

UC Davis

UC Davis Previously Published Works

Title

Balance in Positive Emotional Expressivity Across School Contexts Relates to Kindergartners' Adjustment

Permalink

<https://escholarship.org/uc/item/2mf1s1mj>

Journal

Early Education and Development, 29(1)

ISSN

1040-9289

Authors

Hernández, Maciel M
Eisenberg, Nancy
Valiente, Carlos
[et al.](#)

Publication Date

2018-01-02

DOI

10.1080/10409289.2017.1364946

Peer reviewed



Published in final edited form as:

Early Educ Dev. 2018 ; 29(1): 1–13. doi:10.1080/10409289.2017.1364946.

Balance in Positive Emotional Expressivity Across School Contexts Relates to Kindergarteners' Adjustment

Maciel M. Hernández^a, Nancy Eisenberg^a, Carlos Valiente^b, Tracy L. Spinrad^b, Rebecca H. Berger^b, Sarah K. VanSchyndel^a, Marilyn S. Thompson^b, Jody Southworth^b, and Kassondra M. Silva^b

^aDepartment of Psychology, Arizona State University

^bT. Denny Sanford School of Social and Family Dynamics, Arizona State University

Abstract

Positive emotional expressivity has been associated with increased social competence and decreased maladjustment in childhood. However, a few researchers have found null or even positive associations between positive emotional expressivity and maladjustment, which suggests that there may be nuanced associations of positive expressivity, perhaps as a function of the social context in which it is expressed. We examined whether observed positive emotional expressivity balance across peer-oriented/recreational and learning contexts predicted kindergarten children's adjustment ($N = 301$).

Research findings—Higher positive expressivity during lunch/recess compared to positive expressivity in the classroom was associated with lower teacher–student conflict, externalizing behaviors, and depressive symptoms. In addition, overall positive emotional expressivity predicted lower externalizing behaviors as well as lower depressive and anxiety symptoms.

Practice or policy—The results suggest the importance of assessing observed positive emotional expressivity in context as a potential indicator of children's maladjustment risk and the need for children to adapt their emotions to different contexts. Implications for assessing and supporting positive emotional expression balance and training emotional regulation in school are discussed.

Keywords

children; positive emotions; emotional balance; externalizing and internalizing symptoms; kindergarten; teacher; student conflict

Emotions have everyday consequences for well-being. Negative emotional expressivity has been widely studied as a predictor of adjustment across development and in school (Eggum et al., 2012; Eisenberg, Valiente, & Eggum, 2010; Muris, Meesters, & Blijlevens, 2007). Research on positive emotions suggests that positive emotional expressions invite and maintain positive social interactions as well as promote social competence and well-being

Correspondence should be addressed to Maciel M. Hernandez, Department of Psychology, P.O. Box 751, Portland State University, Portland, OR 97207, USA. maciel.hernandez@pdx.edu.
Maciel M. Hernández is now at Portland State University.

(Denham, McKinley, Couchoud, & Holt, 1990; Fredrickson & Cohn, 2008; Yee, Gonzaga, & Gable, 2014). However, little is known about how variation in positive emotions across contexts promotes or undermines well-being (Valiente, Swanson, & Eisenberg, 2012), particularly at school (Huebner, Gilman, & Furlong, 2009; Valiente et al., 2012). In order to adapt to the school environment, children must learn and interact with teachers and peers within social norms and in various school spaces. Probing the balance of positive emotional expressivity in different contexts, given different norms of behavior, may provide insight regarding children's emotional development (Halberstadt, Denham, & Dunsmore, 2001). This study sought to address how observed positive emotional expressivity (henceforth labeled *positive expressivity*) in kindergarten, as well as its balance in expression in classroom versus recreational settings, relates to children's adjustment.

Positive Emotional Expressivity and Child Adjustment

Individuals show differences in the reactivity and regulation of their behavior and emotional expression—both of which are considered aspects of temperament in childhood (Bates, Goodnight, & Fite, 2008; Rothbart & Bates, 2006). Expressing positive emotions typically attracts social interaction and maintains positive social relationships (Fredrickson & Cohn, 2008; Shin et al., 2011; Sroufe, Schork, Motti, Lawroski, & LaFreniere, 1984). Positive expressivity has often been associated with greater social competence in childhood (Denham et al., 1990; Hernández, Eisenberg, Valiente, Spinrad, et al., 2017; Shin et al., 2011), and been negatively associated with externalizing behaviors (Buss, Kiel, Morales, & Robinson, 2014; Kim, Walden, Harris, Karrass, & Catron, 2007; Stifter, Putnam, & Jahromi, 2008) and internalizing symptoms (Dougherty, Klein, Durbin, Hayden, & Olino, 2010; Ghassabian et al., 2014; Olino et al., 2011; Walter & LaFreniere, 2000). These studies suggest that positive affect is associated with lower maladjustment, consistent with theory on emotion and psychopathology (Clark & Watson, 1991; Lonigan, Phillips, & Hooe, 2003). Internalizing symptoms, for instance, are partly defined by a reduced ability to experience positive emotion (Clark & Watson, 1991; Lonigan et al., 2003; Shankman et al., 2005).

Nonetheless, although some studies suggest that positive expressivity is associated with lower maladjustment, other research has obtained nonsignificant associations with some aspects of adjustment (Eggum et al., 2012; Ghassabian et al., 2014; Hernández et al., 2015; Kim et al., 2007). Positive expressivity may be inconsistently related to adjustment because some aspects of positive expressivity are related to exuberance or impulsivity (Kochanska, Aksan, Penney, & Doobay, 2007; Putnam, 2012; Stifter et al., 2008), whereas others are associated with agreeableness (Polak-Toste & Gunnar, 2006). In fact, some researchers have found that positive emotionality (when characterized by exuberance) has a positive association with externalizing behaviors and a negative association with social competence (Putnam, 2012; Putnam & Stifter, 2005; Sallquist, Eisenberg, Spinrad, Reiser, et al., 2009; Stifter et al., 2008). These findings suggest a need to study positive expressivity in social context because there are undoubtedly appropriate and inappropriate expressions of positive emotion in part based on the social situation.

Positive Emotional Expressivity Balance in School

A relevant process pertaining to positive emotional expressivity is regulatory abilities that can moderate the association between emotional expressivity and adjustment (although there is less evidence of such moderation for positive emotions compared to negative emotions; Diaz et al., 2017). Regulation is likely important in children's abilities to express emotion appropriately in various contexts. In classroom settings, although some positive emotion is associated with increased exploration and creativity (Fredrickson, 2001), high arousal positive emotions may undermine academic engagement (Fredrickson & Cohn, 2008; Valiente et al., 2012). Thus, children who show more positive emotion in classes compared to other school settings may have conflict with teachers and exhibit adjustment difficulties. For example, positive expressivity (which could include exuberance) has been positively associated with externalizing problems and risk taking (Lahat et al., 2012; Rydell, Berlin, & Bohlin, 2003), and negatively associated with school engagement (Diaz et al., 2017) for children with low regulation. These studies, although few in quantity, suggest that children who have difficulty regulating positive expressivity in contexts or circumstances that require emotional modulation may be at risk for maladjustment or school difficulties.

Conversely, in settings with more opportunities for peer-centered interactions, positive expressivity may foster social competence and adjustment given the importance of peer competence in childhood (Hernández et al., 2016). Recreation and play in school, which provide ample joy-inducing opportunities for children, may be an ideal context for developing social ties with peers and fostering emotional well-being. Positive expressivity during free-play laboratory tasks observed throughout childhood was negatively associated with depression (Olino et al., 2011). Thus, children who are more apt to activating positive emotion in circumstances that especially encourage it (e.g., in peer-centered recreational and play settings) may have an easier time adjusting to school, have better social competence, and have lower levels of maladjustment (Polak-Toste & Gunnar, 2006).

Positive emotional expressivity, like other emotions, has display rules and norms that would be expected to vary across different settings. Affective social competence includes expressing emotions (i.e., sending emotion messages) "within the constraints of display rules and the ongoing flow of a context" (Halberstadt et al., 2001, p. 94). Thus, although overall positive expressivity may generally be negatively associated with maladjustment (although we note that the empirical support is somewhat mixed), there could be contexts that require amplifying (or suppressing) emotional expressivity. Emotion balance mirrors reactive flexibility—"the process of shifting from one 'set,' orientation, approach, or behavioral pattern to another because the conditions of the situation have changed" (Hollenstein, Lichtwarck-Aschoff, & Potworowski, 2013, p. 400). Emotional balance (as well as reactive flexibility) likely is affected by self-regulation skills that can be used to express positive emotion appropriately (i.e., depending on the context and norms for the context; Lahat et al., 2012; Rydell et al., 2003). Thus, rigidity in emotional expressivity across contexts is proposed to be associated with more interpersonal and intrapersonal difficulties (Hollenstein et al., 2013). Moreover, the nature of the balance of positive expressivity across contexts might be expected to reflect emotional competencies related to individual well-being (Blair & Dennis, 2010; Halberstadt et al., 2001).

The concept of emotional balance has been studied previously in terms of valance of emotion, with the notion that more positive than negative expressivity is associated with better adjustment and well-being (e.g., Denham & Grout, 1992; Denham et al., 1990; Jones, Eisenberg, Fabes, & MacKinnon, 2002). Although it has been discussed conceptually (Blair & Diamond, 2008; Denham, Bassett, Zinsser, & Wyatt, 2014; Fredrickson & Cohn, 2008; Halberstadt et al., 2001; Hollenstein et al., 2013), and examined empirically in terms of consistency with adults' emotion self-reports (Watson, 2002), we are not aware that positive emotional balance across contexts has been empirically examined in prior research with children. Because exhibiting more positive expressivity in primarily peer social contexts may be associated with better social relationships (Hernández et al., 2016) and exhibiting more positive expressivity in the classroom may be disruptive (Fredrickson & Cohn, 2008; Valiente et al., 2012), we hypothesized that more positive expressivity observed in lunch and recreation (i.e., lunch/recess) in school compared to in the classroom would be associated with lower social and psychological maladjustment (i.e., lower teacher–student conflict, externalizing behaviors, and depressive and anxiety symptoms). We expected this negative relation even though we predicted that overall positivity at school would be negatively associated with teacher–student conflict, externalizing behaviors, depressive symptoms, and anxiety symptoms. We examined these hypotheses using naturalistic observations of emotional expressivity at school and teachers' reports of indices of social difficulties and maladjustment near the end of the kindergarten school year.

In the statistical models used to test our hypotheses, we controlled for background variables (i.e., age, Hispanic status [because about half the sample was Hispanic], sex, socioeconomic status) because of their associations with teacher–student relationship quality (e.g., Garner & Mahatmya, 2015; Jerome, Hamre, & Pianta, 2009; Spilt, Hughes, Wu, & Kwok, 2012), externalizing symptoms (e.g., Buss et al., 2014; Eisenberg, Spinrad, et al., 2010), and internalizing symptoms (e.g., Twenge & Nolen-Hoeksema, 2002) in previous research.

Method

Participants

Kindergarteners ($N = 301$) in a Southwestern metropolitan area in the United States were recruited from 26 classrooms in five public schools at the beginning of the school year (Hernández et al., 2016). Participants were recruited at the beginning of the school year during curriculum nights, during parent–teacher meetings, and via teacher newsletters and invitation letters sent in student backpack mailings that teachers used to distribute school information. Of 541 children in the 26 classrooms, 301 parents provided consent for their children to participate in the study. The recruitment rate (301 children or 56% of the potential sample) was typical of similar studies of young children (e.g., McClelland et al., 2007). The Arizona State University's institutional review board approved this study. Participants had varied ethnic backgrounds (53% Hispanic, 34% White, 3% Asian, 2% American Indian/Alaska Native, 2% Black, 1% other, 6% unknown [percentages are rounded]) and parental education levels (30% of mothers and 39% of fathers completed high school or less, 31% of mothers and 24% of fathers attended some college, and 39% of mothers and 37% of fathers graduated college).

Procedure

Teachers received a survey for each participating child during the spring semester of kindergarten assessing children's social and psychological maladjustment. Research assistants rated children's emotional expressivity in school during the fall and spring semesters of kindergarten in both classroom and recreational/lunch settings. Research assistants were trained for several weeks to observe and rate child interactions for expressivity in pilot preschool settings and, for the second cohort, also on precoded videos of actual interactions among children. Validity checks were made on a biweekly basis for agreement with an expert coder. Two or three research assistants conducted observations in school, two to three times each week, for nine to 12 weeks each semester. Research assistants had a pictorial list of participants for each class and coded an individual child's emotional expressivity after 30 s of observation. The first child to be observed was selected at random from the list, and individual children were not coded again until the entire list of children, if present, was coded. This observation method has shown adequate reliability and predictive validity in prior research (e.g., Hernández et al., 2016; Spinrad et al., 2004).

Measures

Positive emotional expressivity—Research assistants rated children's positive expressivity in the fall and spring semesters of kindergarten, based on the intensity, frequency, and duration of positive emotion (e.g., happiness, joy, excitement, pride, awe) exhibited in recreational (e.g., lunch, recess) and classroom (e.g., classroom, art/music, library) settings. Positive expressivity (demonstrated by the following indicators: smiles, cheeks raised, eyes squinted in an intense smile or wide and bright when excited or joyful, jumping up and down, and chest and head up and upbeat tone or laughter) was coded on a scale from 0 to 3: 0 = no evidence of emotion; 1 = minimal evidence (e.g., emotion indicator seen once, small intensity and brief [< 3 s]); 2 = moderate evidence (e.g., two indicators of emotion, small intensity, and brief; one indicator of emotion, small intensity, lasting 4 to 9 s; one indicator, medium intensity, lasting < 5 s); 3 = strong evidence (e.g., three or more indicators, small intensity, and brief; two or more indicators, medium intensity; one or more indicators, small intensity, lasting more than 10 s; one or more emotional displays, medium intensity, lasting more than 5 s; any high intensity indicator. Interobserver reliability, based on the intraclass correlation obtained from precoded videos and 8.5% of live observations rated simultaneously with expert coders, was .96 for positive emotion (reliability for was .97 for live observations and .93 for pre-coded videos).

For each participant, observers' ratings were averaged across all observations in each context for positive emotion in kindergarten (lunch/recess: $M_{time} = 46$ min, 19 s, $SD_{time} = 12$ min, 48 s, range_{time} = 13 min to 97 min, 30 s; classroom: $M_{time} = 86$ min 8 s, $SD_{time} = 21$ min 4 s, range_{time} = 26 min 30 s to 162 min; $r = .61$ between positive emotion in lunch/recess and in the classroom), representing positive emotional expressivity levels in a specific school setting or across all school contexts. General positive emotional expressivity scores that represent overall expressivity at school were calculated. In addition, positive emotional expressivity difference scores by context were calculated: The score for positive emotional expressivity in classroom settings ($M = 0.71$, $SD = 0.26$, range = 0.11–1.72) was subtracted from the positive emotional expressivity in lunch/recess settings ($M = 1.3$, $SD = 0.37$, range

= 0.24–2.23). Scores above zero represent more positive expressivity at lunch/recess than in the classroom, whereas scores below zero represent more positive expressivity in the classroom than at lunch/recess.

Teacher–student conflict—In the latter part of the spring semester of kindergarten, teachers rated their perceived conflict with participants (1 = *definitely does not apply*; 5 = *definitely applies*; 6 items, e.g., “This child’s feelings toward me can be unpredictable or can change suddenly”, $\alpha = .88$; Hamre & Pianta, 2001).¹ Items were used as indicators for the teacher–student conflict latent variable. This measure was used in previous studies in elementary school and showed strong psychometric properties and stability over time (Hamre & Pianta, 2001; Jerome et al., 2009).

Externalizing, depressive, and anxiety symptoms—Teachers rated (1 = *never/not true*; 3 = *often/very true*) children’s oppositional defiance (nine items, $\alpha = .89$, e.g., “Argues a lot with peers”) and conduct problem behaviors (11 items, $\alpha = .84$, e.g., “Lies or cheats”), as well as depressive (six items, $\alpha = .82$, e.g., “Cries a lot”) and anxiety (six items, $\alpha = .78$, e.g., “Worries about things in the future”)² symptoms in the latter part of the spring semester of kindergarten using the MacArthur Health and Behavior Questionnaire (Armstrong & Goldstein, 2003). This questionnaire has demonstrated adequate stability and reliability (Armstrong & Goldstein, 2003). We converted oppositional defiance items to three 3-item parcels by randomly grouping and averaging items together, and these parcels were used as indicators for an externalizing behaviors latent variable. Conduct problem items were converted to three parcels (one 3-item parcel, two 4-item parcels) and used as indicators for the externalizing behaviors latent variable. Parcels were used because parceling helps reduce measurement error, the indicator-to-sample ratio, number of parameter estimates and increase reliability of the latent variable (Little, Rhemtulla, Gibson, & Schoemann, 2013). Depressive and anxiety symptoms items were used as indicators for the depressive and anxiety symptoms latent variables, respectively.

Background covariates—Age, Hispanic status (0 = non-Hispanic [i.e., white, Asian, American Indian/Alaska Native, or Black], 1 = Hispanic), sex (0 = girl, 1 = boy), and socioeconomic status (the average of the *z* scores of family income and parents’ education) were used as covariates.

Results

Descriptive Statistics

Table 1 provides descriptive statistics and correlations for the study variables. On average, positive expressivity was higher at lunch/recess compared to in the classroom. This balance score ($M = 0.59$, $SD = 0.30$) ranged from -0.22 to 1.47 and was normally distributed. The percent of missing data ranged from 0% to 6%. Children who did not have data on some

¹One item from the original 7-item teacher–student conflict scale (“This child and I always seem to be struggling with each other”) was excluded because of a low factor loading.

²Two items from the original 8-item anxiety scale (“Complains of stomach aches or headaches,” “Complains about not feeling well”) were excluded because of low factor loadings.

teacher-reported measures did not differ from the children who did, based on comparisons of background covariates (e.g., socioeconomic status, age, Hispanic status, male) and positive expressivity using independent-samples *t* tests. Positive expressivity and positive expressivity balance had a small correlation ($r = .26$), suggesting that these variables, although related, are distinct.

Model Specification

Models were tested using *Mplus* 7.4 (Muthén & Muthén, 1998–2015). Likelihood ratio tests (chi-square), comparative fit indices (Bentler, 1990), and the root mean square error of approximation (Browne & Cudeck, 1993) were used to assess model fit. Analyses were performed using full-information maximum likelihood estimation with robust standard errors and the Type = Complex command to account for missing data and the nonindependence of observations due to the clustering of data.

Although there is controversy surrounding the use of difference scores (Lord, 1958), "... when individual differences in true change do exist, the difference score does a good job in distinguishing among individuals (see Rogosa et al., 1982)" (Rogosa & Willett, 1983, p. 335)." We used a balance score because it had significant variation across individuals ($\sigma^2 = 0.09$, $p < .001$), and the analytical method matched our question regarding the relative balance in positive emotion across school contexts. In addition, difference scores were previously used to study emotional balance (e.g., Denham & Grout, 1992; Diener et al., 2009), which further supports the use of positive expressivity balance in this study.

Positive Expressivity Predicting Student Outcomes

Four separate models tested whether positive expressivity levels in school, as well as the balance in positive expressivity across contexts (in the classroom and at lunch/recess), predicted teacher–student conflict, externalizing behaviors, depressive symptoms, or anxiety, controlling for background covariates. The models showed adequate fit (see Table 2) and significant latent variable factor loadings.

The balance for positive expressivity across contexts (i.e., higher positive expressivity in lunch/recess compared to in the classroom) significantly predicted three of the four outcome measures over and above the effects of general positive expressivity. Specifically, the balance of positive expressivity across contexts predicted lower teacher–student conflict ($\beta = -.177$; Column 1, Table 2) whereas overall positive expressivity did not. In the externalizing behavior model, positive expressivity balance across contexts was associated with lower externalizing behaviors ($\beta = -.174$; Column 2), whereas overall positive expressivity marginally predicted lower externalizing behaviors ($\beta = -.105$; Column 2). Similarly, positive expressivity balance across contexts ($\beta = -.127$; Column 3) and overall positive expressivity ($\beta = -.202$; Column 3), negatively predicted depressive symptoms. Finally, only overall positive expressivity was marginally predictive of lower anxiety symptoms ($\beta = -.131$; Column 4).^{3,4}

³In this research project, negative emotional expressivity was observed. We found that negative expressivity was associated with higher teacher–student conflict ($\beta = .49$, $p < .001$) and externalizing behaviors ($\beta = .46$, $p < .001$) but did not significantly predict depressive or anxiety symptoms. The balance in negative emotional expressivity across school settings did not significantly predict

Discussion

Findings from this study point to an association between positive expressivity and child maladjustment, but the nature of the relations of positive expressivity to maladjustment and teacher–student conflict depended on how positive expressivity was estimated. Consistent with expectations, overall observed positive expressivity in school was negatively associated with maladjustment. In contrast, and of greater interest, higher levels of positive expressivity observed in lunch/recess compared to in the classroom were negatively associated with externalizing problems, depressive symptoms, and teacher–student conflict in kindergarten.

Positive Emotional Expressivity Balance in School

Prior conceptual work has described the notion that children flexibly modulate emotion based on the contexts they experience (Blair & Diamond, 2008; Halberstadt et al., 2001; Hollenstein et al., 2013), which may shape children’s emotion schemas across development (Izard, Stark, Trentacosta, & Schultz, 2008). We found that the balance in positive expressivity at lunch/recess versus in the classroom was associated with lower levels of teacher–student conflict, externalizing behaviors, and depressive symptoms, even when we controlled for overall positivity (note that overall positive expressivity and balance of expressivity across contexts had a small correlation [$r = .26$], which suggests that there is some level of covariation between the two measures). This is the first study that we are aware of that has examined differences in emotional expressivity across contexts as they relate to children’s adjustment. The findings point to the importance of emotional balance across contexts, as previously proposed (Hollenstein et al., 2013), although replication across different populations would be a key future research step.

Positive expressivity was on average higher in lunch/recess settings compared to in the classroom. Children who are not aware of emotional norms in different settings, or who are unable to act in ways consistent with these norms, could have compromised social competence and psychological adjustment. Lower positivity expressed at lunch and recess than in the classroom may be a symptom of peer rejection, which could contribute to increased maladjustment (Reijntjes, Kamphuis, Prinzie, & Telch, 2010); however, this may be more likely for children who are less regulated given that there is some evidence that positive emotion predicts higher peer acceptance, particularly for children who have lower effortful control (Hernández, Eisenberg, Valiente, Diaz, et al., 2017). Children rejected by their peers, for example, have fewer chances of expressing happiness in primarily recreational settings with peers, which further decreases their opportunity to develop self-regulation skills through play (Savina, 2014). The balance in positive expressivity at lunch/recess compared to in the classroom likely has multiple origins, including peer interactions and regulatory abilities. In auxiliary analyses, positive expressivity balance similarly

child maladjustment. In separate analyses, we also regressed overall positive emotion on positive expressivity balance and saved the unstandardized residual score, which was then used to predict the student outcomes. The pattern of findings was the same as the findings reported here. That is, positive expressivity balance predicted less teacher–student conflict, fewer externalizing behaviors, and fewer depressive symptoms in kindergarten.

⁴Because the observations of emotion were conducted across the fall and spring semesters of the school year, we also analyzed the main effects of positive emotion expressivity and balance from the fall semester to predict across time. Results were the same as the ones reported for positive emotion expressivity and balance across the school year except for one instance: The main effect from positive emotion expressivity in the fall semester predicting low anxiety in the spring semester was not significant.

predicted the student outcomes when peer acceptance based on peer nominations was included as a covariate. Thus, the findings reflect not just an artifact of sociability or peer competence in the different school contexts but rather emotional expressivity balance across school settings.

This balance in positive expressivity across contexts did not predict children's anxiety symptoms perhaps because anxiety is best characterized by more negative emotional responding (Clark & Watson, 1991). Alternatively, anxiety symptoms, rated in the context of schooling, may have been more difficult to observe by teachers given the subtleties of anxiety symptoms. Nonetheless, the findings echo prior research on the importance of play (Pearson, Russ, & Cain Spannagel, 2008), in this case peer-centered activities during lunch and recess, and opportunities for expressing positive emotion beyond the classroom context in school practice. Furthermore, examining emotional balance in positive, not just negative, emotional expressivity may serve as an early indicator for the development of later socioemotional difficulties. In auxiliary analyses, we found that positive emotional expressivity balance (i.e., higher positive expressivity at lunch/recess than in the classroom) only in the fall semester predicted lower teacher–student conflict, externalizing behaviors, and depressive symptoms in the spring semester controlling for background covariates. However, future research should also consider trajectories of both positive emotional expressivity balance and socioemotional difficulties.

Overall Positive Emotional Expressivity

The findings that overall positive expressivity in school (aggregated across all school contexts) during kindergarten predicted lower externalizing behaviors and anxiety symptoms (both at marginally significant levels), as well as lower depressive symptoms, are consistent with prior research findings (e.g., Buss et al., 2014; Dougherty et al., 2010; Kim et al., 2007). These findings support theoretical frameworks that propose that a reduced capacity for experiencing positive emotion is a factor in depression (Clark & Watson, 1991; Lonigan et al., 2003). The marginally significant findings for externalizing and anxiety symptoms correspond with proposals that expressing positive emotions attract positive social interactions (Fredrickson & Cohn, 2008), although future research could be conducted to gain further support for these findings.

Positive expressivity, however, did not significantly predict teacher–student conflict; emotions of negative valence may be a stronger direct predictor (Hernández, Eisenberg, Valiente, Spinrad, et al., 2017). Also, some aspects of positive expressivity relate to exuberance and impulsivity (Kochanska et al., 2007; Putnam, 2012; Stifter et al., 2008), which could be positively associated with teacher–student conflict, whereas other aspects relate to agreeableness (Polak-Toste & Gunnar, 2006), which could be negatively associated with teacher–student conflict. These opposing relations may make it difficult to obtain a direct effect for teacher–student conflict.

Future Directions and Study Limitations

Future research could examine how and why positive emotion is expressed differently across contexts (e.g., within school and in the home) and how these differences relate to adjustment

outcomes across development. As children further develop their regulatory abilities and learn about norms for expressing positive emotional expressivity, individual differences in expressivity might become less pronounced across contexts. For example, positive emotion might be expressed in a more regulated manner with age and thus be only weakly associated with maladjustment (Sallquist, Eisenberg, Spinrad, Reiser, et al., 2009). Overall, results from this study have implications for promoting children's regulation of positive emotional expressivity in school and for the importance of context in emotion processes. We examined maladjustment outcomes, but future research could investigate how positive emotion expressed across contexts relates to positive outcomes in young children, such as prosocial behavior (Sallquist, Eisenberg, Spinrad, Eggum, & Gaertner, 2009) or school enjoyment (Boniwell, Osin, & Martinez, 2015).

We note that in the study's observation protocol of positive emotional expressivity, we considered different types of positive emotion (e.g., enthusiasm, contentment) without distinguishing them because conducting live naturalistic observations makes it difficult to distinguish emotions reliably. Furthermore, we did not record what specific activities the children were engaging in during the observations of emotional expressivity, which is a notable limitation in our ability to describe what specific activities individual children were partaking in during the classroom and lunch/recess contexts. Future research could clarify how positive expressivity varies across contexts and whether positive expressivity is more closely associated with child adjustment in some contexts than in others. In this study, we could not test the direction of effects (a limitation that can be addressed in future research). However, by measuring expressivity across the school year and maladjustment/conflict at the end of that year, we took a first step in identifying possible causality. The study's results have implications for promoting children's appropriate regulation of positive expressivity in school and for the importance of context in emotion processes. For instance, providing more peer-centered and free-play interaction opportunities that encourage positive expressivity in school contexts outside of classes may help children adjust to the school environment. In addition, teachers' emotional expressivity balance and teaching of norms in regard to appropriate behavior in various school contexts may foster appropriate moderation of positive emotion across contexts and help support social adjustment (Curby, Brock, & Hamre, 2013). Recreation and play in school are a critical context for children to express their positive emotions and have been associated with children's self-regulation skills (Becker, McClelland, Loprinzi, & Trost, 2013). Our findings point to the utility of observing positive emotional expressivity balance across school contexts as a potential risk indicator for children's maladjustment and conflict with teachers in kindergarten. Future research on children's positive emotional expression balance across their schooling trajectory could help to clarify the extent to which the study's findings remain stable across development.

Conclusion

The present study examined differences in emotional expressivity across contexts and found that positive emotional expressivity balance in school (i.e., higher positive expressivity in lunch/recess compared to the classroom) was associated with fewer maladjusted behaviors. The findings point to the significance of modulating positive emotional expressivity in school, as alluded in theory (Blair & Diamond, 2008; Denham et al., 2014; Fredrickson &

Cohn, 2008; Halberstadt et al., 2001; Hollenstein et al., 2013), favoring more positive emotional expressivity at lunch and recess relative to the kindergarten classroom setting. The findings suggest that emotional flexibility, in ways consistent with the norms in different contexts, is associated with adjustment.

Acknowledgments

Support for this work was provided by Grant No. R01HD068522 from the Eunice Kennedy Shriver National Institute of Child Health and Human Development awarded to Carlos Valiente and Nancy Eisenberg. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

References

- Armstrong, JM., Goldstein, LH. Manual for the MacArthur health and behavior questionnaire (HBQ 1.0). University of Pittsburgh: MacArthur Foundation Research Network on Psychopathology and Development; 2003.
- Bates, JE., Goodnight, JA., Fite, JE. Temperament and emotion. In: Lewis, M.Haviland-Jones, JM., Feldman Barrett, L., editors. Handbook of emotions. New York, NY: The Guilford Press; 2008. p. 485-496.
- Becker DR, McClelland MM, Loprinzi P, Trost SG. Physical activity, self-regulation, and early academic achievement in preschool children. *Early Education and Development*. 2013; 25:56–70. DOI: 10.1080/10409289.2013.780505
- Bentler PM. Comparative fit indexes in structural models. *Psychological Bulletin*. 1990; 107:238–246. DOI: 10.1037/0033-2909.107.2.238 [PubMed: 2320703]
- Blair, C., Dennis, T. An optimal balance: The integration of emotion and cognition in context. In: Calkins, SD., Bell, MA., editors. Child development at the intersection of emotion and cognition. Washington, DC: American Psychological Association; 2010. p. 17-35.
- Blair C, Diamond A. Biological processes in prevention and intervention: The promotion of self-regulation as a means of preventing school failure. *Development and Psychopathology*. 2008; 20:899–911. DOI: 10.1017/S0954579408000436 [PubMed: 18606037]
- Boniwell I, Osin EN, Martinez C. Teaching happiness at school: Non-randomised controlled mixed-methods feasibility study on the effectiveness of Personal Well-Being Lessons. *The Journal of Positive Psychology*. 2015; 11:85–98. DOI: 10.1080/17439760.2015.1025422
- Browne, MW., Cudeck, R. Alternative ways of assessing model fit. In: Bollen, KA., Long, JS., editors. Testing structural equation models. Newbury Park, CA: Sage; 1993. p. 136-162.
- Buss KA, Kiel EJ, Morales S, Robinson E. Toddler inhibitory control, bold response to novelty, and positive affect predict externalizing symptoms in kindergarten. *Social Development*. 2014; 23:232–249. DOI: 10.1111/sode.12058 [PubMed: 25018589]
- Clark LA, Watson D. Tripartite model of anxiety and depression: Psychometric evidence and taxonomic implications. *Journal of Abnormal Psychology*. 1991; 100:316–336. DOI: 10.1037/0021-843X.100.3.316 [PubMed: 1918611]
- Curby TW, Brock LL, Hamre BK. Teachers' emotional support consistency predicts children's achievement gains and social skills. *Early Education and Development*. 2013; 24:292–309. DOI: 10.1080/10409289.2012.665760
- Denham SA, Bassett HH, Zinsler K, Wyatt TM. How preschoolers' social-emotional learning predicts their early school success: Developing theory-promoting, competency-based assessments. *Infant and Child Development*. 2014; 23:426–454. DOI: 10.1002/icd.1840
- Denham SA, Grout L. Mothers' emotional expressiveness and coping: Relations with preschoolers' social-emotional competence. *Genetic, Social, and General Psychology Monographs*. 1992; 118:73–101.
- Denham SA, McKinley M, Couchoud EA, Holt R. Emotional and behavioral predictors of preschool peer ratings. *Child Development*. 1990; 61:1145–1152. DOI: 10.1111/1467-8624.ep9102040970 [PubMed: 2209184]

- Diaz A, Eisenberg N, Valiente C, VanSchyndel SK, Spinrad TL, Berger RH, Southworth J. Relations of positive and negative expressivity and effortful control to kindergarteners' student-teacher relationship, academic engagement, and externalizing problems at school. *Journal of Research in Personality*. 2017; 67:3–14. DOI: 10.1016/j.jrp.2015.11.002 [PubMed: 28584388]
- Diener E, Wirtz D, Tov W, Kim-Prieto C, Choi D, Oishi S, Biswas-Diener R. New well-being measures: Short scales to assess flourishing and positive and negative feelings. *Social Indicators Research*. 2009; 97:143–156. DOI: 10.1007/s11205-009-9493-y
- Dougherty LR, Klein DN, Durbin CE, Hayden EP, Olini TM. Temperamental positive and negative emotionality and children's depressive symptoms: A longitudinal prospective study from age three to age ten. *Journal of Social and Clinical Psychology*. 2010; 29:462–488. DOI: 10.1521/jscp.2010.29.4.462
- Eggum ND, Eisenberg N, Reiser M, Spinrad TL, Michalik NM, Valiente C, Sallquist J. Relations over time among children's shyness, emotionality, and internalizing problems. *Social Development*. 2012; 21:109–129. DOI: 10.1111/j.1467-9507.2011.00618.x [PubMed: 22383862]
- Eisenberg N, Spinrad TL, Eggum NM, Silva KM, Reiser M, Hofer C, Michalik N. Relations among maternal socialization, effortful control, and maladjustment in early childhood. *Development and Psychopathology*. 2010; 22:507–525. DOI: 10.1017/S0954579410000246 [PubMed: 20576175]
- Eisenberg N, Valiente C, Eggum ND. Self-regulation and school readiness. *Early Education and Development*. 2010; 21:681–698. DOI: 10.1080/10409289.2010.497451 [PubMed: 21234283]
- Fredrickson BL. The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*. 2001; 56:218–226. DOI: 10.1037//0003-066X.56.3.218 [PubMed: 11315248]
- Fredrickson, BL., Cohn, MA. Positive emotions. In: Lewis, M.Haviland-Jones, JM., Feldman Barrett, L., editors. *Handbook of emotions*. New York, NY: The Guilford Press; 2008. p. 777-796.
- Garner PW, Mahatmya D. Affective social competence and teacher-child relationship quality: Race/ethnicity and family income level as moderators. *Social Development*. 2015; 24:678–697. DOI: 10.1111/sode.12114
- Ghassabian A, Szekely E, Herba CM, Jaddoe VW, Hofman A, Oldehinkel AJ, Tiemeier H. From positive emotionality to internalizing problems: The role of executive functioning in preschoolers. *European Child and Adolescent Psychiatry*. 2014; 23:729–741. DOI: 10.1007/s00787-014-0542-y [PubMed: 24728546]
- Halberstadt AG, Denham SA, Dunsmore JC. Affective social competence. *Social Development*. 2001; 10:79–119. DOI: 10.1111/1467-9507.00150
- Hamre BK, Pianta RC. Early teacher-child relationships and the trajectory of children's school outcomes through eighth grade. *Child Development*. 2001; 72:625–638. DOI: 10.1111/1467-8624.00301 [PubMed: 11333089]
- Hernández MM, Eisenberg N, Valiente C, Diaz A, VanSchyndel SK, Berger RH, Southworth J. Concurrent and longitudinal associations of peers' acceptance with emotions and effortful control in kindergarten. *International Journal of Behavioral Development*. 2017; 41:30–40. DOI: 10.1177/0165025415608519 [PubMed: 28348445]
- Hernández MM, Eisenberg N, Valiente C, Spinrad TL, VanSchyndel SK, Diaz A, Pina AA. Observed emotion frequency versus intensity as predictors of socioemotional maladjustment. *Emotion*. 2015; 15:699–704. DOI: 10.1037/emo0000099 [PubMed: 26214568]
- Hernández MM, Eisenberg N, Valiente C, Spinrad TL, VanSchyndel SK, Diaz A, Southworth J. Observed emotions as predictors of social relationships in kindergarten. *Social Development*. 2017; 26:21–39. DOI: 10.1111/sode.12179
- Hernández MM, Eisenberg N, Valiente C, VanSchyndel SK, Spinrad TL, Silva KM, Southworth J. Emotional expression in school context, social relationships, and academic adjustment in kindergarten. *Emotion*. 2016; 16:553–566. DOI: 10.1037/emo0000147 [PubMed: 26751629]
- Hollenstein T, Lichtwarck-Aschoff A, Potworowski G. A model of socioemotional flexibility at three time scales. *Emotion Review*. 2013; 5:397–405. DOI: 10.1177/1754073913484181
- Huebner, ES., Gilman, R., Furlong, MJ. A conceptual model for research in positive psychology in children and youth. In: Gilman, R.Huebner, ES., Furlong, MJ., editors. *Handbook of positive psychology in schools*. New York, NY: Routledge/Taylor & Francis Group; 2009. p. 3-8.

- Izard C, Stark K, Trentacosta C, Schultz D. Beyond emotion regulation: Emotion utilization and adaptive functioning. *Child Development Perspectives*. 2008; 2:156–163. DOI: 10.1111/j.1750-8606.2008.00058.x [PubMed: 19956781]
- Jerome EM, Hamre BK, Pianta RC. Teacher-child relationships from kindergarten to sixth grade: Early childhood predictors of teacher-perceived conflict and closeness. *Social Development*. 2009; 18:915–945. DOI: 10.1111/j.1467-9507.2008.00508.x [PubMed: 24991084]
- Jones S, Eisenberg N, Fabes RA, MacKinnon DP. Parents' reactions to elementary school children's negative emotions: Relations to social and emotional functioning at school. *Merrill-Palmer Quarterly*. 2002; 48:133–159. DOI: 10.1353/mpq.2002.0007
- Kim G, Walden T, Harris V, Karrass J, Catron T. Positive emotion, negative emotion, and emotion control in the externalizing problems of school-aged children. *Child Psychiatry and Human Development*. 2007; 37:221–239. DOI: 10.1007/s10578-006-0031-8 [PubMed: 17001525]
- Kochanska G, Aksan N, Penney SJ, Doobay AF. Early positive emotionality as a heterogeneous trait: Implications for children's self-regulation. *Journal of Personality and Social Psychology*. 2007; 93:1054–1066. DOI: 10.1037/0022-3514.93.6.1054 [PubMed: 18072854]
- Lahat A, Degnan KA, White LK, McDermott JM, Henderson HA, Lejuez CW, Fox NA. Temperamental exuberance and executive function predict propensity for risk taking in childhood. *Development and Psychopathology*. 2012; 24:847–856. DOI: 10.1017/S0954579412000405 [PubMed: 22781858]
- Little TD, Rhemtulla M, Gibson K, Schoemann AM. Why the items versus parcels controversy needn't be one. *Psychological Methods*. 2013; 18:285–300. DOI: 10.1037/a0033266 [PubMed: 23834418]
- Lonigan CJ, Phillips BM, Hooe ES. Relations of positive and negative affectivity to anxiety and depression in children: Evidence from a latent variable longitudinal study. *Journal of Consulting and Clinical Psychology*. 2003; 71:465–481. DOI: 10.1037/0022-006x.71.3.465 [PubMed: 12795571]
- Lord FM. Further problems in the measurement of growth. *Educational and Psychological Measurement*. 1958; 18:437–451. DOI: 10.1177/001316445801800301
- McClelland MM, Cameron CE, Connor CM, Farris CL, Jewkes AM, Morrison FJ. Links between behavioral regulation and preschoolers' literacy, vocabulary, and math skills. *Developmental Psychology*. 2007; 43:947–959. DOI: 10.1037/0012-1649.43.4.947 [PubMed: 17605527]
- Muris P, Meesters C, Blijlevens P. Self-reported reactive and regulative temperament in early adolescence: Relations to internalizing and externalizing problem behavior and "Big Three" personality factors. *Journal of Adolescence*. 2007; 30:1035–1049. DOI: 10.1016/j.adolescence.2007.03.003 [PubMed: 17467051]
- Muthén, LK., Muthén, BO. *Mplus User's Guide*. 6th. Los Angeles, CA: Muthén & Muthén; 1998–2015.
- Olino TM, Lopez-Duran NL, Kovacs M, George CJ, Gentzler AL, Shaw DS. Developmental trajectories of positive and negative affect in children at high and low familial risk for depressive disorder. *Journal of Child Psychology and Psychiatry*. 2011; 52:792–799. DOI: 10.1111/j.1469-7610.2010.02331.x [PubMed: 21039488]
- Pearson BL, Russ SW, Cain Spannagel SA. Pretend play and positive psychology: Natural companions. *The Journal of Positive Psychology*. 2008; 3:110–119. DOI: 10.1080/17439760701760617
- Polak-Toste, CP., Gunnar, MR. Temperamental exuberance: Correlates and consequences. In: Marshall, PA., Fox, NA., editors. *The development of social engagement: Neurobiological perspectives*. New York, NY: Oxford University Press; 2006. p. 19-45.
- Putnam, SP. Positive emotionality. In: Zentner, M., Shiner, RL., editors. *Handbook of temperament*. New York: Guilford Press; 2012. p. 105-123.
- Putnam SP, Stifter CA. Behavioral approach-inhibition in toddlers: Prediction from infancy, positive and negative affective components, and relations with behavior problems. *Child Development*. 2005; 76:212–226. DOI: 10.1111/j.1467-8624.2005.00840.x [PubMed: 15693768]

- Reijntjes A, Kamphuis JH, Prinzie P, Telch MJ. Peer victimization and internalizing problems in children: A meta-analysis of longitudinal studies. *Child Abuse & Neglect*. 2010; 34:244–252. DOI: 10.1016/j.chiabu.2009.07.009 [PubMed: 20304490]
- Rogosa DR, Brandt D, Zimowski M. A growth curve approach to the measurement of change. *Psychological Bulletin*. 1982; 90:726–748. DOI: 10.1037/0033-2909.92.3.726
- Rogosa DR, Willett JB. Demonstrating the reliability of the difference score in the measurement of change. *Journal of Educational Measurement*. 1983; 20:335–343. DOI: 10.1111/j.1745-3984.1983.tb00211.x
- Rothbart, MK., Bates, JE. Temperament. In: Eisenberg, N., editor. *Handbook of child psychology: Vol 3. Social, emotional, and personality development*. 6th. Hoboken, NJ: Wiley; 2006. p. 105-176.
- Rydell A, Berlin L, Bohlin G. Emotionality, emotion regulation, and adaptation among 5- to 8-year-old children. *Emotion*. 2003; 3:30–47. DOI: 10.1037/1528-3542.3.1.30 [PubMed: 12899315]
- Sallquist JV, Eisenberg N, Spinrad TL, Eggum ND, Gaertner BM. Assessment of preschoolers' positive empathy: Concurrent and longitudinal relations with positive emotion, social competence, and sympathy. *The Journal of Positive Psychology*. 2009; 4:223–233. DOI: 10.1080/17439760902819444 [PubMed: 20011674]
- Sallquist JV, Eisenberg N, Spinrad TL, Reiser M, Hofer C, Zhou Q, Eggum N. Positive and negative emotionality: Trajectories across six years and relations with social competence. *Emotion*. 2009; 9:15–28. DOI: 10.1037/a0013970 [PubMed: 19186913]
- Savina E. Does play promote self-regulation in children? *Early Child Development and Care*. 2014; 184:1692–1705. DOI: 10.1080/03004430.2013.875541
- Shankman SA, Tenke CA, Bruder GE, Durbin CE, Hayden EP, Klein DN. Low positive emotionality in young children: Association with EEG asymmetry. *Development and Psychopathology*. 2005; 17:85–98. DOI: 10.1017/S0954579405050054 [PubMed: 15971761]
- Shin N, Vaughn BE, Akers V, Kim M, Stevens S, Krzysik L, Korth B. Are happy children socially successful? Testing a central premise of positive psychology in a sample of preschool children. *The Journal of Positive Psychology*. 2011; 6:355–367. DOI: 10.1080/17439760.2011.584549
- Spilt JL, Hughes JN, Wu JY, Kwok OM. Dynamics of teacher–student relationships: Stability and change across elementary school and the influence on children's academic success. *Child Development*. 2012; 83:1180–1195. DOI: 10.1111/j.1467-8624.2012.01761.x [PubMed: 22497209]
- Spinrad TL, Eisenberg N, Harris E, Hanish L, Fabes RA, Kupanoff K, Holmes J. The relation of children's everyday nonsocial peer play behavior to their emotionality, regulation, and social functioning. *Developmental Psychology*. 2004; 40:67–80. DOI: 10.1037/0012-1649.40.1.67 [PubMed: 14700465]
- Sroufe, LA., Schork, E., Motti, F., Lawroski, N., LaFreniere, P. The role of affect in social competence. In: Izard, CE, Kagan, J., Zajonc, RB., editors. *Emotions, cognition, and behavior*. New York, NY: Cambridge University Press; 1984. p. 289-319.
- Stifter CA, Putnam S, Jahromi L. Exuberant and inhibited toddlers: Stability of temperament and risk for problem behavior. *Development and Psychopathology*. 2008; 20:401–421. DOI: 10.1017/S0954579408000199 [PubMed: 18423086]
- Twenge JM, Nolen-Hoeksema S. Age, gender, race, socioeconomic status, and birth cohort difference on the children's depression inventory: A meta-analysis. *Journal of Abnormal Psychology*. 2002; 111:578–588. DOI: 10.1037//0021-843X.111.4.578 [PubMed: 12428771]
- Valiente C, Swanson J, Eisenberg N. Linking students' emotions and academic achievement: When and why emotions matter. *Child Development Perspectives*. 2012; 6:129–135. DOI: 10.1111/j.1750-8606.2011.00192.x [PubMed: 23115577]
- Walter JL, LaFreniere PJ. A naturalistic study of affective expression, social competence, and sociometric status in preschoolers. *Early Education and Development*. 2000; 11:109–122. DOI: 10.1207/s15566935eed1101_7
- Watson, D. Positive affectivity: The disposition to experience pleasurable emotional states. In: Snyder, CR., Lopez, SJ., editors. *Handbook of positive psychology*. New York, NY: Oxford University Press; 2002. p. 106-119.

Yee, CI., Gonzaga, GC., Gable, SL. Positive emotions in close relationships. In: Tugade, MM. Shiota, MN., Kirby, LD., editors. Handbook of positive emotions. New York, NY: Guilford Press; 2014. p. 215-258.

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript

Table 1

Descriptive Statistics and Correlations between Study Variables ($N = 301$)

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. Teacher-student conflict	–											
2. Externalizing behaviors	.84***	–										
3. Depressive symptoms	.35***	.31***	–									
4. Anxiety symptoms	.19**	.17**	.52***	–								
5. Positive expressivity	-.10†	-.12*	-.21***	-.10†	–							
6. Positive expressivity at lunch/recess	-.15*	-.17**	-.25***	-.07	.85***	–						
7. Positive expressivity in the classroom	-.05	-.06	-.19**	-.13*	.92***	.61***	–					
8. Positive expressivity balance ^a	-.15*	-.17**	-.15*	.03	.26***	-.71***	-.12*	–				
9. Socioeconomic status	-.05	-.11†	-.13*	-.12*	-.08	-.07	-.03	-.06	–			
10. Hispanic ^b	-.01	.03	.11†	.02	.08	-.02	.08	-.10†	-.37***	–		
11. Male ^c	.03	.00	.08	.06	.03	.07	.00	.09	.10†	-.08	–	
12. Age ^d	.04	.05	-.01	-.04	.10†	.16*	.04	.17**	-.10†	.11†	.12*	–
<i>M</i>	1.55	1.14	1.23	1.32	0.92	1.31	0.71	0.59	-0.05	0.57	0.49	5.48
<i>Min</i>	1.00	1.00	1.00	1.00	0.21	0.24	0.11	-0.22	-1.83	0.00	0.00	4.27
<i>Max</i>	5.00	2.48	2.67	2.63	1.89	2.23	1.72	1.47	1.16	1.00	1.00	6.81
<i>SD</i>	0.86	0.26	0.36	0.33	0.27	0.37	0.26	0.30	0.91	0.50	0.50	0.35
% data	95%	95%	95%	95%	100%	99%	100%	99%	100%	94%	100%	99%

Note.

^aPositive expressivity balance across contexts (i.e., positive expressivity in lunch/recess minus positive expressivity in the classroom).

^b1 = Hispanic, 0 = non-Hispanic.

^c1 = boy, 0 = girl.

^dAge at the beginning of kindergarten.

† $p < .10$.

* $p < .05$.

.100^{*} *p*

.10^{*} *p*
**

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript

Table 2
Model Estimates of Positive Emotional Expressivity on Student Outcomes in Kindergarten

Parameter	1. Teacher-student conflict		2. Externalizing behaviors		3. Depressive symptoms		4. Anxiety symptoms	
	Estimate	S.E.	Estimate	S.E.	Estimate	S.E.	Estimate	S.E.
Emotion predictors								
Positive expressivity	-0.061	0.066	-0.105 [†]	0.062	-0.202 ^{**}	0.072	-0.131 [†]	0.069
Positive expressivity balance ^a	-0.177 ^{***}	0.052	-0.174 ^{**}	0.061	-0.127 [*]	0.050	0.063	0.078
Background covariates								
Socioeconomic status	-0.085	0.091	-0.132 [*]	0.068	-0.155 [*]	0.079	-0.152 [*]	0.074
Hispanic ^b	-0.047	0.083	-0.049	0.089	0.047	0.078	0.006	0.079
Male ^c	0.063	0.055	0.012	0.054	0.127 [*]	0.059	0.131 ^{**}	0.045
Age ^d	0.097	0.075	0.076	0.068	0.011	0.050	-0.075	0.070
Model Fit:	χ^2	57.919	79.244	59.796	55.010			
	df	39	39	39	39			
	χ^2 p-value	.026	.000	.018	.046			
	CFI	.960	.938	.960	.956			
	RMSEA	.040	.059	.042	.037			

Note. All estimates are standardized. CFI = comparative fit index. RMSEA = root mean square error of approximation.

^aPositive expressivity balance across contexts (i.e., positive emotional expressivity in lunch/recess minus positive emotional expressivity in the classroom).

^b1 = Hispanic, 0 = non-Hispanic.

^c1 = boy, 0 = girl.

^dAge at the beginning of kindergarten.

[†] $p < .10$.

* $p < .05$.

** $p < .01$.

*** $p < .001$.