Interpersonal rejection is associated with a number of marked negative psychological sequelae, including the development of depression. Interpersonal theories (e.g., Coyne, 1976) propose that excessive reassurance-seeking (ERS) may be particularly linked to rejection, but this hypothesis has yet to be tested using an objective, behavioral indicator of interpersonal rejection. Using a sample of 118 women and their romantic partners, we examined whether women’s baseline ERS was associated with partner-initiated break-ups over a 1-year follow-up period. Secondarily, we explored whether this effect was moderated by the reassurance-seeker’s initial depressive symptoms. Results revealed that ERS was associated with a more rapid time to partner rejection, but not to general relationship dissolutions. Further, the effect of ERS was not moderated by women’s dysphoria at baseline. These results suggest that ERS is interpersonally toxic in and of itself, and may thus be an important behavioral marker of risk for depression and other psychiatric problems.
Interpersonal rejection is strongly implicated in psychiatric health. Experimentally-induced social exclusion increases negative affect (Blackhart, Knowles, Nelson, & Baumeister, 2009) and lowers state self-esteem (Gerber & Wheeler, 2009). Life events involving targeted interpersonal rejection (e.g., partner-initiated romantic relationship break-up) increase risk for Major Depressive Disorder (MDD) by 21.6-fold, more than twice the risk associated with the death of a loved one (Kendler, Hettema, Butera, Gardner, & Prescott, 2003). Furthermore, patients reporting rejection events develop new onsets of MDD three times faster than patients who experienced other types of interpersonal stress (e.g., arguments with close others) or life events in noninterpersonal domains (e.g., job loss due to budget cuts; Slavich, Thornton, Torres, Monroe, & Gotlib, 2009). Interpersonal rejection events include elements of social-evaluative threat and social demotion and are thus hypothesized to elicit negative self-referential thinking while dismantling an individual’s adaptive social bonds (Slavich, O’Donovan, Espel, & Kemeny, 2010). Given the marked psychological sequelae of interpersonal rejection, research directed at identifying characteristics that predict these events is an important step towards reducing their health burden.

Interpersonal theories proposed by Coyne (1976) and others (Evraire & Dozois, 2011; Joiner, Metalsky, Katz, & Beach, 1999) have suggested that the maladaptive interpersonal behavior of excessive reassurance-seeking (ERS) may be particularly predictive of interpersonal rejection. ERS is a behavioral tendency to repetitively and persistently ask assurances of close others about one’s worth and lovability, regardless of whether that reassurance is provided. Over time, ERS is hypothesized to frustrate and aggravate close others, ultimately eliciting rejection. Cross-sectional studies have supported interpersonal theory, showing a significant, albeit small ($r = .14$), meta-analytic association between ERS and rejection (Starr & Davila, 2008). However, in all reviewed studies, rejection was operationalized as the attitudes of close others towards the target individuals (e.g., close others’ relationship satisfaction, their appraisal of the reassurance-seeker or their willingness to interact with the individual in the future) and not as rejecting behaviors, per se.

Far fewer studies have examined whether ERS prospective predicts interpersonal rejection. Among male roommate dyads, a combination of high ERS, high depressive symptoms and either low self-esteem (Joiner, Alfano, & Metalsky, 1992) or high negative feedback-seeking (Joiner & Metalsky, 1995) predicted increases in room-
mate rejection, operationalized as negative appraisals of the target individual. More recently, two studies found that ERS predicted increases in romantic relationship stress over a 1-month follow-up period, operationalized as more frequent arguments (Eberhart & Hammen, 2009) or general relationship stressors (Shahar, Joiner, Zuroff, & Blatt, 2004). Finally, two further studies have shown that ERS prospectively predicts general interpersonal stressors, measured using checklists (Potthoff, Holahan, & Joiner, 1995) and contextual coding of daily events (Shih & Auerbach, 2010).

No research to our knowledge has examined the relation of ERS to objective, behaviorally-defined rejection. Instead, existing studies have relied on proxies of rejection, such as negative self-reported attitudes towards target individuals or general interpersonal stress. These factors may precede actual rejection events in some cases, but in others, no rejecting behaviors may actually occur and the target individual may thus be naïve to close others’ negative appraisals of them. Even relationships characterized by high interpersonal stress (e.g., frequent arguments) do not carry the same social stigma and accompanying adaptive costs hypothesized to make interpersonal rejection particularly detrimental (Slavich et al., 2010). Although interpersonal theories explicitly propose that ERS erodes individuals’ social spheres by generating rejection from close others, this has yet to be empirically confirmed.

In the present study, our primary aim was to examine the prospective association between ERS and an objective, behavioral index of rejection. In a sample of female university students and their dating partners, we tested whether women’s ERS predicted male-initiated break-ups one year later. We examined ERS in the context of romantic relationships because these involve relatively unambiguous rejection events (i.e., a partner-initiated break-up). Further, the one-year follow-up ensured a sufficient period to adequately assess the long-term behavioral consequences of ERS in close relationships. Studies to date have employed follow-up periods ranging from 2–5 weeks, which may only be adequate to capture transient distress (Starr & Davila, 2008). We hypothesized that ERS would be associated with significantly more rapid time to partner-initiated relationship dissolution during the follow-up period. Further, we hypothesized that ERS would be specifically associated with rejection, and therefore, would not predict general relationship dissolutions (i.e., break-ups, regardless of who initiates them).
A secondary aim of the present study was to determine whether the prospective effect of ERS on interpersonal rejection was moderated by baseline depressive symptoms. Coyne (1976) and others (Evraire & Dozois, 2011; Joiner et al., 1999) have proposed that ERS only elicits rejection from close others when the reassurance-seeker also has elevated depressive symptoms. This hypothesis has been confirmed in several studies employing proxy measures of rejection (e.g., Joiner et al., 1992; Joiner & Metalsky, 1995, 2001), but no study has examined the interaction of depression and ERS using a measure of rejection behavior. Therefore, we classified women in our sample into dysphoric and nondysphoric groups using their self-reported depressive symptoms at baseline. Consistent with Coyne’s (1976) theory, we hypothesized that the association between ERS and prospective partner-initiated rejection would be strongest among dysphoric women.

Finally, we conservatively tested our hypotheses controlling for the effects of characteristics conceptually and empirically linked to ERS and/or romantic rejection. First, critics of Coyne’s interpersonal model have suggested that associations between ERS and rejection may be more parsimoniously explained by underlying intrapsychic vulnerabilities, such as interpersonal dependency (Greenberg, 1999) or anxious attachment (i.e., one’s degree of concern regarding close others’ availability and responsiveness) (Brennan & Carnelley, 1999; Shaver, Schachner, & Mikulincer, 2005). Therefore, we assessed and controlled for these constructs in our models. Second, research suggests that both baseline relationship satisfaction and romantic partners’ avoidant attachment (i.e., one’s comfort with closeness and interdependency) are associated with relationship outcomes (e.g., Rusbult, Martz, & Agnew, 1998; Shaver et al., 2005). Thus, we further controlled for these factors if they were significantly associated with relationship outcomes, ERS, or dysphoria.

METHOD

PARTICIPANTS

Ethical approval for the present study was obtained from the Research Ethics Board at Queen’s University. We decided in advance of the study to collect data from 120 couples and stopped recruitment once this number was obtained. We anticipated that the aver-
age relationship duration of couples in our study would be between 6 and 12 months and therefore estimated a 36% to 39% relationship dissolution rate over 1 year based on a meta-analysis of college dating relationships (Le, Dove, Agnew, Korn, & Mutso, 2010). We expected between a third and half of breakups to be partner-initiated, yielding a rejection rate of 12% to 18%. Although we did not conduct an a priori power analysis, 100–110 participants would give the omnibus chi-square tests in our primary analyses (see below) sufficient power (.8) to detect a medium effect size (Cohen, 1992). We accounted for a modest 15–20% dropout rate over the follow-up period, given the participants provided responses over the phone, and therefore, a total sample of 120 was deemed adequate. Further, this sample size is consistent with previous longitudinal research on ERS in college participants (e.g., Eberhart & Hammen, 2009; Joiner & Metalsky, 2001; Shaver et al., 2005).

The sample consisted of 118 couples in a current, committed heterosexual romantic relationship of at least one month ($M = 16.27$ months, $SD = 10.84$). Recruitment targeted female university students involved in a romantic relationship and who were either experiencing significant depressive symptoms (dysphoric) or not (nondysphoric) at the time of study participation. Dysphoria was defined as a Beck Depression Inventory (BDI-II; Beck, Steer, & Brown, 1996) score equal or greater to 14 (i.e., at least a mild level of symptoms; see Beck et al., 1996). All participants were recruited through either the Department of Psychology’s research subject pool or advertisements targeting the broader university community.

The initial sample included 121 couples. Two couples were excluded because they were engaged at the time of participation, and 1 couple was excluded because they had substantial difficulties communicating in English, leaving a final sample of 118. Forty-three (36%) women met criteria for the dysphoric group at the time of study participation, and the remaining 75 (64%) fell in the nondysphoric group. Women were between 17 and 23 years old ($M = 18.58$, $SD = 1.13$) at their first appointment and their partners were 17 to 26 years old ($M = 19.15$, $SD = 1.81$). The majority of the sample was of European ancestry ($n = 88$, 75% women; $n = 91$, 77% men). Six couples (5.1%) were cohabiting at the time of participation and 27 (22.9%) were involved in long-distance relationships. Demographic characteristics for the sample, stratified by dysphoric group, are presented in Table 1.
Revised Dyadic Adjustment Scale (RDAS). The RDAS (Busby, Christensen, Crane, & Larson, 1995; Spanier, 1976) is a 16-item questionnaire in which 15 items are rated on a 6-point scale (0–5), and one item is rated on a 5-point scale (0–4). Total scores range from 0 to 79 and higher scores reflect greater romantic relationship adjustment. The measure has excellent internal consistency and criterion validity (Busby et al., 1995). The internal consistency of the RDAS items in our sample fell into the acceptable range for both women and men ($\alpha = .79$ and .78, respectively).

Beck Depression Inventory—II (BDI-II). The BDI-II (Beck et al., 1996) is a 21-item self-report questionnaire that assesses the presence and severity of depressive symptoms. All items are rated on a scale from 0 to 3 and thus, total scores range from 0 to 63, with higher scores
representing more severe depressive symptoms. The BDI-II has excellent psychometric properties and is the most widely used measure of depression severity (Beck et al., 1996). The internal consistency in the current sample was excellent for women (α = .93).

**Depressive Interpersonal Relationships Inventory—Reassurance-Seeking Subscale (DIRI-RS).** The DIRI-RS (Coyne, 1976; Joiner et al., 1992) is a 4-item scale that measures a trait tendency to seek reassurance from close others about one’s worth and lovability, and whether these close others truly care. Sample items include “Do you frequently seek reassurance from people you feel close to as to whether they really care about you” and “Do the people you feel close to get ‘fed up’ with you for seeking reassurance from them about whether they really care about you?” Items are rated on a 0 to 6 scale, and higher scores indicate higher levels of excessive reassurance-seeking. Previous studies have reported good to excellent internal consistency (αs = .85 – .95) for the DIRI-RS (see Joiner & Schmidt, 1998) and there is evidence for its criterion and construct validity (see Joiner & Metalsky, 1995, 2001). The DIRI-RS had good internal consistency in our sample of women (α = .89).

**Experiences of Close Relationships—Revised (ECR-R).** The ECR-R (Fraley, Waller, & Brennan, 2000) is a 36-item self-report measure designed to capture adult romantic attachment. Eighteen items measured attachment anxiety, the degree of security or insecurity respondents feel about their partners’ availability and responsiveness, and the other 18 captured attachment avoidance, the degree to which individuals are comfortable being close to others and/or depending on them. All items were rated on a scale from 1 (Strongly Disagree) to 7 (Strongly Agree). Following the reverse coding of several items on each of the subscales, mean scores were calculated to index attachment avoidance and anxiety, with higher scores in each case reflecting higher levels of the features that characterize each attachment style. Previous studies have reported excellent internal consistency for each of the two ECR-R scales (e.g., Eberhart & Hammen, 2009; Pearson, Watkins, Mullan, & Moberly, 2010). In our sample, the internal consistency of both the anxiety and avoidance subscales of the ECR-R was excellent (α = .92 and .91, respectively).
PROCEDURE

At the Time 1 laboratory appointment, separate written informed consent was obtained from each member of the couple, after which two brief structured interviews were administered to collect demographic details and information about the romantic relationship. Each member of the couple then completed all self-report questionnaires—the RDAS, BDI-II, DIRI-RS, and ECR-R—in separate testing rooms. Both participants completed further measures that were not included in the current study, after which they were thanked and compensated for participation with either cash or course credit.

Approximately 12 months following the Time 1 laboratory appointment, female participants were re-contacted over the telephone and asked to briefly provide details about their Time 1 relationship. Specifically, they were first asked “Are you still in the relationship you were in at your first visit?” and if a break-up had occurred, they were asked “who initiated the break-up, and by that I mean, who decided that the relationship should end and made that known to the other person?” Answers were categorized as partner-initiated break-up, participant-initiated break-up, and mutual break-up. If the relationship had ended, the date that the break-up occurred was recorded. If participants were still involved with their Time 1 partner, they were asked about whether they had gone on any breaks, who initiated these breaks (determined using the same question as above), and what dates they occurred. Infidelity during the follow-up period was assessed by asking “have you been faithful to your partner since the first laboratory visit?” and “has your partner been faithful since the first laboratory visit?” The answers to these questions were coded as partner infidelity, participant infidelity, or no infidelity. The dates corresponding to the instances of infidelity were also recorded.

Of the 118 Time 1 participants, 109 (92.4%) provided follow-up information relevant to the current study. The 9 participants who could not be recontacted did not differ from the participants included in the Time 2 sample in terms of female or male age or ethnicity, dysphoric group status, relationship duration, or presence of a long-distance relationship (all ps > .190). However, those who did
not provide follow-up data were significantly more likely to have been cohabiting compared to participants who had complete data, \( \chi^2(1, n = 118) = 5.93, p = .015 \).

For the purposes of our primary analyses, we defined rejection events as male-initiated break-ups, male-initiated breaks, and/or male-perpetrated infidelity. Of the 109 women who were re-contacted, 36 (33.0%) reported that they were no longer in a relationship with their partner. Twenty-two (61.1%) of these terminations were female-initiated breakups, 10 (27.8%) were male-initiated, and 4 (11.1%) were mutual. Among the 73 women who remained in their Time 1 relationships, 2 reported a ‘break’ in the relationship that was not permanent (1 mutual and 1 partner-initiated) and 2 reported infidelity in the relationship (1 male- and 1 female-perpetrated incident). Thus, 12 (11.0%) women reported rejection events at the follow-up.\(^1\)

DATA ANALYSIS

We conducted two Cox regression survival analyses to examine the effects of ERS, depressive symptoms, and their interaction on rejection over the 12-month follow-up period. We followed up significant 2-way interactions with simple slopes analyses. The first model directly tested our primary hypothesis by examining time (in weeks) to rejection of female participants by their male romantic partners. Demographic and relationship variables that were significantly associated with the 12-month outcome (rejection vs. nonrejection) or with the primary predictors (i.e., ERS and dysphoric status) were entered on Step 1. On Step 2, we entered female anxious attachment and general dependency to control for the effects of intrapsychic processes that may account for the relation between ERS and rejection. Further, we entered any other attachment variables (i.e., male anxious and avoidant attachment, female avoidant attachment) or measures of Time 1 relationship quality (i.e., female and male RDAS scores) that were associated with either the primary predictors or 12-month rejection status. Finally, we entered ERS and female dysphoric status as predictors on Step 3, and their interaction was included separately on Step 4.

---

1. The pattern of effects within our analyses remained unchanged when rejection events were limited to male-initiated relationship dissolution (\( n = 10 \)).
In a second model, we sought to verify the specificity of our effects to rejection events by predicting time to relationship dissolutions in general (i.e., male- and female-initiated breakups and mutual breakups combined). Step 1 again included the demographic and relationship variables significantly associated with the outcome or our predictors, Step 2 included the same conceptually-based variables and potential attachment or relationship quality covariates, and Step 3 and 4 included the main effects of dysphoria and ERS and their interaction, respectively.

RESULTS
PRELIMINARY DEMOGRAPHIC AND RELATIONSHIP CHARACTERISTICS

Demographic and relationship characteristics of the sample stratified by dysphoric group are presented in Table 1. Dysphoric and nondysphoric women did not significantly differ across any of the demographic variables, relationship characteristics, male-reported relationship satisfaction, or male partners’ anxious and avoidant attachment (all $p$s $> .056$). However, dysphoric women reported significantly higher anxious and avoidant attachment, higher levels of general dependency, and lower Time 1 relationship satisfaction, than nondysphoric women.

The female partner’s self-reported ERS was not significantly related to female or male partner age, ethnicity, relationship duration, or presence of a long-distance relationship (all $p$s $> .099$). However, women who were cohabiting with their partners at Time 1 reported significantly higher ERS scores ($M = 5.25$, $SD = .74$) than women who did not live with their partners ($M = 2.80$, $SD = 1.33$), $t(107) = -3.64$, $p < .001$. As Table 2 shows, female ERS was significantly moderately correlated with female anxious attachment and general dependency, consistent with previous research. Furthermore, ERS was associated with higher female avoidant attachment, as well as lower relationship quality reported by both male and female partners.

Finally, women who were cohabiting with their partners at Time 1 were significantly more likely to be rejected during the follow-up period, $\chi^2(1, n = 109) = 6.44$, $p = .011$. Further, women who were rejected ($M = 3.76$, $SD = 1.01$) reported significantly higher Time 1
TABLE 2. Bivariate Correlations Among Major Study Variables for the Entire Sample

<table>
<thead>
<tr>
<th></th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
<th>7.</th>
<th>8.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Female DIRI-RS</td>
<td>—</td>
<td>.55**</td>
<td>.66**</td>
<td>.20*</td>
<td>.18</td>
<td>.16</td>
<td>—25**</td>
<td>—21*</td>
</tr>
<tr>
<td>2. Female General Dependency</td>
<td>—</td>
<td>.60**</td>
<td>.35**</td>
<td>.05</td>
<td>.09</td>
<td>—10</td>
<td>.02</td>
<td></td>
</tr>
<tr>
<td>3. Female Anxious Attachment</td>
<td>—</td>
<td>.52**</td>
<td>.27**</td>
<td>.24**</td>
<td>—40**</td>
<td>—20*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Female Avoidant Attachment</td>
<td>—</td>
<td>.34**</td>
<td>.20*</td>
<td>—36**</td>
<td>—14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Male Anxious Attachment</td>
<td>—</td>
<td>.37**</td>
<td>—37**</td>
<td>—37**</td>
<td>—53**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Male Avoidant Attachment</td>
<td>—</td>
<td>—20*</td>
<td>—54**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>7. Female RDAS</td>
<td>—</td>
<td>.35**</td>
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<td>8. Male RDAS</td>
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</tbody>
</table>

Notes. DIRI-RS = Depressive Interpersonal Relationships Inventory—Reassurance-Seeking Subscale; RDAS = Revised Dyadic Adjustment Scale. *p < .05; **p < .01.

anxious attachment than women who were not rejected \((M = 2.86, SD = 1.08)\), \(t(107) = -2.67, p = .009\). No other demographic or relationship variables were associated with Time 2 rejection (all ps > .106). Couples who experienced any break up had higher Time 1 male avoidant attachment \((M = 2.57, SD = .97)\) than couples who were together throughout the follow-up period \((M = 2.17, SD = .82)\), \(t(107) = -2.26, p = .026\). No other study variables were associated with general break ups at Time 2 (all ps > .055).

In preliminary model building we determined that the Cox Regression model predicting Time 2 rejection events controlling for cohabiting status, male and female RDAS scores and female avoidant attachment, in addition to female anxious attachment and general dependency, did not differ from the model including only the major predictor variables of interest (i.e., female anxious attachment, general dependency, ERS, and dysphoric group). Further, the second Cox regression model predicting general break ups controlling for female and male RDAS scores and female and male avoidant attachment did not differ from the reduced model. Therefore, the more parsimonious models are presented below.

PREDICTING MALE-INITIATED REJECTION

On Step 1, simultaneously entering female anxious attachment and general dependency resulted in a statistically significant improvement in predicting time (in weeks) to rejection compared to the null model, \(\Delta \chi^2(2, n = 109) = 7.20, p = .027\). As Table 3 shows, female anxious attachment, but not general dependency, was a significant
unique predictor of faster time to rejection on this step. On Step 2, the addition of the main effects of dysphoric group and female ERS also significantly improved the model above the Step 1 variables, $\Delta \chi^2(2, n = 109) = 10.63, p = .005$. However, the addition of the 2-way dysphoric group by ERS interaction on Step 3 was not significant, $\Delta \chi^2(1, n = 109) = .57, p = .452$. Results for the final model, excluding the 2-way interaction, are presented in Table 3. Female ERS was a unique predictor of time to male-initiated rejection in our model, such that higher levels of self-reported ERS were significantly associated with more rapid time to male-initiated rejection events during the follow-up period. Figure 1 provides a visual depiction of this effect by categorizing ERS into high and low levels using a median split.²

PREDICTING RELATIONSHIP DISSOLUTION

On Step 1, female anxious attachment and general dependency did not significantly improve the prediction of time to relationship dissolution above the null model, $\Delta \chi^2(2, n = 109) = 4.45, p = .108$. Further, neither the addition of the main effects of ERS and dysphoric group, $\Delta \chi^2(2, n = 109) = .59, p = .746$, nor their interaction, $\Delta \chi^2(1, n = 109) = .01, p = .943$, added significantly to the prediction of time to dissolution.

### Table 3. Results for Cox Regression Survival Analysis Predicting Time to Partner-Initiated Rejection

<table>
<thead>
<tr>
<th>Step</th>
<th>$\Delta \chi^2(2, n = 109)$</th>
<th>$B(\text{SE})$</th>
<th>Wald</th>
<th>$p$</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>$7.20, p = .027$</td>
<td>Female Anxious Attachment</td>
<td>.63 (.28)</td>
<td>5.17</td>
<td>.023</td>
<td>1.88</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female General Dependency</td>
<td>.07 (.34)</td>
<td>.04</td>
<td>.846</td>
<td>1.07</td>
</tr>
<tr>
<td>Step 2</td>
<td>$10.63, p = .005$</td>
<td>Female Anxious Attachment</td>
<td>–.02 (.34)</td>
<td>.004</td>
<td>.952</td>
<td>0.98</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female General Dependency</td>
<td>–.51 (.37)</td>
<td>1.92</td>
<td>.166</td>
<td>0.60</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female DIRI-RS</td>
<td>.80 (.32)</td>
<td>6.27</td>
<td>.012</td>
<td>2.22</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dysphoric Group</td>
<td>1.24 (.89)</td>
<td>1.94</td>
<td>.163</td>
<td>3.46</td>
</tr>
</tbody>
</table>

Note. DIRI-RS = Depressive Interpersonal Relationships Inventory–Reassurance-Seeking Subscale; SE = standard error; OR = odds ratio; CI = confidence interval.

² We re-ran our Cox Regression model predicting time to rejection and included mutual break-ups among the rejection events. ERS was not significantly associated with rejection, after controlling for anxious attachment and general dependency, when it was defined in this manner. These results are available from the authors by request.
relationship dissolution. None of the included predictors had statistically significant unique effects at any step of the model (all $ps > .142$)

**DISCUSSION**

The present study was the first to test the prospective association between ERS and an objective, behaviorally-anchored assessment of interpersonal rejection, providing crucial empirical support of interpersonal theories of ERS. Consistent with our primary hypothesis, women’s ERS was associated with more rapid time to partner-initiated rejection, controlling for their anxious attachment and general dependency. Further, ERS specifically predicted rejection, as it was not prospectively associated with relationship dissolution, in general. Contrary to our secondary hypothesis, the association between ERS and future rejection was not moderated by dysphoria.
Consistent with interpersonal theory (e.g., Coyne, 1976; Evraire & Dozois, 2011; Joiner et al., 1999), our results suggest that ERS not only irritates romantic partners, reducing their relationship satisfaction, but also contributes to others rejecting the reassurance-seeker. This extends findings that ERS is both cross-sectionally and prospectively associated with proxies of rejection. Given that ERS did not predict general relationship dissolution, our results provide evidence for the discriminant validity of ERS. Specifically, they allay some alternative explanations for the ERS-rejection association, such as the possibility that ERS is associated with making poor partner choices that result in relationships more prone to dissolution. We contend that ERS is a valid construct for understanding how certain individuals generate negative social environments. Importantly, these social environments characterized by isolation and limited support result in heightened risk for psychiatric conditions, including MDD (e.g., Kendler, Myers, & Prescott, 2005) and suicide (Van Orden et al., 2010). ERS may be a particularly robust risk factor for depression, as interpersonal rejection is preferentially associated with new MDD onsets (Slavich et al., 2009).

Our model was not only robust when controlling for several covariates (e.g., anxious attachment; general dependency), but ERS was the only unique predictor of time to rejection in the final model. Critics have proposed that the primary mechanisms through which ERS elicits rejection are intrapersonal, rather than interpersonal. For instance, Starr and Davila (2008) suggested that individuals high in ERS perceive more rejection, rather than being rejected more often. Others have conceptualized ERS as a proxy variable for psychological vulnerabilities (e.g., anxious attachment) more robustly associated with rejection (Brennan & Carnelley, 1999; Greenberg, 1999). In support of these hypotheses, Shaver and colleagues (2005) found that ERS and partner relationship satisfaction were not significantly associated after controlling for the target’s anxious attachment. In contrast, our results explicitly demonstrate that these psychological vulnerabilities do not account for the prospective association between ERS and rejection, and thus, ERS’s primary mechanism of action may be behavioral, rather than attributional. To further support this hypothesis, however, research is required to define, capture, and quantify behavioral ERS in actual interactions between individuals involved in close relationships. Joiner and Metalsky (2001) coded interactions between same-sex college roommates and found
that behavioral and self-reported ERS were moderately significantly correlated. To extend these promising findings, future research is needed to test whether behaviorally-coded ERS is associated with interpersonal rejection over time. Studies of this nature would allow researchers to further clarify the construct of ERS.

Contrary to previous theory (Coyne, 1976; Evraire & Dozois, 2011; Joiner et al., 1999) and research (e.g., Joiner et al., 1992; Joiner & Metalsky, 1995, 2001), dysphoria did not moderate the prospective association between ERS and rejection. ERS has been conceptualized as a behavioral signal of the interpersonally damaging properties of depression to others. In the absence of depression, it is theorized that ERS is tolerable to others because it is not coupled with the negative affect and desperation that come with dysphoria (Evraire & Dozois, 2011; Hames, Hagan, & Joiner, 2013). One possible explanation for our contradictory findings is that our modest sample size gave us insufficient power to detect the interaction effect. We note, however, that the interaction effect did not approach statistical significance ($p = .452$). Further, we explored the association between ERS and time to male-initiated rejection separately for dysphoric and nondysphoric women, and found similar effect sizes for ERS ($OR = 2.66$ and $2.23$, respectively). Another possibility is that the interaction may have been present in a clinically-depressed sample. Although we did not confirm diagnoses, the dysphoric women in our sample reported symptoms in the moderate depression range ($M_{BDI} = 23.69$; Beck et al., 1996) and were thus more severely symptomatic than samples from previous studies wherein the interaction was found (e.g., Joiner & Metalsky, 1995; $M_{BDI} = 11.27$). Finally, our null effect may be attributed to examining rejection in dating relationships, as opposed to more committed partnerships (e.g., marriages). However, approximately 80% of relationships in our sample were longer than 6 months ($M_{Duration} > 16$ months), suggesting high levels of commitment.

Alternatively, there could be conceptual reasons to explain why the effect of ERS was not moderated by dysphoria for more objective, behavioral rejection outcomes. Certain levels of ERS may be interpersonally toxic in and of themselves, independent of depressive symptoms or other factors. Perhaps ERS is tolerated by close others at low frequencies, but past a certain threshold, the most adaptive response to this interpersonally-aversive behavior may be to terminate the relationship and seek more satisfying alterna-
tives. Because ERS covaries with depression, it is unclear whether depression shapes the nature of the behavior (e.g., ERS conveys the desperation of depression) or whether people with high depressive symptoms simply engage in this universally aversive behavior more frequently, thereby generating more negative evaluations and rejection. Therefore, an important direction for future research, as Evraire and Dozois (2011) have suggested, is to establish empirically-generated norms for reassurance-seeking that will allow researchers to define a threshold for the excessive, intolerable levels of this behavior that may be most closely associated with negative interpersonal outcomes.

This study has several strengths including its long-term prospective design, rigorous assessment of rejection and sophisticated statistical approach. Nonetheless, our results should be interpreted in light of the following limitations. First, the use of college students limits the generalizability of our findings to the population of adults exposed to rejection. Future research is needed to determine how the effects of ERS on relationships differ across the lifespan. The social acceptability of ERS may vary as a function of age (e.g., more acceptable in children than adults) or relationship type (e.g., parent-child relationships, friendships, romantic relationships) (see Starr & Davila, 2008). Second, we exclusively tested hypotheses in women and it is therefore unclear whether findings would generalize to men. Future studies employing actor-partner interdependence models (Cook & Kenny, 2005) simultaneously estimating the effects of each partner’s ERS on the others’ rejecting behaviors are needed to provide a nuanced assessment of these associations. Third, although we strove to define rejection in a more behavioral manner than previous studies, we relied on retrospective reporting from one source. Social desirability could have influenced responding and indeed, participants were more than twice as likely to report that they ended the relationship (N = 22) than that their partner ended it (N = 10). However, the fact that we may not have captured all possible instances of interpersonal rejection may mean that our reported results were a conservative estimate of the actual effect of ERS on rejection. Nevertheless, future studies exploring similar hypotheses could confirm the initiator of rejection events with both members of the relationship dyad.

The present study provided the first evidence of the prospective association between ERS and behaviorally-defined interpersonal
rejection. In doing so, we addressed a long-standing empirical gap in interpersonal theories (e.g., Coyne, 1976; Joiner et al., 1999). We argued that ERS operates primarily through interpersonal means, and that it is not simply a correlate of turbulent relationships, but rather, that it is preferentially linked to rejection. The demonstrated interpersonal toxicity of ERS, independent of depressive symptoms, attachment, and general dependency, underscores its potential importance as a behavioral risk factor for MDD, given the strong link between interpersonal rejection and future depressive episodes (Slavich et al., 2009).

REFERENCES


