

Understanding emotion awareness and emotion vocabulary in early primary school Vietnamese children: Quantitative and qualitative analyses

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Abstract: Although being fundamental for both clinical and educational work with children, there is currently no in-depth research on examining children's emotion awareness and vocabulary in Vietnam. The goal of this exploratory study is to determine the effect of children's gender, grade level, and socioeconomic background on their emotion awareness and vocabulary, and the semantic and grammatical diversity of Vietnamese children's emotional vocabulary. The sample included 264 Vietnamese children ($M = 7.80$, $SD = .97$, 43.18% boys) as well as their mothers. Quantitative findings suggested that children in Grade 3 more frequently quoted surprise- and anger-related vocabulary than did those in lower grades. Children's socioeconomic background had a significant effect on both emotion awareness and vocabulary whereas gender did not. Qualitative analysis revealed diverse grammatical types to describe emotions, except idioms, as well as the presence of body-related emotion vocabulary within children's records. Finally, a high prevalence of emotion words such as "happy" and "sad" was subject to further cross-cultural review.

Keywords: children; emotion awareness; emotion vocabulary; mixed-methods data analysis; Vietnam

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Within children's developmental spectrum, emotional competencies contribute significantly to their social skills (Frederickson, Petrides, & Simmonds, 2012; Gugliandolo, Costa, Cuzzocrea, Larcana, & Petride, 2015) as well as their mental health (Cole, Shrestha, & Tamang, 2006). Most studies have assumed that the more children understand and manage their own emotions and that of others, the better they are able to establish appropriate social relationships and the less likely they are to develop mental health problems. Thus, studying the various aspects of children's emotional competencies such as emotional awareness is paramount to both research and practice.

Lane and Schwartz (1987) defined emotion awareness (EA) as the ability to be consciously aware of one's emotions and feelings. Drawing upon Piaget (1936) and

Werner's (1957) sensory-cognitive developmental theories as cited in Lane & Schwartz (1987), Lane and Schwartz's theoretical background proposed that EA was a gradual symbolization process that comprised different levels. Depending on the ability to represent and describe subjective emotions as well as differentiate one's emotions from another, different levels of EA could be determined. The authors identified five levels of EA (see Table 1). At the lowest EA level (Level 1), which corresponds to the primary Piagetian developmental stage of reflexive sensorimotor, individuals implicitly express their emotional arousal for pure bodily sensation labels such as *stomachache* and *dizziness*. In higher levels of EA, individuals express one's emotions and feelings more explicitly in that they could clearly identify at least one of their own concrete emotions

Table 1
Correspondence between Lane and Schwartz's (1987) Levels of Emotion Awareness, Their Description, and Piagetian Development Stages

EA levels	Corresponding Piagetian development stage	Descriptions
Level 1	Sensorimotor, reflexive	Emotions are undifferentiated with corporal sensations. Expression of emotional arousal is implicit, preconscious, and bodily related.
Level 2	Sensorimotor	Emotions are perceived to be and described as action tendencies or pleasant/unpleasant affective experiences.
Level 3	Preoperational	One can represent and describe a unidimensional emotion or feeling of self. However, EA of others is often still limited.
Level 4	Concrete operational	One can represent and describe complex emotions and feelings of self at once. Others' emotions can be identified as different from theirs.
Level 5	Formal operational	Individuals can identify and label accurately blended emotions in one's self and others.

and acknowledge that others might feel differently in the same situation. At the highest level of EA (Level 5), individuals could consciously and accurately label complex emotions for themselves and others. To assess the different levels of EA within the aforementioned conceptualization, the authors developed material that included hypothetical vignettes of daily life (Levels of Emotion Awareness Scale for Adults; Lane, Quinlan, Schwartz, & Walker, 1990), in which the respondent was asked to identify his or her own emotions and that of the other person's. Due to its good psychometric properties, this material has been adapted in different languages.

Recently, scholars and practitioners have developed new conceptualizations of EA. For instance, in comparison to Lane and Schwartz's theories, Rieffe, Oosterveld, Miers, Meer um Terwogt, and Ly (2008) provided a broader understanding of EA. The latter authors assigned EA to be an attentional (deploying attention), interpretative (attributing the reasons of the felt emotion), and attitudinal (liking/

not liking) process at the same time. Furthermore, EA embodies a qualitative differentiation between emotions, including the attribution of its antecedents, which then implied physiological manifestations, as well as personal and expected social value of emotions. In keeping with this prospect, it is possible to measure EA through self-report questionnaires such as the Emotion Awareness Questionnaire (Rieffe et al., 2007), which also have demonstrated good reliability and validity.

To explain interpersonal differences in terms of EA, many authors unanimously have assumed that individuals had dissimilar intrinsic EA abilities. In numerous studies, female participants often obtained higher scores in both EA of self and others than did male participants (Bajgar, Ciarrochi, Lane, & Deane, 2005; Subic-Wrana et al., 2014). According to Sifneos, Apfel-Savitz, and Frankel (1977), some psychopathological complications such as depressive symptoms were partly characterized by a limited ability to identify and distinguish emotions of self and others, and an incapacity to communicate emotionally with others. Mikolajczak, Roy, Luminet, Fillée, and de Timary (2007), Mikolajczak, Quoidbach, Kotsou, and Nelis (2014), and Saarni (1999) stated that EA (also known as "emotion identification") significantly depended on one's emotion vocabulary. Indeed, individuals having various verbal ways to accurately label emotions, and being available to apprehend emotions were expected to obtain high levels of EA. Interest in research for children's EA has steadily been increasing as studies in adults have become more diverse. In their preliminary investigation, Bajgar et al. (2005) suggested that the EA of 10- and 11-year-old children was strongly related to other emotional competencies such as emotion comprehension, vocabulary ability, and verbal productivity. Similar to previous findings in adults, these authors also suggested that girls obtained higher EA scores than did boys. On the other hand, discrepancy in terms of children's EA and emotion vocabulary can also rely on their family's socioeconomic background. Previous cross-cultural study outcomes unanimously have suggested that children from affluent economic backgrounds have a greater amount of vocabulary to label accurate emotions and therefore acquire a higher level of EA (Eisenberg, 1999; Hartas, 2010). Degree of exposure to media and emotional stimulant environment as well as level of family emotional expressivity were found among relevant factors to explain the mentioned effect (Eisenberg, Fabes, & Murphy, 1996).

When studying children's emotional competences in a specific culture, it is essential for researchers to take into

consideration the impact of emotion-related social values. The Vietnamese culture, similarly to other Eastern Asian ones, is inclined to be more collectivistic than individualistic (Hofstede, 2001). In other words, social balance and interpersonal harmony are considered more important than individual needs. Confucianism-, Taoism-, and Buddhism-oriented values, such as showing respect for the elderly and social hierarchy or displaying filial piety, are more socially expected than individual-oriented ones such as self-direction. Recent findings using Shalom Schwartz's circular model of human values in Vietnam have supported this statement as showing that both Vietnamese adults and adolescents ranked social values (e.g., benevolence and conformity) much higher than personal ones (e.g., power and achievement) (Ha, Van Luot, & Rózycka-Tran, 2015; Rózycka-Tran, Ha, Ciecuch, & Schwartz, 2017). Therefore, especially for Eastern cultures such as Vietnam's, behavioral or emotional expression is not only understood as inherent to an individual's characteristics but also as an acquired interpersonal meaning. For that reason, cultural and verbal emotional communication have likewise captured considerable interest. Besides broad intercultural literature on nonverbal mechanisms to express emotions, which include facial expression, voice, and gestures (Calder & Young, 2005; Ekman & Scherer, 1984), interest in verbal emotion expression has been increasing during recent decades. Authors were unanimous to note that each language display an array of verbal strategies to convey emotions (Fussell, 2002). For example, English and French languages contain numerous literal expressions (e.g., *angry* in English, *heureux* in French) as well as figurative expressions (e.g., *have butterflies in the stomach* in English, *avoir le cafard* in French) to describe a wide variety of emotional states. A recent study drawing upon emotion word comprehension among British children and adolescents (range = 4–16 years old) suggested that between the ages of 4 and 11, the size of their emotional vocabulary doubled every 2 years and that at least 43.8% of children from 4 to 6 years old understood terms describing basic emotions (Baron-Cohen, Golan, Wheelwright, Granader, & Hill, 2010). In the Vietnamese language, emotion-related vocabulary has been of interest for decades. Due to its monosyllabic, isolating, and analytic features, the Vietnamese language manages to incorporate various linguistic ways to represent one's emotional state. Several Vietnamese psycholinguistic studies (Long, 2006; The Phuong, 2016) have proposed different categories of lexical items within

emotion-related terms. First, basic emotions could be described by a single word, or *từ đơn* in Vietnamese (e.g., “*vui*” = happy). A compound, or *từ ghép*, which subsists in a lexeme that is made up of more than one stem, could express both basic and blended emotions (e.g., “*giận dữ*” = angry, “*buồn chán*” = sad and bored). Duplicated words or *từ láy*, abundantly found in Vietnamese, could also illustrate emotions with increasing or decreasing nuances (e.g., “*bực bội*” = very irritated). Furthermore, much like other languages, idioms and other metaphoric structures are commonly used to label emotional states and feelings (e.g., “*mở cờ trong bụng*” = waving a flag in the belly, which reflects degrees of hidden happiness). The Vietnamese language is known to contain a very rich body-related vocabulary to express different emotions and feelings. Whereas neighboring languages such as Chinese contain numerous emotion-related words and expressions that involve the *heart* (e.g., “*安心*” = feeling secure in the heart), the Vietnamese language has more emotion-related structures that associate with *tripe* (Hong Hanh, 2012; Trung Hieu, 2015). For instance, the compound “*đau lòng*,” literally translated as “feeling hurt in the tripe,” means feeling deep grief. However, studies on Vietnamese children's emotional vocabulary are still very scarce. In a rare local publication on this topic, Luu (1996) stated that the general vocabulary development during early childhood is irregular, heterogeneous, and dependent on several contextual and familial factors such as socioeconomic background or parental level of education. Apart from these findings, we still know very little on Vietnamese children's levels of EA as well as the features of their emotion-related vocabulary.

Current study

Considering the aforementioned literature, we found it necessary and meaningful to take the first steps in exploring Vietnamese children's EA. First, we wanted to examine both aspects of children's EA (i.e., EA of self and others) according to children's sociodemographic variables such as gender, grade level, and family economic background, as compared to other emotional competencies such as emotion regulation. Second, as EA is deeply rooted in language, we also took interest in the Vietnamese's emotion-related vocabulary in both semantic and grammatical aspects. For instrumental reasons, and because we focused more on

early and middle childhood, we decided to stay within Lane and Schwartz (1987) EA theories and material. In this study, we expected that:

Hypothesis 1: Given differences between genders in terms of EA and other emotion-related competences (Bajgar et al., 2005; Brasseur et al., 2013), girls score higher than boys do in EA of self and that of others. Similarly, girls use more emotion-related words and have larger range of emotion vocabulary.

Hypothesis 2: Children's grade level and socioeconomic background have significant impact on EA and emotion vocabulary. Precisely, children in higher grade levels and from high-income families would have higher scores in EA and other emotion vocabulary variables.

Hypothesis 3: Vietnamese children use different grammatical ways to express emotions. Semantically, as body-related words are commonly used to describe emotions in the Vietnamese language (Long, 2006; The Phuong, 2016), children also include them to label their emotions.

Methods

Participants

Our sample included 264 children ($M = 7.80$, $SD = .97$, 56.82% girls). All children were in first to third grade in four public primary schools in Ho Chi Minh City (Vietnam). Two schools were located in urban areas, comprising 149 children (56.44%), and the other two were situated in the suburban zone of the metropolis (115 children, 43.56%). None of the participating children received any specific psychiatric and/or developmental diagnoses. All of the children's mothers also agreed to participate in this study ($M = 38.67$, $SD = 6.01$). The majority of them (89.02%) were married and still living with their husband, 7.20% were divorced, and 3.78% were widowed or single moms. Regarding maternal academic levels, 14.77% of the mothers had not completed secondary school, and 44.32% of them had accomplished at least a bachelor's degree.

Procedure

To assess children's EA levels and explore emotional vocabulary, we should first determine adaptable instruments. The literature review suggested two concurrent measures to be considered. First, according to Lane and Schwartz's (1987) EA theories, the Levels of Emotion Awareness Scale for Children (LEAS-C, Bajgar

et al., 2005) proposes 12 daily life vignettes in which children are asked to identify emotions that they and the other person might feel. Vignettes were designed to include children's most familiar circumstances (relationship with parents, peers, teachers, etc.) to elicit a wide range of emotions. Similar to the adult version, the adapted material was designed to measure two subdimensions of EA (EA of self and others). On the other hand, within the proper conception of EA, Rieffe et al. (2007) used a shortened self-report questionnaire for children. Both measures have shown appropriate psychometric qualities; however, these materials refer to slightly different theoretical backgrounds and conveyed data from various sources (self-report for Emotion Awareness Questionnaire-30, semistructured interview for LEAS-C, Rieffe et al., 2008). In our study, as children in our sample had dissimilar levels of reading and writing skills, the use of LEAS-C and its theoretical prospect was deemed more appropriate. Questionnaires were sent to the mothers who had signed the informed consent allowing their child to participate in the research. We conducted individual data collection with each child at school. The estimated time to complete a single data-collection session for each child was approximately 30 min. In the beginning, we again explained the research procedure to the child and generated a sympathetic climate. We reiterated the fact that there was no right or wrong answer, and that the child could respond with what he or she thought to be the most reasonable for the vignettes. We decided to aurally present the LEAS-C vignettes to the children, and they gave verbal responses. As Bajgar et al. (2005) so precisely postulated, writing responses was not appropriate for children below 8 years of age because at this stage of development, their lack of mastery in reading and writing can dramatically affect the quality of their answers. All procedures were in accordance with the ethical standards of the responsible committee on human experimentation (institutional and national) and with the Helsinki Declaration of 1964 and all later amendments. Informed consent was obtained from both parents and children for inclusion in the study. In other terms, we only proceeded data collection from the children whose parents had delivered their informed consent and who clearly expressed themselves as willing participants. To better analyze the verbal data, we recorded the entire session with each child and transcribed it verbatim. We also informed them of the audio record in the consent form and clearly discussed this with every child before we started data collection. The procedure of the

current study received ethical approval from the review board of the University of Louvain.

Pilot study

As the principal instruments used in this study (cf. LEAS-C and ERC, discussed later) were not yet available in the Vietnamese language, we applied the International Test Commission guidelines for test adaptation (2017) to translate these materials into Vietnamese. We tasked a bilingual volunteer to translate the original English scale into Vietnamese. Then, another bilingual translated the new Vietnamese versions back into the original language. Finally, we made an optimal consensus on the translation. To ensure that the translation was comprehensible and appropriate for Vietnamese children, we conducted a pilot study with 15 children (9 girls, $M = 7.68$, $SD = 1.01$) for the material testing. We did not note any major misunderstandings from the participants. As for the mothers' questionnaire, we performed the same translation procedure. Ten mothers ($M = 36.14$, $SD = 4.68$) agreed to fill out the translated version of the scale. No major modifications were required, as the mothers reported that the translation was comprehensible.

Measures

Sociodemographic variables

Mothers of participants filled out a questionnaire designed to collect their basic sociodemographic information such as age, educational attainment, family income, and marital status. According to the Vietnamese government's definition of family income levels (Decision No. 59/2015/QĐ/TTg), we defined three levels of family income, as follows. For a low-income background, on average, each family member gained less than 1,300,000 Vietnamese dong (VND) per month (~ 56.50 \$). Monthly income for middle-income families was from 1,300,000 VND to 1,950,000 VND (56.50 \$–84.80\$) per family member. Last, a high-income background was defined as having a monthly family income higher than 1,950,000 VND (84.80\$) per member.

Children's academic performance

The children's academic performance was measured by the mean score of the children's GPA in the previous semester in mathematics, Vietnamese language, and foreign language. Their mothers also reported this information on their questionnaire.

Emotion awareness of self (EAS) and emotion awareness of others (EAO)

EAS and EAO were measured by the LEAS-C (Bajgar et al., 2005) in an interview format with every participating child. The LEAS-C evaluated children's ability to identify their own emotions and those of others through 12 given commonly experienced daily scenarios (e.g., "Your dad tells you that the family dog has been run over by a car and that the veterinarian has to put the dog down"). Children should then be able to reply to the two following questions, respectively: "How would you feel?" (for EAS) and "How would your dad feel?" (for EAO). A theory-based scoring system for both EAO and EAS was applied as follows: 0 = *child could not identify any emotion or refused to answer* (e.g., "I don't feel anything"), 1 = *only expressing a body sensation instead of a feeling* (e.g., "I feel my body shivering"), 2 = *while mentioning an attitude or an action that represents an underlying emotion* (e.g., "I don't like what I feel/I would like to bury the dog"), 3 = *reporting a single unidimensional emotion* (e.g., "Oh I feel scared and that's all"), 4 = *mentioning blended or multiple emotions* (e.g., "I am scared and sad for the dog"). The sum of all scores obtained throughout the scenarios reflected the amount of EA. A higher score indicates a higher ability to identify emotion correctly in a given context. Internal reliability of these two subscales was acceptable to good, Cronbach's $\alpha = .74$ for EAS and $.80$ for EAO).

Emotion vocabulary

Using the qualitative analysis method from previous research (Demakis & Harrison, 1994; Messina, Morais, & Cantraine, 1989), we manually extracted verbatim from the children's responses to the LEAS-C's scenarios to obtain two distinctive measures. The first measure, namely *emotion token* (or frequency), was obtained by counting the total number of all emotion-related words and verbal expressions present in the verbatim of each participant. The second measure was obtained by measuring one's richness in emotion vocabulary; we calculated *emotion type* by taking into account the number of different emotion-related words and verbal expressions included in all of the children's answers. This distinction that had been applied in previous studies (e.g., Dewaele & Pavlenko, 2002) has enlightened us on how to comprehend different aspects of one's emotion vocabulary. That is, the repetition of an emotion-related word mattered for Emotion token, but not

for Emotion type. The following example clarified the difference between these two indicators. When a child responded: "I feel *worried*, and I think my friend feels *worried* too. But I feel *excited* as well!", two different emotion-related words (e.g., worried and excited) were mentioned three times. For this answer, we rewarded 2 points to Emotion type and 3 points to Emotion token.

Children's emotion regulation

Children's emotion regulation was reported by the mothers via the Emotion Regulation subscale of the ERC (Shields & Cicchetti, 1997). In this eight-item subscale, mothers were invited to rate statements such as "(My child) Displays appropriate negative emotions (anger, fear, frustration, distress) in response to hostile, aggressive or intrusive acts by peers" on a 4-point Likert scale from 1 (*Never*) to 4 (*Almost always*). A higher average score indicates a higher level of children's emotion regulation. Reliability of this scale was acceptable, Cronbach's $\alpha = .72$.

Data analysis

Quantitative analysis constituted the first step of data treatment which aimed to (a) compare children's EA and vocabulary between groups (cf. gender, grade level, and family economic background) and (b) study the allocation of both basic and blended emotions according to gender and grade level. In the second step, relying on the children's verbatim, we performed qualitative analysis to understand children's emotional lexis in depth. For this section, we used content analysis to examine how the children in our sample verbally quoted their emotions. We also identified the semantic feature within their emotion vocabulary, especially for bodily related emotional lexicon. Finally, we studied its frequencies according to gender and grade level.

Results

Table 2 displays descriptive statistics and bivariate Pearson's correlations between study variables for the whole sample. Note that children's school performance only had a positive correlation with Emotion type, $p < .01$, whereas child's age was positively associated with all emotional variables, except for emotion regulation. We observed significant associations between EAS and EAO, $p < .001$, as well as between emotion token and emotion type, $p < .001$. All EAs and emotion vocabulary variables

were also strongly correlated with each other, $p < .001$. Contrarily, mother-rated emotion regulation did not correlate with any of the remaining variables.

In the next step, given our interest on the effects of child's gender, grade level, and economic background (independent variables) on emotion token and emotion type, respectively (dependent variables [DVs]), we conducted subsequent analyses of variance. Tukey's test for post hoc analysis was applied to analyze differences between subgroups. Of 118 different emotions words that had been cited in the whole sample, we identified seven categories of emotions, including six of Ekman's (1999) basic emotions (joy/happiness, sadness, disgust, surprise, fear/anxiety, and anger) as well as a group of so-called *blended emotions*, which comprised emotion words that designated different emotions at the same time. Table 3 displays descriptive statistics of study variables between modalities of gender, grade level, and family economic background. Especially for emotion token and emotion type, Table 3 also presented findings according to mentioned categories of emotions so that one can examine between-group variations for each of these categories. The results showed no significant difference between boys and girls on any emotional variables. However, grade level main effects were statistically significant on several DVs. For instance, grade level had a significant main effect on blended emotions' token, $F(2, 261) = 12.27$, $p < .001$, $\eta^2 = .086$, and type, $F(2, 261) = 11.06$, $p < .001$, $\eta^2 = .078$. Post hoc Tukey's tests for both DVs showed that third graders scored higher than those did first graders, $p < .001$, and second graders, $p < .01$, respectively. Generally, third graders cited emotion words more often and had richer emotion vocabulary than did their younger fellows in most of the category of emotion (except for joy/happiness, sadness, and disgust). For token and type of surprise, significant differences were only found between third graders and second graders, $p < .05$. First graders and third graders more often cited anger-related words, $p < .01$, and had a larger variety of vocabulary for anger, $p < .05$, than did second graders. On the other hand, child's economic background main effects were also significant for the token of joy/happiness, $F(2, 261) = 4.53$, $p < .05$, $\eta^2 = .034$, fear/anxiety, $F(2, 261) = 11.39$, $p < .001$, $\eta^2 = .080$, and anger, $F(2, 26) = 3.96$, $p < .05$, $\eta^2 = .029$. Tukey's tests for post hoc analysis indicated that children from high-income families' mean score for the token of joy ($M = 8.78$, $SD = 3.32$) was higher than that of children from middle-income families

Table 2

Means, SDs, and Bivariate Correlations between Study Variables for the Whole Sample (N = 264)

	Range	M (SD)	Variables					
			2	3	4	5	6	7
1 Age	5.90–10.60	7.83 (.88)	–.12	.15*	.20**	.16**	.34***	–.01
2 School performance	4–10	8.53 (1.56)	–	.08	.03	.10	.23**	.13
3 EAS	12–47	34.34 (5.77)	–	–	.78***	.85***	.39***	–.01
4 EAO	7–46	32.49 (7.13)	–	–	–	.81***	.40***	–.01
5 Emotion token	4–53	24.52 (7.41)	–	–	–	–	.47***	.03
6 Emotion type	2–16	5.76 (2.65)	–	–	–	–	–	.15
7 Emotion regulation	2.13–4.00	3.15 (.38)	–	–	–	–	–	–

Note. EAS = Emotion awareness of self; EAO = Emotion awareness of others.

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

($M = 7.20$, $SD = 3.12$), $p < .01$. For the token of fear/anxiety, the mean score of children from high-income families ($M = 3.66$, $SD = 3.34$) was significantly higher than that of children from both middle-income families ($M = 2.55$, $SD = 2.57$), $p < .05$, and low-income families ($M = 1.65$, $SD = 2.47$), $p < .01$. However, regarding the token of anger, a significant difference was only found between high-income ($M = 1.29$, $SD = 1.65$) and low-income groups ($M = .69$, $SD = 1.23$), $p < .05$. Also note that child's economic background affected emotion type in many categories, such as joy, fear/anxiety, anger, surprise, and blended emotions (see Table 2). Most differences were found between the high-income group and other income groups, $ps < .05$ –.001, whereas the only significant difference between the middle- and the low-income groups was located in emotion type for fear/anxiety, $p < .05$.

Regarding interaction effects, there was a statistically significant interaction between the effects of gender and economic background on the token of joy, $F(2, 246) = 4.93$, $p < .01$, $\eta^2 = .039$, and of fear/anxiety, $F(2, 246) = 5.78$, $p < .01$, $\eta^2 = .045$. Although the main effect of gender was not significant as contrasted to that of economic background, results indicated that gender could vary the effect of economic background on the mentioned DVs. For example, although girls from low-income milieus reported more tokens of joy and less tokens of fear/anxiety than did boys, the latter from high-income families cited more tokens of joy and less tokens of fear/anxiety than did girls from the same socioeconomic background. Moreover, the interaction between grade level and economic background also had substantial effects on token, $F(2, 246) = 3.49$, $p < .01$, $\eta^2 = .054$, and type of anger, $F(2, 246) = 3.57$, $p < .01$, $\eta^2 = .055$. The results suggested that while differences between three levels of socioeconomic

groups were small in Grade 2, children from affluent milieus reported less token and type of anger than did those from the two other socioeconomic backgrounds in Grade 3. Finally, no significant effect of the tripartite interaction between gender, grade level and economic background on emotion token and type was identified.

Qualitative data analysis of children's verbatim suggests that *Vietnamese children used different grammatical types of lexical items to quote their emotions. Single word, duplicated words, and compound words were among some of those regularly employed whereas idioms were not.* All participating children (100%) cited at least one single word to express emotions, such as “vui” (happy) or “lo” (worry). More than 80.30% of the children in our sample used at least one compound to name a simple or blended emotion, such as “có lỗi” (guilty) or “lo sợ” (worry and fearful) whereas nearly one third of them (29.92%) expressed an emotion by using duplicated words such as “lo lắng” (quite worry) or “buồn bã” (very sad). Contrarily, only two girls in Grade 3 in our sample (0.76%) used idioms to express emotions (e.g., “như mất sổ gạo” = sad as we lost supplies booklet; “vui như Tết” = happy as New Year is coming). Regarding the semantic features of children's emotion vocabulary, note that *Vietnamese early primary school children's emotion lexicon included a number of body-related expressions, and quite noticeably, many of them related to the tripe.* Throughout the verbatim, we identified 14 body-related emotion terms (12.96% of the total amount of emotion terms found in the study). Of the participating children in our sample, 27% delivered at least one body-related emotion word such as presented in Table 4. Six of these terms pertained directly to the tripe (bowel, intestine) and two others to the digestive system (“nôn,” “nôn nóng”).

Table 3
Means and SDs of Study Variables by Gender, Grade Level, and Family Income

	Gender		Grade			Socioeconomic background		
	Boy	Girl	1	2	3	Low	Middle	High
<i>n</i>	116	148	74	95	95	77	65	122
School performance	8.27 (1.80)	8.72 (1.33)	9.50 (.58)	8.00 (1.87)	8.01 (1.43)	7.35 (1.63) ^{a,d}	9.33 (.90) ^a	9.40 (.66) ^b
EAS	34.47 (5.44)	34.24 (6.04)	33.58 (6.33)	34.04 (5.32)	35.28 (5.64)	33.03 (5.14) ^a	32.89 (6.41) ^b	36.28 (4.77) ^{a,b}
EAO	32.75 (6.54)	32.29 (7.57)	30.76 (7.79)	32.44 (6.98)	34.00 (6.38)	30.86 (6.51) ^a	30.40 (7.86) ^b	34.16 (5.94) ^{a,b}
Emotion regulation	3.20 (.44)	3.12 (.34)	3.14 (.42)	3.17 (.41)	3.19 (.37)	3.12 (.43)	3.15 (.40)	3.18 (.38)
Emotion token—total	24.65 (6.70)	24.42 (7.94)	23.94 (7.13)	23.70 (6.96)	25.80 (7.94)	21.51 (5.59) ^a	21.74 (6.77) ^b	26.40 (6.93) ^{a,b}
Joy/Happiness	8.03 (3.43)	8.28 (3.40)	8.76 (3.59)	8.22 (3.35)	7.65 (3.27)	8.08 (3.61)	7.20 (3.12) ^a	8.75 (3.32) ^a
Sadness	8.95 (4.07)	9.09 (3.95)	9.13 (3.62)	9.26 (4.04)	8.72 (4.25)	8.95 (4.34)	8.20 (4.03)	9.52 (3.70)
Fear/Anxiety	2.77 (3.41)	2.83 (2.74)	2.35 (2.46)	2.64 (3.05)	3.32 (3.38)	1.65 (2.47) ^a	2.55 (2.57) ^c	3.66 (3.34) ^{a,c}
Surprise	.27 (.97)	.28 (.86)	.20 (.74)	.15 (.53) ^c	.46 (1.25) ^c	.08 (.48)	.37 (1.35)	.35 (.80)
Anger	1.22 (1.70)	.87 (1.35)	1.28 (1.68) ^a	.60 (1.09) ^{a,b}	1.24 (1.66) ^b	.69 (1.23) ^c	.92 (1.48)	1.29 (1.65) ^c
Disgust	.01 (.09)	.02 (.14)	.03 (.16)	.01 (.10)	.01 (.10)	.03 (.16)	.02 (.12)	.01 (.09)
Blend	2.48 (2.95)	2.54 (3.08)	1.60 (2.43) ^a	2.09 (2.57) ^b	3.66 (3.48) ^{a,b}	2.04 (2.46)	2.48 (2.87)	2.84 (3.37)
Emotion type—total	5.74 (2.46)	5.77 (2.79)	5.40 (2.50) ^a	5.02 (2.21) ^b	6.78 (2.85) ^{a,b}	4.69 (2.02) ^{a,c}	6.03 (2.97) ^{c,d}	7.19 (3.26) ^{a,d}
Joy/Happiness	1.44 (.73)	1.35 (.68)	1.47 (.76)	1.26 (.53)	1.46 (.78)	1.22 (.53) ^c	1.37 (.74)	1.51 (.75) ^c
Sadness	.99 (.09)	.99 (.08)	.99 (.12)	1.00 (.00)	.99 (.10)	.97 (.16)	1.00 (.00)	1.00 (.00)
Fear/Anxiety	1.31 (1.24)	1.47 (1.26)	1.28 (1.18) ^c	1.14 (1.09) ^a	1.76 (1.37) ^{a,c}	.81 (1.05) ^a	1.37 (1.04) ^c	1.80 (1.32) ^{a,c}
Surprise	.13 (.41)	.17 (.43)	.12 (.40)	.09 (.35) ^c	.24 (.48) ^c	.04 (.20) ^c	.17 (.45)	.21 (.49) ^c
Anger	.77 (.93)	.60 (.82)	.84 (.96) ^c	.46 (.74) ^{c,d}	.77 (.88) ^d	.45 (.74) ^a	.52 (.77) ^c	.90 (.95) ^{a,c}
Disgust	.02 (.13)	.02 (.14)	.03 (.16)	.02 (.15)	.01 (.10)	.03 (.16)	.02 (.12)	.02 (.13)
Blend	1.34 (1.32)	1.70 (1.74)	1.09 (1.46) ^a	1.32 (1.28) ^b	2.12 (1.76) ^{a,b}	1.17 (1.17) ^c	1.58 (1.51)	1.75 (1.79) ^c

Note. EAS = emotion awareness of self; EAO = emotion awareness of others.

a, b: $p < .01$. c, d: $p < .05$.

Each of these body-related terms contain a double meaning; in the strict sense of the word, they illustrate a pure body sensation whereas metaphorically speaking they describe emotions and feelings. In these such cases, the context of an expression as well as the respondent's clarification of the meaning of the word may help in a better understanding of body-related emotion vocabulary. For example, one could ascertain the word "xót" in the literal sense when it is directed toward a physical wound ("*Bà n đùng con té, vết thương rất xót*" = "He hits me and I fall. My wound is burning a lot"), or as an emotional state ("*Con thấy xót cho con chó*" = "I feel huge grief for my poor dog"). *Đau lòng* ("feeling hurt in the tripe"), which designates a feeling of sadness and hurt, was the most mentioned body-related word in our sample, as used by 7.60% of participants.

Next, we also observed that *Vietnamese early primary school children's emotion lexicon included not only self- and others-related ones but also empathy-related emotion vocabulary*. Traditionally, research on children's EA using hypothetical vignettes (e.g., LEAS-C for this study) has aimed to study vocabulary that describes one's own emotions. Note that these could be the children's own emotions versus what they deem the significant individuals in their lives (parents, friend, teacher, etc.) would feel in the same situation. Nevertheless, this was not the only genre of emotions that comprised our verbal data. In addition to the emotions already mentioned (the so-called *person-related emotions*), empathy-related emotion vocabulary emerged

from children's verbatim. To be more precise, children in the current study showed two ways in which they expressed empathetic emotions. One way was through the use of classic emotion words that expressed direct empathy, such as "*tội nghiệp*" (pitiful) or "*thương*" (compassionate); the other way was the employment of emotion words that described what they felt *for* other people rather than for themselves.

I feel *sad* [emphasis added] because I cannot achieve my goal to be the champion, but I feel *happy for* [emphasis added] him as well, because he's struggling a lot. He might be *delighted* [emphasis added] because he won and *worry for* [emphasis added] me, 'cause he didn't know if my wound was severe or not. Kim, girl, 8 years old

I am OK, but I guess my teacher would feel disappointed and *sad for* [emphasis added] me. I cannot get her expectation. Liêm, male, 8 years old

These citations illustrate the difference between person-related and empathy-related emotions. The words *sad* and *delighted* in Kim's verbatim are person-related emotions whereas Kim's *worry* and Liêm's *sad* are more empathy-oriented. Overall, 44 boys (37.93%) and 71 girls (47.97%) cited an empathy-related emotion at least once during testing. Eighty-four (37.84%) of 222 empathy-related emotion tokens were quoted by boys. Whereas 57 of 95 third graders (60%) used them at least once in the verbatim, only 31.08% children in Grade 1 and 36.84% children in Grade 2 attempted to do so. No difference was found between self-directed and others-directed empathy words. However,

Table 4
Body-Related Emotion Terms in Vietnamese Children's Verbatim

Body-related emotion label	Grammatical category	Literal translation and related organs (<i>in italics</i>)	Meaning	% of Children
Hài lòng	Compound	To feel harmonious in the <i>tripe</i>	Content, satisfied	7.22
Bằng lòng	Compound	To feel content in the <i>tripe</i>	Content, satisfied	0.38
Vui lòng	Compound	To feel glad in the <i>tripe</i>	Content, satisfied	2.66
Đau lòng	Compound	To feel hurt in the <i>tripe</i>	Hurt, sad	7.60
Nhẹ lòng	Compound	To feel lighter in the <i>tripe</i>	Alleviated	0.76
Sốt ruột	Compound	To have fever in the <i>tripe</i>	Anxious	1.52
Bực mình	Compound	To feel irritated in the <i>body</i>	Fretful, irritated	6.46
Giật mình	Compound	To shake the <i>body</i>	Surprised	0.76
Hết hồn	Compound	To lose the <i>soul</i>	Surprised	1.14
Yên (an) tâm	Compound	To feel safe in the <i>heart</i>	Secure	3.80
Nôn	Single	To throw up	Impatient, anxious	0.38
Nôn nóng	Duplicated	To throw up and heated	Impatient, anxious	0.76
Xót	Single	To feel hurt by bleeding	Commiserating	0.38
Xót xa	Duplicated	To feel hurt by bleeding	Commiserating	1.14

the effect of context (vignette) was relevant with important effect size, $F(11, 24) = 3.80$, $p < .05$, $\eta^2 = .780$, which suggested that empathy-related emotion words were not distributed randomly across vignettes. Post hoc analysis showed that more empathy-related words were cited in the vignette in which children should deal with mixed feelings within a friendship context than were other ones (e.g., “A child cannot achieve his race because he/she was injured whereas his close friend won it”). Chi-square statistics for crosstabs analysis between socioeconomic background and grade level were significant for empathy-related words, $\chi^2(4, 115) = 21.49$, $p < .001$, Cramer’s $V = .31$, with highest standardized residuals observed for low economic background–Grade 1 (4.40), middle background–Grade 2 (2.20), and high background–Grade 3 (1.70). Otherwise, those of other interactions (Gender x Grade Level and Gender x Economic Background) were not significant.

Despite the fact that the LEAS-C was not originally designed to assess the nature of emotions but rather to evaluate the level of complexity of emotion words, it was also interesting to observe that emotion vocabulary was not equally quoted across emotion categories (see Table 2). Almost all the children in our sample cited emotion words describing joy and sadness at least once whereas disgust was the least quoted. Furthermore, other negative emotions such as anger and fear were cited at least once in 45.08% and 72.73% of the children, respectively. A more in-depth data analysis in the children’s verbatim was necessary to understand the prevalence of emotion words such as “happy” and “sad.” Apart from the appropriate use of these two emotion terms, children often employed them in situations where they could not fully understand interpersonal issues or underlying intentions. Having to deal with such situations, the two following citations illustrate children’s tendency to use “conventional” emotion labels (e.g., happy):

So complicated! I do not know what she [a rich friend] means really. I do not think I understand what she’s doing. I have no idea about what she’d feel, maybe happy, that’s all [emphasis added]. Mai-Linh, girl, 8 years old

I guess he [a rich friend] would feel happy, because he’s so rich. What about me? I feel happy too, because I can make friend with a rich classmate [emphasis added]. Đai-An, male, 7 years old

Facing the situation in which the other’s intention was not concretely identified, Mai-Linh was honest in saying that she was unable to imagine what her friend might have felt. At the end of her quote, the happiness she attributed to

her friend was more conventional than reflective of her genuine emotional experience for her friend’s feelings. For his part, Đai-An only retained details that were comprehensible to him and used the conventional word “happy” to respond for him and for his friend. Otherwise, conventional emotion labels were also used although the children were asked to identify what a nonfamiliar person involved would feel in the given vignettes (e.g., the dentist):

I am so afraid of it [visiting the dentist]. I wish I would never have a problem with my teeth so that I would never see him again. I have no idea how the dentist would feel. I do not see him so often, I do not know how he thinks. Maybe he feels happy, it’s his job [emphasis added]. Thiên, male, 8 years old

In this illustration, although Thiên could easily identify his own emotions, he did not show a high level of EA for the dentist. To conclude his response, the word “happy” was quoted conventionally in the same way that Mai-Linh did.

Discussion

The findings from both quantitative and qualitative analyses contribute importantly to the understanding of Vietnamese children’s EA and emotion vocabulary. Several results were consistent with those from previous studies in Western cultures. Strong association was found between children’s EA (both EAS and EAO) and emotion vocabulary (both token and type; Bajgar et al., 2005; Veirman, Brouwers, & Fontaine, 2011). In line with previous results, also note that children scored EAS higher than EAO (Bajgar et al., 2005). However, in our sample, as there was no significant difference between boys and girls in EAS and EAO, the first study hypothesis is not confirmed. The current findings differ from those of prior studies asserting that boys attained lower scores than girls for both sides of EA (Světlák, Maršová, Bernátová, & Winklerová, 2017). Gender differences were also nonsignificant in terms of emotion vocabulary variables (emotion token and type), which was not associated with prior outcomes, suggesting that both gender-related characteristics and cultural gender stereotypes influenced children’s emotion competences (Cox, Stabb, & Hulgus, 2000; Plant, Hyde, Keltner, & Devine, 2006). This discrepancy could be explained by the differences between the empirical context in which this study was conducted and the “natural” context (children’s

daily life) where interpersonal implications are more obvious. In everyday life, it can happen that a child, knowing exactly what he or she feels and having enough words to name the felt emotions, refuses to respond or modifies his or her answer to avoid contextual risks (e.g., excessive exposure). Otherwise, in this study, as children were invited to report emotion words as much and as freely as possible based on hypothetical scenarios, references to gender-based social expectations could be less relevant than in real-life contexts. Also unexpectedly, we observed no correlations between children's EA and emotion regulation. The chosen age range could possibly be among factors that explain this discrepancy. In our study, children's mean age was lower than that of other foregoing research; children's mean age varied within 10 years (e.g., Bajgar et al., 2005). Data-collection methodology could also be debatable. As we completed data collection from different sources (direct interviews with children for EA and a questionnaire for mothers to rate their children's emotion regulation), our research procedure could not successfully control the effect of social desirability.

The qualitative analysis of children's verbatim, with specific focus on children's emotion vocabulary, adds layers to the understanding of children's EA. It is important to emphasize that the variety of emotion words displayed through children's verbatim does not mirror the extent of the children's emotional vocabulary but instead reflects how they understood these scenarios and used appropriate verbal labels. The findings suggested that there was no equal degree of availability within emotional vocabulary in Vietnamese children. Basic emotion labels such as *vui* (happy) and *buồn* (sad) were omnipresent and seemed to be conventional emotion words, especially when children could not understand what was going on in a complicated situation or when they were unable to use more specific emotion terms. In contrast, disgust and surprise were identified as among the least quoted categories. This result did not mean that Vietnamese children were emotionally unaware of disgust or surprise, or they did not have enough verbal labels to name these emotions. Previous cross-cultural studies have demonstrated that social rules as dictated in Asian countries disregard reporting emotion words that might disrupt interpersonal harmony (Cole et al., 2006; Cole, Dennis, Martini, & Hall, 2008; Raval, Martini, & Raval, 2007). For that reason, direct labeling of emotions such as disgust could be stunted.

The outcomes also increase understanding of the developmental aspect of children's emotion-related vocabulary,

which is closely associated with children's general language development. It is plausible that as compared to younger children, older ones have more experience with emotion-elicited social interactions and more opportunities to expand their vocabulary through reading or accessing media (Mar, Tackett, & Moore, 2010; Taylor, Monaghan, & Westermann, 2018). However, for Vietnamese children from 6 to 9 years of age, the evolution in both frequency and variety of emotion words varied according to each category of emotions. For example, although frequently quoted, emotion words "joy/happiness" and "sadness" in Grade 1 did not differ from those in Grade 3. Nevertheless, we noted significant increases in frequency for surprise, anger, and blended-emotion-related words as well as in variety for fear/anxiety-related vocabulary from first graders to third graders. Hence, these results suggested that older children may have richer emotion lexicon and use emotion-related words more frequently, but not for all categories of emotion (e.g., sadness and joy). Likewise, we also emphasize the significant impact of family socioeconomic background on children's emotional competences such as EA and emotion vocabulary. Generally, it was observed that children from higher socioeconomic milieus had better EA, cited emotion words more often, and possessed more diverse emotion vocabulary than did those from lower economic milieus. However, similar to the effect of grade level, this statement was not applicable identically for all emotion categories. Repeatedly, sadness-related vocabulary did not differ between socioeconomic backgrounds whereas differences were significant for the variety of joy/happiness, surprise, and blended emotions between low- and high-income milieus. Interestingly, children from affluent backgrounds had more words to describe and use more frequently fear/anxiety and anger-related vocabulary than did children from lower economic backgrounds. At first sight, this result may appear surprising as previous study outcomes have suggested that children from low-income families had a lower sense of personal control (Manstead, 2018) and were more encouraged to display anger to cope the stressors of dangerous neighborhood environments (Miller & Sperry, 1987). This discrepancy suggests distinguishing EA from emotion expression, an emotional competence that is theoretically intertwined with EA (Mikolajczak et al., 2007). Thus, children from affluent backgrounds may have broader vocabulary to describe potential disrupting emotions, but are less likely to express them directly than those from low-income families due to social

expectation for self-control. However, this hypothesis is to be verified in further research focusing in both EA and emotion expression.

Regarding empathy-related emotion vocabulary, we showed that it increased by grade level and depended closely on interaction context. Both cultural and developmental factors may account for these findings. From infancy to middle childhood, empathy increases sharply (McDonald & Messinger, 2011). Between 4 and 5 years of age, children are progressively able to take into account others' perspectives, which reflects the theory of mind development (Wellman, Cross, & Watson, 2001). In addition, in the collectivism-oriented Vietnamese culture, people are expected to be watchful of needs and feelings of others more than those of their own (Dinh Huou, 1994). Within this environment and possibly through the emotion socialization process operated by caregivers (Eisenberg et al., 1996), empathy-related emotion words are directed to emerge during individual development. Due to its monosyllabic and isolating feature, the Vietnamese language comprises different ways to express emotions and feelings (Long, 2006; The Phuong, 2016). Results from the current study partly confirmed this statement. Vietnamese children use different types of lexical items such as simple, compound, and duplicated words to label both simple and blended emotions. However, as evidenced in our sample, the use of idioms was not a relevant manner for Vietnamese children to identify an emotion. Given their high metaphoric or anaphoric quality (Dinh Nghieu, 2007), idioms seem far too complex for children in early primary school. This observation can further be seen in reference to the Vietnamese language handbook that is applied in the entire national education system (In Vietnam, all primary and secondary students in all schools and regions use the same textbooks issued by the Ministry of Education. Only international schools and universities are free to build their own curriculum and use their own textbooks, which also refer to the official textbooks delivered by the Ministry of Education). General idioms officially only become a study subject for students from the end Grade 3. The use of figurative terms initially appears in the Grade 6 Vietnamese language program. Not being regularly and explicitly exposed to the metaphoric way to express emotions, at least during official working hours at school, young Vietnamese children do not employ idioms frequently. Alternatively, body-related emotion lexicon were identified in the children's verbatim. As most of body-related emotion words have a double

meaning in Vietnamese, conversational context and clear explanation from the users of these terms allow others to differentiate whether they refer to an emotion or a physiological sensation. However, we only noted 14 of the 98 existing body-related emotion words/expressions in Vietnamese that were quoted in our sample, with 27% of the children citing them at least once. These statistics seem to be moderate, but due to a lack of comparative data from other age ranges or similar cultural groups, we cannot draw any definitive conclusions. In any case, it is worthy to remember that body-related vocabulary constitutes a substantial part in the Vietnamese emotional language, and thus not only a primitive verbal manner of emotion labeling (Long, 2006).

As stated, our study contains several limitations. First, we were unable to control social desirability vis-à-vis mothers' reports and subjective interpretation of the children's data. In future research, we may prioritize a single-reporter paradigm that includes diverse methods (e.g., semistructured interviews, observation techniques, etc.) to thoroughly investigate children's emotional competencies. Second, it might be necessary to suggest a modification for the scoring keys of the emotion awareness scales such as LEAS-C. As an alternative to English or French, Asian languages such as Vietnamese have a rich bodily-related vocabulary that fully reflects emotions and not just a primary somatic manifestation of a narrow emotional state. For instance, the Vietnamese compound word *đau lòng* (feeling hurt in the tripe) is more meaningful than a simple expression of body pain, as it describes a more complex feeling of grief, compassion, and anguish. Hence, in the 4-point rating scale, instead of attributing only 1 point to a purely somatic-related emotional expression, one should award 4 points for *đau lòng* if it was correctly quoted in the context. In line with this reasoning, in both research and practice, we should be more aware of *pass-partout* emotion words such as *vui* (happy) and *buồn* (sad). Due to their widespread use in both daily life and empirical context, we recommend careful interpretation from researchers and practitioners. When children are not ready or are unable to respond, their verbal expression of *vui* or *buồn* may not mean that they are actually either happy or sad but that this is just a conventional manner of responding. Therefore, to distinguish true feelings of *vui* or *buồn*, we should take a step further and ask children to explain what had led them to feel this way and/or to describe in detail what had been going on in their minds.

Third, using hypothetical vignettes as those from the LEAS-C, we still cannot clearly identify the extent of how different types of interpersonal contexts can modify children's EA. In future research, it may be interesting to create categories of vignettes depending on the involved partner (parents, friend, etc.) as well as the perceived degree of conflict, so that contextual effects can be measured more appropriately. We must also ask to what extent the scenarios chosen are adequate to evaluate children's EA when using instruments developed in Western cultures and to what extent there is a bias by the Vietnamese traditional culture and routine. For example, in the current using instrument (LEAS-C), one may suppose that saving money (Vignette 3) is not a common phenomenon for 6- to 9-year-old Vietnamese children. Hence, including this scenario may cause trouble for young respondents, and their performance in EA may be biased by social standard practice. Finally, as this exploratory study did not clearly point to what extent cultural and developmental differences could be intertwined, introducing a comparative design (between Vietnamese children and those from a Western country, and/or another Eastern Asian culture) with several kinds of measures in future research would be beneficial for a more in-depth understanding of the topic.

Disclosure of conflict of interest

The authors declare that they have no conflict of interest.

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