of these three numbers (total rejected, accepted, and overall advances) were then averaged across the number of months each participant responded to the monthly survey. Then, the average number of rejected advances was divided into the average number of total advances, to produce a score representing the proportion of rejected advances that participants made across all the months they responded to the surveys. This value was then mean-centered for analyses, with high scores reflecting high levels of rejection, while low scores represent low levels of rejection (i.e., high acceptance). Follow-up analyses involved the numbers of overall, rejected, and accepted advances, which were also mean-centered, with higher scores reflecting more overall, rejected, or accepted advances, respectively.

Data Analytic Strategy

The pre-registration of the analytic strategy can be viewed at osf.io/8vygp/. Please note that the order of hypotheses has changed between the pre-registration and this document. Additionally, normality tests were not included in the pre-registration. Therefore, any data that did not meet normality checks were analyzed both as-is and after being corrected. Normality tests revealed three outliers, which were removed for the presented analyses. However, when outliers were included in analyses, no notable differences occurred. Analyses that include the outliers can be viewed on the OSF (osf.io/y42p9/). Finally, in addition to testing the hypotheses, gender was included in analyses to explore whether gender differences exist. Most analyses were

conducted in SPSS 24, except for the cross-lagged panel designs, which were conducted in MPlus 7.4 (Muthén & Muthén, 2015), and the simple slopes analyses, which were conducted in R 3.4, using the reghelper 0.3.3 package (Hughes, 2017).

Pearson product-moment correlation. Hypotheses 1, 3, and 4 were analyzed using Pearson product moment correlations. Similarly, gender differences were examined with this method; men and women were analyzed separately, and the resulting coefficients were compared using a Fisher's Z transformation.

Linear multiple regression. Hypotheses 5-11 were analyzed using linear multiple regression. Hypotheses 5-8 involved predicting change in ideal standards, ideal flexibility, or self-perceived mate value after experiences of rejection, while Hypotheses 9-11 imitated these analyses, but included self-perceived mate value at T0 as a moderator. For hypotheses 5-8, proportion of rejection and ideal standards (H5-6), ideal flexibility (H7) or self-perceived mate value (H8) at T0 were used as predictor variables, and the respective T6 variable was used as the outcome variable. By controlling for the relevant T0 variables, the T6 outcome variable of each analysis was a measure of residualized change from T0 to T6 – this will be referred to as “change” for brevity. These same variables were used for Hypotheses 9-11, but self-perceived mate value and the interaction between self-perceived mate value and rejection were also included as predictor variables in each analysis. Simple slopes analyses were conducted if any interaction term was found to be statistically significant.

Cross-lagged panel design. Hypothesis 2 was analyzed using a cross-lagged panel design. Ideal standards and ideal flexibility at T6 were correlated with each other and regressed onto ideal standards and ideal flexibility at T0, which were also correlated with each other. The regression coefficient between T0 and T6 for ideal standards were compared to the regression

coefficient between T0 and T6 for ideal flexibility. This was done by running the model twice – once with all paths freed, and once with the paths between ideals at T0 and T6 and flexibility at T0 and T6 constrained. The chi square difference value was examined to determine if the constrained model was statistically significantly different from the original. To explore gender differences, the dataset was grouped by gender and the aforementioned paths were constrained for both males and females, and the chi square value for this model compared to one in which all paths were free. A chi square critical value chart was consulted to determine significance (because of this, exact p -values are not known).

Results

Analyses were conducted as indicated in the pre-registration, but with the three outliers discovered in the normality tests removed (these exclusions were not pre-registered; all tests presented here are two-tailed). Although values used in analyses were mean-centered, means and standard deviations of the raw scores for ideal standards, ideal flexibility, and self-perceived mate value can be viewed in Table 1. Consistent with H1, ideal standards and ideal flexibility were negatively correlated at both T0, $r(206) = -.73, p < .001$, and T6, $r(195) = -.57, p < .001$. However, H2 was not supported, as the difference between the constrained and unconstrained versions of the cross-lagged panel design did not meet statistical significance $\Delta\chi^2(1) = 1.874, p > .05$, indicating that ideal flexibility and ideal standards do not uniquely change to different extents over time. Self-perceived mate value positively correlated with ideal standards, $r(205) = .48, p < .001$, and negatively correlated with ideal flexibility $r(205) = -.56, p < .001$ at T0, which supports H3 and H4, respectively. No gender differences were found in these correlations.

Table 1

Means and standard deviations of ideal standards, ideal flexibility, and self-perceived mate value for people who did and did not make advances

	People who made advances				People who did not make advances			
	T0		T6		T0		T6	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Ideal standards	84.88	13.70	71.56	33.77	85.08	11.67	79.93	20.74
Ideal flexibility	65.23	22.38	53.12	30.55	66.01	19.90	62.58	25.19
Self-perceived mate value	85.32	12.00	73.06	34.41	78.25	12.80	77.06	21.05

Note. Outliers were not included in these analyses. *Ns* for participants who did advance range from 89-95, those who did not range from 106-113.

A series of multiple regression analyses were run to test hypotheses 5 to 8. The overall regression models for predicting change in ideal standards, $F(2, 92) = 12.14, p < .001, R^2 = .21$, ideal flexibility, $F(2, 89) = 27.50, p < .001, R^2 = .38$, and self-perceived mate value, $F(2, 86) = 17.32, p < .001, R^2 = .29$, were statistically significant. All analyses supported H5-8, which suggests that increased experiences of rejection lead to decreased ideal standards and self-perceived mate value and increased flexibility (see Table 2). However, counter to what was expected in H9-11, self-perceived mate value did not moderate rejection, such that increased levels of self-perceived mate value at T0 decreased change in ideal standards, ideal flexibility, and self-perceived mate value after experiences of rejection. Additionally, gender was a significant predictor of change in self-perceived mate value when included in the model alongside proportion of rejection, $b = .19, \beta = .21, t(85) = 2.16, p = .03$. Specifically, females experienced a greater increase in self-perceived mate value over time compared to males.

Table 2

Regression coefficients and tests of significance for analyses involving proportion of rejection

Variable	<i>b</i>	<i>b</i> 95% CI [LL, UL]	SE(<i>b</i>)	β	<i>t</i>	<i>p</i>
Ideal standards						
Intercept	9.19E-5	[-.23, .23]	.12		.001	.999
Ideals at T0	.60	[.30, .89]	.15	.38	4.05	.000
Proportion of rejection	-1.05	[-1.79, -.30]	.38	-.26	-2.77	.007
Ideal flexibility						
Intercept	-3.76E-5	[-.23, .23]	.11		.000	1.00
Flexibility at T0	.60	[.43, .76]	.09	.58	7.00	.000
Proportion of rejection	.86	[.13, 1.6]	.37	.19	2.33	.022
Self-perceived mate value						
Intercept	7.135E-5	[-.16, .16]	.08		.001	.999
Self-perceived mate value at T0	.56	[.33, .79]	.12	.44	4.84	.000
Proportion of rejection	-.79	[-1.30, -.27]	.26	-.28	-3.03	.003

Gender and self-perceived mate value did not moderate the association of rejection with change in ideal flexibility and self-perceived mate value, but did influence change in ideal standards (see Figure 1). After establishing the statistical significance of the overall regression model, $F(8, 86) = 5.75, p < .001, R^2 = .35$, simple slopes analyses were run to explore this effect. Women with initially low self-perceived mate value (1 SD below the mean at T0) who experienced high levels of rejection (1 SD above the mean) had significantly lower ideal standards at T6 (controlling for ideal standards at T0) than those who experienced low levels of rejection, $b = -4.16, SE_b = 1.03, t(86) = -4.04, p < .001$. Further, after experiencing high levels of rejection, women with initially low self-perceived mate value had significantly lower ideal

standards at T6 than men with initially low self-perceived mate value, $b = -.87$, $SE_b = .28$, $t(86) = -3.10$, $p = .003$, and women with initially high self-perceived mate value, $b = 1.55$, $SE_b = .44$, $t(86) = 3.49$, $p < .001$.

Figure 1. Gender and self-perceived mate value as moderators of proportion of rejection's impact on change in ideal standards. Error bars represent the 95% confidence interval.

Follow-up Analyses

Results suggest that experiencing rejection over time predicts decreases in ideal standards and self-perceived mate value and increases in ideal flexibility. However, to ensure that rejection was responsible for this effect, and not advancing behavior, several follow-up analyses were conducted. First, the total number of advances ($M = 8.19$, $SD = 10.30$) individuals made was added as a covariate to analyses where rejection was the only predictor variable (aside from the relevant T0 control variable; for example, proportion of rejection, ideal standards at T0, and total number advances would predict ideal standards at T6). When controlling for total advances,

overall regression models for predicting change in ideal standards, $F(3, 91) = 27.26, p < .001, R^2 = .47$, ideal flexibility, $F(3, 88) = 24.55, p < .001, R^2 = .46$, and self-perceived mate value, $F(3, 85) = 19.63, p < .001, R^2 = .41$, remained statistically significant. However, the proportion of rejection was no longer a statistically significant predictor of changes in ideal standards or ideal flexibility, though rejection still negatively predicted changes in self-perceived mate value. Results also suggested that increases in advances predicted a decrease in ideal standards and self-perceived mate value, and an increase in ideal flexibility (this directionality remains the same if proportion of rejection is removed from analyses).

To further explore the finding that advancing behavior appeared to be responsible for these results, the total numbers of accepted ($M = 5.13, SD = 6.27$) and rejected advances ($M = 3.06, SD = 4.69$) were used as predictors of ideal standards, ideal flexibility, and self-perceived mate value at T6 (controlling for the respective T0 variables). Overall regression models were statistically significant for predicting change in ideal standards, $F(3, 91) = 29.00, p < .001, R^2 = .49$, ideal flexibility, $F(3, 88) = 25.39, p < .001, R^2 = .46$, and self-perceived mate value, $F(3, 85) = 17.90, p < .001, R^2 = .39$. In every analysis, the number of rejected advances significantly predicted change in the outcome variable, while the number of accepted advances did not (see Table 3). Although these analyses were not pre-registered, the results are still in the predicted direction of the original hypotheses (i.e., more rejection leads to a decrease in ideal standards and self-perceived mate value, and an increase in ideal flexibility). Due to the complexity of interpreting a four-way interaction, gender and self-perceived mate value were not examined as moderators using the total numbers of accepted and rejected advances instead of proportion of rejection. The previously discussed analyses using proportion of rejection are considered acceptable for interpreting any moderation effects.

Table 3

Regression coefficients and tests of significance for analyses involving total numbers of rejected and accepted advances

Variable	<i>b</i>	<i>b</i> 95% CI [LL, UL]	SE(<i>b</i>)	β	<i>t</i>	<i>p</i>
Ideal standards						
Intercept	4.32E-5	[-.18, .18]	.09		.000	1.000
Ideals at T0	.60	[.37, .84]	.12	.38	5.08	.000
Accepted advances	-.02	[-.06, .03]	.02	-.08	-.68	.499
Rejected advances	-.14	[-.20, -.08]	.03	-.53	-4.54	.000
Ideal flexibility						
Intercept	2.18E-6	[-.21, .21]	.11		.000	1.000
Flexibility at T0	.60	[.44, .76]	.08	.59	7.52	.000
Accepted advances	-.01	[-.06, .04]	.03	-.04	-.31	.758
Rejected advances	.11	[.04, .18]	.04	.37	3.09	.003
Self-perceived mate value						
Intercept	3.61E-5	[-.15, .15]	.08		.000	1.000
Self-perceived mate value at T0	.57	[.35, .78]	.11	.45	5.29	.000
Accepted advances	-.01	[-.05, .03]	.02	-.07	-.49	.623
Rejected advances	-.07	[-.12, -.02]	.03	-.37	-2.80	.006

Gender was not a statistically significant covariate in any of these analyses. Further, a cross-lagged panel design revealed that gender did not significantly influence the extent to which ideal standards changed relative to ideal flexibility over time. Gender differences in correlations between ideal standards, flexibility, and self-perceived mate value at T0 and T6 were not statistically significant, except for those between ideal standards and flexibility at T6, *Fisher's Z* = -2.62, $p = .009$ (the correlation was stronger for men).

Some participants in the study did not make any advances, but reported information about their ideal standards, ideal flexibility, and self-perceived mate value at T0 and T6 ($n = 113$). The

dataset was divided to assess differences between those who did and did not make advances. An analysis of the cross-lagged panel design showed that the act of advancing does not appear to impact the extent to which ideal standards change relative to ideal flexibility over time. The correlations between ideal standards, flexibility, and self-perceived mate value at T0 and T6 for those who made an advance and those who did not are presented in Table 4; differences between correlations are not statistically significant except for those between ideal standards and flexibility at T6, *Fisher's Z* = -2.24, *p* = .03 (the correlation was stronger for those who made advances).

Table 4

Correlation matrix for people who made advances (upper diagonal) and those who did not (lower diagonal)

Variable	1	2	3	4	5	6
Ideal standards at T0 (1)		-.76**	.55**	.38**	-.53**	.29**
Ideal flexibility at T0 (2)	-.70**		-.65**	-.41**	.59**	-.33**
Self-perceived mate value at T0 (3)	.47**	-.52**		.29**	-.42**	.46**
Ideal standards at T6 (4)	.41**	-.38**	.20*		-.69**	.63**
Ideal flexibility at T6 (5)	-.45**	.60**	-.37**	-.47**		-.67**
Self-perceived mate value at T6 (6)	.41**	-.45**	.70**	.48**	-.52**	

Note. ** Correlation significant at .01 level, * Correlation significant at .05 level (two-tailed). *Ns* for participants who did advance range from 89-95, those who did not range from 105-113. Bolded correlations are significantly different from each other at .05 level (two-tailed).

Finally, in other related research, it has been hypothesized that men would make more advances than women and be rejected more than women (see osf.io/d9cpg/). To assess whether

men made more advances than women, and whether they were accepted or rejected more, three independent Welch's F -tests were conducted (Welch's test was used because Levene's test for homogeneity of variance was violated). Post hoc tests were not run, as there were only two groups (men and women). For ease of interpretation, variables were not mean centered in these analyses. As expected, men ($M = 12.00$, $SD = 12.99$) made more overall advances than women ($M = 4.90$, $SD = 5.52$), *Welch's* $F(1, 56.27) = 11.36$, $p = .001$, $d = .71$. Further, men ($M = 5.25$, $SD = 5.75$) experienced more rejected advances than women ($M = 1.18$, $SD = 2.27$), *Welch's* $F(1, 54.51) = 19.509$, $p < .001$, $d = .93$, but men ($M = 6.75$, $SD = 7.71$) also had more advances accepted than women ($M = 3.73$, $SD = 4.29$), *Welch's* $F(1, 65.11) = 5.34$, $p = .024$, $d = .48$. These findings are consistent with the hypotheses that men would make more overall advances and be rejected more than women, although it is worth noting that determining whether men are rejected more is due to them making more advances overall, or some other factor, needs to be explored further.

Discussion

The purpose of this study was to determine whether romantic rejection and acceptance influence or result in changes in ideal standards, ideal flexibility, and self-perceived mate value in a longitudinal context using the ISM. Support for the hypotheses was mixed. Broadly, ideal standards, ideal flexibility, and self-perceived mate value correlated with each other in the expected directions, change in each construct was predicted by experiences of rejection over time, and gender and self-perceived mate value had minimal predictive value.

As anticipated, ideal standards and self-perceived mate value positively correlated with each other, and negatively correlated with ideal flexibility (H1, H3, and H4) at baseline and in the final survey. The negative association between ideal standards and ideal flexibility is

consistent with theoretical and empirical literature (Campbell et al., 2001; Simpson et al., 2001). Similarly, ideal flexibility and self-perceived mate value have also been shown to be negatively related (Campbell et al., 2001). The positive link between ideal standards and self-perceived mate value is consistent with previous research that shows individuals who consider themselves desirable partners seek higher-quality mates (Buston & Emlen, 2003; Edlund & Sagarin, 2010; Kenrick et al., 1993; Regan, 1998a; Regan, 1998b; Surbey & Brice, 2007; Tadinac & Hromatko, 2007; Todd et al., 2007). Thus, the present study provides further support for the strength and directionality of the association between these constructs. Additionally, this is one of the only studies to compare these variables using the ISM (see Campbell et al., 2001), and the strong relations between the constructs provide further support for the model. However, contrary to theoretical postulates (see Simpson et al., 2001) and our predictions, ideal flexibility did not change more than ideal standards over time (H2). Gerlach and colleagues (2017) found that ideals were more stable over time for those who didn't enter a relationship than those who did, the present null finding may simply be representative of stability in ideals among singles.

Consistent with hypotheses, increased experiences of rejection predicted decreases in self-perceived mate value and ideal standards, and increases in ideal flexibility over time (H5, H7, H8). This is the first study to empirically support Simpson and colleagues' (2001) idea that repeated experiences of rejection cause a decline in ideal standards and increases in ideal flexibility. Further, the finding that rejection is associated with lower self-perceived mate value over time is consistent with prior literature showing that rejection decreases self-esteem and self-perceived mate value (Kavanagh et al., 2010; Pass et al., 2010; Ruan & Zhang, 2012; Zhang et al., 2015), but the present study is the first to demonstrate this effect longitudinally. Combined, these findings suggest that repeated experiences of rejection predict changes not only in

individuals' perceptions of themselves, but also what they desire in a romantic partner. This may occur because multiple experiences of rejection repeatedly signal the disinterest of individuals advanced upon, which could cause participants to reevaluate their own worth as potential mates, as well as their standards for the types of people with whom they are likely to enter a relationship. Decreasing standards and increasing flexibility is likely advantageous, as doing so widens the dating pool and leads to an increased chance of experiencing acceptance.

Experiences of acceptance did not predict changes in ideal standards (H6), ideal flexibility, or self-perceived mate value. Although Simpson and colleagues (2001) suggested repeated experiences of acceptance would increase standards, prior literature has demonstrated that acceptance has mixed effects on mate expectations (e.g., Kavanagh et al., 2014; Zhang et al., 2014). Sociometer theory suggests that people should be more attuned to rejection than acceptance (Leary & Baumeister, 2000; Leary & Downs, 1995), as ignoring rejection is costlier than ignoring acceptance, which may further account for these findings. Acceptance may primarily function as a reaffirmation of the status quo, rather than a reason to increase standards. However, the type of person accepting the advance may be influential – repeated experiences of acceptance from potential partners of relatively high mate value may cause an increase in ideal standards and self-perceived mate value, and a decrease in ideal flexibility, while acceptances from similar or lower mate value individuals may not cause changes in these constructs.

Contrary to hypotheses, self-perceived mate value did not moderate rejection's impact on change in ideal standards, ideal flexibility, or self-perceived mate value (H9, H10, H11). One explanation for the null findings is that high self-perceived mate value is an effective buffer against singular experiences of rejection, but not repeated experiences, as documented in this study. Indeed, sociometer theory suggests that people with high self-esteem should be less

attuned to experiences of rejection than those with low self-esteem, but repeated instances of rejection should increasingly trigger the sociometer, thus decreasing self-esteem. Given the close association between self-esteem and self-perceived mate value (Brase & Guy, 2004; Kirkpatrick & Ellis, 2001), this is likely true for self-perceived mate value as well. As the present study examined multiple instances of rejection, any buffering effects initially high self-perceived mate value had may not have been evident after six months of acceptance and rejection experiences. Future research should examine self-perceived mate value as a moderator of both singular and multiple experiences of rejection to explore this notion further.

Gender did not influence many outcomes when included in the primary analyses, although results did indicate that men reported higher numbers of overall, accepted, and rejected advances than women, which is consistent with prior research which shows men tend to initiate more dates and exhibit more direct dating behaviors than women (Eaton & Rose, 2011). Interestingly, gender was a significant moderator in a three-way interaction with initial self-perceived mate value and rejection, such that the ideal standards of women with initially low self-perceived mate value were more impacted by high levels of rejection than women with initially high levels of self-perceived mate value, and men with initially low self-perceived mate value. This finding suggests that the ideal standards of women with low self-perceived mate value are particularly sensitive to experiences of rejection. However, this result should be interpreted cautiously, given that the sample size of this study is lower than ideal for properly detecting a three-way interaction (Heo & Leon, 2010).

Implications

The current study has several theoretical implications. First, the results provide support for certain aspects of the ISM, as ideal standards positively correlated with self-perceived mate

value, and ideal flexibility negatively correlated with ideal standards and self-perceived mate value. Additionally, this is the first study to empirically support the notion that repeated experiences of rejection over time decrease ideal standards and self-perceived mate value and increase ideal flexibility. However, the ISM posits that repeated experiences of acceptance will cause the opposite effect from rejection, but the present study did not demonstrate any effects of romantic acceptance. Future researchers using the ISM should take into consideration the relative importance of rejection over acceptance and examine the mechanisms behind this effect. Further, the ISM predicts that ideal flexibility should change more than ideal standards, but support for this prediction was not found in the current study. Furthermore, this study has implications for literature on the mating sociometer, as self-perceived mate value does not appear to moderate the influence of rejection on the aforementioned constructs. However, as mentioned previously, this may be due the present study's focus on repeated versus singular rejection experiences, so self-perceived mate value's role as a moderator should be explored further.

The present findings also have implications for relationship initiation and relationship satisfaction. Two longitudinal studies (Campbell et al., 2016; Gerlach et al., 2017) have demonstrated that ideal partner preferences of single individuals are predictive of characteristics of future partners. These findings, combined with the present study's findings that experiences of rejection impact ideal standards, as well as ideal flexibility and self-perceived mate value, suggests that experiences of rejection while single may influence partner selection. Although future research is needed, these findings suggest that individuals who experience high levels of rejection may lower their ideal standards and enter relationships with partners of lower mate quality than initially desired. Therefore, individuals who change their ideal standards in response to rejection may end up with lower-quality mates than those who do not experience high levels

of rejection. Reducing one's standards and preferences may impact relationship quality, as people who enter relationships with partners who match their new, lower standards may experience less relationship satisfaction than those who enter relationships with partners who match their initial, unadjusted standards.

Limitations and Future Directions

While the present study contributes many novel findings to relationship literature, it does have several notable limitations. First, due to the longitudinal nature of the study, high attrition impacted the quality of data. Specifically, many participants did not complete every monthly survey, so the true number of accepted and rejected advances is unknown. It is possible that some people who were categorized as never having made an advance did make advances but did not fill out surveys for those months. Additionally, while the initial sample included 208 participants, only 95 were used in analyses involving the impact of rejection on change in ideal standards, flexibility, and self-perceived mate value, which is lower than desired. The remaining 113 participants either did not respond to the monthly surveys or did not report making any advances during the monthly surveys. The generalizability of the study is also limited, as the sample is predominantly white, and the sexual orientation of participants is unknown.

Second, the present study's focus was on experiences of accepted and rejected advances, but it did not account for advances made towards the participants, which may also predict change in standards, flexibility, and self-perceived mate value. Participants who are routinely approached likely have higher ideals and self-perceived mate value, and lower flexibility than those who are never or less frequently approached. The present study also did not account for who participants were approaching. Rejection from a long-time crush may be much more impactful than rejection from a stranger at a bar, or, rejection from an extremely high-quality

potential mate may have less of an effect on an individual than rejection from someone of similar or lower mate quality. Additionally, the present research did not inquire about the type of relationship being sought by participants; it is possible that those seeking casual relationships would be less impacted by rejection than those desiring more serious commitments. Further, explicit definitions of accepted and rejected advances were not included in the study, so participants may have had different interpretations of what counted as an accepted or rejected advance, which may have influenced their reports. Ultimately, the present study provides a broad perspective on how acceptance and rejection impact change in ideal standards, ideal flexibility, and self-perceived mate value, but it does not explore the nuances of the context in which each experience of rejection or acceptance occurs, which would be useful and informative in increasing the understanding of the associations between these constructs.

Future research with larger and more diverse sample would help solidify the strength and generalizability of the findings. Further, the contextual details surrounding experiences of acceptance and rejection would provide a deeper understanding of how rejection and acceptance influence ideal standards, ideal flexibility, and self-perceived mate value, both in specific instances and over extended periods of time. Future research should also strive to acquire information regarding accepted and rejected advances made towards participants. Finally, although acceptance and rejection have already been experimentally manipulated in many contexts, they have not been used to test the ISM. Future research should examine how ideal standards, ideal flexibility, and self-perceived mate value are affected when participants are randomly assigned to rejection or acceptance conditions in a controlled experimental environment. An experimental setting would also provide an opportunity for testing self-

perceived mate value as a potential moderator, as repeated experiences of acceptance and rejection would not be confounding factors.

Conclusion

Using the ISM, the present study demonstrates the first evidence that repeated experiences of romantic rejection over time decrease ideal standards and self-perceived mate value and increase ideal flexibility. Despite limitations, this study provides firm grounding for future research in this area and has multiple implications for understanding how ideals and relationships are established. Given the predictive nature of ideal standards in singles' formation of relationships (Campbell et al., 2016; Gerlach et al., 2017), the findings of this study regarding the role of rejection in the development of ideal standards and related constructs provide a valuable contribution to the body of knowledge on relationship formation.

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