Predicting Day-to-Day Changes in Students’ School-Related Affect From Daily Academic Experiences and Social Interactions

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This study examined the role that everyday academic successes and failures—and the interactions with family members and peers that follow these events—play in predicting day-to-day changes in children’s emotional responses to school. Middle school students (N = 101; mean age = 11.62 years) completed daily assessments of their academic experiences, performance disclosures, perceptions of emotional support, and school-related affect. Data were analyzed using hierarchical linear modeling. Results indicated that students’ daily academic experiences and social interactions varied by both sex and interaction partner, and that students’ daily academic experiences and social interactions were predictive of day-to-day changes in both positive and anxious affect. The implications of these findings for students’ interpersonal relationships and school adjustment are discussed.

Keywords academic achievement, affect, daily diary, family, peers, social interactions

ACADEMIC FAILURES AND SUCCESSES are important facets of students’ everyday experiences. Both children and adolescents report that academic failures—including negative events ranging from receiving a poor grade on a test to answering a question incorrectly in class—are among the most common distressing events in their daily lives (Greene, 1988; Lehman & Repetti, 2007; Silverman, La Greca, Wasserstein, 1995). Although less attention has been paid to positive events at school, there is evidence that daily academic successes—including events ranging from receiving a good grade on an exam to getting positive feedback on a homework assignment—may be even more common than daily academic failures among school-aged children (Lehman & Repetti, 2007; Pomerantz & Eaton, 2001).

There is ample evidence that children’s academic performance has implications for their emotional well-being. As early as preschool, achievement-related failures are associated with negative
affect, including feelings of shame, whereas achievement-related successes are associated with positive affect, including feelings of pride (Alessandri & Lewis, 1993; Lewis, Alessandri, & Sullivan, 1992). Among school-aged children, chronic school failure has been associated with a host of negative affective outcomes, including uncertainty about how to meet academic standards (Pomerantz & Eaton, 2001) and increases in anxiety over time (Pekrun, Goetz, Titz, & Perry, 2002). Daily diary studies confirm the association between performance and affect and, moreover, suggest that students’ academic experiences are associated with daily fluctuations in students’ affect. For example, on days when children experience academic successes, they show increases in positive affect (Lehman & Repetti, 2007). Academic failures, however, predict increases in anxious mood (Conley & Lehman, 2012; Lehman & Repetti, 2007; Repetti, 1996).

In response to a variety of negative and positive daily events—including everyday academic failures and successes—children often seek out others (Band & Weisz, 1988; Causey & Dubow, 1992; Compas, Malcarne, & Fondacaro, 1988). Although children’s goals for doing so vary, one central goal seems to be to regulate affect (Altermatt, 2007, 2011; Rose & Asher, 2004). Both children and adults report that they sometimes share news of negative events with others in an attempt to alleviate distressing thoughts and feelings about the event or to get reassurance (Rimé, 2007; Rose & Asher, 2004; Rose et al., 2012; Taylor & Stanton, 2007). Likewise, both children and adults report that they sometimes share news of positive events with others in an attempt to capitalize on (Langston, 1994), celebrate, or savor the event (Altermatt, 2011; Altermatt & Broady, 2009; Jose, Lim, & Bryant, 2012; Reis et al., 2010).

Somewhat surprising is that very little attention has been paid to how disclosing news of academic failures and successes with others might influence children’s well-being. Among the few studies that have been conducted, evidence for the efficacy of performance disclosures—for affect regulation or other goals—has been mixed. Some findings suggest that achievement-related performance disclosures are positively related to well-being. For example, Causey and Dubow (1992) reported that children who sought social support for academic problems (e.g., by discussing a poor test grade with their parents or peers) had greater feelings of control over their academic outcomes. Similarly, Altermatt (2011) reported that children who chose to disclose academic successes to friends had more positive school attitudes over time than children who chose not to disclose. Other findings suggest that achievement-related performance disclosures may be unrelated to well-being. For example, Causey and Dubow (1992) found that social support seeking following academic challenges was not predictive of global self-esteem, perceptions of social or academic competence, or anxiety. Last, some findings suggest that achievement-related performance disclosures are negatively related to well-being. For example, Harlow and Cantor (1994) reported that college women who frequently discussed academic problems with peers had lower social satisfaction. Similarly, Altermatt (2007) found that children who frequently disclosed academic failures to friends experienced increased worry, while Altermatt (2011) found that children who frequently disclosed academic successes to peers reported more negative perceptions of their peer relationships.

One reason for the lack of strong and consistent relations between performance disclosures and adjustment is that the consequences of performance disclosures are likely to vary according to a number of factors including the performance outcome (e.g., Did the student experience a failure or a success?), the perceived responsiveness of the interaction partner (e.g., Did the interaction partner respond in an emotionally supportive manner?), and the particular measure of adjustment (e.g., Is the researcher interested in the effects of performance disclosures on changes in negative
affect or changes in positive affect?). Recent research on daily event disclosures among adults suggests that each of these factors may be important. For example, adults report more positive affect (but not less negative affect) on days when they share news of a positive event with others. The benefits of sharing positive events with others are, however, substantially weaker when others fail to respond in a supportive, enthusiastic manner (Gable, Reis, Impett, & Asher, 2004; Reis et al., 2010).

The present study takes each of these factors into account to address questions about the degree to which middle school students’ experiences with everyday academic failures and successes—and the social interactions that follow these events—are associated with changes in students’ daily school-related affect. For example, do students report more anxious affect on days when they experience academic failures than on days when they do not? Do students have more positive emotional reactions to school on days when they choose to share news of an academic success with a family member or with a peer than on days when they choose not to share? Are gains in positive school-related affect enhanced when students’ success disclosures are met with an emotionally supportive response than on days when an emotionally supportive response is not forthcoming?

### Negative and Positive Daily Events

One way in which the present study contributes to the existing literature is by examining students’ experiences with—and social interactions following—both negative and positive daily events. To date, both theory and research have tended to focus on negative events, positing that negative or stressful life events predict emotional distress which, in turn, predicts poor adjustment (see Flook, 2011; Reschley, Huebner, Appleton, & Antaramian, 2008). Consistent with this perspective, Lehman and Repetti (2007) found that, on days when children experienced academic failures at school, they also reported increases in anxious affect and more aversive interactions with caregivers at home. In contrast, very little attention has been paid to understanding the nature or consequences of children’s interactions with significant others following positive events, including everyday academic successes (see Flook, 2011). This lack of attention is surprising given that both children and their parents report more successes than failures on daily diary assessments of children’s academic experiences (Pomerantz & Eaton, 2001; Repetti, 1996). It is, moreover, problematic given growing evidence from research with adults that the social interactions that follow positive events may be more important than the social interactions that follow negative events in predicting well-being. In support of this notion, Gable, Gonzaga, and Strachman (2006) found that partner responsiveness during a discussion of a positive event (e.g., a promotion) was a better predictor of adjustment (here, relationship health) than partner responsiveness during a discussion of a negative event (e.g., an illness). In explaining this finding, the authors note that positive events are far more common than negative events (see Gable & Haidt, 2005) and that positive event disclosures permit individuals to receive social support without the costs to self-esteem that might be associated with negative event disclosures.

### Negative and Positive Affect

A second way in which the present study contributes to the existing literature is by examining associations between students’ daily academic and social experiences and day-to-day changes
in both negative and positive affect. Most of the existing research has, again, focused on the negative; that is, on relations between negative events or negative event disclosures and changes in daily negative affect rather than on positive events or positive event disclosures and changes in daily positive affect. There is increasing consensus that this approach is problematic.

First, there is evidence that negative affect and positive affect are governed by independent systems—one aversive, one appetitive—such that negative events and negative event disclosures have their primary impact on negative affect, while positive events and positive events disclosures have their primary impact on positive affect (e.g., Cacioppo & Gardner, 1999; Gable, Reis, & Elliot, 2000). Consistent with this perspective, Gable and colleagues (2000) found that adults who experienced positive daily events reported increases in positive affect but not decreases in negative affect, while adults who experienced negative daily events reported increases in negative affect but not decreases in positive affect. Similarly, Gable and colleagues (2004) found that adults who capitalized on positive events by sharing news of the event with a significant other reported gains in positive affect, but not declines in negative affect.

Second, there is evidence that negative and positive affect both play a critical—and oftentimes independent—role in predicting well-being. Associations between negative emotions (e.g., anxiety, anger, and shame) and a variety of indicators of maladjustment have been well-established (see Lewis, Haviland-Jones, & Barrett, 2010, for reviews). For example, among children, negative emotions—including school-related worry—are associated with a variety of indicators of negative psychological and school adjustment including increased anxiety (Silverman et al., 1995), decreased confidence (Parkinson & Creswell, 2011), and more dire predictions about the negative emotional effect of perceived failures (Pomerantz, Saxon, & Oishi, 2000). Although, historically, less attention has been paid to linkages between positive emotions and adjustment, several theories, including Fredrickson’s (1998, 2001) broaden and build theory, suggests that positive emotions may be critical in predicting well-being. In particular, people who frequently experience positive emotions are thought to engage in thought processes and behaviors—including working to expand their circle of friends and seeking out new opportunities—that should engender positive outcomes. Consistent with the broaden and build model, findings from a recent meta-analysis indicate that individuals who frequently experience positive emotions have better health outcomes, are more sociable, and have higher self-esteem than individuals who experience fewer positive emotions (Lyubomirsky, King, & Diener, 2005). Several studies that have used child samples mirror these general findings. In particular, positive emotions—including positive school-related affect (e.g., happiness, pride)—are associated with a variety of indicators of positive psychological and school adjustment, including increased popularity with peers, enhanced goal-setting, increased student engagement, and more effective coping strategies (Chen, 1980; Hom & Arbuckle, 1988; Reschley et al., 2008).

Daily Diary Approach

A third way in which the present study contributes to the existing literature is by employing a daily diary approach. Most prior work on children’s academic experiences, social interactions, and school-related affect has employed cross-sectional designs or longitudinal designs that rely on children’s retrospective reports of their experiences (Lehman & Repetti, 2007). Compared to these methodologies, daily diary methods offer some advantages (see Bolger, Davis, & Rafaeli,
PREDICTING DAY-TO-DAY CHANGES

First, information gathered via daily diaries is likely to yield more accurate responses. Because children are asked to report on events and feelings the same day they occur—rather than weeks or months after the fact—memory biases are less likely to negatively impact recall (Telzer & Fuligni, 2009; Witkow, 2009). Second, daily diary measures allow the researcher to examine within-person associations between daily events and the outcome measure of interest. This within-person approach helps to reduce the possibility that factors that differ between individuals and are stable over time are responsible for any reported associations because each child serves as his or her own point of comparison (Bolger et al., 2003; Chung, Flook, & Fuligni, 2009; Flook, 2011).

Overview of the Research and Hypotheses

The purpose of the present study was to examine the role that everyday academic successes and failures—and the interactions with family members and peers that follow these events—play in predicting day-to-day changes in children’s emotional responses to school. To address this issue, fifth through eighth grade students completed daily assessments of their academic experiences, their social interactions following these experiences, and their daily school-related affect.

Two research questions were addressed. First, what is the nature of children’s experience with everyday academic successes and failures? Specifically, how often do students report experiencing academic successes and failures, how often do they disclose these successes and failures to family members or peers, and how often do they feel like they receive emotional support after these disclosures? Second, does experiencing academic successes and failures, disclosing these successes and failures to family members or peers, or feeling like one has received emotional support after these disclosures predict changes in daily positive and negative school-related affect?

Several hypotheses were tested. First, it was expected that students would report more positive school-related affect (e.g., happiness, pride) on days when they experienced an academic success and heightened anxious affect (e.g., nervousness) on days when they experienced an academic failure. These findings would be consistent with a handful of prior studies examining associations between daily school performance and affect (Conley & Lehman, 2012; Lehman & Repetti, 1996; Repetti, 1996). Second, it was expected that students would report greater positive affect on days when they shared news of an academic success with a family member or peer than on days when they chose not to share. These findings would be consistent with Fredrickson’s broaden and build theory, which suggests that sharing positive emotions with others provides an opportunity to build social connections which can, in turn, lead to an enhanced sense of well-being (e.g., Fredrickson, 1998, 2001). These findings would also be consistent with recent research on positive event disclosures among adults which indicates that on days when adults share news of a positive event with others, they report significantly higher positive affect and life satisfaction (Gable et al., 2004). No specific hypotheses are offered regarding associations between failure disclosures and anxious affect given the very mixed evidence on the efficacy of negative event disclosures to date.
with some studies indicating positive associations between failure disclosures and emotional well-being and other studies indicating negative associations between failure disclosures and emotional well-being (see Altermatt, 2007; Causey & Dubow, 1992; Harlow & Cantor, 1994). Third, it was expected that students would report more positive affect on days when they perceived that family members and peers responded to success disclosures in emotionally supportive ways. Weaker, and perhaps nonsignificant, associations were expected between anxious affect and perceived emotional support following failure disclosures. These findings would be consistent with those reported by Gable and colleagues (2006) in research with adults, where responsiveness following positive events was found to play a greater role in predicting well-being than responsiveness following negative events.

On the basis of prior research, it was anticipated that both sex and interaction partner differences might emerge in students’ reports of their academic experiences, social interactions, and school-related affect. For example, it was expected that girls would report more daily academic successes than boys, that girls would disclose academic performance more than boys, and that girls would report more positive affect than boys. These findings would be consistent with evidence that girls receive better grades and hold more positive school attitudes than boys (e.g., Duckworth & Seligman, 2006) and with evidence that girls self-disclose more than boys (e.g., Rose et al., 2012). It was also expected that students who reported on interactions with family members would report both more success disclosures and more emotional support following success disclosures than students who reported on interactions with peers. Such findings would be consistent with evidence that, by middle school if not before, students are acutely aware of the pitfalls of appearing to be too interested in academic success in peer contexts (e.g., Juvonen & Murdock, 1995). Given a dearth of prior research, it remains unclear to what extent associations between academic experiences, social interactions, and changes in daily school-related affect might be moderated by sex and interaction partner. For example, although one recent daily diary study (Flook, 2011) suggests that girls’ moods are more reactive than boys’ moods to negative events, this study focused on interpersonal rather than academic stressors. Likewise, although Altermatt (2007) reported that girls were more likely than boys to disclose academic failures, this study employed a retrospective design and the sex difference emerged only in students’ self-reported interactions with friends (not in their interactions with family members).

It also remains unclear whether “crossover” effects will occur. For example, it is unclear whether success, success disclosures, and emotional support following success disclosures will predict only increases in positive affect but not decreases in anxious affect, or whether these experiences will predict both increases in positive affect and decreases in anxious affect. Although current theory posits that these sorts of crossover effects are unlikely (see Gable et al., 2000, for a review), there is evidence that they sometimes do occur. For example, Gable and colleagues (2000) reported that negative events sometimes predicted both increases in negative affect and declines in positive affect.

METHOD

Participants

Participants were 101 students (63 female, 38 male) in the fifth through eighth grades (M age = 11.62 years). All of the participants were Caucasian and attended a middle school located in a
rural area outside of a small city in the Midwest. In responding to a demographic questionnaire about their living arrangements, 75% of participants reported living with both their mother (or stepmother) and father (or stepfather). Among students living with one parent, 77% reported living with their mother. Two percent of students reported living with someone other than a parent (e.g., a grandparent). Eighty-nine percent of the sample lived with one or more siblings.

Procedure

Student assent and parental consent were obtained for each participating student. At the beginning of the study, students were provided with a demographic questionnaire and the first three days of a set of nine days of daily checklists (checklists were provided—and collected—in three installments to encourage students to complete the measures at the end of each school day). Students were asked to complete the checklist each evening. If students were absent from school or not able to complete the checklist on time, they were asked to leave it blank. Each checklist took approximately five minutes to complete. Data from three students were excluded from the analyses because the student completed the checklists on fewer than three days and/or because the student did not complete the checklist correctly. The remaining 101 students described in the participants section above completed daily checklists on an average of 8.2 days (range = 4 to 9). On items assessing interactions with others (i.e., disclosure items and perceived emotional support items), approximately half of the sample (n = 48) was randomly assigned to report on their interactions with family members. The remaining students (n = 53) were asked to report on their interactions with peers. For students assigned to report on interactions with family members, they were encouraged to focus on interactions with parents or with an adult who interacted with them like a parent.

Measures

Daily Performance

Each day, students were asked to indicate whether they had experienced an everyday academic success (i.e., Did you do well on something at school today?) or failure (i.e., Did you do poorly on something at school today?), by circling “yes” (coded 1) or “no” (coded 0). In answering this question, students were asked to consider their performance on tests, quizzes, and homework or in-class assignments.

Daily Performance Disclosures

On days when they experienced a success or failure, students were asked to indicate whether they had disclosed the performance to a significant other (e.g., Did you tell a family member that you did well?) by circling “yes” (coded 1) or “no” (coded 0).

Daily Emotional Support

On days when they disclosed a success or failure, students were asked to indicate whether the person to whom they disclosed their performance responded in an emotionally supportive
manner. In the case of success, students indicated whether the family member or peer expressed happiness about the success by circling “true” (coded 1) or “false” (coded 0). In the case of failure, students indicated whether the family member or peer attempted to make the student feel better by circling “true” (coded 1) or “false” (coded 0).

**Daily School-Related Affect**

Each day, students were asked to report on their school-related affect. Students used a 7-point scale ranging from 1 (*not at all true*) to 7 (*very true*) to indicate how they felt “when they thought back to how I did in school today.” Students’ ratings of the degree to which they felt “happy,” “proud,” “glad,” and “pleased” were combined to form a four-item positive affect measure. Students’ ratings of the degree to which they felt “worried,” “concerned,” and “nervous” were combined to form a three-item measure of anxious affect. Both measures showed good internal consistency. From day 1 to day 9, alphas ranged from .76 to .96 for positive affect and from .77 to .96 for anxious affect. From day 1 to day 9, correlations between positive affect and anxious affect ranged from –.17 to .08, all \( p > .05 \).

**RESULTS**

Because the data were hierarchical—with days nested within individual students—multilevel modeling methods were necessary (HLMwin 6; Raudenbush, Bryk, & Congdon, 2004). Here, level 1 is the within-persons level, represented by students’ responses to the daily checklist, and level 2 is the between-persons level, represented by student attributes (e.g., sex and interaction partner).

**Descriptive Statistics**

Descriptive statistics are presented in Table 1. These statistics revealed that students reported experiencing an academic success on 75% of the days during which they completed the daily checklist and an academic failure on 24% of the days during which they completed the daily checklist. Students reported disclosing an academic success on 48% of the days during which
they experienced a success and disclosing an academic failure on 40% of the days during which they experienced a failure. Students reported receiving emotional support on 84% of the days during which they disclosed an academic success and receiving emotional support on 69% of the days during which they disclosed an academic failure. Students reported moderate levels of school-related positive affect (M = 5.16, SD = 1.72) and low levels of school-related anxious affect (M = 2.15, SD = 1.62).

### Sex of Student and Interaction Partner Effects on Academic Experiences and Social Interactions

HLM was used to determine whether students’ scores on any of the study variables differed by the sex of the student (i.e., boys, girls) or by interaction partner (i.e., whether students were reporting on interactions with peers or family members). Here, the level 1 equation is expressed as follows:

\[ Y_{ij} = b_{0j} + c_{ij} \]

where \( Y_{ij} \) is the outcome variable (e.g., positive affect for student \( j \) on day \( i \)); \( b_{0j} \) is the intercept (or mean outcome) for student \( j \); and \( c_{ij} \) represents random error. The level 2 equation is expressed as follows:

\[ b_{0j} = c_{00} + c_{01}(\text{SEX}) + c_{02}(\text{PARTNER}) + u_{0j} \]

where \( c_{00} \) represents the average level of the outcome variable across students, \( c_{01} \) represents the mean difference on the outcome variable of interest (e.g., positive affect) between boys and girls, \( c_{02} \) represents the mean difference on the outcome variable of interest (e.g., positive affect) between students reporting on interactions with peers and students reporting on interactions with family members, and \( u_{0j} \) represents error. The results of these analyses are summarized in Table 2.

### Table 2

Sex of Student and Interaction Partner as Predictors of Academic Experiences, Social Interactions, and Daily School-Related Affect

<table>
<thead>
<tr>
<th>Dependent variable</th>
<th>Sex(^a)</th>
<th>Coefficient (SE)</th>
<th>t</th>
<th>Odds ratio</th>
<th>Outcome variable</th>
<th>Interaction partner(^b)</th>
<th>Coefficient (SE)</th>
<th>t</th>
<th>Odds ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Success</td>
<td></td>
<td>0.99 (0.29)</td>
<td>3.30**</td>
<td>2.70</td>
<td></td>
<td></td>
<td>0.51 (0.29)</td>
<td>1.73</td>
<td>1.67</td>
</tr>
<tr>
<td>Failure</td>
<td></td>
<td>0.78 (0.35)</td>
<td>2.24*</td>
<td>2.17</td>
<td></td>
<td></td>
<td>−0.20 (0.33)</td>
<td>−0.60</td>
<td>0.89</td>
</tr>
<tr>
<td>Disclose success</td>
<td></td>
<td>0.44 (0.32)</td>
<td>1.38</td>
<td>1.55</td>
<td></td>
<td></td>
<td>0.64 (0.29)</td>
<td>2.24*</td>
<td>1.90</td>
</tr>
<tr>
<td>Disclose failure</td>
<td></td>
<td>0.75 (0.43)</td>
<td>1.73</td>
<td>2.13</td>
<td></td>
<td></td>
<td>0.63 (0.38)</td>
<td>1.65</td>
<td>1.87</td>
</tr>
<tr>
<td>Emotional support success</td>
<td></td>
<td>0.28 (0.45)</td>
<td>0.63</td>
<td>1.33</td>
<td></td>
<td></td>
<td>2.28 (0.48)</td>
<td>4.78***</td>
<td>9.82</td>
</tr>
<tr>
<td>Emotional support failure</td>
<td></td>
<td>0.91 (0.83)</td>
<td>1.09</td>
<td>2.48</td>
<td></td>
<td></td>
<td>1.22 (0.70)</td>
<td>1.74</td>
<td>3.39</td>
</tr>
<tr>
<td>Positive affect</td>
<td></td>
<td>0.66 (0.30)</td>
<td>2.24*</td>
<td>—</td>
<td></td>
<td></td>
<td>−0.08 (0.27)</td>
<td>−0.28</td>
<td>—</td>
</tr>
<tr>
<td>Anxious affect</td>
<td></td>
<td>0.38 (0.24)</td>
<td>1.57</td>
<td>—</td>
<td></td>
<td></td>
<td>−0.03 (0.25)</td>
<td>−0.12</td>
<td>—</td>
</tr>
</tbody>
</table>

*Note. Coefficients are unstandardized hierarchical linear modeling coefficients.

\(^a\)Boys = 0, girls = 1.

\(^b\)Peers = 0, family members = 1.

\(*p < .05. **p < .01. ***p < .001.*
Analyses examining sex differences yielded significant, positive associations between sex and the dichotomous variable indicating whether or not the student experienced a success, $c_{01} = .99$, $p < .001$, and sex and the dichotomous variable indicating whether or not the student experienced a failure $c_{01} = .78$, $p < .05$. Odds ratios indicated that the odds of experiencing a daily academic success were 2.70 times greater for girls relative to boys. Likewise, the odds of experiencing a daily academic failure were 2.17 times greater for girls relative to boys. Analyses also yielded a significant, positive association between sex and the continuous variable representing positive affect, $c_{02} = .66$, $p < .05$, indicating that girls reported significantly higher daily school-related positive affect than boys ($M_{\text{girl}} = 5.27$, $M_{\text{boy}} = 4.97$). No other sex differences emerged.

Analyses examining interaction partner effects yielded significant, positive associations between interaction partner and the dichotomous variable indicating whether the student disclosed the success, $c_{02} = .64$, $p < .05$, and interaction partner and the dichotomous variable indicating whether or not the student reported that their interaction partner provided emotional support following the success, $c_{02} = 2.28$, $p < .001$. Specifically, these analyses indicated that children who reported on their interactions with family members were more likely than students who reported on their interactions with peers to report that they chose to disclose an everyday academic success when they experienced it and more likely to report that the person to whom they disclosed the success responded with emotional support. Odds ratios indicated that the odds of disclosing a daily academic success were 1.90 times greater for students who reported on their interactions with family members compared to students who reported on their interactions with peers. Likewise, the odds of reporting that the person to whom one disclosed the success responded with emotional support was 9.82 times greater for students who reported on their interactions with family members compared to students who reported on their interactions with peers. No other interaction partner differences emerged.

Changes in Daily School-Related Affect From Academic Experiences and Social Interactions

HLM analyses were also employed to examine whether day-to-day changes in students’ school-related positive affect or anxious affect could be predicted from daily academic events (i.e., experiencing an academic successes or failure) or from the social interactions that followed these daily events (i.e., disclosing the event or receiving emotional support). Student’s daily school-related affect was modeled using the following equations:

\[
PA_{ij} = b_{0j} + b_{1j} (\text{PREDICTOR}) + b_{2j} (\text{PA}_{t-1}) + e_{ij}
\]
\[
AA_{ij} = b_{0j} + b_{1j} (\text{PREDICTOR}) + b_{2j} (\text{AA}_{t-1}) + e_{ij}
\]

Here, $PA_{ij}$ represents each student’s ($j$) self-reported positive affect on a given day ($i$); $AA_{ij}$ represents each student’s ($j$) self-reported anxious affect on a given day ($i$); $b_{0j}$ is the intercept representing each student’s self-reported, school-related affect (i.e., positive or anxious affect) on an average day; $b_{1j}$ represents the slope between school-related affect (i.e., positive or anxious affect) and the predictor variable of interest (e.g., the dichotomous variable indicating whether or not the student experienced a success), $b_{2j}$ represents the slope between school-related affect (i.e., positive or anxious affect) and school-related affect on the previous day; and $e_{ij}$ represents error. Each of the six predictor variables (i.e., dichotomous variables indicating whether or not children experienced a success or failure, whether or not children disclosed the success or failure, and
TABLE 3

<table>
<thead>
<tr>
<th>Predictor variable</th>
<th>Positive affect</th>
<th></th>
<th></th>
<th></th>
<th>Anxious affect</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient</td>
<td>SE</td>
<td>t</td>
<td></td>
<td>Coefficient</td>
<td>SE</td>
<td>t</td>
<td></td>
</tr>
<tr>
<td>Success</td>
<td>0.50</td>
<td>0.17</td>
<td>3.01**</td>
<td></td>
<td>-0.24</td>
<td>0.13</td>
<td>-1.82</td>
<td></td>
</tr>
<tr>
<td>Failure</td>
<td>-0.55</td>
<td>0.17</td>
<td>-3.19**</td>
<td></td>
<td>0.45</td>
<td>0.14</td>
<td>3.19**</td>
<td></td>
</tr>
<tr>
<td>Disclose success</td>
<td>0.34</td>
<td>0.08</td>
<td>4.19***</td>
<td></td>
<td>-0.19</td>
<td>0.12</td>
<td>-1.62</td>
<td></td>
</tr>
<tr>
<td>Disclose failure</td>
<td>-0.02</td>
<td>0.37</td>
<td>-0.05</td>
<td></td>
<td>-1.02</td>
<td>0.35</td>
<td>-2.96**</td>
<td></td>
</tr>
<tr>
<td>Emotional support success</td>
<td>0.47</td>
<td>0.20</td>
<td>2.35*</td>
<td></td>
<td>-0.56</td>
<td>0.23</td>
<td>-2.42*</td>
<td></td>
</tr>
<tr>
<td>Emotional support failure</td>
<td>0.88</td>
<td>0.76</td>
<td>1.16</td>
<td></td>
<td>0.38</td>
<td>1.46</td>
<td>0.26</td>
<td></td>
</tr>
</tbody>
</table>

Note. Coefficients are unstandardized hierarchical linear modeling coefficients.

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

whether or not children felt that they received emotional support after sharing news of a success or failure) was modeled in a separate equation.

Between-student (i.e., level-2) effects were estimated as follows:

\[
b_{0j} = c_{00} + c_{02}(\text{SEX}) + c_{02}(\text{PARTNER}) + u_{0j}
\]

\[
b_{1j} = c_{10} + u_{1j}
\]

\[
b_{2j} = c_{20} + u_{2j}
\]

Here, \(c_{x0}\) represents the sample-wide day-level intercept and slopes and \(u_{xj}\) represents error. Sex and interaction partner were included in the first equation so that analyses examined the effect of each predictor on daily-school related affect independent of sex and interaction partner effects on these variables. In initial analyses, sex and interaction partner were also included in the second equation to determine if relationships between the predictors and students’ daily affect differed by gender or interaction partner. Because neither of these variables moderated any of the associations, all \(ps > .05\), they were not included in the final models. The results of these analyses are summarized in Table 3.

Everyday academic performance was predictive of students’ daily school-related affect, with successes predicting positive affect and failures predicting both positive and anxious affect. Specifically, on days when students experienced a success, they reported more positive affect even after controlling for positive affect on the previous day, \(b = .50, p < .01\). On days when students experienced a failure, they reported less positive affect, \(b = -.55, p < .01\), and more anxious affect, \(b = .45, p < .01\), even after controlling for positive or anxious affect on the previous day. Daily successes were unrelated to students’ self-reported anxious affect, \(p > .05\).

Students’ decisions to share (or not share) everyday academic successes and failures were also predictive of students’ daily school-related affect. On days when students succeeded and chose to disclose the success, they reported more positive affect even after controlling for positive affect the previous day, \(b = .34, p < .001\). On days when students failed and chose to disclose the failure, they reported less anxious affect even after controlling for anxious affect the previous day, \(b = -1.02, p < .01\). Disclosing successes was unrelated to students’ daily anxious affect and disclosing failures was unrelated to students’ daily positive affect, \(ps > .05\).

The receipt of emotional support following everyday success disclosures was also predictive of students’ daily school-related affect. On days when students chose to disclose their success
Altermatt and perceived others to respond in an emotionally supportive way (i.e., by expressing happiness about the success), they reported more positive affect, $b = .47, p < .05$, and less anxious affect, $b = -.56, p < .05$, even after controlling for positive or anxious affect the previous day. Emotional support following failure disclosures did not predict either positive affect or anxious affect, $ps > .05$.

**DISCUSSION**

The present study corroborates prior work indicating that academic successes and failures—and the social interactions that follow these experiences—are an important part of students’ everyday lives. On average, students reported experiencing a success on 75% of the days during which they completed the daily checklist. Consistent with prior research (Pomerantz & Eaton, 2000; Repetti, 1996), failures were substantially less common, but were still reported on 24% of the days during which students completed checklists. Consistent with retrospective reports indicating that children often seek out others following everyday academic successes and failures, (e.g., Altermatt, 2007, 2011), students reported that they disclosed their performance to the specified target (i.e., a family member or peer) on 48% of the days when they experienced successes and on 40% of the days when they experienced failures. Children’s efforts were typically rewarded: children reported that they received emotional support from the specified target on 84% of the days when they chose to disclose a success and on 69% of the days when they chose to disclose a failure.

**Sex of Student and Interaction Partner Effects on Academic Experiences and Social Interactions**

Several sex differences were found in students’ self-reported academic experiences and social interactions. Girls reported both more daily successes than boys and more positive daily school-related affect than boys. Together, these findings are consistent with the extant literature indicating that girls receive better grades than boys in elementary school and beyond (Duckworth & Seligman, 2006; Kenney-Benson, Pomerantz, Ryan, & Patrick, 2006) and hold more positive school attitudes (Marsh, Martin, & Cheng, 2008; Orr, 2011). The finding that girls also reported more daily failures than boys is somewhat more puzzling, but may reflect the fact that girls are more likely than boys to take achievement-related feedback to heart (see Roberts, 1991, for a review), while boys may fail to encode as “failures” the sorts of academic challenges that girls report as failure experiences. Contrary to prior research using retrospective measures (Altermatt, 2007), girls were no more likely than boys to disclose academic failures and no more likely than boys to report receiving emotional support following failure disclosures. This finding needs to be replicated in future research, but is suggestive of the possibility that, when retrospective designs are used, girls may over-estimate—or boys may underestimate—the degree to which they disclose failures and the degree to which they receive emotional support for poor school performance. One reason may be that both girls and boys are more likely to fall back on stereotypes (i.e., stereotypes that girls do and should be emotionally expressive and do and should need support) on retrospective reports than when asked to recall their experiences on a day-to-day basis.

Analyses also revealed several differences in students’ self-reported interactions with family members and peers. Specifically, students who reported on interactions with family members...
were more likely than students who reported on interactions with peers to report disclosing successes and to report that they received emotional support following success disclosures. These findings are consistent with research indicating that, compared to elementary school students, middle school students are less attracted to peers who demonstrate high levels of classroom competence (Bukowski, Sippola, & Newcomb, 2000). To avoid the potential pitfalls of appearing too interested in school or as competitive or boastful, middle school students may avoid sharing successes with peers (Juvonen & Murdock, 1995). Instead, they may disclose successes and seek emotional support from family members who they perceive as more likely to be supportive than critical.

**Changes in Daily School-Related Affect From Academic Experiences and Social Interactions**

The present study replicates prior research, including a handful of daily diary studies (Conley & Lehman, 2012; Lehman & Repetti, 2007; Repetti, 1996), indicating that students’ experiences at school have implications for their emotional well-being. Specifically, students who experienced a daily success reported increased school-related positive affect, while students who experienced a failure reported both increased anxious affect and decreased positive affect. Some researchers have argued that positive events should primarily influence positive affect while negative events should primarily influence negative affect (Gable et al., 2000). To date, however, relatively few studies have examined this prediction. Among those that have, several indicate that cross-over effects can occur. Specifically, several studies—including the present study—indicate that positive events predict increased positive affect (but not decreased negative affect), whereas negative events predict both increased negative affect and decreased positive affect (David, Green, Martin, & Suls, 1997; Gable et al., 2000). Future research is needed to replicate the findings of the present study and to better understand why academic successes might not contribute to declines in negative affect, including short-term changes in school-related anxious affect. One possibility is that at least some students who experience success may continue to experience feelings of worry, concern, or nervousness, anticipating that they may not succeed or that others may expect similar performance in the future.

To date, very little attention has been paid to understanding how the types of social interactions that follow everyday academic successes and failures might impact students’ school-related affect. The present study suggests that these interactions are important. Specifically, regardless of gender and regardless of whether they reported on their interactions with family members or peers, students experienced increases in daily positive affect when they disclosed successes, decreases in daily anxious affect when they disclosed failures, and both increases in positive affect and decreases in anxious affect when others were perceived as responding to news of a success in an emotionally supportive manner. These results contribute to the extant literature in several ways.
find themselves seeking support following negative school experiences, long-term concerns about their ability to perform well academically may begin to emerge.

Second, the present study contributes to a small, but growing, capitalization literature suggesting that sharing news of positive events with others predicts increases in positive affect—but does not predict declines in negative affect (see Gable et al., 2004). The present study also is consistent with prior work in showing that emotional support following positive events may be more important than emotional support following negative events in predicting well-being (Gable et al., 2004, 2006; Reis et al., 2010). While emotional support following success disclosures predicted both increases in positive affect and decreases in negative affect, emotional support following failure disclosures was not predictive of changes in daily affect. These findings are consistent with the notion that receiving support following successes comes with fewer costs (e.g., to one’s sense of self as a strong student) than emotional support following failures (Gable & Haidt, 2005; Gable et al., 2006, 2012). Moreover, these findings highlight the importance of addressing a disparity in the extant literature: while a wealth of research has examined how students cope with (relatively infrequent) negative school experiences, very little attention has been paid to how students capitalize on (relatively frequent) positive school experiences.

Because the effects reported here were not moderated by interaction partner, the present study suggests that the benefits of disclosing academic successes and receiving emotional support following these successes can be garnered from a variety of interaction partners. Although most capitalization studies have focused on interactions with close romantic partners (e.g., Gable et al., 2004, 2006) or friends (Altermatt, 2007), one recent study indicates that sharing positive events with others and having others respond in a supportive manner predicts positive outcomes, even when that person is a stranger (Reis et al., 2010). Notably, simply writing about a positive event does not yield the same positive outcomes (Reis et al., 2010). Together, these findings do not mean that choice of interaction partner is not important. Certainly some partners will be more responsive than others. The results of the present study indicate that family members may be more emotionally supportive than friends when responding to news of an academic success. Instead, these findings suggest that the potential benefits of interactions with others following everyday academic successes and failures are not limited to a single type of relationship. Future research will be important in uncovering how performance disclosures and emotional support differ across specific interaction partners (e.g., mothers vs. fathers, friends vs. acquaintances). Future research will also be important in determining whether the benefits of disclosure or emotional support increase as the number of interaction partners increase (e.g., when students tell both parents and/or multiple friends). Similar research on positive event disclosures among adults suggests that this may be the case (Gable et al., 2004).

Conclusions

The present study represents a first step in examining how children’s daily academic performance and subsequent social interactions contribute to day-to-day changes in school-related affect. Focusing on both positive and negative affect is sensible given evidence that students experience positive emotions as frequently as they experience negative emotions (Pekrun et al., 2002) as well as evidence that positive and negative affect play independent roles in predicting well-being (Gable et al., 2000). Focusing on anxious affect as one particularly important form of negative affect seems sensible, as well, given that students report that anxious affect is one of the most
frequently experienced emotions in academic settings (Pekrun et al., 2002). Future research will, however, be important in examining how daily school-related events impact the full range of emotions that students experience. For example, given evidence that many students begin to disengage from school by early adolescence (see Wigfield, Eccles, Schiefele, Roeser, & Davis-Kean, 2006, for a review), the effects of daily school-related events on emotions like boredom, helplessness, and anger may be especially interesting. Future research should also examine the effects of daily school-related events on outcomes other than affect, including the range of cognitive, physiological, and behavioral components that, in addition to the affective component, comprise anxiety (Silverstein, La Greca, & Wasserstein, 1995). In conducting this research, it will be important to employ designs that include direct observations or rich, qualitative analyses of students’ experiences. For example, careful examination of actual discussions between students and their parents will be helpful in revealing whether students are simply responding to questions about their day or being more proactive in seeking out support. Some prior research suggests that social interactions following positive and negative events may result in tradeoffs for students’ well-being. For example, using retrospective methods, Altermatt (2007) demonstrated that children who frequently shared academic successes with peers reported more positive school adjustment, but also more negative perceived peer relationships over time. Future work will be important in developing recommendations to help students realize the benefits of support seeking following everyday academic failures (e.g., decreased anxious affect), while reducing the potential risks of disclosure (e.g., threats to self-esteem). Likewise, more work is needed to understand how students might derive the benefits of capitalization (e.g., increased positive affect) without risking the potential hazards of appearing competitive or boastful, especially in their interactions with peers.

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AUTHOR NOTE

Ellen Rydell Altermatt received her M.A. in educational psychology and her Ph.D. in developmental psychology from the University of Illinois at Urbana-Champaign. Her research focuses on peer influences on school adjustment.

NOTE

1. The pattern of findings remained unchanged when grade-level was included as an additional covariate.
REFERENCES


