Social Causes and Consequences of Rejection Sensitivity

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Predictions from the Rejection Sensitivity (RS) model concerning the social causes and consequences of RS were examined in a longitudinal study of 150 middle school students. Peer nominations of rejection, self-report measures of anxious and angry rejection expectations, and social anxiety, social withdrawal, and loneliness were assessed at two time points. Results indicate that peer rejection at Time 1 predicted an increase in anxious and angry expectations of rejection at Time 2, but only for boys. Being liked by peers, irrespective of level of dislike, predicted a reduction in anxious rejection expectations in both boys and girls. Further, anxious expectations of rejection were uniquely predictive of increased social anxiety and withdrawal. Angry expectations of rejection, an established unique predictor of increased aggression, predicted decreased social anxiety. Both anxious and angry expectations predicted increased loneliness, but neither were unique predictors of loneliness. Implications of viewing anxious and angry expectations of rejection as distinct cognitive–affective vulnerabilities for adolescents are discussed.

Being rejected by one’s peers is a potent predictor of both current and future relational difficulties (Boivin, Hymel, & Burkowski, 1995; Buhs & Ladd, 2001; Coie & Asher, 1990; Dodge et al., 2003; Parker & Asher, 1987). Such difficulties include aggression, social anxiety/withdrawal, and

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loneliness (Asher & Paquette, 2003; Burks, Dodge, & Price, 1995; Coie, Lochman, Terry, & Hyman, 1992; Dodge, 1980; Hodges & Perry, 1999; McDougall, Hymel, Vaillancourt, & Mercer, 2001; Prinstein & LaGrecia, 2004). Why does peer rejection predict these varied difficulties? What psychological processes mediate these links? In this paper, we draw on the Rejection Sensitivity (RS) model to guide efforts to answer these questions (Downey & Feldman, 1996; Downey, Lebolt, Rincon, & Freitas, 1998).

The RS model was developed to provide a social-cognitive account of why children who experience rejection in important relationships (e.g., with parents and peers) go on to show interpersonal difficulties (Downey & Feldman, 1996). Drawing on both attachment and attributional frameworks, the model proposes that experiences of rejection, whether active or passive, can sensitize children to the possibility of rejection (Downey et al., 1998). This sensitivity takes the form of expectations of rejection that become activated in situations where rejection is possible and are accompanied by “hot” or defensive emotional states—anxiety or anger—that prepare the child to defend the self against subsequent rejection (Downey, Bonica, & Rincon, 1999a; Downey & Feldman, 1996). When activated, defensive rejection expectations lead to a hypervigilance for rejection cues, increasing the probability of perceiving rejection (Ayduk, Gyurak, & Castriotta, 2005; Downey, Mougios, Ayduk, London, & Shoda, 2004). The activation of these defensive expectations also fuels a readiness to act defensively in the form of either aggression or social anxiety/withdrawal. By fostering a tendency to expect, perceive and react in extreme ways to rejection, RS can undermine one’s ability to develop and benefit from positive relationships and thus can potentially contribute to feelings of loneliness (Downey, Freitas, Michaelis, & Khouri, 1998; Levy, Ayduk, & Downey, 2002).

The purpose of the present study is to test three previously untested predictions from the RS model that are relevant to the question of why peer rejection predicts relational difficulties of the various forms described above: Does peer rejection predict relational difficulties of the various forms described above: Does peer rejection predict increases over time in adolescents’ levels of defensive (i.e., angry or anxious) expectations of rejection? Do such expectations predict increased levels of social anxiety/withdrawal and loneliness as well as of aggression, a difficulty to which such expectations have been linked in our prior research (Downey et al., 1998)? Finally, is the type of defensive affect—anger or anxiety—that accompanies rejection expectations a specific predictor of the type of relational difficulty—aggression, social anxiety/withdrawal, loneliness?

These questions were addressed with longitudinal data from early adolescents making the transition to middle school. As children enter adolescence the importance of their peers increases and their attunement
to indicators of peer acceptance and rejection intensifies. Because the transition to middle-school disrupts entrenched social networks and exposes adolescents to new peers and presumably changes in peers’ behavior toward them (Dweck, 1999; Eccles et al., 1993; Graham & Juvonen, 2002), this period of social disequilibrium provides an excellent opportunity to examine the consequences of peer acceptance and rejection for defensive rejection expectations. The transition is also especially appropriate for assessing the effects of preexisting defensive rejection expectations on interpersonal behavior and well-being because it is precisely in the absence of clear contextual information that individuals rely on preexisting expectations to guide their perceptions and reactions in novel contexts (Ruble & Seidman, 1996).

EXTENDING THE RS MODEL TO EXPLAIN WHY SIMILAR LEVELS OF PEER REJECTION CAN LEAD TO DIFFERENT PROBLEMS FOR EARLY ADOLESCENTS

Explaining why similar levels of peer rejection can lead to such varied difficulties as aggression, social anxiety/withdrawal and loneliness requires accounting for both how peer rejection is linked with problematic outcomes in general and how it is related to specific types of behavioral and/or emotional problems. As originally outlined and tested in college students, the RS model could help explain why rejection cues might trigger extreme behavioral reactions in those previously sensitized to rejection (Downey & Feldman, 1996). However, the original model did not adequately account for the links between RS and varied types of behavioral difficulties, such as aggressive or socially anxious and avoidant behavior.

A key step in extending the model from an account of general reactivity to cues of potential rejection to accounting for specific types of reactions involved the discovery of two types of affective responses to rejection cues that adolescents report having in situations where rejection was expected. In qualitative pilot work with early adolescents, the two affective responses to rejection cues often reported were anger and anxiety (Downey et al., 1998). In contrast, in previous studies where college students were interviewed about their feelings in situations where they thought rejection might be a possibility, they reported only feelings of anxiety and concern (Downey & Feldman, 1996). Further, efforts to extend the model to early adolescents revealed that many adolescents who were identified by teachers as both highly aggressive and highly reactive to rejection reported feeling anger rather than anxiety in situations where they anticipated
rejection. This observation led us to draw on research on the neurobiology of emotion (e.g., Gray, 1987) to propose that both anxiety and anger are defensively oriented emotions that can fuel protective action in the face of possible threat for early adolescents, and thus we directly assess both anxious and angry expectations of rejection in early adolescent samples. This observation also led us to the specific hypotheses that are tested in this paper. Whereas rejection should give rise to either type of anticipatory affect, the specific type of anticipatory affect (anger or anxiety) should predict the type of behavioral reaction enacted. Specifically, we propose that the extent to which “flight” (social anxiety/withdrawal) or “fight” (aggression) reactions will occur will depend on the level of each type of anticipatory defensive affect (anxiety or anger, respectively) accompanying the rejection expectations.

**LINKING REJECTION EXPERIENCES WITH DEFENSIVE EXPECTATIONS OF REJECTION**

Prior research with predominantly Asian and White middle to high income college and high school students has shown links between anxious expectations of rejection and prior rejection experiences, such as exposure to family violence, emotional neglect, harsh disciplining, and conditional love by parents (Downey, Khouri, & Feldman, 1997; Downey et al., 1999a, 1999b). The current study extends this work in four ways. First, it examines the links between rejection expectations and rejection from peers rather than parents. Second, it examines whether rejection experiences are linked with angry as well as anxious expectations of rejection. Third, it extends the examination of the link between rejection experiences and rejection expectations to early adolescents. Fourth, and most importantly, it utilizes a prospective design to test whether peer rejection, as reported by peers, predicts subsequent increases in defensive rejection expectations. Thus, this study avoids a limitation of prior research, i.e., relying on retrospective, self-report accounts of rejection and thus raising the possibility of a bias toward recalling rejection on the part of individuals who defensively expect rejection.

**PROCESSES LINKING DEFENSIVE EXPECTATIONS OF REJECTION WITH VARIED PROBLEMATIC INTERPERSONAL BEHAVIORS**

Data from several studies with both adolescents and college students support the view that RS operates like a defensively motivated system that
focuses attention on rejection cues and fuels behavioral reactions that others may view as extreme and unwarranted (for a review, see Romero-Canyas & Downey, 2005). Predictions concerning how RS leads to specific difficulties remain to be assessed, however. Based on the RS theoretical model, angry expectations of rejection are predicted to promote aggressive behavior, whereas anxious expectations of rejection are predicted to facilitate social anxiety and withdrawal in response to cues of potential rejection (Downey et al., 1998).

Partially supporting these predictions is the prior finding that, to the extent that early adolescents were initially high in angry expectations of rejection, they became more aggressive and felt more victimized over time (Downey et al., 1998, Study 3). Subsequent reanalysis of the dataset on which this finding was based established that angry expectations of rejection predicted increased aggression, even when controlling for anxious expectations of rejection. However, anxious expectations of rejection did not significantly predict increased aggression or perceived victimization. Thus, angry expectations of rejection are a specific predictor of aggression and perceived victimization for adolescents. Measures of social anxiety/withdrawal were not obtained on that sample, therefore the hypothesized link between anxious expectations of rejection and these behavioral outcomes could not be tested. Using a sample from the same early adolescent population, the current study will test whether there is a specific relationship between anxious expectations of rejection and social anxiety and withdrawal, as hypothesized.

**PROCESSES LINKING DEFENSIVE EXPECTATIONS OF REJECTION WITH LONELINESS**

Above we have drawn on the RS model to help explain how peer rejection is linked with different types of problematic interpersonal behaviors (i.e., aggression and social anxiety/withdrawal). We now draw on the RS model to help explain why peer rejection might be linked with loneliness, the sense of sadness caused by feeling cutoff from others. Loneliness is of particular interest as a potential consequence of peer rejection and of the RS dynamic because of its role in increasing vulnerability to depression, a problem increasingly identified in adolescents (Asher & Paquette, 2003; Ernst & Cacioppo, 1999; Parkhurst & Asher, 1992). Another focus of the present research is on establishing the link between loneliness and defensive rejection expectations. Weiss’ (1984) influential conceptualization of loneliness suggests several reasons to expect such a link. According to Weiss, loneliness can be viewed as arising out of a perceived discrepancy
between desired versus achieved levels of social provisions (see also, Perlman & Peplau, 1984). RS might be expected to give rise to loneliness because the RS dynamic combines a strong desire for more social provisions than one feels one has in any particular social situation with a bias toward underestimating the social provisions provided in that situation. RS also contributes to behavioral deficiencies (e.g., aggression, social awkwardness, and withdrawal) that can undermine the opportunity to develop and maintain positive relationships that provide one with a sense of being adequately supported. Thus, RS might be expected to give rise to loneliness irrespective of the type of defensive affect (anger or anxiety) that is activated along with rejection expectations.

**PRESENT STUDY**

The specific questions addressed in the present study are: (1) Does peer rejection lead to increases over time in both anxious and angry expectations of rejection? (2) Are anxious expectations of rejection a specific predictor of increases in social anxiety and withdrawal? (3) Do both anxious and angry rejection expectations predict increases in loneliness over time? The questions were addressed with data from a sample of economically disadvantaged, minority early adolescents during their first year at an urban public middle school. The sample used in this study is similar in composition to that used to develop and test the children’s RS model (Downey et al., 1998). The utility of this model has been demonstrated with nonminority and more economically advantaged adolescent populations as well (Bonica, Mougios, & Downey, 2006). Although we did not predict any significant gender differences, we tested for such effects in all analyses.

As in similar studies (e.g., Burks et al., 1995) peer rejection was assessed using peer informants, whereas anxious and angry expectations of rejection, social anxiety, social withdrawal, and loneliness were assessed using self-report measures. The availability of two waves of data, obtained early in the transition year and again 4 months later, made it possible to assess the association of a predictor variable, e.g., peer rejection, with change in an outcome variable, e.g., defensive rejection expectations. This longitudinal design helps circumvent the limitations of cross-sectional data that has characterized much prior research on the links between peer rejection and social-cognitive vulnerabilities and between social-cognitive vulnerabilities and social relational difficulties (cf., Crick & Dodge, 1994; Dodge et al., 2003; Panak & Garber, 1992; Salmivalli & Isaacs, 2005).
METHOD

Participants

Participants were 150 sixth grade students in their first year at a public middle school serving an economically disadvantaged urban neighborhood. Fifty-one percent were male; 78.5% were Hispanic, 13.3% were African–American, 6.6% were Asian, and 1.6% were of other ethnic backgrounds.

Shortly after entering middle school, all sixth grade students were invited to participate in the study and a parental consent form was sent home with each student. The consent form return rate was over 85%, and over 90% of students who returned consent forms participated in the study. One-hundred and seventy-three students participated in the Time 1 survey administration (during the fall semester of their first year), and 153 students provided a second wave of data at Time 2 (during the spring semester of their first year). The students who did not participate in the second wave were either absent or had changed schools. Data from three students were excluded because they did not complete the questionnaires correctly. An additional 12 students who completed the Time 2 measure of RS did not complete the Time 2 social anxiety and withdrawal or loneliness measures, and therefore were also excluded from analyses. A comparison of the Time 1 data of those who did and did not provide data at Time 2 indicated no significant differences between the two groups in ethnicity, sex, or Time 1 measures of RS, loneliness, or social anxiety and withdrawal.

Procedure

The study was conducted in the fall (Time 1), and spring (4 months later—Time 2) academic semesters, with each wave of data collection occurring within a 2-week time frame. Students completed all questionnaires in their home classrooms. The Time 1 data collection was split into two 50-minute sessions (Sessions A and B), with a 1–2-week gap between sessions. In Session A students completed the Children’s Rejection Sensitivity Questionnaire (CRSQ) and a peer nomination measure to assess peer rejection. In Session B, students completed the measures of social anxiety, withdrawal, and loneliness. In a single session at Time 2 (4 months later), students again completed the CRSQ and the social anxiety, withdrawal, and loneliness measures.

In all sessions, a trained research assistant read the questionnaires aloud while two additional research assistants assisted in the distribution
and collection of questionnaires. Students were instructed to keep their answers private and not to discuss them after they were completed. Whenever necessary, research assistants reminded the students of the need for privacy and answered individual questions concerning the questionnaires. For students who were primarily Spanish speaking (approximately 12%), the measures were translated into Spanish and then back translated in order to facilitate accurate interpretations and responses to the questions. Research assistants fluent in Spanish also provided additional in-class assistance.

Measures

**RS.** The CRSQ (Downey et al., 1998) was used to measure defensive expectations of rejection from peers and teachers. This self-report measure was developed and validated in a sample of fifth to seventh graders from the same school population as the sample used in the present study. The measure consists of 12 hypothetical situations identified through open-ended interviews with adolescents as the types of interpersonal situations that are the most stressful and upsetting to them. The most commonly identified situations involved interactions with both peers and teachers. For this reason and because all school-aged children are likely to be exposed on a daily basis to peers and teachers, the CRSQ scenarios were limited to these two types of interactions/situations (six involving peers, and six involving teachers). The RS model posits that the source of rejection is not as critical as the experience of rejection, thus whether rejection is perceived from teachers or peers is not as critical as the general expectation of being a target of rejection that, when activated, may lead to maladaptive outcomes. Factor analysis of the large sample of students on which the CRSQ was developed found that teacher and peer scenarios for anxious expectations of rejection loaded onto a single factor as did teacher and peer scenarios for angry expectations of rejection. More detailed information on the factor structure and psychometric properties of the CRSQ can be obtained from the second author, and can be downloaded from the following website: www.columbia.edu/cu/psychology/socialrelations/downloads/psychometrics_CRSQ.pdf.

Students read each of the 12 scenarios and indicate their level of concern and expectation of rejection in each situation. For example, a sample peer situation from the CRSQ is: “Imagine you are the last to leave the classroom for lunch one day. As you’re running down the stairs to get to the cafeteria, you hear some kids whispering on the stairs below you. You wonder if they are talking about you.” A sample teacher situation is:
“Pretend you have moved and you are going to a different school. In this school, the teacher lets the kids in the class take home a video game to play with on the weekend. Every week so far, you have watched someone else take it home. You decide to ask the teacher if you can take home the video game this time. You wonder if she will let you have it.”

For each vignette, participants answer three questions. For example, in the peer situation above they first answer the question, “How NERVOUS would you feel, RIGHT THEN, about whether or not those kids were badmouthing you?” using a six-point scale ranging from 1 “not nervous” to 6 “very, very nervous.” This question is used to assess their level of anticipatory anxiety about the potential for rejection. They then answer the question, “How MAD would you feel, RIGHT THEN, about whether or not those kids were badmouthing you?” using a six-point scale ranging from 1 “not mad” to 6 “very very mad” to assess their anticipatory anger about the possibility of rejection. Finally, they answer the question, “Do you think they were saying bad things about you?” using a six-point scale ranging from 1 “No!!” to 6 “Yes!!” to assess their expectation of rejection. A score for anxious expectations of rejection is generated by multiplying the expected likelihood of rejection by the degree of anxiety over its occurrence for each situation, and then averaging across all 12 situations. A score for angry expectations of rejection is similarly generated by multiplying the expected likelihood of rejection by the degree of anger over its occurrence and averaging across all 12 situations. A factor analysis of the two forms of anticipatory affect accompanying the expectations of rejection for the 12 situations demonstrate that anxious affect and angry affect load onto two separate factors, both with eigenvalues >1. Thus, these two affective states are distinct.

Angry expectations of rejection. The angry expectations component of the CRSQ has good psychometric properties and predictive utility (see Downey et al., 1998). In research reported in Downey et al. (1998, N = 439), factor analysis indicated that all 12 items (i.e., the six teacher and six peer items) of the angry expectations composite loaded on a stable, single factor; Cronbach’s $\alpha = .79$, 4-week attenuation-corrected test–retest reliabilities of .85, and 1-year stability of .58. In the present sample, the mean was $M = 9.12$ ($SD = 3.97$) at Time 1, and $M = 8.12$ ($SD = 4.06$) at Time 2. The Time 1–Time 2 correlation was .60. Cronbach’s $\alpha$ at Time 1 was .69, and at Time 2 was .76.1

1 The measure showed similar psychometric properties and predictive validity in middle-class suburban White and Latino samples (Bonica, Mougios, & Downey, 2006, unpublished data).
Anxious expectations of rejection. The unpublished factor analysis and norms for the anxious expectations component of the CRSQ are available at www.columbia.edu/cu/psychology/socialrelations/downloads/psychometrics_CRSQ.pdf, or from the second author. These analyses are based on the same sample used to establish the psychometric properties of the angry expectations component of the CRSQ (Downey et al., 1998). Principal components factor analysis of the 12 (i.e., six peer and six teacher) anxious expectations items indicate that they load on a single, stable factor with an eigenvalue >1; Cronbach’s $\alpha = .79$; 4-week attenuation-corrected test–retest reliability was .82; and 1-year stability was .54. In the present sample, the internal reliability of the anxious expectations component of RS was .76 at Time 1 and .81 at Time 2. The mean anxious expectation score at Time 1 was $M = 8.66$ ($SD = 4.20$), and at Time 2 was $M = 7.19$ ($SD = 3.95$).

Peer nominations. Sociometric status was used to assess peer rejection, and was obtained by asking each student to nominate the three peers in their class that they most like to hang out or spend time with (considered a “like most” nomination), and the three peers with whom they least like to hang out or spend time with (considered a “like least” nomination). The peer nomination data were used to generate several scores using the procedures outlined in Coie, Dodge, and Coppotelli (1982). First, for each student the total number of “like most” and “like least” nominations received from classmates were calculated and standardized within each classroom. Second, a social preference score was calculated by subtracting the standardized sum of the students’ “like least” nominations from their “like most” nominations within each classroom. Finally, a categorical measure of rejection was estimated by identifying those students who received a social preference score (standardized within class) $<1$, a standardized “like most” score $<0$, and a standardized “like least” score $>0$. Fourteen percent of the students in this sample were classified as being in the rejected category, which captures being both high on being disliked and low on being liked. The categorical measure of rejection, as well as the standardized sum of “liked most” and the standardized sum of “liked least” scores (we term these “Liked” and “Disliked” scores, respectively) were both used in the analyses reported below.

Social anxiety and withdrawal. A 20-item measure was used to assess social anxiety and withdrawal. The items were drawn from two subscales of the Social Anxiety Scale for Children-Revised, SASC-R (fear of negative evaluation, FNE; and social avoidance and distress-general,
SAD-G) (LaGreca et al., 1988; LaGreca & Stone, 1993) and from Franke and Hymel’s (1984) measure of social anxiety and social avoidance. A factor analysis of the 20-item measure yielded two factors: 13 items assessing anxiety about social encounters loaded on one factor, and seven items indexing a preference for doing things alone (or social withdrawal) loaded on a second factor. Social anxiety was indexed by students’ responses to statements like, “I worry about what others think of me,” and “I feel shy even with kids I know very well,” with responses ranging from 1 (not at all true) to 5 (true all the time), where high scores indicated greater social anxiety. Social withdrawal was indexed by responses to statements such as, “I’d rather do things by myself than with others,” and “I often hope the other kids won’t notice me.” The means for the social anxiety subscale were $M = 2.39$ ($SD = .88; \alpha = .85$) at Time 1 and $M = 2.09$ ($SD = .95; \alpha = .88$) at Time 2. The means for the social withdrawal subscale were $M = 2.07$ ($SD = .79; \alpha = .80$) at Time 1 and $M = 1.99$ ($SD = .88; \alpha = .77$) at Time 2. The correlation between the subscales at Time 1 was $r = .31$ and at Time 2 was $r = .45$.

Loneliness and Social Dissatisfaction Questionnaire (LSDC; Asher & Wheeler, 1985). Students responded to 16 statements used to assess loneliness, e.g., “I feel alone at school,” and “I don’t get along with other children in school,” using a scale ranging from 1 (that is always true of me) to 5 (that is not true at all about me). Eight additional filler items were also included in the measure. A loneliness score was computed by reverse coding the appropriate items and then averaging across all 16 non-filler items. Previous research has documented the internal consistency and reliability of the measure (Cronbach’s $\alpha = .90$; see Asher, Parkhurst, Hymel, & Williams, 1990; Asher & Wheeler, 1985). In the present study, Cronbach’s $\alpha$ for Time 1 and Time 2 loneliness scores were .84 and .87, respectively (Time 1: $M = 1.91$, $SD = .66$; Time 2: $M = 1.79$, $SD = .68$).

RESULTS

Regression analyses were used to predict Time 2 dependent variables from their Time 1 value and the hypothesized predictors, while controlling for possible effects of gender and race. Dummy variables were included to denote being Latino and being African American, the two main ethnic/racial groups in the sample. Tests of gender differences in the regression analyses were conducted by including the appropriate interaction terms, and the results of significant interactions are reported. In addition, no
differences emerged in the pattern of results when the peer and teacher rejection scenarios in the CRSQ were examined separately, thus the full 12-item measure of RS was used in all analyses. There were no significant mean differences by race on the measures included in the analyses. The only significant gender difference in means or frequencies of the variables included in the analyses was a finding of significantly higher levels of anxious rejection expectations in girls compared with boys at Time 2 (Female: \( M = 9.45, SD = 4.48 \); Male: \( M = 7.90, SD = 3.78 \); \( t (148) = 2.29, p < .05 \)) (Table 1).

**Does Peer Rejection Predict an Increase in Anxious and Angry Rejection Expectations Over Time?**

First, the Time 2 measure of angry rejection expectations was regressed on its Time 1 value, the Time 1 categorical peer rejection variable and the control variables, gender and ethnicity/race. Second, the Time 2 measure of anxious rejection expectations was regressed on its Time 1 value, the Time 1 categorical peer rejection variable, and the control variables.

As Table 2 shows, participants categorized as rejected at Time 1 experienced a significant increase in angry rejection expectations (\( b = 1.86, p < .01, \Delta R^2 = .02 \)) and in anxious rejection expectations (\( b = 1.83, p < .02, \Delta R^2 = .03 \)) at Time 2, relative to all other participants.\(^2\) However, these findings were qualified by gender, with only rejected males showing a significant increase in either anxious (gender \( \times \) anxious expectations: \( b = 4.27, p < .01, \Delta R^2 = .03 \)) or angry (gender \( \times \) angry expectations: \( b = 3.67, p < .02, \Delta R^2 = .02 \)) expectations of rejection over time.

Additional analyses were conducted in which the continuous measures of being Liked and being Disliked were substituted for the categorical rejection measure. Coie et al. (1982) describe these two measurements as general assessments of high to low social acceptance and of high to low overt rejection, respectively. These analyses were intended to show the unique association of each of the two facets of peer relations, i.e., acceptance and rejection, with defensive rejection expectations. Table 2 shows the results obtained when the continuous measures of “Liked” and “Disliked,” were entered simultaneously, to predict Time 2 anxious and angry expectations while controlling for ethnicity/race, gender, and Time 1

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\(^2\)This finding held when the rejected category was compared to being either in the average or popular category, as defined by Coie et al. (1982). There were too few children in the neglected category for meaningful analyses.
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<td>9. Angry expectations (T2)</td>
<td>—</td>
<td>.68***</td>
<td>.26***</td>
<td>.25**</td>
<td>.40**</td>
<td>.08</td>
<td>.11</td>
<td>.03</td>
<td>8.12</td>
<td>4.06</td>
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<tr>
<td>10. Anxious expectations (T2)</td>
<td>—</td>
<td>.46***</td>
<td>.32***</td>
<td>.47***</td>
<td>.10</td>
<td>.15</td>
<td>.05</td>
<td>7.19</td>
<td>3.95</td>
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<tr>
<td>11. Social anxiety (T2)</td>
<td>—</td>
<td>.45***</td>
<td>.49***</td>
<td>.13</td>
<td>.06</td>
<td>.11</td>
<td>2.09</td>
<td>.95</td>
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<tr>
<td>12. Social withdrawal (T2)</td>
<td>—</td>
<td>.41***</td>
<td>.04</td>
<td>.04</td>
<td>.02</td>
<td>1.99</td>
<td>.88</td>
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<tr>
<td>13. Loneliness (T2)</td>
<td>—</td>
<td>.01</td>
<td>.02</td>
<td>.08</td>
<td>1.79</td>
<td>.68</td>
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<tr>
<td>14. Gender</td>
<td>—</td>
<td>.07</td>
<td>.08</td>
<td>.51</td>
<td>.50</td>
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<tr>
<td>15. Hispanic</td>
<td>—</td>
<td>.75**</td>
<td>.79</td>
<td>.41</td>
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<tr>
<td>16. Black</td>
<td>—</td>
<td>.13</td>
<td>.34</td>
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</tbody>
</table>

*p < .05; **p < .01; ***p < .001.

Note. T, time.
TABLE 2
Unstandardized Coefficients From Regression Analyses Linking Time 1 Indices of Peer Relations With Time 2 Anxious and Angry Expectations of Rejection (n = 150)

<table>
<thead>
<tr>
<th>Time 1 Measure of DV</th>
<th>Intercept</th>
<th>Sex</th>
<th>Race: Latino</th>
<th>Race: African American</th>
<th>Categorical Rejection Variable</th>
<th>Time 1 Liked</th>
<th>Time 1 Disliked</th>
<th>Total R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent variable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Angry expectations (T2)</td>
<td>3.25**</td>
<td>.60***</td>
<td>.60</td>
<td>–1.46</td>
<td>–.27</td>
<td>1.86** ΔR² = .02</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Anxious expectations (T2)</td>
<td>3.96**</td>
<td>.48***</td>
<td>.12</td>
<td>–1.47</td>
<td>−.56</td>
<td>1.83* ΔR² = .03</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Angry expectations (T2)</td>
<td>3.52**</td>
<td>.61***</td>
<td>.56</td>
<td>–1.52</td>
<td>−.33</td>
<td>—</td>
<td>—</td>
<td>.36 ΔR² = .007</td>
</tr>
<tr>
<td>Anxious expectations (T2)</td>
<td>4.18***</td>
<td>.47***</td>
<td>.06</td>
<td>–1.30</td>
<td>−.52</td>
<td>—</td>
<td>—</td>
<td>−.77** ΔR² = .04</td>
</tr>
</tbody>
</table>

*p < .10; *p < .05; **p < .01; ***p < .001.

Note. T, time.
anxious and angry expectations in each model. The findings indicate that being “Liked” was associated with a significant reduction in anxious expectations of rejection over time ($b = - .77, p < .01, \Delta R^2 = .04$), whereas being “Disliked” was not ($b = - .13, \text{NS}, \Delta R^2 = .001$). This finding held for both males and females. The association between being “Disliked” and angry rejection expectations depended on gender, i.e., being “Disliked” predicted a significant increase in angry rejection expectations but only for males (gender $\times$ Disliked; $b = 1.11, p < .04, \Delta R^2 = .02$). Being “Liked” did not predict any significant change in angry expectations of rejection for either males or females.

In sum, peer rejection predicted an increase in both anxious and angry rejection expectations over time in male adolescents. Exploratory analyses with continuous measures of being “Liked” and being “Disliked” showed that being “Liked” predicted a reduction in anxious expectations of rejection in both boys and girls, whereas being “Disliked” was associated with an increase in angry rejection expectations only in boys.

Do Angry and Anxious Rejection Expectations Predict Changes in Social Anxiety, Withdrawal and Loneliness Over Time?

To test whether anxious expectations of rejection are a specific predictor of social anxiety, we regressed the Time 2 value of social anxiety on its Time 1 value, and on measures of both anxious and angry expectations of rejection, while controlling for gender and ethnicity/race. We also conducted similar analyses for social withdrawal. Finally, focusing on loneliness, which we hypothesized could be predicted by either anxious or angry rejection expectations, we regressed the Time 2 value of loneliness on its Time 1 value, and on Time 1 measures of both anxious and angry expectations while controlling for gender and ethnicity/race.

As hypothesized, Time 1 anxious expectations of rejection were associated with significant increases in social anxiety ($b = .09, p < .001, \Delta R^2 = .06$) and social withdrawal ($b = .07, p < .01, \Delta R^2 = .03$). Time 1 angry expectations of rejection were, by contrast, significantly associated with a decrease in social anxiety ($b = - .06, p < .05, \Delta R^2 = .02$) but were not a significant predictor of social withdrawal.

As Table 3 shows, neither anxious nor angry rejection expectations, when entered together, were significant independent predictors of Time 2 loneliness. However, when each type of rejection expectation was entered separately into regression analyses, both types of expectations predicted significant increases in loneliness over time (angry expectations: $b = .63, p < .01, \Delta R^2 = .04$; anxious expectations: $b = .56, p < .01, \Delta R^2 = .03$).
<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Time 1 Measure of DV</th>
<th>Time 1 Anxious Expectations</th>
<th>Time 1 Angry Expectations</th>
<th>Total R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social anxiety (T2)</td>
<td>.34</td>
<td>.38***</td>
<td>.26</td>
<td>.42</td>
</tr>
<tr>
<td>Social withdrawal (T2)</td>
<td>.54</td>
<td>.38***</td>
<td>.26</td>
<td>.42</td>
</tr>
<tr>
<td>Loneliness (T2)</td>
<td>.50*</td>
<td>.55***</td>
<td>-.10</td>
<td>-.16</td>
</tr>
</tbody>
</table>

*p < .10; **p < .05; ***p < .01; ****p < .001.
Additional analyses were conducted by regressing the loneliness score on the mean of Time1 anxious and angry rejection expectations, and the difference between Time 1 angry and Time 1 anxious rejection expectations. A significant difference score would provide evidence that it is the unique aspects of angry versus anxious rejection expectations that predict loneliness. The findings indicate that the mean score was a significant predictor of increased loneliness whereas the difference score was not (mean score: $b = 0.69$, $p < .001$, $\Delta R^2 = .04$; difference score: $b = -0.02$, NS), suggesting that some shared aspect of these defensive expectations impacts loneliness rather than some unique aspect of either of them.

In sum, anxious expectations of rejection predicted increases over time in social anxiety and withdrawal. By contrast, angry expectations of rejection predicted significant decreases in social anxiety. In the case of loneliness, the common component of both types of expectations predicted increases in loneliness, but neither appeared to have a significant unique effect on loneliness over time.

DISCUSSION

The data presented support the three predictions derived from the RS Model concerning the social and emotional consequences of defensive rejection expectations for early adolescents. To test these predictions, we capitalized on the social disequilibrium occasioned by the transition to middle school as well as the normative intensification of concerns about peers that marks entry into adolescence.

First, the data provided evidence of the hypothesized link between peer rejection and heightened tendencies to defensively expect rejection. This finding joins other recent studies showing that peer rejection predicts the intensification of negative beliefs about peer motivations and supportiveness (Dodge et al., 2003; Salmivalli & Isaacs, 2005). However, our study yielded some interesting and unexpected gender differences that were not found in other similar studies. Being categorized as peer rejected predicted increased anxious and angry rejection expectations over time, but only for boys. These unexpected gender differences in the link between peer rejection and increases in rejection expectations over time raise interesting questions to be addressed in future research (discussed further below). Follow-up analyses using continuous indices of the two components of peer rejection showed an even more nuanced pattern: being “Liked” by peers reduced anxious rejection expectations over time for both boys and girls, whereas being “Disliked” by peers increased angry rejection expectations only in boys. This finding suggests the importance of focusing not
only on overt rejection as captured in the level of being Disliked but also on social acceptance, as captured in the level of being Liked. Acceptance by peers in a new setting seems to have the potential to reduce preexisting rejection anxiety.

Second, the results extend previous findings concerning the implications of rejection expectations for aggressive behavior to other forms of relational difficulties. Whereas we had previously shown that angry rejection expectations predict aggression and also feelings of victimization (Downey et al., 1998), this study identifies anxious expectations of rejection as a unique source of vulnerability for social anxiety and withdrawal. Thus, it appears that angry expectations fuel “fight” responses to social threats (aggression) whereas anxious expectations fuel “flight” responses (social anxiety and withdrawal). Therefore, although anger and anxiety in situations where rejection is expected are fairly highly correlated, these findings confirm the importance of distinguishing these affective states. Whether adolescents feel anger, anxiety or both in situations where they expect rejection may predict their relative vulnerability to aggression or social anxiety/withdrawal. This finding supports recent claims that peer rejection may act as a social stressor that exacerbates existing vulnerabilities by triggering maladaptive cognitive, affective, and behavioral self-perpetuating coping responses (Dodge et al., 2003; Ladd, 2003; Sandstrom, Cillessen, & Eisenhower, 2003).

Finally, increased feelings of loneliness were predicted by the common component of anxious and angry rejection expectations. This is not surprising given that the RS dynamic should lead adolescents to expect and perceive rejection in situations where the social acceptance they desire is a possibility. The behavioral overreactions—social awkwardness or social aggression—that defensively expecting and readily perceiving rejection are likely to elicit can reduce possibilities for the type of social relations that can combat loneliness. However, direct tests of the hypothesized mechanisms linking RS to loneliness are still needed.

Together these findings further the understanding of the psychological processes that may link rejection by peers with the development of maladaptive relational behavior. They also demonstrate how the type of defensive affect accompanying rejection expectations (anxiety versus anger) can contribute to making adolescents differentially vulnerable to distinctive forms of social maladjustment (social anxiety/withdrawal versus aggression). In addition, they show that either type of rejection expectation can increase vulnerability to loneliness. These findings also suggest several important directions for future research in testing and refining the RS Model.
Gender Differences in the Consequences of Sociometric Status for Defensive Rejection Expectations

The finding that the level of overt rejection, i.e., being “Disliked,” predicted increases in angry expectations of rejection only in boys raises questions about how rejection is either communicated or perceived differently by boys versus girls. The work of Crick and colleagues (Crick, 1996; Werner & Crick, 2004) suggests that boys may be more likely to experience direct aggression from those who dislike them and respond to this overt expression of rejection with anger and a sense of injustice. This feeling state might then come to be activated in anticipation of potentially negative social interactions, i.e., in the form of angry rejection expectations. Girls may be more likely to experience indirect or relational aggression (e.g., being ignored or not included in activities). Thus for them signals of dislike from peers may be more camouflaged. Thus, it may be more difficult for girls to detect that they are disliked by peers and they may rely on expressions of being “Liked” to discern their social status. Therefore, the way in which dislike is communicated differently to boys versus girls may explain gender differences in its impact on defensive rejection expectations. Direct examination of gender differences in how peers behave toward those they like and dislike and of how these behaviors influence defensive expectations of rejection is an important next step in this line of research.

Despite evidence of gender differences in the impact of overt peer rejection on angry expectations of rejection, there was no evidence of gender differences in the level of angry expectations of rejection in this sample or in the larger sample on which Downey et al. (1998) was based. Thus, the question of how girls develop angry expectations of rejection at levels equivalent to boys remains unanswered. In the present sample, at Time 1, soon after the transition, girls showed higher levels of anxious expectations of rejection and of social anxiety than boys. However, gender differences disappeared by Time 2, largely because of a decline in girls’ level of anxious expectations of rejection. This suggests that girls may be normatively more anxious about social status following transitions. Perhaps this normative pattern may reflect the greater complexity of the cues of social standing that girls have to decode than is the case for boys, as suggested above. As the social context becomes more familiar girls’ anxiety in situations where rejection is possible may decline. However, the decline cannot be explained by gender differences in time 1 levels of being liked or disliked by peers.

The present study, in combination with results from Downey et al. (1998), provide no evidence of gender differences in the relation between
either anxious or angry expectations of rejection and increases in problem behavior. This finding belies the common wisdom that the issue of acceptance and rejection is of more central concern to girls than to boys and thus might impact girls’ behavior more strongly. Our prior research on RS supports the view that any sweeping assumptions about gender differences in the motivational importance of acceptance and rejection are misplaced. Whether gender differences emerge in the behavioral correlates of RS appears to depend on the gender relevance of the rejection–acceptance context (Romero-Canyas & Downey, 2005).

The Power of Social Acceptance

Particularly worthy of further exploration is the finding concerning the potential benefits of social acceptance, i.e., being Liked, in altering anxious expectations of rejection. Perhaps experiences of social acceptance challenge negative rejection expectations and in turn reduce anxiety about future social interactions. Support for the beneficial effects of acceptance expectations comes from an experimental intervention in which Rabiner and Coie (1989) found that peer-rejected girls who were led to expect acceptance from a new peer group were better liked by that peer group than a control group of peer-rejected girls. While Rabiner and Coie did not identify the mediating psychological or behavioral mechanisms, the study provides evidence of a positive self-fulfilling prophecy.

Loneliness and RS

Future research also needs to examine further the mechanisms by which defensive rejection expectations lead to loneliness. Although both anxious and angry rejection expectations predicted increased loneliness, they may do so through both similar and distinctive mechanisms. The RS model posits that, when activated in situations where acceptance is a desired outcome (e.g., the types of situations depicted in the CRSQ), both anxious or angry rejection expectations increase readiness to perceive rejection. By thus heightening the perceived discrepancy between the desired and attained level of acceptance in a particular situation, the activation of anxious or angry expectations of rejection should increase loneliness. In addition, anxious rejection expectations may be linked with loneliness because, as demonstrated in this study, adolescents who anxiously expect rejection are likely to feel socially anxious and withdraw from social interactions. Social anxiety and withdrawal may inhibit them from entering relationships where they might find the acceptance and companionship...
they desire. Thus, anxious expectations may be associated with more chronic levels of loneliness. By contrast, since angry expectations of rejection are not associated with social anxiety and withdrawal, and indeed predicted a decline in social anxiety, those adolescents who angrily expect rejection may not initially be inhibited from initiating social interactions. However, the possibility of being rejected may lead them to express the type of hostile aggressive behavior that elicits overt rejection from others and thus they may experience more acute or episodic periods of loneliness. It should be possible to test these hypothesized similar and distinctive mechanisms using intensive longitudinal studies such as daily diary methodologies (Downey, Purdie, & Schaffer-Neitz, 1999; Sandstrom & Cillessen, 2003).

Limitations of the Current Study

Several limitations of the study require comment. First, the present study showed that change in defensive rejection expectations initially assessed fairly soon after the transition to middle school was predicted by peer rejection assessed at the same time. A stronger test of the malleability of defensive rejection expectations would involve assessing students before entry into a new academic setting in order to assess their initial status, and following them over time through the new academic environment.

Second, a more comprehensive test of the research questions would involve data collected at three time-points. This design would allow for causal inferences of the role of peer rejection in changing expectations of rejection over time. However, the current study uses data from only two time-points, thus causal mechanisms could not be fully tested and caution should be used in interpreting the data as such.

Third, whereas peer nominations provide an assessment of children’s acceptance/rejection in the peer group, they tell us little about close relationships. Looking at close friendships and their role in the RS dynamic of early adolescents will be an important future goal. Perhaps for some children close dyadic relationships may buffer the negative consequences of more generalized peer rejection (Parker, Saxton, Asher, & Kovacs, 1999).

Fourth, the sample in this study consists of economically disadvantaged, urban ethnic minority group members. As with all demographically homogeneous samples, caution is needed about generalizing the findings until replications with other demographic groups are complete. However, it should be noted that other research with a sample from the same population has replicated findings concerning RS in an ethnically and socio-economically different group (Ayduk, Downey, & Kim, 2001).
Moreover, other studies have linked peer rejection to adjustment difficulties in diverse ethnic and socioeconomic groups (e.g., Dodge et al., 2003). Fifth, while the study addressed specific previously untested links in the RS model, the study was not designed to provide an adequate test of the mediational processes at the heart of the RS model. Nonetheless, the study provided evidence supporting key predictions from the RS model about the social origins and consequences of RS. In doing so the study joins other recent longitudinal and experimental studies that have begun to shed much needed light on the intrapersonal processes through which peer dynamics are linked with adolescent relational difficulties.

ACKNOWLEDGMENTS

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REFERENCES


