



## Short Communication

## Implicit versus explicit rejection self-perceptions and adolescents' interpersonal functioning☆

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## ARTICLE INFO

## Article history:

Received 25 April 2015

Received in revised form 29 June 2015

Accepted 30 June 2015

Available online xxxx

## Keywords:

Self-perceptions

Rejection

Explicit

Implicit

IAT

Adolescents

## ABSTRACT

We investigated associations between implicit and explicit self-perceptions of rejection with interpersonal functioning in close relationships. Adolescents ( $N = 124$ ) reported their explicit rejection self-perceptions on a questionnaire and completed the Implicit Association Test to assess their implicit rejection self-perceptions. After controlling for implicit self-perceptions, adolescents' explicit rejection self-perceptions were associated with the adolescents self-reporting more negative relationship quality with close friends and self-reporting more negative behaviors with romantic partners. After controlling for explicit self-perceptions, adolescents' implicit rejection self-perceptions were associated with their romantic partners reporting more negative relationship quality with them, and observations of adolescents displaying more negative behaviors with romantic partners. Implicit and explicit rejection self-perceptions uniquely explain individual differences in interpersonal behaviors.

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## 1. Implicit versus explicit rejection self-perceptions and adolescents' interpersonal functioning

The tendency to *perceive oneself* as socially rejected versus accepted is an important cognition with negative interpersonal ramifications. Existing work on this topic has almost exclusively relied upon explicit self-perceptions of rejection. The current study investigated associations between implicit and explicit self-perceptions of rejection with interpersonal functioning in adolescents' close relationships.

Rejection self-perceptions may become associated with negative relationship quality and behaviors through several pathways. Individuals who perceive themselves as rejected may become hypersensitive to rejection and interpret ambiguous interactions as negative, leading them to over-report poor relationship quality relative to the actual negativity occurring in the relationship (Norona, Salvatore, Welsh, & Darling, 2014). Another possibility is that those who perceive themselves as rejected over-react to ambiguous interactions or avoid interactions

entirely because of fear of rejection – behaviors which lead to declines in relationship quality in a self-fulfilling prophecy (Downey & Feldman, 1996). Empirical research supports these ideas. After accounting for actual levels of rejection, adolescents who self-reported being peer-rejected displayed declining friendship quality (more hostility, less companionship) and increasing negative behaviors with close friends (excessive help-seeking) over a 1-year period (McElhaney, Antonishak, & Allen, 2008).

These findings underscore the importance of rejection self-perceptions for interpersonal functioning. However, existing studies on this topic rely upon explicit measures; typically, individuals self-report the degree they perceive themselves to be rejected on questionnaires (e.g., McElhaney et al., 2008). Yet, a growing literature suggests that information about the self is processed via multiple systems (Schnabel & Asendorpf, 2010). Explicit self-perceptions are based on deliberate, conscious reasoning about the self. By contrast, implicit associations derive from automatic activations of self-relevant experiences that exist outside of conscious control or awareness, and are thought to be relatively resistant to impression management (Greenwald, Poehlman, Uhlmann, & Banaji, 2009). Particularly for topics that are vulnerable to socially desirability concerns, participants may be unwilling (i.e., they are consciously aware of their perceptions but elect to not reveal them) or unable (i.e., they cannot introspect upon their perceptions) to explicitly report on the construct (Greenwald et al., 2009). Because perceiving oneself as rejected is socially undesirable, implicit measures may uniquely assess this construct, and be incrementally associated with interpersonal functioning beyond explicit reports.

☆ Mikami and Schad contributed equally to this work and should be considered as co-first authors; publication lists authors alphabetically. This research was supported by grants from the National Institute of Mental Health (R01-MH058066) and National Institute of Child Health and Human Development (R01-HD058305) to Joseph Allen. We are grateful to the adolescents who participated in this study, and many project staff and research assistants who contributed to the data collection.

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We presume that rejection self-perceptions, whether existing on an explicit or implicit level, manifest themselves in negative relationship quality and behaviors. However, implicit and explicit rejection self-perceptions may be associated with different interpersonal functioning indicators. Research has found that participants' implicitly measured self-esteem uniquely predicted *experimenter* ratings of the participants' social anxiety and observations of their spontaneous anxious behaviors in an interpersonal interaction (with statistical control of their explicit self-esteem); explicitly measured self-esteem uniquely predicted *self-reported* social anxiety (Rudolph, Schröder-Abé, Riketta, & Schütz, 2010). Another study found adolescents' explicitly self-reported fear of negative evaluation associated with their self-reported social interaction problems, but their implicitly assessed rejection self-perceptions associated with others' observations of poor interpersonal interactions – each after statistical control of the other type of measure (Teachman & Allen, 2007). This literature suggests one possible pattern of unique predictive validity which has been referred to as a double dissociation (Schnabel & Asendorpf, 2010): explicit measures are more associated with criterion variables within the individual's conscious control (such as self-reports or deliberate behaviors), while implicit measures are more associated with criterion variables that are difficult for the individual to consciously access and control (such as other-reports or spontaneous behaviors).

The current study expanded upon prior findings that explicit self-perceptions of rejection are associated with poor interpersonal functioning to also assess unique prediction by implicit rejection self-perceptions in a late adolescent sample. Rejection self-perceptions may be especially relevant in this developmental period, during which adolescents are moving away from residence with their parents and/or beginning college, which offer new opportunities for close relationships. Friendships and romantic partnerships both increase in importance during late adolescence, and social skills learned in each of these relationships generalize to the other (Collins, Welsh, & Furman, 2009). We hypothesized that implicitly and explicitly measured rejection self-perceptions would uniquely explain individual differences in relationship quality and behaviors in close friendships and romantic partnerships.

## 2. Method

### 2.1. Participants and procedure

Participants were 124 late adolescents (Mean age = 18.19,  $SD = 0.91$ ; 69 girls). The sample derives from a cross-sectional assessment within a larger longitudinal study that originally enrolled 184 adolescents in the Southeastern United States (Allen, Porter, McFarland, Marsh, & McElhaney, 2005). Ethnic diversity was 58% Caucasian, 29% African American, and 13% other. Average family income was \$30,000–\$39,999 (32% < \$20,000 and 31% > \$60,000).

The current sample's data collection occurred 6–7 years after original study entry. Adolescents completed measures of explicit and implicit rejection self-perceptions. Approximately 1 year later, 111 of the 124 adolescents and a close friend (friends' mean age = 19.27,  $SD = 1.64$ ), and 65 of the 124 adolescents and their romantic partners (partners' mean age = 18.76,  $SD = 2.75$ ), reported on their relationship functioning. Friends had known one another for an average of 8.57 years (Range = 1–20,  $SD = 5.54$ ); romantic relationships averaged 12.34 months in duration (range = 2–64,  $SD = 12.39$ ). Of the 65 participants who participated with a romantic partner, 59 of these participants also brought a close friend.

Participants in the current study did not differ from those in the original sample in age, gender, ethnicity, or family income. Adolescents with a close friend participating (versus those who did not) were more likely to be female ( $\chi^2_{(1, n = 124)} = 6.24$ ;  $p = .012$ ), but did not differ in other demographics or rejection self-perceptions. There were no differences

between the adolescents with versus without a romantic partner participating.

Participants age 18 and over provided consent; those under 18 provided assent while parents consented. Procedures were approved by an institutional review board.

### 2.2. Measures

#### 2.2.1. Explicit rejection self-perceptions

Adolescents completed the social acceptance scale from the Harter Self-Perception Profile (Harter, 1988). Adolescents selected which of two statements was most like themselves (four items; e.g., “Some people are not well-liked by others” but “Some people are well-liked by others”), and reported whether the description was “really like” or “sort of like” themselves. This scale was reverse coded so that higher scores indicated greater explicit rejection self-perceptions. Cronbach's  $\alpha$  was .83.

#### 2.2.2. Implicit rejection self-perceptions

Adolescents were administered the Implicit Association Test (IAT; Greenwald et al., 2009), requiring participants to classify words into superordinate categories via pressing computer keys. Four categories are placed into two pairs on either side of a computer screen. Study target categories were *Me* (me, self, I) and *Not Me* (not me, other, them), while descriptor categories were *Rejected* (rejected, disliked, unwanted) and *Liked* (liked, admired, popular), following Teachman and Allen (2007). After 20 practice trials, there were two counterbalanced blocks: one block of 36 trials where the target and descriptor categories were paired to reflect associations of the self with rejected, and one block of 36 trials where the categories were paired to reflect associations of the self with liked.

It is assumed that individuals classify stimuli more quickly when category pairings match their automatic associations. Following Greenwald, Nosek, and Banaji (2003), a *D* score was created, representing the time taken to classify stimuli when the category pairings reflected self with rejected versus the time taken when the category pairings reflected self with liked, divided by pooled standard deviations. Larger *D* scores reflect greater implicit rejection self-perceptions.

#### 2.2.3. Conflict and betrayal in close friendship

Adolescents and their close friends (labeled self-report and friend-report in Table 1, respectively) independently completed the Conflict and Betrayal subscale from the Friendship Quality Questionnaire (Parker & Asher, 1993) about their friendship (seven items; e.g., “This friend doesn't listen to me”). Each item is rated on a 5-point scale, with higher scores indicating more negative friendship quality. Cronbach's  $\alpha$  was .74 for adolescents and .76 for friends.

#### 2.2.4. Positive communication in romantic relationship

Adolescents and their romantic partners (labeled self-report and partner-report in Table 1, respectively) independently completed the Positive Communication subscale from the Conflict in Relationships Questionnaire (Wolfe, Reitzel-Jaffe, Gough, & Wekerle, 1994) about their relationship. Each of 16 items (e.g., “My partner offered a solution that s/he thought would make us both happy”) is answered on a 4-point scale, with higher scores indicating more positive relationship quality. Cronbach's  $\alpha$  was .88 for adolescents and .84 for romantic partners.

#### 2.2.5. Negative tactics in romantic relationship disagreements

Adolescents self-reported their avoidance behaviors toward their romantic partner (labeled self-report in Table 1) during conflict on an 18-item scale created by Brennan, Clark, and Shaver (1998). Each item (e.g., reverse coded: “I usually discuss my problems and concerns with my partner”) is answered on a 7-point metric; higher scores indicate poorer tactics during disagreements. Cronbach's  $\alpha$  in our sample was .91.

**Table 1**  
Descriptive statistics and correlations.

	M (SD)	2.	3.	4.	5.	6.	7.	8.
1. Explicit rejection self-perceptions	13.48 (2.52)	-.03	.19*	.05	-.22	.02	.37**	.17
2. Implicit rejection self-perceptions	-0.59 (0.37)		-.06	-.10	.12	-.24	-.05	.21
3. Conflict and betrayal (self-report)	31.85 (3.45)			.43**	-.21	.04	.38**	-.05
4. Conflict and betrayal (friend-report)	31.11 (3.79)				-.07	-.09	.22	-.18
5. Positive communication (self-report)	41.90 (11.53)					.30*	-.09	.15
6. Positive communication (partner-report)	44.15 (10.04)						-.04	-.07
7. Negative tactics in disagreements (self-report)	36.03 (15.73)							-.07
8. Negative tactics in disagreements (observed)	-0.02 (1.01)							

\*  $p < .05$ .

\*\*  $p < .01$ .

Adolescents and romantic partners were also observed in an 8-minute hypothetical “dating court” task (labeled observed in Table 1). In separate rooms, each partner decided which party was “right” (e.g., *Kim wants to spend their prom budget on a limo with friends, but Sam wants to spend it on dinner for the two of them*). Then, partners attempted to reach consensus. Graduate student coders rated the extent to which the adolescent dominated the discussion (cutting the partner off, coming to a unilateral decision, controlling talk, or insisting on his/her ideas; Allen et al., 2008). Higher scores indicate greater dominance, which we consider to be another poor tactic during disagreements. We averaged the scores obtained by two raters (intraclass  $r = .75$ ).

### 3. Results

Table 1 presents descriptive statistics. There were no outliers exceeding 3 SDs from the mean on any variable, except close friend report of conflict and betrayal, which had one outlier that was trimmed to 3 SDs above the mean.

Continuous variables were z-scored before analyses. Six hierarchical regressions were conducted, one with each indicator of interpersonal functioning as the criterion variable. Adolescents' gender, age, and family income were covaried in Step 1. Explicit and implicit rejection self-perceptions were entered simultaneously in Step 2 to examine the unique prediction of one type of rejection self-perception after statistical control of the other type. (Supplemental analyses showed covarying relationship length did not substantively alter findings, and there were no interaction effects between demographic and rejection self-perception measures).

Adolescents' explicit rejection self-perceptions, but not implicit self-perceptions, were associated with self-reports of more conflict and betrayal in the friendship. Adolescents' implicit rejection self-perceptions, but not explicit self-perceptions, were associated with romantic partners' report of less positive communication in the romantic relationship. Neither explicit nor implicit rejection self-perceptions

related to close friends' report of conflict and betrayal in the friendship or with self-reports of positive communication in the romantic relationship. Regarding negative tactics in romantic relationship disagreements, adolescents' explicit rejection self-perceptions (but not implicit self-perceptions) were associated with self-reports of greater avoidance. Adolescents' implicit rejection self-perceptions (but not explicit self-perceptions) were associated with observations of the adolescents being more controlling. See Table 2.

### 4. Discussion

Explicit and implicit measures of self-perceived rejection were uniquely associated with adolescents' interpersonal functioning. Explicit rejection self-perceptions were related to self-reported poorer friendship quality and greater self-reported negative behaviors with romantic partners. Implicit rejection self-perceptions were related to romantic partners' reports of poorer relationship quality and observations of adolescents displaying more negative behaviors with romantic partners.

Overall, explicit rejection self-perceptions were associated with self-reported poorer interpersonal functioning and implicit self-perceptions related to poorer functioning as reported by others. The former may occur because explicit rejection self-perceptions are consciously accessible so they shape how adolescents recall their relationship quality and behaviors. Regarding the latter, adolescents may suppress painful feelings of rejection from their conscious awareness (akin to defensiveness) or may lack the maturity to consciously introspect upon their self-perceived rejection, so the explicit rejection self-perceptions are not well-aligned with the adolescents' self-reported understanding of their relationship quality and behaviors. Nonetheless, implicit rejection self-perceptions continue to manifest in ways that are identifiable to others (Rudolph et al., 2010), leading to their association with other-reported interpersonal functioning. Alternatively, some adolescents may be consciously aware of rejection self-perceptions and their negative interpersonal functioning related to these self-perceptions, but

**Table 2**  
Rejection self-perceptions as predictors of interpersonal functioning.

	Conflict and betrayal (close friendship) $N = 111$				Positive communication (romantic relationship) $N = 65$				Negative tactics in disagreements (romantic relationship) $N = 65$			
	Self-report		Friend-report		Self-report		Partner-report		Self-report		Observed	
	$\beta$ (SE)	$R^2$	$\beta$ (SE)	$R^2$	$\beta$ (SE)	$R^2$	$\beta$ (SE)	$R^2$	$\beta$ (SE)	$R^2$	$\beta$ (SE)	$R^2$
Step I		.046		.170		.074		.052		.047		.1072
Gender (-1 = male; 1 = female)	-.15 (.08)		-.28 (.10)**		.05 (.15)		-.14 (.14)		-.05 (.14)		.47 (.16)**	
Income	-.04 (.08)		-.23 (.09)*		.25 (.12)*		.15 (.11)		.04 (.12)		.02 (.12)	
Age	.09 (.09)		.18 (.10)		.05 (.16)		-.09 (.15)		-.26 (.15)		.28 (.14)***	
Step II		.087		.180		.118		.118		.074		.262
Explicit rejection self-perceptions	.18 (.08)*		.04 (.09)		-.21 (.14)		.01 (.14)		.38 (.12)**		.17 (.13)	
Implicit rejection self-perceptions	-.03 (.08)		-.09 (.09)		.09 (.12)		-.25 (.12)*		-.06 (.11)		.25 (.12)*	

\*  $p < .05$ .

\*\*  $p < .01$ .

\*\*\*  $p = .05$ .

choose not to report this on explicit measures because of social desirability concerns.

Notably, implicit and explicit measures of self-perceived rejection were not significantly correlated in this study, perhaps because this construct is vulnerable to social desirability (see Greenwald et al., 2009; Hofmann, Gawronski, Gschwendner, Le, & Schmitt, 2005 regarding factors influencing implicit–explicit correspondence). It is also interesting that implicit rejection self-perceptions seemed more consistently associated with poor functioning in romantic relationships relative to friendships. By late adolescence, friendships are possibly easier to navigate than burgeoning romantic relationships. Indeed, the average length of romantic partnerships in our sample was much shorter than that of the friendships. Perhaps effects of implicit self-perceptions may be more prominent in romantic relationships, because behaviors are less under conscious control in relationships where participants have less experience.

One study limitation is our cross-sectional assessment, which prevented testing of reciprocal processes between implicit and explicit self-perceptions, or between self-perceptions and interpersonal functioning. Another limitation concerns the 1 year gap between the collection of self-perceived rejection and interpersonal functioning measures; self-perceptions may have changed in the intervening period. Lastly, the romantic partner subsample was small.

In summary, findings suggest that self-relevant cognitions are processed on multiple levels. Consideration of explicit and implicit rejection self-perceptions maximally explains individual differences in meaningful interpersonal behaviors.

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