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Broad and Narrow Cultural Comparisons of Children's Emotion Regulation:

Studies of Ghana and the United States

A thesis submitted in partial fulfillment of the requirement
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by

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Broad and Narrow Cultural Comparisons of Children's Emotion Regulation:

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Abstract

This research examined the effects of narrow (i.e., between Ghanaian orphans and village children; Study 1) and broad (i.e., between Ghana and African-American and Caucasian US children; Study 2) cultural contexts on children's management of anger and sadness. Participants were 54 Ghanaian children, ages 5 to 15 (36 villagers, 18 orphans) and 77 American children, ages 5 to 15, (38 African American, 39 Caucasian American). Children completed the *Children's Anger and Sadness Management Scales* (Zeman, Shipman, & Penza-Clyve, 2001) to assess inhibition, coping, and dysregulation strategies. Results of Study 1 indicated that orphans reported more dysregulation whereas village children reported more inhibition of negative emotions. Study 2 found significant cultural differences with Ghanaians reporting more control over their anger than Americans. In both studies, child gender and age effects were found that appear to cut across cultural divides.

Broad and Narrow Cultural Comparisons of Children's Emotion Regulation: Studies of Ghana and the United States

Emotion regulation (ER) is a growing field of interest; however, very little research has been conducted on the role of culture in the development of ER. Socialization processes including the role of the broader culture are important to consider when investigating children's ER development (Zeman, Cassano, Perry-Parrish, & Stegall, 2006). Without taking cultural factors into account, our understanding of how children's emotions are socialized is incomplete (Cole, Tamang, & Shrestha, 2006). For example, children in Western culture are actively taught by their parents that there are certain situations in which you do not express how you feel for prosocial (e.g., hurt someone's feelings) or self-protective (e.g., get in trouble) reasons (Saarni, 1999). These cultural display rules differ depending on the social context in which the emotion is evoked, the type of emotion that is experienced, and the values of the broader culture concerning emotional expressivity. The majority of research on children's ER has used Western, Caucasian, middle-class samples with little empirical attention paid to minority children in Western culture, let alone children from non-Western cultures (Cole et al., 2006). Further, only a handful of studies have examined how children in African countries may express their emotions (Abiodun, 1993; Grantham-McGregor et al., 2007; Makame & Grantham-McGregor, 2002; Minde, 1975). When examining potential cross- and within-cultural differences in ER, however, it is important to not make global generalizations without the requisite empirical evidence to support these statements. (Naidoo, Olowu, Gilbert, & Akotia, 1999). Even within cultures, there are individual contextual differences that influence the socialization, expression, and regulation of emotions (e.g., Brody, 2000; Ekman, 1999).

The primary goal of this study, therefore, was to explore the effect of broad (i.e., national) and specific (i.e., living environment, racial group) cultural contexts on children's report of their ER skills. Specifically, children and adolescents living in an orphanage within Ghana were compared to their peers living in the village with their families. Then, youth from Ghana living with their families were compared to African-American (AA) and Caucasian-American (CA) youth on the ways they reported managing their anger and sadness expression. In order to understand this field of research adequately, a brief, historical overview of emotion research is presented followed by analysis of cross-cultural research methods and findings on emotion. Next, narrower within-culture research examining similarities and differences in ER between CA youth and AA youth is reviewed. The penultimate section describes research that examines specific types of emotion (i.e., anger, sadness) and types of emotion regulation (i.e., inhibition, coping, dysregulation) that are of particular relevance to the present study. Finally, an introduction to the goals and hypotheses of the present study is presented.

Historical overview of emotion research

From the earliest theories on emotions, a tendency to view emotions through a biological paradigm has pervaded emotion research. For instance, the James-Lange Theory of Emotion (1885/1994) argues that the recognition of emotions is based on the physiological reaction of the body. According to this theory, experiences produce physical responses of the central nervous system (e.g., perspiration, increased heart rate), thus emotions are the *results* of these physical feelings. For example, one would perceive the feeling of sadness *because* of tears.

The next major theory of emotion, the Cannon-Bard theory (Cannon, 1927), emerged in opposition to the James-Lange Theory. The Cannon-Bard theory states that arousal caused by an emotion-eliciting event is too undifferentiated for one to infer a subsequent emotion (Cannon,

1927). Instead, this theory posits that an emotion-eliciting event causes an emotional reaction that, in turn, causes a particular physiological reaction. According to this theory, emotion occurs independently of physiological responses. For example, if one felt sadness, his or her individual physiological response to that sad event would follow his or her sad feelings. Thus, one would cry *because* he or she felt sad.

The Two-Factor Theory of Emotion addresses what Schacter and Singer (1962) considered to be the shortcomings of the previous two emotional theories. Concerning the James-Lange theory, they agreed that physiological responses precede emotions but disputed the claim that physiological reactions are the sole cause of emotions. Concerning the Cannon-Bard theory of emotion, Schacter and Singer argued against the claim that emotions occurred independently of the body's physiological response to a certain event. In their classic study involving adrenaline and emotional responses, Schacter and Singer (1962) reported that physiological arousal does influence emotional perception. A similar study provided support for Schacter and Singer's (1962) conclusion that physiological responses and emotions are related (Dutton & Aron, 1974). This study found that men who were approached by a female in an anxiety-producing environment were significantly more likely to experience increased sexual thinking and feelings of attraction when compared to the control group of men who were approached in a normal (non physiological arousing) environment.

Although our understanding of emotion processing is more sophisticated than it was when these theories first were proposed, a multitude of questions still exist in emotion research with preliminary answers typically leading to the creation of new questions. These early theories addressed and raised questions that researchers investigating emotions still face today such as: Are emotions biologically hardwired? Do our cognitions influence emotions, and if so, to what

extent? Which has more influence on emotional experience- physiology or cognition (or some other factor)? Are emotions universal or are they influenced by individual surroundings? The last question is the focus of the current study.

Universality of emotions

Emotions are thought to be universally experienced (Ekman, 1979) but susceptible to cultural socialization practices (Brody, 2000; Cole et al., 2006; Ekman, 1999). In the past, there has been a general trend for researchers to create a dichotomy between emotions as innate and universal versus emotions as influenced by culture. More recently, some researchers have taken a perspective towards emotions that accounts for universal tendencies in emotions while acknowledging the essential role of socialization processes (e.g., Cole et al., 2006; Ellsworth, 1994; Kitayama & Markus, 1994; Pai, 1998).

Ekman (1979) proposed that there are several universal characteristics attributed to emotions. These universalities of emotion include their function as a distinctive signal to others in the environment as well as their shared feature of being caused by some distinctive antecedent (Ekman, 1979). Although components of emotions may be biologically hardwired with a variety of physiological, neurological, and psychological components, it can be argued that the components, in themselves, should not be considered emotions (Kitayama & Markus, 1994). Instead, emotions are the product of the specific cultural and social processes by which these components are elicited (Kitayama & Markus, 1994). Despite the appearance of an underlying universality of emotional occurrence, emotions experienced in one culture cannot be assumed to be identical to the same label of emotion in another country. When universal theories are combined with theories that account for socialization factors it allows for a comprehensive investigation of human development, including the development of emotion.

Bronfenbrenner's Ecological Theory

One theory that considers the multiplicity of social processes and interrelated contexts surrounding human development is Bronfenbrenner's (1986) Ecological Theory. Each individual context, or system, in this theory, encompasses a piece of influence on an individual's development. When these systems are combined, they form an inclusive and thorough theory through which human development, including ER, can be understood. Each system, although distinct, is not isolated. Bi-directional transactions occur between the various layers that constitute the specific and broad environmental influences. Within his theory, Bronfenbrenner (1986) describes four subsystems, each with its own effects on a child's development: the microsystem (e.g., biological influences), the mecosystem (e.g., family influences), the exosystem (e.g., community influences), and the macrosystem (e.g., cultural influences).

The microsystem accounts for the genetic variables affecting a child's development. The mecosystem encompasses one's immediate environment. This includes a child's family, school, peers, neighborhood, and other people or institutions that have a direct influence on a child's life. The next system, the exosystem, represents the social-economic context surrounding a child's development. Although this system consists of structures that do not directly interact with the child, the structures maintain an influence over the child's development through their interactions with structures in the mecosystem. The outermost layer of Bronfenbrenner's (1986) theory is the macrosystem. This system encompasses the broadest realm of influence on a child's development such as cultural values, national customs, and surrounding laws. All of the systems combined are intended to provide a complete conceptualization of the influences affecting a child's development.

The comprehensive nature of Bronfenbrenner's (1986) Ecological Theory enables its application to a wide array of developmental topics including emotion development. Emotion regulation is an appropriate topic to interpret from within this model because its development is affected by the multitude of influences within a child's environment. Without consideration of the reciprocal relationships, interactions, and effects of the individual systems, our understanding of how children develop ER skills would be incomplete. Throughout this literature review, research examining the socialization of ER skills to children will be interpreted from within an Ecological Theory perspective.

Emotion regulation

Emotion regulation is an emerging field of study and operational definitions are of key importance to how ER processes are studied and understood. Thompson (1994) defined ER as consisting of "the extrinsic and intrinsic processes responsible for monitoring, evaluating, and modifying emotional reactions, especially their intensive and temporal features, to accomplish one's goals," (pp. 27-28). Another way of interpreting Thompson's (1994) definition is that ER involves being aware of emotional arousal, analyzing those emotional reactions, and altering the emotional expressivity as needed depending on the demands of the inter- and intra-personal environments. The demands for which emotions are regulated or modified depend upon the specifics of a given social context resulting in different adaptive responses for different social situations (e.g., Saarni, 1999). Additionally, the dynamic construction of ER processes entails both the emotion as it manages a behavior as well as the management of the emotion itself (Suveg, Southam-Gerow, Goodman, & Kendall, 2007). As such, ER does not simply imply the suppression or control of emotion but can also involve emotional exaggeration, emotional substitution, emotional neutralization, and other forms of altering one's emotions for the purpose

of producing a socially acceptable display of emotion (i.e., emotional coping; Ekman, 1979; Zeman, Shipman, & Penza-Clyve, 2001).

The managing of one's emotions in response to the particular social demands involves both internal systems (e.g., cognitive, neurophysiologic) and external components (e.g., cultural values, social contextual significance; Zeman et al., 2006). Thus, a multidimensional approach allowing for consideration of neurophysiologic, attentional, cognitive, behavioral, and social systems is needed for a comprehensive conceptualization of ER (Zeman, Klimes-Dougan, Cassano, & Adrian, 2007). In addition to considering the components involved in the management of emotions, it is essential to understand both the social environment surrounding the regulation and the subsequent goals an individual has within that context in order to fully understand the outcomes (Zeman et al., 2006).

Concerning goals, there are both intrapersonal and interpersonal functions that ER serves depending on the individual and the context (Zeman & Garber, 1996). Decisions on how to manage a given emotion could be based upon intrapersonal goals, such as to avoid embarrassment or to receive sympathy. For example, a child that falls down but only cries when his or her mother is looking is choosing to express distress or sadness in order to receive social support (Zeman & Garber, 1996). Thus, the intrapersonal, or self-focused, goal was to solicit attention and sympathy. Emotional management can also be motivated by interpersonal or prosocial goals. For instance, when a child hides disappointed feelings after receiving an unwanted gift in order to spare somebody's feelings, it is an example of ER for interpersonal reasons.

Regardless of one's intentions, determining whether the subsequent product of emotion expression is adaptive or maladaptive depends both on the achievement of the goals and the

resultant outcomes (Zeman et al., 2006). For example, suppression of anger in a maltreating environment may be an adaptive ER strategy but such suppression within a peer relationship may not prove to be adaptive. Evaluating the efficacy of ER, therefore, requires understanding the surrounding social context. Overall, ER is a complex and multifaceted area of study, and there are numerous approaches to analyzing the various systems involved in ER. One system of influence involved in shaping the development of children's ER is their culture. The following section aims to review existing literature examining how children's development of emotion understanding and ER is affected by different cultural contexts.

Cross-cultural research and emotion

In their book considering the mutual influence of emotion and culture, Kitayama and Markus (1994) argue that emotion is "fully encultured," (p. 4) and should be considered through a cultural frame. In the past, there has been a trend to emphasize the universal or biological aspects of emotions, resulting in a dearth of perspectives that consider cultural or situational factors on emotions. The field of cultural psychology, that acknowledges the effects of sociocultural processes on human psychology, is growing. Within this perspective, culture and emotion are considered interdependent as culture influences the organization of emotions that in turn affects the understanding of cultural processes (Kitayama & Markus, 1994). The overarching goal behind psychological cross-cultural research is to create a body of research that has depth and universality enabling applications and theoretical understanding across many cultures (Naidoo et al., 1999). Without research, the observations made, theories proposed, and measures constructed in Western cultures cannot be assumed to hold true universally (Naidoo et al., 1999). Cross-cultural research is needed to recognize the variations in emotional display and

functioning that occur in non-Western culture as well as to add to our understanding of the driving socialization practices behind these emotional variations (Wang & Fivush, 2005).

Studies with Western populations reveal that children's understanding and regulation of emotion is related to the emotional interactions with their families and other social networks (e.g., Fivush, 1993). It follows then, that understanding how emotional processes are socialized should consider the broad social network of one's culture. Taking a developmental perspective towards emotional functioning allows for greater understanding of when, how, and why various emotional competencies arise. Additionally, cross-cultural research is needed to understand the similarities and differences in the experience of emotion that occur across different cultures due to varying socialization processes (Ellsworth, 1994; Wang & Fivush, 2005).

The following section of literature review investigates specific ways that cultures differ in their socialization of emotions and how it relates to children's emotional understanding and ER. Additionally, this review is concerned with understanding the developmental processes that transcend cultural differences. Due to a poverty of research on emotions in different cultures, particularly African cultures, the current study pulls from what little research there is exploring the development of emotions across cultures. It is important to note that although cross-cultural research is helpful in understanding what differences and similarities occur across cultures, it often provides a broad picture of a particular topic. Thus, implications from research comparing cultures should be made cautiously given that cultures are diverse and complex means of classification.

Emotional understanding across cultures

Children's emotional understanding follows general developmental trends while still exhibiting situational and socialization influences, including culture. One study reporting cultural

differences examined Chinese and American kindergarten age children's emotional responses by asking them to describe situations that made them feel sad, afraid, angry or happy (Borke & Su, 1972). American children were more likely than Chinese children to recall stories of situations that made them feel sad whereas Chinese children recalled more stories in which they felt angry and fearful. Thus, it may be that different cultures are inclined to appraise situations differently. Across cultures, stories recalling happy feelings were the most prevalent of all emotional stories recalled. This portion of the study is limited by its inability to discern whether children in these cultures actually experience different frequencies of emotions or if the certain emotions they reported experiencing more often are simply more salient or socially acceptable in their culture.

To address this question and investigate children's emotional appraisal propensities, American and Chinese second graders were recruited for a second study. Children listened to nine situations about a hypothetical child that could elicit a number of emotional responses and matched the story with a picture of a facial expression (i.e., angry, sad, afraid, happy). Results indicated that Chinese and American children differed most on their interpretation of stories meant to elicit anger or sadness than stories eliciting happiness or fear. Chinese children labeled more situations as eliciting anger whereas American children labeled these same stories as causing a sad response. These findings provide support for the hypothesis that cultural differences in appraisal propensities resulted in the differences in the children's recollection of emotional events. A limitation of this study is that it did not consider the effects of age. Developmental questions are needed to determine whether the type and frequency of emotional experiences changes over age.

Another cross-cultural study assessed British and Chinese children's ability to keep mood or emotional state consistent throughout a series of emotionally evocative pictures (Jolley,

Zhang, & Glyn, 1998). To investigate developmental differences, the British and Chinese participants were placed into different age groups: 4-year-olds, 5-year-olds, 7-year-olds, 8-year-olds, 11-year-olds, and adults. Participants viewed either a happy (e.g., a smiling child on a sunny day) or a sad baseline drawing (e.g., a sad-looking child on a rainy day) that was, hypothetically, drawn by a little boy. Participants were asked to choose a completion drawing out of two choices that were supposedly drawn by the same little boy who had the intention of adding the completion picture to the baseline picture. One choice was consistent with the baseline drawing (e.g., a tree with a colorful flower to go with the happy picture) whereas the other choice was inconsistent (e.g., a drooping, leafless tree that would be inconsistent with the mood of the happy picture). Children's choices were evaluated based on consistency (e.g., happy completion picture chosen for happy baseline) and the reasoning behind their choices was also evaluated in terms of complexity (e.g., whether they referred to just the baseline drawing in their explanations or if they included both the completion drawing and the baseline drawing in their explanation). These explanations were considered in terms of content (i.e., subject-based, mood-based, other) for analysis.

Results indicated that British and Chinese children did equally well at keeping the mood consistent from the positive emotion baseline drawing to a positive emotion completion picture. Significant age and cultural effects were found, however, with the negative mood completion tasks. Specifically, when compared to Chinese children of the same age, British 5 to 8-year-olds' performance on the negative mood completion task was significantly more inconsistent. British children of these ages often completed the sad baseline picture with a happy picture and provided justification about the sad picture being somehow deficient, indicating a dismissive attitude towards the sad mood. Additionally, significant age and culture differences were found in

children's justifications of why they chose the completion picture across both moods. Chinese children tended to use more mood based and diverse explanations compared to content-based explanations starting at age 7, whereas British children did not exhibit the same depth in their justifications until age 11. The authors suggest that although the British children performed equally well in the happy mood baseline completion task, their simpler explanations for choosing the correct completion picture indicated poorer understanding of mood consistency than exhibited by Chinese children.

Some similarities across culture emerged in that the youngest children, ages 8 and younger, used the same type of justification for their decisions (i.e., subject-based justifications). The use of more complex justifications (i.e., mood-based) was found to increase with age. Although British children displayed more errors in mood consistency up until age 8 when compared to Chinese children, overall children from both cultures made relatively few errors, perhaps reflecting children's ability to recognize mood across cultures from an early age in life. They also concluded that there are cultural differences in children's development of emotion understanding. Although this study supports a general developmental trend for children's understanding of emotional states that is sensitive to cultural differences, inferences should be made with caution due to the small sample size of the age cohorts in addition to the specific nature of the understanding necessary needed to accurately complete the task.

Another study investigated cultural differences in children's development of emotional understanding by examining children's judgments of nonverbal emotion vocal cues (Matsumoto & Kishimoto, 1983). This study consisted of Japanese and American children from 4 to 9 years of age. All participants listened to content-free recordings meant to convey surprise, sadness, happiness, or anger by tone of voice. After listening, children selected one of four photographs

representing emotions to indicate which emotion they perceived. Results indicated that younger American children (4 and 5-year-olds) only correctly identified surprise, whereas Japanese children of the same ages correctly identified both surprise and sadness. American children ages 6 to 9 correctly identified all four emotions and the same was true for Japanese children ages 7 to 9. Japanese 6-year-olds were found to correctly identify happiness, surprise, and sadness. The findings from this study support the idea that overall emotional decoding ability increases gradually with age across cultures. The specific cultural differences indicate that, within the broad developmental trend of increasing ability, cultural differences do occur in sensitivity to specific emotions. One of the strengths of this study is that it bypasses cultural differences researchers face when they translate emotional terms into a different language. It is limited, however, by its small sample size and the very narrow applicability of results to nonverbal emotional sensitivity. Additionally, the failure to include children younger than four prevents this study from determining when this particular emotional understanding-related skill actually develops.

Summary

Overall, it appears that as children develop, their understanding of emotion grows and their emotional abilities (i.e., decoding, maintaining consistency) increase. Additionally, these studies provide examples of specific cultural differences in emotional understanding. That is, a child in one culture may develop a certain emotional skill earlier than a child in a different culture. Further, certain cultures may emphasize various emotions differently, resulting in disparities in emotional appraisal and emotional reactions. Competence in emotional understanding is one of the basic building blocks for subsequent development of sophisticated emotional skills and processes. Being able to know what one is feeling, what emotion should be

expressed, and what emotions are likely to follow are all skills needed to engage in adaptive social interactions (Halberstadt, Denham, & Dunsmore, 2001). It follows then, that in addition to understanding basic emotions, knowledge of what to do with those emotions is a highly valuable skill with important implications for the development of socially acceptable behaviors. The following section investigates this skill of ER.

Emotion regulation and cross-cultural research

The underlying function of ER is that a child is able to simultaneously process emotional information (i.e., identify, understand, integrate) while managing his or her behavior to accomplish a given goal (Thompson, 1994). The ways in which a particular culture teaches, places emphasis on, and exhibits particular emotion display rules influences why and how children manage their own emotional expression. As noted previously, it is important to recall that ER does not simply mean the suppression of emotional expressions, but also implies complex processes involving knowledge of when to show or not show a particular emotion and how to manage the overall emotional experience in accordance with the social contextual demands (Zeman et al., 2006). The following studies investigate the socialization of display rules in different cultures and the subsequent cultural and developmental differences in children's ER across nations, within nations, and a combination of both. Specific differences in children's ER within CA and AA children in America will be considered in another section.

Across nations

One cross-cultural study investigated how cultural differences in children's emotional responses are related to cultural differences in their parent's responses to an event through the comparison of Chinese and American mothers' reactions to their child's success or failure (Fei-Yin Ng, Pomerantz, & Lam, 2007). Fifth grade American children reported that their parents

emphasized their academic successes and deemphasized their academic failures, whereas Chinese fifth graders reported the opposite. Chinese children reported feeling fewer positive emotions after experiencing a success and more negative emotions after experiencing a failure than did their American counterparts. A possible explanation given is that children raised in an interdependent culture might become more sensitive to negative information than children raised in an independent culture. This would help children develop a protective means of self-evaluation that could promote the child's inclusion into a group, an important aspect of interdependent cultures. The findings from this research provide support for the idea that cultural differences in parental responses influence a child's emotional experience (or expression towards) a particular event. Several strengths of the study are that it used self-reported descriptions of success/failure to avoid cultural discrepancies, confirmed self-report findings with laboratory observations, and represented varying SES levels in both groups of children. This study is limited in application, however, by its specific age range (i.e., fourth grade, fifth grade) and situation of interest (i.e., academic success, failure situations).

Within nations

Until this point, the literature has considered culture to include people from a particular country or country of origin. Culture, however, can vary within a single country. Studies have suggested that different cultural groups within a country often differ in the display rules they socialize resulting in variations in children's ER development (e.g., Garrett-Peters, 2003; Raval & Martini, 2007). The following studies investigate differences and similarities in these processes across different cultural groups within a given nation.

Cultural differences in Chinese-American and European-American children's use of display rules were assessed by evaluating children's reactions to receiving a disappointing toy

(Garrett-Peters, 2003). Differences were also considered in terms of the children's age (i.e., younger 4-5 years, older 7-8 years). European-American children showed significantly more positive displays after receiving a disappointing prize than Chinese-American children, despite no self-reported differences in the amount of disappointment felt across the two cultures.

Significant age effects were also found in that older children displayed more positive emotions despite feeling disappointed whereas younger children displayed significantly more negative emotions. Surprisingly there was no culture x age interaction, indicating that older Chinese-American children may have adopted the North American display rule of how to respond to a disappointing gift. Overall, this study suggests that display rules can differ across cultures and that children's use of display rules increases with age. The results also suggest a certain degree of acculturation of the older Chinese-Americans' display rules indicating that socialization is a dynamic rather than static process.

Another study observed child-adult interactions to investigate differences in children's (ages 3 to 5) emotional understanding of display rules from two Nepalese cultures, Tamang and Brahman (Cole et al., 2006). Brahman communities are known for their caste system and devotion to Hinduism whereas Tamang communities adhere to Buddhism and are regarded as more tolerant and equalitarian communities (Cole et al., 2006). Similarities across both cultural groups emerged, in that happiness was the most commonly expressed emotion, and fear/anxiety was the least commonly emotion observed. Also, both Tamang and Brahman children responded to situations in which their wishes were not met or when they were punished/scolded with anger more than any other emotion.

Results indicated that in spite of some similarities across the two cultures, differences also emerged in the children's observed behavior. Tamang children expressed feelings of shame

more frequently and received more scolding than Brahman children, whereas Brahman children spent more time in self-directed play, were physically punished more, and displayed slightly more anger than Tamang children. Not surprisingly, parents in each cultural group displayed both similarities and differences in their responses to their children's emotions. Although parents in both cultures shared some similar responses (e.g., ignoring, striking, scolding) to their child's anger, differences were evident in certain types of responses. Specifically, Tamang parents were the only ones who teased their angry child, whereas Brahman parents were more likely to respond to their child's anger with positive attention or instruction than Tamang parents. Regarding shame, Brahman parents almost always ignored their child's shame expressions whereas Tamang parents responded to their child's shame with nurturance or teaching.

Despite many commonalities such as household size, structure, and resources, the different socialization practices in each culture produced observable emotional expression differences between the Tamang and Brahman children. Tamang parents responded to anger in a manner that did very little to develop their child's understanding of the emotion. On the other hand, Brahman parents' propensity to attend to their child's anger might convey a message that anger is a justifiable emotion and is able to be addressed in a constructive manner. The authors suggest that Brahman children's increased exposure to anger (when compared to Tamang children) may result in their greater understanding of when it is acceptable to show anger (e.g., towards someone younger) and when anger needs to be inhibited (e.g., around an elder).

Overall, parents' differential attention to these specific emotions appears to influence their children's ER of anger and shame, providing an illustration of the interactions that occur in the mesosystem because parents' direct interactions influenced their child's development of ER behaviors. Additionally, the influence of community and religion on parents demonstrates how

an outer layer, the exosystem, can interact with an inner layer, the mesosystem, to shape children's development. This study's use of both child and parental observations adds to our understanding of the role between socialization and children's ER. Cultural similarities allow inference of values and skills broader than the individual cultures. For instance, all children at this age displayed the ability to regulate their emotions to an extent because they expressed positive, socially acceptable emotions and inhibited less culturally acceptable emotions. For a more complete understanding of developmental trends, Tamang and Brahman children of different ages need to be considered.

Another study, despite its consideration of only a single cultural group, addresses questions of developmental differences in ER in a non-Western culture (Pai, 1998). This research considered the context in which emotions are developed, beliefs about emotional experiences, and knowledge of rules for emotion expression for children of the Gujarati culture in India. In order to investigate parents' socialization of emotional expression in their children, three measures were used. Both parents and children used a diary to follow emotional responses to daily experiences and were interviewed to investigate their thoughts on display rules and emotional expression. For the third measure, children were given the *Children's Test of Display Rules* whereas parents filled out a family background survey. Children were divided into developmental groups for analyses with a youngest (9-10 years), middle (12-13 years), and oldest group (15-16 years).

The results indicated that, compared to the younger groups, the oldest children reported experiencing the lowest frequency of positive emotion experiences and the highest frequency of negative emotion in their daily experiences. Older Gujarati children also reported inhibiting their negative feelings around their families more than the younger children. Overall emotional

inhibition varied depending on context. Results of the interviews suggested that boys hide their emotions more than girls, particularly around their fathers. In the presence of authority figures, however, parents reported that girls concealed their emotions more than boys. It could be speculated that the Gujaratis' cultural norms produce these contextual gender differences (Pai, 1998). Parents reported discouraging different emotional behaviors depending on the gender of their child. For example, parents discouraged boys from being overly emotionally expressive and girls from being too emotionally reserved. Girls' inhibited expressivity towards authority figures is consistent with the Gujarati cultural tradition of a woman's submissiveness in the face of authority.

This study provides strong support for general developmental trends in ER skills. Particularly, children's ER increased with age and boys and girls differed in their inhibiting behaviors based on social norms. This is consistent with the Western findings that boys and girls are socialized to express and inhibit emotions differently depending on their gender (e.g., Brody, 2000; Wang & Fivush, 2005; Zeman & Garber, 1996). Pai's conclusion that children's emotional inhibition varied based on the child's gender and the social context provides example of the influences existing in Bronfenbrenner's macrosystem that exert an impact on child development. Such that children learn emotion display rules about when and how to express particular emotions based on the values of the broader culture (Saarni, 1999).

A more recent study on younger (ages 5 to 6) and older (ages 8 to 9) Gujarati children's regulation of anger, sadness, and physical pain provides additional support for developmental and cultural influences on children's development of ER (Raval & Martini, 2007). Many significant findings emerged from this study, including: display rule usage increased with age; girls reported inhibiting their anger more than boys, all children reported expressing sadness

more than anger, and pain more than sadness; and that children's emotional expression was different towards their mother, father, and peers. Specifically, children reported inhibiting their anger most around their mothers, as opposed to their fathers or peers, providing differing reasons for their inhibitory response based on the receiver of the emotion (e.g., avoidance of scolding for parents or preservation of self-esteem for peers). For sadness, children reported inhibiting their feelings most around their fathers (e.g., to avoid minimization of their feeling), followed by their peers (e.g., for prosocial reasons). Children reported inhibiting their feelings of pain most frequently around their father (e.g., to avoid scolding) followed by their peers (e.g., to maintain self-esteem). Thus, it appears that contextual factors occurring within a particular culture in a given country affect the display rules governing normative forms of emotion expression.

Across and within nations

Investigating differences in socializations practices between cultures provides the opportunity for a more complete understanding of the role of culture in children's development of ER. Comparing differences in socialization between cultural varieties within a nation to a cultural group from a different nation allows for a more thorough investigation of the role of culture on children's ER. One example of the application of this multi-faceted cultural approach is a study investigating differences in children's emotional reactions (Cole, Bruschi, & Tamang, 2002). American, Brahman, and Tamang (see above for differences in the two Nepalese cultural groups) children in the third, fourth, and fifth grades were interviewed to assess how they reacted emotionally to difficult situations. Children read nine culturally-relevant vignettes, three that described a pleasant situation and six that described difficult situations. An example of a difficult situation is that children imagine they brought their homework to the kitchen table to show their father or friend but that person accidentally spills tea on the homework, ruining it and causing

them to have to do it all over again. An example of a pleasant situation is that children imagine they are still hungry after eating lunch with their mother or friend who offers to share some food with them. Afterwards, children answered five questions regarding how they would feel in that situation, whether they would express their emotion, their reasons for expressing/not expressing that particular emotion, and their ensuing behavior (i.e., how they behaved after expressing/not expressing the felt emotion).

There were several trends across all three cultures. Children reported feeling angry more than ashamed, but they preferred to show their positive emotions over negative emotions overall. Additionally, children described behaviors reflecting acceptance of a difficult situation more than they reported acting to change that situation. Differences were also found in children's emotional experience in that Tamang children endorsed shame more than US and Brahman children, whereas American children endorsed anger more than Tamang children. American children were more likely to report acting to change the situation than both Nepalese cultures whereas Brahman and Tamang children were more likely to accept negative situations. American children were the least likely of the cultural groups to inhibit their angry feelings, and this communication of anger increased as American children grew older.

In addition to differences based solely on culture, analyses were conducted to explore the effect of age, and its interaction with culture, on ER. Children's decisions whether or not to show anger increased with age; however, cultural differences affected the direction of influence. In American children, as age increased so did their expression of anger communication, whereas in Nepalese children anger communication decreased with age. The finding that children's ER skills increased with age is consistent with research reporting that children's ability to consciously reflect on and manipulate their emotions emerges in middle childhood (e.g., Brown,

Covell, & Abramovitch, 1991; Zeman et al., 2006). The specific cultural differences also support the significant role that culture plays on children's knowledge of display rules and subsequent ER behaviors. Additionally, when compared to Cole et al.'s (2006) study using younger children, cultural differences between Brahman and Tamang children on their expression of shame remain constant with this older sample.

Another study that adds to our knowledge of ER across cultures is research on British, Indian, and Indian immigrant adolescents' report of their emotional sharing of sadness, shame, and fear (Singh-Manoux & Finkenauer, 2001). The aim of this study was to assess how the different levels of individualism within each culture influenced adolescents' propensity to share these emotions. The adolescents identified their sharing partner (e.g., friend, sibling, parent, grandparent) by answering an item on a questionnaire, therefore, sharing partners varied between participants. The authors used the Indian immigrant group as an "ethnocultural group" because members interact socially with British individualistic culture while attempting to retain their Indian collectivist culture. The influence of individualistic or collectivist culture upon a child would fall under the macrosystem in Bronfenbrenner's theory, therefore this study illustrates how a structure as broad as cultural values in the macrosystem (i.e., individualism vs. collectivism) can influence a structure in the mecosystem (i.e., the reciprocal relationship between a child and his or her chosen sharing partner).

Although some cross-cultural similarities emerged, overall there appeared to be a more "in-group" focus for Indian and Indian immigrant adolescents when compared to British adolescents. Across all three cultural variations, shame was the least frequently shared emotion. There were also cross-cultural trends in the responses of the sharing partner in that they were reported to give more advice when fear was the shared emotion, whereas they were reported to

be more prone to criticize if shame was the emotion being shared. There were, however, different emotional reaction styles depending on the adolescent's culture. Indian and Indian immigrant adolescents reported that their sharing partners were more likely to respond to shared emotion actively (e.g., giving advice) when compared to British adolescents' reports of their sharing partners. British adolescents overall reported sharing less quality information (i.e., shared more superficial information) than Indian adolescents. They were also more likely to refrain from giving input or advice than their Indian counterparts.

The results suggest that certain emotions, especially socially constructed ones, cause one to use social norms in determining whether or not to share that particular emotion. Expectations of how significant others will respond also seem to guide decisions of emotional sharing in adolescents. These findings indicate that adolescents, despite their associated culture, have the capacity to manage their emotions within cultural conventions. These findings are consistent with research conducted on American children that found that older children tended to have increased understanding and flexibility with their ER than younger children (Zeman & Shipman, 1998). The findings also mirror the notion in ER literature that expectations of response to emotional expressivity appear to guide both child and adolescent decisions to express or dissemble emotions to social partners (Zeman & Garber, 1996; Zeman & Shipman, 1996, 1997).

Summary of cross-cultural review

Based on the limited number of available empirical articles, ER appears to be a universal ability that increases with age, but that is highly sensitive to cultural norms. Children learn when, how, where, and to whom to express emotion through socialization efforts by their families, peers, and the community resulting in children's efforts to manage emotion that is concordant with social norms. The studies reviewed, although investigating varying aspects of ER

development, add to our understanding of common themes. Taken collectively, the reviewed studies imply that acknowledgment of the role of culture is essential, but not sufficient, for understanding children's emotional development. Without acknowledging certain universal or biological trends, researchers would be unable to account for certain similarities occurring across all cultures. The articles in the present review that address emotional processes across different ages support the notion that children, regardless of culture, exhibit increased skill in their emotional abilities as they develop. Within this broad, universal trend of increasing ability along a developmental trajectory, cultural influences maintain a constant and significant presence. These cultural differences are apparent in how children develop in their understanding of emotions and display rules and how they learn to regulate their emotional experience accordingly. Thus, there are numerous benefits to using cross-cultural comparisons in researching children's ER; however, there are several drawbacks. The first is that cultures or nations cannot be assumed to be uniform, therefore individual differences within cultures cannot be ignored. Considering one's culture is just one, broad variable of influence and influences from the more specific contexts surrounding an individual should also be taken into account when forming a complete picture of why one develops in a particular way.

Although the preceding review provides multiple examples of cross-cultural research on children's emotional understanding and development of ER abilities, there is an apparent dearth of research on African nations. Thus, the next part of this review will include both child and adult studies on the emotional experience in African nations in order provide a specific literature-based foundation for the present study.

Emotion and Africa

When considering emotions in Ghana or other African countries, researchers face particular challenges due to historical, political, and geographical complexities (e.g., slavery, colonization) surrounding many emotional experiences of the people in these nations (Dzokoto & Adams, 2007). For instance, colonization and slavery drastically changed language in African nations and resulted in many atrocities that influenced the way the people living in these nations experience and express emotions (Dzokoto & Adams, 2007). These broad and complex influences on Africans' emotional language and behaviors could be one reason why their population is understudied area of psychological research. Dzokoto and Adams (2007) tried to amend this gap in the research by investigating emotions in Ghanaian people through the analysis of Ghanaian narratives. Dzokoto and Adams (2007) argue that narratives are important cultural products in Ghana that capture the multiplicity of foundations of Ghanaians' emotional experiences resulting from indigenous and Western influences. The authors describe Ghana as a nation of multiple, complex cultures that all influence emotional expression and experience. For instance, in three Ghanaian languages (i.e., Fante, Dagbani, Ewe, the native language of the children in the present study) reference to various body parts is a central aspect of emotional expression (Dzokoto & Okazaki, 2006) as opposed to the psychological focus on emotions that characterizes Western cultures (Naidoo et al., 1999). Dzokoto and Adams (2007) analyzed the emotional expressions used in Ama Ata Aidoo's, a Ghanaian author, novel, *Changes*. Specifically, the authors examined Aidoo's use of English, indigenous, and hybrid emotional expressions. They found that English was used most frequently, when compared to indigenous languages, to describe the characters' emotional experiences and suggest that this could imply that some emotional experiences transcend language and culture. They argue, however, that this finding does not mean that the English language is a sufficient means for the entirety of

Ghanaians' emotional expressions. Although this study addresses the topic of emotions in Ghana, its method of textual analysis creates limitations associated with non-experimental research. Additionally, its use of only one data source provides minimal support for the conclusions proposed.

An anthropological research study on Anglo-Ewe speaking groups in Ghana provides more insight into the type of emotional language used by the children in the present study. Western cultures often distinguish between feeling (e.g., emotion) and sensation (e.g., information from a physical stimulus), whereas the delineation is less marked in Ghanaians' emotional language (Geurts, 2002). This difference results in a cultural trend for Ewe-speakers to link affect and sensations in what they call *seselelame* (literally, feeling in body flesh or skin) (Geurts, 2002). Geurts concludes that *seselelame* embodies a cultural-meaning system for Anglo-Ewe speakers in Ghana that results in sensation, emotion, cognition, and intuition being simultaneously processed. Although this way of viewing emotions is not exclusive to Anglo-Ewe speakers in Ghana, it is a rather unique characteristic of the cultural group and should remain a consideration for psychological researchers investigating this group (Geurts, 2002). Similar to Dzokoto and Adams' (2007) study, Geurts' research is limited in its applicability to the present study due to its non-psychological research method. It does, however, provide a contextual foundation from which to interpret the ways in which participants in the present study may view emotion.

To better understand the demographics of the Ghanaian population and possible consequences, a report on children in African nations that evaluated how poverty affected children's development (Grantham-McGregor et al., 2007) was consulted. Using information from a UNICEF data source, the study revealed that 61% of children in Sub-Saharan Africa are

living in poverty, 22% above the average of all developing regions examined (e.g., Central Asia, Latin America, Caribbean). Poverty is often associated with stunted growth due to malnutrition and lack of health care, and according to the data, 31% of children in Sub-Saharan Africa are of stunted growth. This demographic information is pertinent to the present study because stunted growth and malnutrition have been associated with late school enrollment in Ghana (Brooker et al., 1999). Both late school enrollment and stunted growth are linked with disrupted cognitive abilities in part because impoverished children face both physical (e.g., malnourishment) and social (e.g., inability to attend school) disadvantages (Grantham-McGregor et al., 2007). Although not specifically about emotions, this report sheds light upon the types of problems that face children living in poverty in Ghana.

One study investigating cross-cultural differences in emotionality examined gender differences across cultures in 37 countries, including five African nations (i.e., Botswana, Malawi, Nigeria, Zimbabwe, Zambia; Fischer & Manstead, 2000). The ISEAR database, that consists of data from questionnaires given to 2,917 college students all over the world, was used to explore this topic. In order to investigate the validity of the ISEAR database information the authors used the United Nation's Gender Empowerment Measure (GEM) that provides a score for the degree to which women are active in political and economical life. They performed multiple analyses on the effects of the degree to which the nation differentiated between the roles of men and women, whether or not the nation was predominately individualist or collectivist, and the nation's GEM score on each nation's gender differences in the experience and expression of seven different emotions. Findings indicated that, regardless of culture, women in all 37 countries reported feeling more intense emotions, for a longer duration, and expressing their emotions more overtly than men. Another interesting finding revealed that countries with less

traditional gender roles (i.e., high GEM), high individuality, and less traditional gender ideologies reported greater gender differences in emotional experience and overall stronger emotion response. The authors discuss that these findings could explain “Western dichotomy,” (p. 71) or the stereotypical belief in Western culture that women are more emotional than men. Results were not analyzed on an individual country level.

A study on adult crying across 30 countries (including Kenya, Nigeria, and Ghana) investigated the influence of culture and crying-related variables (e.g., duration, frequency) on mood variations after a crying episode (Becht & Vingerhoets, 2002). Overall, results indicated that several factors significantly predicted mood change; specifically, feelings of shame, national income, frequency of crying, and masculinity-femininity, a country-level variable measuring the extent to which men feel ashamed for crying. From these findings, the authors inferred that role patterns (real or perceived) heavily influence the differences in crying behavior and subsequent mood changes in the various countries. Additionally of interest to the present study is the finding that Ghana was one of the countries with the least pronounced gender differences in crying behavior. Limitations of this study include the sole use of self-report and the generalization of Masculinity-Femininity scores for African countries to regional scores due to the lack of country scores available (i.e., Ghana and Nigeria received the Masculinity-Femininity score given to West Africa, Kenya received the score calculated with East African data). This study also used young adults, and therefore provides little insight about the emotional behaviors of children, the focus of the present study.

Psychological functioning of children in Africa

A study investigating orphans in Tanzania provides a relevant background for the first study in the present research (Makame & Grantham-McGregor, 2002). This study examined

several aspects of psychological well-being (e.g., internalizing behaviors, basic needs met or not met) in orphans and non-orphans living in Dar El Salaam. Results indicated that orphans have significantly more internalizing problems and unmet needs and less positive affect when compared to non-orphaned children, putting them at risk for future mental health problems. A significant gender effect was found in that these behaviors were more prevalently reported in the orphaned girls than the orphaned boys. Two factors found to be correlated with the orphans' internalizing problems included going to bed hungry and low school attendance. The results of this study are important to cross-cultural research because they illustrate how the intricate aspects surrounding a child's living environment influence the internalization of behaviors and emotions. This study also sheds light on some of the reasons why differences between orphans and non-orphans may occur.

Another study on the occurrence of psychological problems in an African nation included school children, reform school children, and children with psychiatric diagnoses (i.e., attending an outpatient clinic) from Uganda to explore the prevalence of behavioral and psychiatric disorders (Minde, 1975). Ugandan children exhibited symptoms associated with psychopathology common in children in developed countries (e.g., reactive behavior). Results from this investigation revealed gender differences in how adults perceived children's psychological problems. For boys, parents were more likely to label a boy as "neurotic" (p. 35) (a term used in this study to measure anti-social or "acting out" behaviors), whereas teachers more often described these children as having a conduct disorder. Girls, however, were more likely to be labeled "neurotic," by their teachers than their parents. It was speculated that this difference could be due to different gender expectations in the family setting versus at school.

Within the group of children attending the reform school, psychological symptomology, as reported by their teachers, was found to be higher for reasons of delinquency than for neglect. This finding is interesting because it implies that delinquent children were acting out more than neglected/orphaned children, despite similarities in their present environment. Additionally, school children rated as being “problem children” by their teachers scored higher than school children without that label on both teachers’ and parents’ symptom ratings. Again, this finding supports the premise that symptoms associated with externalizing behavioral disorders (e.g., bullies, disobedient, irritable) are more prevalent in children with reported pre-existing behavioral problems than in children not classified as having behavioral problems. The author reported that although many children displayed psychosomatic and psychological symptoms, it was hard to meet their emotional needs due to a cultural system that was not accepting of the concept of pain coming from something other than an organic illness and misbehavior coming from something other than a child’s lack of respect. Thus indicating that cultural norms in some African nations may be dismissing of the psychological consequences of children’s under (i.e., yelling, fighting) or over (i.e., being moody, experiencing psychosomatic symptoms).

Conclusions on emotion and Africa

The studies reviewed provide a meager foundation upon which the present study builds its hypotheses and highlights the need for additional research using African samples. Based on the limited findings, several inferences can be made. First, emotion language between the Ewe speaking people in Ghana and people in Western cultures differs. These linguistic disparities could result in conceptualization and expressive differences for emotions between Ghanaians and other cultures. Fischer and Manstead’s (2000) study of gender differences and emotions revealed that there are a variety of cultural factors that influence the experience and expression of various

emotions. Furthermore, Becht and Vingerhoets' (2002) large cross-cultural study revealed that Ghana may have limited gender differences in the expression of sadness (i.e., through crying behavior) than other cultures including the United States. Finally, the only known study comparing Sub-Saharan African orphans to non-orphans suggests that orphans face unique struggles that put them at risk for psychological, including emotional, problems.

Emotion and race

Describing oneself as an "American" is a useful characterization when surrounded by others of varied nationalities. Within America however, other terms of description are often needed for more specific differentiation of individuals and groups. Race is one means through which one can characterize diversity. Defining and understanding the characteristics associated with racial minority children poses a challenge for developmental researchers (Quintana et al., 2006). The sociocultural factors associated with being a member of a minority group (e.g., race, social class, culture) interact and are often intertwined in a manner that makes researching the contributions of these factors on child development an exigent task. Despite the difficulties associated with research in this field, myriad studies have been conducted investigating the various influences of membership in a particular racial group on child development (e.g., Johnson & Greene, 1991; Stevenson, Reed, Bodison, & Bishop, 1997; Vendlinski, Silk, Shaw, & Lane, 2006).

Although many theories exist on what the term *race* represents (see Garcia, 2007), for the purpose of the present studies, the term *race* will be used to describe the differentiation between AAs and CAs. From Quintana et al.'s (2006) introduction to *Child Development's* special issue on ethnic and minority topics, this paper will define *race* as having a "socially constructed meaning in which differences between racial groups [are] perceived to be immutable because of

the belief that racial differences are based on genetic and biological characteristics” (p. 3). The following section reviews several studies on AA and CA children's ER.

Within racial group

African American youth face different interactions with society than CA youth, resulting in differing experiences with anger regulation from both groups (Stevenson et al., 1997). One study attempting to explain this racial difference investigated how 287 AA adolescents' racial socialization beliefs influenced their management of anger and experiences of depression. The type and degree of socialization adolescents received from their family was evaluated with a variety of measures that examined such topics as how much the family used spirituality or religion in their coping strategies, the level of extended family that was involved in the adolescent's life, and the amount of cultural pride that was reinforced by the family. In addition, an anger inventory was included to measure the experience of anger (i.e., anger suppression, anger expression, anger control, strength of angry feelings).

Results indicated that AA youth who reported themselves as likely to experience anger in response to being treated unfairly or being criticized were the most likely to use anger suppression as a coping mechanism, rather than anger expression. Additionally, an increase in a family's socialization of AA history (e.g., societal hostilities towards their race) and culture (e.g., promoting heritage) caused different results depending on gender. AA adolescent girls were found to experience more anger, with greater frequency, and exhibit more anger expression than AA adolescent boys. Conversely, an increase in racial socialization was found to be related with AA adolescent males experiencing weaker levels of anger, at a lower frequency, and with less anger expression than AA females. When scores related to the socialization of racially-specific history and culture increased, anger control increased in AA males whereas it decreased for AA

females. The authors speculated that differences may have been due to gender-role socialization strategies that became re-enhanced by the proactive socialization of AA culture and history (Stevenson et al., 1997). Specifically, AA males could be encouraged to show control over their environments than AA females (Stevenson et al., 1997). Additionally, anger expression might be a healthy strategy for psychological development in AA adolescent girls; whereas anger suppression in AA adolescent males might prove to be more detrimental (Stevenson et al., 1997). The results illustrate how racial beliefs existing in an outer system of influence (i.e., macrosystem) interact with the relationships in an inner realm (i.e., mecosystem). This interaction results in a complex effect on a child's development of ER, namely in this study, anger regulation. In the context of the second of the present studies, these findings are limited because this study only included urban AA adolescents ($M = 14.6$ years), and therefore the findings must be applied with caution when using samples with differing demographic characteristics.

Another study recruited 202 AA adolescents to examine the effect of racial stressors on urban AA adolescents' anger expression (Stevenson, 1997). The measures included in this study evaluated the extent to which youth felt their neighborhood was supportive and involved in their life, how much they felt their family received social support, the amount of negative urban life experiences youth faced, and their anger experiences. Results revealed that the AA adolescents reported higher levels of anger experience and expression than the standardized scores for the STAXI. These results should be interpreted with caution, however, due to the limited data available on how these standardized scores were obtained, including an absence of racial composition information. Another finding was that calamity fears or negative urban life experiences (e.g., fears of being shot, stabbed, or catching AIDS) significantly influenced the

youths' angry feelings and behaviors. Specifically, the more fears youth reported having, the less likely they were to experience and express anger, perhaps as a protective means of violence avoidance (Stevenson, 1997). Results also indicated that a high sense of social support from family or other adults was related to anger suppression. It could be speculated that this result is most likely due to the strong socialization of anger management taught to children by kinship networks (Stevenson, 1997).

Across racial groups

One study compared AA and CA children's emotional experiences through investigating the relationship of race on family processes (i.e., parent conflict, child-parent relationship, internalizing behaviors; Vendlinski et al., 2006). A combination of maternal report on family process factors and child report on depressive and anxiety symptoms were used to investigate the moderating effects of race on those variables. It was hypothesized that CA families would have a stronger negative correlation between parental warmth and the child's internalizing symptoms than in AA families. This hypothesis was based on evidence that suggested that within AA families, less value may be placed on overt parental expressions of warmth than in CA families (McLoyd & Smith, 2002) and parental conflict is normative. The results provided support for the hypothesis, in that AA racial status eased the strength of the relationships between the child's reported internalizing symptoms and the mother-reported family process factors. For CAs, on the other hand, associations between family process variables and children's internalizing behaviors were found. Specifically, internalizing symptoms were related to higher rates of parental disagreements over child-rearing and lower rates of parent-child openness. These findings on racial differences in family practices and their influences on children's internalizing behaviors are relevant to the present research because internalizing symptoms are thought to be associated

with the over-control of emotions and behaviors and prevalent in the experience of sadness (Eisenberg et al., 2001).

Another study that investigated ER processes used children's adaptive styles of expressing anger to explore racial differences (Steele, Elliot, & Phipps, 2003). As part of a larger study, the effects of race on anger experience and anger control were measured through the use of the *Anger Expressive Scale for Children* (Phipps & Steele, 2002). Results indicated that CA children demonstrated higher levels of anger expression whereas AA children reported higher anger control. Another way of interpreting these findings is that AA boys and girls suppressed or inhibited their anger more than CA boys and girls. Specific gender differences were not analyzed. One possible explanation given for these findings was that AAs face more challenges (e.g., discrimination, lessened opportunities, stereotypes) than CAs; however, the social stigmatization associated with these challenges could result in a propensity to suppress the angry feelings caused by them (Phipps & Steele, 2002). The resulting anger suppression behaviors reported by the AA children could be considered a repressive adaptive style that seems to arise early in a child's development and to persist throughout adulthood (Steele et al., 2003).

Conclusions of emotion and race

Although the topic of race can be a sensitive issue, the results of this research appear to indicate that one's race does exert a unique influence on particular aspects of a child's emotional development that varies according to the strength of the socialization influence. A child's race is an important socio-contextual variable that assists in understanding development within one context; however, race alone is an insufficient explanation when determining why a child develops in a certain way. From the ecological theory perspective, examining the influences of a child's race on their ER only takes into account one of the various rings of cultural influence. It

is the interaction between race and the various other systems (e.g. biological, family, school, cultural) that enables the deepest understanding of why certain trends in development occur. Based on the review of the research, only a small picture of findings of the influence of race in children's ER is provided; one interested primarily in the effects of anger. From these studies, some differences in ER behaviors can be expected between AA and CA children due to the differing socialization practices and societal interactions experienced by the two groups. It is important to note, however, one should be cautious when making any racially-based conclusions without thorough research to support the claim. Further, it should be noted that no known studies, to date, have examined racial differences in children's management of their sad feelings. The present study will aim to amend this gap in the research by investigating if any racial differences do exist in children's regulation of sadness, and if so, the nature of the differences.

Present research

The overarching goal of the present research is to examine the role of culture on children's management of sadness and anger experience. The first study investigates narrow cultural or social contexts by comparing the ER behaviors of Ghanaian children in two social contexts (i.e., village, orphanage). To date, no one has examined how orphans and non-orphans from African nations differ in their management of anger or sadness. Thus, this study will contribute to the emotion literature by comparing two groups of Ghanaian children's self-reported management of two common, universal, negative emotional experiences (i.e., anger, sadness).

The second study investigates the effects of both broad cultural (i.e., Ghanaian village children, American children) and narrow cultural contexts (i.e., CA children, AA children) on children's self-reported ER behaviors. The orphans were not included in the Ghanaian child

sample for Study 2 in order to reduce extraneous variability due to obvious social contextual differences that may impact ER skills. This study adds to the literature by the inclusion of cross-cultural comparisons of ER by using two understudied populations (i.e., Africans, AAs). In addition to using children's self-report to investigate the influence of culture on their ER, the present study also considers three ways to regulate emotion (i.e., inhibition, coping, dysregulation), different emotion types (i.e., anger, sadness), and other contextual variables known to influence children's ER (i.e., gender, age) in its analysis. The following section explains in more detail the justification for the inclusion of these specific variables.

Methods of emotion regulation

Emotion regulation is a dynamic process that involves the management and alteration of emotional behavior (Cole, Michel, & Teti, 1994). Therefore, ER does not simply involve emotional suppression. Instead, ER processes result in complex and varied emotional behaviors. The present study focuses on three types of ER: inhibition, coping, and dysregulation (Zeman et al., 2001). The following sections will elaborate on each of these behaviors.

Inhibition

Another form of ER is emotional inhibition that involves the suppression or over-control of a felt emotion. Oftentimes, inhibition of a particular emotion is the result of display rules within a socialization context (e.g., culture, gender). Determining whether the inhibition of an emotion is adaptive or maladaptive depends on the particular emotion being inhibited (Zeman et al., 2001) and must be evaluated within the individual's social context (Shipman & Zeman, 1999). Regardless of the degree of adaptability, emotional suppression has been implicated in numerous consequences (e.g., Gross, 1998). For instance, emotional suppression in adults has

been associated with increased physiological arousal, indicating that although one may be able to inhibit the outward expression of a particular emotion, the internal experience of that emotion may become more intense as a result (Gross, 1998). Emotional inhibition has also been related to cognitive consequences such as impaired memory (Richards & Gross, 1999). Further, anger inhibition has been found to predict internalizing problems (i.e., depression, anxiety) in youth, whereas inhibition of sadness has been found to predict externalizing aggressive behaviors (Zeman et al., 2002).

Emotion regulation coping

Coping with one's emotional experiences involves responding in an adaptive manner. Regulation coping occurs when one acknowledges a felt emotion in a given context, considers the options for how to respond to that emotion and the possible consequences, and then chooses an emotional responses that satisfies the social (i.e., interpersonal) and individual (i.e., intrapersonal) demands of the situation (Zeman & Garber, 1996). Unlike inhibition, coping does not necessarily imply a dampening of the experienced emotion. Instead, coping involves volition and flexibility in choosing an appropriate strategy. Emotional coping occurs when one responds to emotional arousal in a manner consistent with cultural and personal norms (Zeman et al., 2001). Poor emotion regulation coping skills have been related to various negative outcomes. For instance, externalizing problems such as aggressive behavior have been predicted by poor anger coping abilities (Zeman, Shipman, & Suveg, 2002). Further, children may struggle to engage in adaptive emotion regulation coping strategies due to factors such as low emotional understanding, low ER control, or low self-efficacy about ER abilities (Suveg & Zeman, 2004). Children diagnosed with anxiety disorders have been found to be at risk for such challenges to coping adaptively with their emotions (Suveg & Zeman, 2004).

Dysregulation

Emotional dysregulation is an exaggerated response to the experience of a particular emotion due to an inability or lack of motivation to manage one's emotional response in accordance to the cultural rules regarding acceptable emotional displays (Zeman et al., 2001). Emotion dysregulation can materialize in many forms including emotional outbursts, tantrums, or exhibits of emotional arousal with little to no control. Dysregulation can also simply be defined as displaying emotions in a manner considered inappropriate for the social context (Saarni, 1999). Dysregulation of emotional experience often yields negative outcomes because the under-control of emotions characterizes many externalizing behavior problems (Plutchik, 1993). For instance, dysregulation of angry feelings has been found to predict aggressive behavior (Zeman et al., 2002). Furthermore it should be noted that research has indicated a relationship between children with internalizing symptoms and dysregulation of emotional experience (Zeman et al., 2002). This relationship between internalizing symptoms and non-constructive means of expressing emotions often results in an exacerbating cycle of feelings of anxiety or depression and poor social relationships and interactions (Zeman et al. 2002).

Types of emotion

Oftentimes the valence of emotions is categorized as either positive (e.g., joy) or negative (e.g., anger; Fredrickson, 1998). The terms *positive* and *negative* can potentially result in misconceptions about the emotions encompassed by each group. It is important to recognize that *negative* does not necessarily imply that an emotion is maladaptive, nor does *positive* guarantee that an emotion is adaptive. Instead, these distinctions are useful in providing broad categorical descriptions for types of emotion. From the Functionalist theory of emotion (Campos, Campos, & Barrett, 1989), it important to consider each emotion independent from each other because

each emotion is associated with its own action tendencies and goals within particular social contexts (Ekman, Levenson, & Friesen, 1983). In the present study, anger and sadness are examined separately because research has shown that they are two distinct emotions with differences in physiology (Ekman et al., 1983), facial expressions (Ekman & Friesen, 1971), and eliciting circumstances (Campos et al., 1989). Additionally, research has indicated that consequences from maladaptive displays of anger regulation are generally associated with different psychological and social consequences than the dysregulation of sadness (e.g., Eisenberg et al., 2001; Zeman et al., 2002). Thus, it is important to distinguish between anger and sadness in the investigation of children's regulation of negative emotions.

From a functionalist perspective, emotions are viewed in terms of their adaptive value, or the extent to which they help people achieve their goals (Lazarus, 1991). Emotions, therefore, are considered intrinsically relational between a person and the environment (Lazarus, 1991). Distinguishing between emotions from this standpoint requires a joint consideration of the person's goals and the environmental events surrounding a particular emotional experience (Campos, Mumme, Kermoian, & Campos, 1994). For instance, anger tends to occur when a person is hindered or impeded while trying to achieve a particular goal. Feelings of anger are often associated with an urge to mobilize (e.g., through aggression or effort) to overcome the obstacle in order to reach the desired goal (Campos et al., 1989).

Sadness can be viewed as an emotional experience that is the result of a relinquished relationship (i.e., person to person, person to object) with the environment (Campos et al., 1989). This renouncement typically occurs when an action is considered insufficient to meet a desired goal (Campos et al., 1989). Thus, the elicitation of sadness is a relational goal-related occurrence, as are the social signals surrounding the display of sadness (Campos et al., 1989).

Such social signals often serve the function of soliciting help and company in an already deemed hopeless situation (Campos et al., 1989). Although anger is similar to sadness in that it is intrinsically relational, it is distinguishable by its specific goals and surrounding contexts. Thus, both anger and sadness are viewed in terms of the relational context that gives meaningfulness to their experience. The disparities in the particulars of context and goals, however, results in the need for distinct consideration of anger and sadness as two different emotions.

Gender

In addition to the primary variable of interest, culture, the present study is also concerned with the influence of gender and age on children's ER. Differences in social norms for males in females often result in differences in their expressed behaviors (Fischer & Manstead, 2000). Numerous studies in both Western (e.g., Brody, 2000; Wang & Fivush, 2005; Zeman & Garber, 1996) and non-Western (e.g., Becht & Vingerhoets, 2002; Fischer & Manstead, 2000; Pai, 1998) cultures have demonstrated that there are gender differences in the experience and regulation of emotions. Cultural display rules on how children regulate their emotions have been shown to vary based on gender (Saarni, 1999). For example, in America, boys who display sadness are often violating a display rule and are considered "unmanly" (Siegel & Alloy, 1990) whereas aggressive boys have been shown to be considered more likeable and socially competent (Hart, DeWolf, & Burts, 1993). The opposite is often true for girls, with sadness being a more socially acceptable negative emotion for them to display compared to anger (Brody, 2000). Additionally, studies have suggested that girls tend to inhibit their negative feelings more than boys in the presence of others (e.g., Cole, 1986; Soussignon & Schaal, 1996). Although the magnitude and type of gender differences may vary, gender differences occur in cultures around the world (Fischer & Manstead, 2000). No known study, to date, has examined gender differences in

Ghanaian children's regulation of emotion and few studies have examined sadness regulation in AA children.

Age

Developmental research has long considered the effect of age on different developmental tasks. Simply put, cognitive, physiological, and social processes develop as a child matures. Similarly, children's management of ER processes changes at different stages in their development. Numerous studies have examined children's ER abilities at different points along the developmental trajectory (e.g., Cassano, Zeman, & Perry-Parrish, 2007; Cole et al., 2002, 2006). For instance, one study reported that children as young as five are able to discuss emotionally-eliciting events in terms of the goals underlying a particular emotional response and its subsequent outcomes (Stein & Trabasso, 1989). Another study examining children's understanding of adaptive plasticity of emotional expression found that children from ages 7 to 13 seemed to be aware of the social context affecting the emotional expression occurring in an emotionally laden vignette. Younger children, however, anticipated less accepting parental reactions to the emotional expression occurring in the vignette, indicating that older children may have a more complex understanding of empathy and the effects of displaying genuine feelings (Saarni, 1989). Findings have often suggested that children's ER skills improve with age, demonstrating that the ability to manage and manipulate one's emotions in response to social demands typically appears consistently around middle childhood particularly around the age of 10 (e.g., Brown et al., 1991; Saarni, 1989; Zeman et al., 2006).

For the current study, children were assigned to either a younger (i.e., ages 5-9) or older (i.e., ages 10-15) age group for analyses of their ER behaviors. Furthermore, the inclusion of a younger age group was based in part on the findings that younger children were found to provide

similar justifications for substituting their emotions of hurt/pain and fear with more socially acceptable forms of emotional display (Saarni, 1979b). Additionally, the type of interpersonal relationships that children report as eliciting either inhibitory or manageable expressive emotional behavior differs between younger and older children (Saarni, 1989). Middle childhood, around age 10 or 11, seems to be the transition point in children's development of competent and consistent emotional predictions, justifications, and manipulations. The key developmental process difference between early elementary (e.g., ages 5-9) and upper elementary/early middle school age children (e.g., ages 10-15) tends to lie in the consistency with which children incorporate information from the surrounding social context into their ER behaviors (Mendelson & Peters, 1983).

Methodological considerations

Self-report of emotion management was used based on research suggesting that children provide more accurate descriptions of internal experiences than can be provided by external observers (e.g., caregivers or peers; Achenbach, McConaughty, & Howell, 1987; Larsen & Prizmic-Larsen, 2006). Considering a child's point of view is particularly important when investigating the experience of emotion because research has indicated that parents' and children's recollections of emotional events can be discordant (Levine, Stein, & Liwag, 1999). Additionally, research using multiple forms of measurement for children's ER (i.e., self-report and physiological response) has shown that children's self-reported ER is supported by physiological measures, particularly in middle childhood ($M = 9.06$ years; Hessler & Katz, 2007).

Hypotheses

Based on the literature demonstrating that the socialization of children's ER is influenced by their social environment, differences in children's ER behaviors were expected for children living in different cultures, both broad and narrow. Concerning Study One, it was expected that the orphaned children would display less optimal forms of emotion management than children raised with their families in the village. This hypothesis was based on literature reporting that African orphans displayed more internalizing problems than non-orphans (Makame & Grantham-McGregor, 2002), perhaps indicating a propensity for orphans to engage in maladaptive forms of managing their emotions (e.g., under control). Additionally, research has documented that parents' socialization of display rules affects children's ER across cultures (e.g., Cole et al., 2006; Fei-Yin Ng et al., 2007; Saarni, 1999). Therefore, it was expected that orphans' lack of parental socialization would negatively influence their ER development given their less frequent exposure to constructive emotional management within the context of close, interpersonal relationships. It was also anticipated that gender differences may arise in the expression of anger, but the nature of these differences remain speculative given the cultural differences between Western society emotion expression norms and those of an African country. Regarding gender differences in the expression of sadness, few were expected due to the adult research suggesting that Ghanaian adults have relatively few gender differences in crying behavior (Becht & Vingerhoets, 2002).

Regarding the second study, it was expected that cultural differences due to nationality would result in greater differences in children's reported ER than cultural differences due to race. Given the lack of existing data on Ghanaian anger regulation, expectations regarding the nature and type of cultural differences in children's management of their anger were exploratory. Concerning sadness, it was expected that there would be fewer gender differences in the

management of children's sad feelings for Ghanaian children than there would be for American children. This expectation was based on research demonstrating that there are fewer gender differences in Ghanaian adults' crying behaviors than there are for adults in America (Becht & Vingerhoets, 2002). Some similarities across culture in children's reported emotion regulation were expected. Specifically, coping skills were expected to be more frequently used in the older than the younger age group and dysregulation of both anger and sadness was expected to decrease with development. This expectation was based on the positive correlation between increasing emotional competence and age as documented by research on numerous cultures (e.g., Cassano, et al., 2007; Cole et al, 2006).

Study 1

Method

Participants

This study took place in a rural village in Ghana, a country in Western Africa (see Appendix for a map). Kpando, the village, is in the Volta Region of Ghana and is predominately home to members of the Ewe tribe who speak Ewe and English. Participants from the orphanage were 13 boys and 5 girls, ages 6 to 15 ($M = 9.61$ years, $SD = 2.91$), and the non-orphan group was comprised of 18 boys and 18 girls, ages 5 to 15 ($M = 9.53$ years, $SD = 2.56$). Orphans were all residents of the village's only orphanage, and the non-orphaned children were students at a school in the village. Orphaned children had a variety of reasons for being in the orphanage; however, a majority had lost at least one parent to AIDS. Additionally, records of how long orphans had lived in the orphanage were not available, but it was known that all children had been there for at least two years. None of the orphans had any family with whom they were still in touch.

Any child in either of these locations that was between the ages of 5 to 15 was allowed to participate. All of the children living in the orphanage participated in the study, however, only approximately one third of the total school children participated from that particular school due to time and resource constraints. All children were informed that their participation was voluntary and that there would be no negative consequences for refusing to participate or failing to complete the questionnaires. All of the children received a small present (i.e., lollypop, pencil) for their participation.

Measures

The *Children's Emotion Management Scales* (CEMS, Zeman et al., 2001) for anger (CAMS) and sadness (CSMS) were used to measure ER (see Appendixes B and C). The 11-item CAMS and 12-item CSMS use a 3-point Likert scale (1 = *hardly ever*, 2 = *sometimes*, 3 = *often*) to assess specific ER behaviors through three subscales measuring: *inhibition* of expression (e.g., "I hold my anger in," "I hide my sadness."); ER *coping* (e.g., "I can stop myself from losing my temper," "I stay calm and don't let sad things get to me."); or culturally unacceptable emotions displays termed "*dysregulation*" (e.g., "I say mean things to others when I am mad," "I whine/fuss about what's making me sad."). It should be noted that the term "maladaptive" has been determined for American culture and that dysregulated emotion behaviors in Ghana may or may not be considered socially unacceptable by member of their own culture. Thus maladaptive refers to as determined by American culture.

The original study that established construct validity of the CEMS consisted of 227 Caucasian, middle-class fourth and fifth graders. Children's self-reports of emotional expressivity, peer ratings of aggressive behavior ($n = 227$), and maternal reports of psychological functioning ($n = 171$) demonstrated the scales' internal consistency (coefficient alpha = .62 to

.77) and test-retest reliability (.61 - .80) of the subscales (Zeman et al., 2001). Furthermore, the scales' reliability and validity have been supported by subsequent use with multiple races for early elementary-age children (McAuliffe, Hubbard, Rubin, Morrow, & Dearing, 2007), with maltreated and non-maltreated children (Shipman, Edwards, Brown, Swisher, & Jennings 2005; Shipman & Zeman, 2001), and a clinical sample of elementary to early middle school age (Suveg & Zeman, 2004).

Cronbach's alpha was calculated for each of the six subscales to describe the internal reliability for the present study. The coefficient alpha for the CEMS subscales for anger inhibition (alpha = .64), anger coping (alpha = .69), sadness inhibition (alpha = .76) and sadness coping (alpha = .67) demonstrated strong internal consistency. The subscales for dysregulation demonstrated weak internal consistency for anger (alpha = .49) and sadness (alpha = .45). It should be noted that the dysregulation scales only had three items each whereas the inhibition and coping subscales ranged from four to five items each.

Materials

To avoid cultural misinterpretations of the terms *anger* and *sadness*, two black and white drawings were used to depict each emotion. Additionally, a visual representation of the 3-point frequency scale was used to help explain the differing magnitudes of each choice by having three different sized circles, with *hardly ever* being the smallest, *sometimes* being of medium size, and *often* as the largest circle. Under each circle was the corresponding verbal response as well as the numerical value assigned for each choice (i.e., one, two, three).

Procedure

Two local female translators were used to help the researcher read the CEMS (Zeman et al., 2002) to children. Both women worked in the orphanage, were well educated, and were

fluent in English and Ewe, the regional language. The researcher would describe to the child that the questionnaires were for a research project and that there were no right or wrong answers. Both emotions, anger and sadness, were described before beginning their subsequent scales to ensure understanding. Children were asked to circle the answer that best described them. All of these instructions were translated into Ewe. The task was completed in approximately 15 minutes. If a child had questions about any items or was not demonstrating understanding of the content, his or her questions and answers were back translated until the researcher was satisfied that the child understood everything thoroughly.

Results

The data were first analyzed using a 2 x 2 Analysis of Variance (ANOVA) for each of the six CEMS scales with location (orphanage, village) and gender being the independent variables. Unfortunately, due to the small sample sizes for certain cells, a location x gender x age group ANOVA could not be calculated. The second set of analyses examined location x age group differences on the dependent variables. To avoid repetition, the location effects are not reported in the results for the second set of analyses.

Location x Gender Analyses

Anger inhibition. A significant location main effect emerged, $F(1, 54) = 9.33, p < .01$ with the village children ($M = 1.99, SD = .44$) reporting inhibiting their angry feelings more than the orphans ($M = 1.71, SD = .55$). A significant gender main effect was also found, $F(1, 54) = 9.76, p < .01$, such that boys ($M = 2.02, SD = .49$) reported inhibiting their angry feelings more than girls ($M = 1.74, SD = .46$).

Anger coping. A significant location main effect emerged, $F(1, 54) = 8.12, p < .01$, such that the village children ($M = 2.12, SD = .51$) reported coping with their angry feelings more

frequently than the orphans ($M = 1.83, SD = .44$). There was also a significant gender main effect $F(1, 54) = 5.21, p < .05$, such that boys ($M = 2.09, SD = .49$) reported using constructive coping with their angry feelings more frequently than girls ($M = 1.93, SD = .52$).

Anger dysregulation. There was a significant location main effect, $F(1, 54) = 7.15, p < .01$. The orphans ($M = 2.17, SD = .54$) reported more anger dysregulation than the village children ($M = 1.96, SD = .43$).

Sadness inhibition. A significant location main effect emerged, $F(1, 54) = 3.89, p < .05$. Village children ($M = 1.94, SD = .52$) reported inhibiting their sadness more than the orphans ($M = 1.71, SD = .59$). There was also a significant gender main effect, $F(1, 54) = 4.42, p < .05$, such that boys ($M = 1.97, SD = .55$) reported inhibiting their sad feelings significantly more than girls ($M = 1.72, SD = .51$).

Sadness coping. There was a significant gender main effect, $F(1, 54) = 4.14, p < .05$, such that boys ($M = 2.14, SD = .46$) reported coping with their sad feelings significantly more frequently than girls ($M = 1.87, SD = .39$).

Sadness dysregulation. A significant location main effect was found, $F(1, 54) = 13.89, p < .001$ such that the orphans ($M = 2.28, SD = .43$) reported dysregulating their sad feelings significantly more than the village children ($M = 1.92, SD = .42$). A significant gender main effect also emerged, $F(1, 54) = 9.49, p < .01$. Girls ($M = 2.19, SD = .49$) reported more sadness dysregulation than boys ($M = 1.93, SD = .40$).

Location x Age Group analyses

Anger inhibition. A significant age group main effect emerged, $F(1, 54) = 9.46, p < .01$ with the older children ($M = 2.10, SD = .37$) reporting inhibiting their angry feelings more than the younger children ($M = 1.71, SD = .55$).

Anger coping. There was a significant age group main effect, $F(1, 54) = 9.14, p < .01$, such that the older children ($M = 2.25, SD = .44$) reported using coping strategies with their angry feelings more frequently than the younger children ($M = 1.81, SD = .47$). There was also a location x age interaction that approached significance $F(1, 54) = 2.83, p < .10$.

Anger dysregulation. No significant age differences were found.

Sadness inhibition. No significant age differences were found.

Sadness coping. There was a significant age group main effect, $F(1, 54) = 8.08, p < .01$, such that older children ($M = 2.22, SD = .47$) reported using coping strategies for their sad feelings significantly more frequently than the younger children ($M = 1.84, SD = .33$). There was also a location x age interaction that approached significance $F(1, 54) = 3.46, p < .07$.

Sadness dysregulation. No significant age differences were found.

Study One

Discussion

The primary goal of Study One was to investigate narrow cultural or social contexts by comparing the ER behaviors of Ghanaian children raised with their families to children raised in an orphanage. Secondary goals included examining the influences of child gender and developmental status on self-reported ER behaviors. This study adds to the literature by its novel examination of an overlooked population (i.e., Ghanaian children) and a comparison of social contexts within this culture (i.e., village vs. orphanage). Additionally, the study examines two well-researched factors within Western culture (gender and developmental status) but from a unique cultural perspective. Overall the findings of Study One produced an interesting pattern of results that were sometimes discordant with but at other times consistent with the current ER

literature. Three main trends emerged concerning the influence of social context, gender, and age on children's self-reported ER strategies.

Social context. Regarding the influence of living environment, the orphans and non-orphans differed in their report of the ways in which they manage negative emotion. Orphans reported poorer emotion skills regardless of the emotion type being experienced when compared to the reports of the village children. That is, the orphaned children exhibited more overall emotional dysregulation (e.g., losing temper, crying and carrying on) than the children living in the village. Village children, on the other hand, reported inhibiting their negative emotional expressivity more frequently than the orphaned children. Orphans' and village children's discrepancies in emotional management could stem from differences in their expectations of the consequences of emotional displays. Based on observation, children living in the village with their families often received harsh repercussions (e.g., beatings) for their emotional displays (e.g., yelling, crying), whereas orphans' emotional displays often went unnoticed or ignored in the orphanage where approximately one adult was present for every 10 children. Although speculative, it is possible that the village children have learned to inhibit overt expressions of their negative emotions in response to the expectation that they will receive a punitive response to emotional displays. Additionally, village children reported coping more adaptively with their angry feelings than the orphaned children. Poorly regulated emotion is thought to be a primary aspect of psychological difficulties (Bradley, 2000). Thus, the findings from this study appear to indicate that the orphans may be at risk for more emotional problems and compromised psychological well-being than the non-orphans; a finding echoed by Makame and Grantham-McGregor's (2002) research.

From an Ecological Systems perspective (Bronfenbrenner, 1986), these effects of social context are expected considering the dynamic influences occurring within children's mecosystem, or immediate environment. Orphans in impoverished African nations face an additional risk of having unmet needs due to scant resources and adult attention. Malnutrition, low school attendance, and low adult supervision have been implicated in cognitive and behavioral deficits. Thus, it is not surprising that a child's development within an environment in which these disadvantages are prevalent would display less constructive or delayed development of emotion skills. It may also be that displays of emotion in dysregulated ways are actually adaptive within the orphanage environment because it garners needed attention. Further research is needed to test this hypothesis.

Several implications follow from these social contextual findings. First, similar to the literature based on Western culture (Saarni, 1999), the social environment in which children develop affects their acquisition of ER skills. Different exposures and relationships yield differences in children's regulation of their anger and sadness. Second, orphaned children may be at more risk for psychological and social problems due to their maladaptive forms of ER than non-orphaned children. Research on Western populations has indicated that dysregulated emotion expression is predictive of psychosocial maladaptation (Zeman et al., 2002), and therefore, the orphaned children may be at risk of social problems in addition to the social stigmatization they face just for being orphans.

Child gender. Congruent with past cross-cultural research, gender differences in children's ER were also found to exist for the Ghanaian children. Boys and girls were found to differ in their emotional expressivity for both negative emotions; however, more significant differences emerged for sadness expression. Contrary to the hypothesis that there would be few

gender differences for Ghanaian children's regulation of sadness, there was an overall trend for boys to report more adaptive sadness regulation than girls. Additionally, girls reported dysregulating their sad feelings more than boys. Overall, it appears that Ghanaian boys reported more adaptive management of sadness behaviors (e.g., being able to control their crying) than girls who reported engaging in maladaptive expressions of their sad feelings more frequently (e.g., whining and fussing). Research examining adult populations in Ghana has found that Ghanaian adults reported fewer gender differences in their crying behaviors when compared to other nations (Becht & Vingerhoets, 2002). Perhaps, the present findings were inconsistent with these expectations because the Becht and Vingerhoets (2002) study used adult samples and compared crying behavior in Ghanaian culture relative to other cultures.

Regarding the inhibition of sadness expression, Ghanaian boys reported engaging in more dampening than the Ghanaian girls. This is consistent with Western research indicating that displays of sadness are more socially normative for girls, whereas boys tend to report that displaying their sadness is socially unacceptable (Zeman et al., 2006). Assuming such social norms exist regarding gender in Ghanaian culture, girls' tendency to dysregulate their sadness could be explained by the lack of social consequences for outward emotional displays.

Concerning anger, boys reported inhibiting their anger more than girls, which is opposite to the general pattern of findings in Western culture that girls report dampening anger expression more than boys (Zeman & Garber, 1996). It could be that this result mirrors the finding for sadness, in that the observed gender norm of emotional neutrality for Ghanaian men could result in higher levels of reported anger dampening than that observed with women.

In summary, gender does appear to be a factor of influence on children's sadness regulatory behavior in Ghanaian culture. Potential consequences of these differences in ER style

can be inferred from previous research. For boys, their self-reported tendency of adaptive sadness expression could serve as a protective factor against social and psychological problems (Zeman et al., 2002); however, the potential consequences of their reported inhibition of sadness are not as clear. For instance, some research has connected emotional inhibition with psychological, physiological, and cognitive impairments (e.g., Gross, 1998; Richards & Gross, 1999; Zeman et al., 2002). Emotional inhibition needs to be considered within a specific social context, however, to determine whether it is adaptive or maladaptive. For instance, Ghanaian boys' reported inhibition of sadness could meet a societal norm that men do not show their sadness. From researcher observations, value appeared to be placed on presenting a stoic demeanor more for men than women. Thus, it may be more socially acceptable for women to express their sadness and for men to dampen their emotional displays. However, when interpreting these results, it should be kept in the mind that social desirability bias may be operating such that boys may be stating the social norm rather than their actual behavior. Only observational research can definitively answer this potential validity issue.

As such, the consequences of girls' reported regulatory styles for sadness would be expected to differ from boys'; a hypothesis that was preliminary supported by the finding that girls reported more overt sadness displays than boys. Although emotion dysregulation has been associated with psychological and social problems in the Western literature (Zeman et al., 2002), it is important to note that Western culture's definition of sadness dysregulation may not function similarly in Ghanaian culture. That is, sadness dysregulation for girls may not have maladaptive outcomes. Further, in Western culture overt displays of sadness by girls are not associated with poor peer relations as it is with boys (Perry-Parrish & Zeman, 2007) suggesting that gender norms mediate the effect between sadness ER and outcomes.

Developmental trajectories. The third main set of findings to emerge concerned the developmental trajectory of ER competencies. Specifically, the results indicated that older children reported using more frequent constructive ER coping skills than younger children. This is consistent with research in both Western (e.g., Cassano, et al., 2007) and non-Western (e.g., Cole et al., 2002, 2006) cultures which indicates that ER skills tend to improve with development. One likely explanation for this robust trend concerns the simultaneous development in other domains (e.g., social, cognitive, physiological) that results in more mature social cognitions about the self, the environment, and the interactions between the two entities. For instance, research has indicated that with increasing age, children become more aware of the influence of social context on decisions to express emotion (Saarni, 1989).

Regarding biological maturation, with age children acquire greater control of physiological processes and thus are increasingly able to manage their facial expressions and arousal in more adaptive ways. Additionally, higher functioning abilities (e.g., self-regulation, impulse control) accompany the brain development that occurs during childhood (Stansbury & Gunnar, 1994). The division of children in the current study into developmental groups of younger (i.e., ages 5-9) and older (i.e., ages 10-15) ages provides further support for the previously held consensus that the ability to manage one's emotional experiences consistently tends to appear in middle childhood, or around age 10 (e.g., Brown et al., 1991; Saarni, 1989; Zeman et al., 2006). Concordant with expectations based on the reported relationship between children's self-regulatory abilities and their development, older children reported more adaptive coping strategies to manage negative emotions and more inhibition of their anger than the younger children.

In addition to the central age group findings, an interaction between children's living environment and their age was found to approach significance for anger and sadness although interpretations of these results are made cautiously. Overall, older village children reported the most adaptive coping with their negative feelings, followed by older orphaned children, younger village children, and lastly, younger orphaned children. These differences, albeit marginally significant, are interesting because they allow further insight into the nature of two influences known to affect children's ER abilities, living environment and age. Thus, it seems that optimal development of ER may be impeded but not halted by the social context of an orphanage. Orphans may acquire regulatory skills later than same-age village children; however, developmental improvements are still apparent between the younger and older orphans.

Thus, the environments in which children in Ghana are raised appear to be pertinent social contexts that, similar to Western cultures, are essential in the understanding of ER development. Concerning secondary variables of interest, both gender and age were shown to influence children's ER. Specifically, gender influences appeared to transcend social context. Developmental influences, however, took on a more complex pattern in that they both transcended social context for some ER behaviors and appeared to interact with social context for others. Thus, children's gender and age are of important consideration when evaluating the contextual influences of children's living environment on their ER.

Study Two

Method

Participants

Participants were 36 Ghanaian children (18 girls, 18 boys) who were matched by age and gender with AA youth ($n = 38$; 18 girls, 20 boys) and CA youth ($n = 39$; 18 girls, 21 boys).

Children were placed into a younger age group ($n = 59$; range: 5 - 9 years; $M = 7.73$, $SD = 1.27$) and an older age group ($n = 54$; range: 10 - 14 years; $M = 12.11$, $SD = 1.30$). Due to the findings from Study One that showed that there were significant differences between orphans and village children, the orphaned children were not included in the Ghanaian child sample used for Study Two. Additionally, there was no equivalent living environment in America to compare to that of the orphans in Ghana. Therefore, for the present study, Ghanaian children living in the village with their families and attending school five days a week are matched with American school children who also live with their families and attend school.

Measures

The *CEMS* for anger and sadness (Zeman et al., 2001) described in Study One were used to measure ER. Cronbach's Alpha was calculated for each of the six subscales to establish internal reliability for Study Two. The coefficient alpha for the *CEMS* subscales for anger inhibition ($\alpha = .59$), anger coping ($\alpha = .74$), sadness inhibition ($\alpha = .55$), sadness coping ($\alpha = .70$), and sadness dysregulation ($\alpha = .55$) demonstrated adequate internal consistency. The subscale for anger dysregulation demonstrated low internal consistency ($\alpha = .35$).

Procedure

In Ghana, questionnaires were read to school aged-children with the help of a Ghanaian translator. In America as part of a larger study, questionnaires were administered in grades 1 through 8 by reading the statements aloud for grades 3 to 8 and by individually administering them to children in grades 1 and 2 in an elementary school in Williamsburg, VA. Additionally, some of the American sample was taken from archival data collected in elementary schools in

Georgia and Maine. All researchers collecting data were Caucasian American adults in their twenties.

Results

Univariate analyses of variance were calculated for each of the six *CEMS* scales with ethnicity (Ghanaian, AA, CA), age group (younger, older), and gender being the independent variables.

Anger inhibition. A significant ethnicity main effect was found, $F(2, 112) = 4.91, p \leq .01$. Specifically, Ghanaian children reported inhibiting their angry feelings more ($M = 2.00, SD = .44$) than AA ($M = 1.69, SD = .51$) and CA children ($M = 1.72, SD = .48$) who did not differ from each other. A main effect of age group approached significance, $F(1, 112) = 3.65, p = .06$. Across cultures, children in the older age group reported inhibiting their angry feelings more ($M = 1.88, SD = .48$) than the children in the younger group ($M = 1.72, SD = .44$).

Anger coping. An ethnicity x age interaction approached significance, $F(2, 112) = 2.95, p = .06$ such that older Ghanaian children reported coping with their angry feelings more frequently ($M = 2.43, SD = .38$) than older CA children ($M = 1.98, SD = .67$) and older AA children ($M = 2.06, SD = .58$). There were no significant ethnicity differences in the younger age group.

Anger dysregulation. No significant findings emerged

Sadness inhibition. A significant gender main effect was found for sadness inhibition, $F(1, 112) = 4.66, p < .05$. Boys reported inhibiting their sad feelings significantly more ($M = 2.06, SD = .53$) than girls ($M = 1.84, SD = .50$).

Sadness coping. An ethnicity x age interaction was found, $F(2, 112) = 3.26, p < .05$. Examining ethnicity differences within age group, younger CA children reported coping with

their sad feelings in more adaptive ways ($M = 2.18$, $SD = .51$) when compared to younger Ghanaian children ($M = 1.82$, $SD = .31$). The AA children were not significantly different from either group ($M = 2.08$, $SD = .55$). No ethnicity differences were found in the older age group. A gender main effect also emerged, $F(1, 112) = 8.24$, $p < .01$. Specifically, boys ($M = 2.23$, $SD = .52$) reported coping with their sad feelings in adaptive ways significantly more frequently than girls ($M = 2.00$, $SD = .46$).

Sadness dysregulation. A significant gender main effect emerged for self-reported dysregulation of sad feelings, $F(1, 112) = 10.87$, $p < .001$, that indicated that girls reported dysregulating their sad feelings more ($M = 2.00$, $SD = .57$) than boys ($M = 1.67$, $SD = .47$).

Study Two

Discussion

The primary goal of Study Two was to investigate broad cultural differences in children's ER with secondary interest placed on effects of gender and developmental factors. This study adds to the literature by conducting cross-cultural comparisons between an understudied population (i.e., Ghanaian children) and a population that has received considerable empirical attention (i.e., Caucasian American children). Additionally, consideration of race allowed for an investigation of comparisons between Caucasian and African American children, something relatively uncommon in the emotion literature, particularly concerning sadness regulation. Overall, the results indicated that certain aspects of ER in children appear to be influenced by cultural context with developmental influences accentuating these cultural differences. Conversely, gender effects of ER were found to be similar across cultures.

Cultural context. Concerning ethnicity, it appears that culture and age tend to interact to influence children's ER; however, one effect was found to be caused solely by a child's

nationality. Overall, Ghanaian children reported exhibiting more control of their anger than American children. Specifically, Ghanaian children reported more inhibition of their anger than American children, regardless of race. Cultural differences in anticipated and actual consequences could account for the difference in anger dampening, considering the punitive nature of Ghanaian responses to expressed anger (as discussed in Study One). Additionally, this effect could reflect differences in cultural norms concerning the appropriate display of emotion, in that American culture could be more tolerant to anger expression than Ghanaian.

Also concerning anger control, an interaction approaching significance indicated that older Ghanaian children reported using coping behaviors more frequently to manage their anger than older American children. The mean scores of the younger children indicated that CA and AA children reported similar levels of anger coping with the Ghanaian children lagging behind. Thus, it appears that Ghanaian children reported the largest improvements in their anger control as a function of development, resulting in a significant difference becoming apparent between the older Ghanaian and older American children. Again, this cultural finding may be due to Ghanaian children's response to punitive consequences. Thus as they develop they are more able to regulate their expression of anger and therefore express it more adaptively in order to avoid negative responses.

Regarding sadness, an interaction between children's ethnicity and their age was found for coping behaviors. Specifically, younger CA children reported coping more adaptively with their sadness than younger Ghanaian children. Although the interaction was significant at the univariate level, it should be noted that when breakdowns were calculated, the significance level was marginal. Thus, this interpretation should be viewed with appropriate caution. It appears that children's ethnicity influences reported use of coping strategies for sadness expression, with

developmental factors guiding these influences. Inspection of mean scores indicates that younger Ghanaian children did not report using adaptive expressions of sadness as frequently as CA children. Further, the Ghanaian children indicated the most improvement in sadness coping across development compared to American children. That is, younger Ghanaian children perhaps lag behind their CA counterparts in sadness coping skills; however, by the time they reach adolescence, Ghanaian children have similar self-reported levels of coping behaviors as CA and AA adolescents. It may be that Ghanaian culture is more accepting of younger children's overt displays of sadness for longer developmental periods than American culture in which a stoic, stiff upper-lip may be expected.

The lack of significant results regarding cultural influences on children's dysregulation of their negative emotions was unexpected but inspection of the internal consistency values indicated that the dysregulation subscale was weak for the Ghanaian children, in particular ($\alpha = .23$ for anger and sadness dysregulation). It may be that children were unable to relate to the specificity of the items (e.g., slam doors, whine and fuss) or fully understood the meaning behind these items. It should also be mentioned that the dysregulation subscales had the fewest items (i.e., three) which also contributed to the lower reliability. Future research should investigate the behaviors that each culture considers to reflect maladaptive emotional displays.

It is important to note that no significant differences were found between Caucasian and African American children in reported ER styles. This lack of findings was expected due to the similar social contexts surrounding the American children in the present study (e.g., school, residential areas). As such, race was not found to be a significant factor of influence in anger or sadness regulation compared to a child's nationality or gender. Thus, children's ER behaviors were found to vary as a function of their national culture but not their race.

Child gender. Results indicated that gender is a variable of influence that cuts across ethnicity and age, but not emotion type. That is, children's ER behaviors were found to vary as a function of gender despite their nationality or developmental status, but only for sadness. No significant gender findings for anger emerged. Western literature has suggested that gender norms are less defined for anger than they are for sadness (Zeman & Garber, 1996). Thus, whereas displays of sadness have been found to yield different consequences for boys (e.g., scolding) and girls (e.g., comforting), consequences for anger displays do not seem to be as gender-contingent (Zeman & Garber, 1996). Additionally, low internal consistency for anger dysregulation could also explain the paucity of anger findings.

Alternatively, gender does appear to be an influential variable on children's management of their sadness. Overall, boys reported more control over their expression of sadness than girls, through both coping (i.e., appropriate control) and inhibitory (i.e., over-control) behaviors. Thus, boys reported more adaptive forms of emotional management as well as more dampening of their sadness displays. Additionally, girls reported engaging in maladaptive displays of their sadness more frequently than boys. These findings mirror existing literature (e.g., Brody, 2000; Zeman & Garber, 1996) and are concordant with the gender results from Study One, indicating that gender differences in sadness expression are fairly consistent across cultures.

In summary, as expected, these findings indicate that the similarities seen due to children's nationality overshadow the differences one may expect due to narrower cultural contexts (i.e., race). The findings further support the conclusion from Study One that gender influences appear to cut across social contextual differences. Additionally, the present study illustrates how children's ER improves along a developmental trajectory, however, the nature and time frame of the improvements appears to vary based on cultural context. Thus one's

culture appears to be an influential context surrounding children's development of ER. Further, secondary factors transcend (i.e., gender) and interact with (i.e., age) cultural contextual factors to create a complex, yet connected system of influences on children's ER development.

Conclusion

Limitations. Although these studies add novel comparisons to the emotion literature (i.e., between orphans and village children, between Ghana and the U.S., between CA and AA children for sadness), several limitations should be considered when interpreting the results. Regarding Study One, the size of the orphanage limited the sample size, thus limiting the power to detect differences. Additionally, only children from a particular region in Ghana were included, thus, generalizing these findings to other African cultures within or outside Ghana should be done cautiously. Concerning Study Two, as mentioned previously, weak alpha levels were found for the dysregulation subscales for particular ethnicities (i.e., Ghanaian and AA for anger dysregulation, Ghanaian for sadness dysregulation), resulting in limited findings concerning children's maladaptive displays of negative emotions. Lastly, the findings may be limited by the use of a translator for the Ghanaian sample. Although, answers were back translated to ensure understanding, the Ghanaian children may have been at a disadvantage because the original measures were not in their primary language. It should also be noted that the presence of the researcher, an American female, may have influenced the children's responses because she was unfamiliar and from a different culture. Additionally, the relationship of the translators to the orphans (i.e., as caregiver) as opposed to the village children (i.e., as a familiar adult who was not their caregiver) should be considered in that it may have affected the degree of honesty children showed in their responses.

Several limitations occur in both studies. First, the sole reliance on self-report limits the results by the disadvantages inherent in self-report (e.g., dependant on honesty and self-awareness, social desirability bias, over/under estimation of behaviors). Second, the implications concerning psychological outcomes and other consequences of children's differing ER styles are based on inferences from past literature because no measures (e.g., depression, somatization) were included in the present study. Third, the nature of the measures included may have limited the results in that such uniform measurements do not allow for a freedom in responses that might reveal unique ER behaviors. Fourth, because such a wide age range was used, it is possible that older and younger children interpreted the items differently or found certain items to be more relevant than others. Thus, developmental differences could reflect comprehension and interpretation differences rather than differences due to actual developmental processes. Lastly, this study is limited by a lack of understanding of specific cultural display rules for Ghanaian culture, particular in the Ewe-speaking region. No measures of socialization or socially-acceptable means of expressing emotions were included in the present study. Thus, the determination of whether a particular ER behavior is adaptive or maladaptive relies heavily on research from other cultures.

Future directions. Although the present studies aimed to amend a gap in the emotion literature, they represent only a very small step in understanding ER in Ghanaian culture. There is still a considerable dearth of knowledge regarding cultural influences in children's ER behaviors, particularly for African nations. Future research should begin to investigate normative forms of ER in various African nations to establish a consensus on cultural display rules. Additionally, it cannot be assumed that information from one orphanage in one African nation will generalize to other orphanages within and outside of Ghana. Future research needs to

investigate further specific socialization factors associated with being an orphan in an African village that influence children's ER.

Although Study Two expanded on the results from Study One in its comparison of social contexts across cultures, there is still considerable paucity of research on cultural influences on children's ER. Thus, future research needs to continue to investigate cross-cultural comparisons to increase our understanding of how children's development of ER is affected by context-specific variables as well as by factors that transcend specific social contexts. For instance, future research could consider the specific goals for which children report regulating their emotions and investigate whether these goals vary by cultural context. Future research could also investigate specific cultural expectations or effects of racism influence the development of ER. Additionally, multiple reporters should also be used to assess the validity of children's self-reported ER behaviors and to help control for social desirability bias. Lastly, future research should include more measures of socialization to better assess the mechanisms through which ER is socialized to children in different cultures.

Interpreted from within an Ecological Systems perspective (Bronfenbrenner, 1986), these findings highlight the multitude of influences on children's ER skills. Results indicate that influences occurring in the microsystem (i.e., biological development), mecosystem (i.e., living environment) and macrosystem (i.e., cultural influences) all affect children's development of ER. Further, also influencing ER development are the contextual variables of child gender and age. The present research provides a brief glimpse into the ER skills in an ignored population in the emotion literature (i.e., Ghanaian children); the findings nicely dovetail the existing ER research in that the trends of influence (i.e., cultural context, age, gender) appear to occur across cultures. That is, although the specific socialization processes and cultural display rules vary between

cultures, the notion that children's ER behaviors are influenced by their surrounding social context, age, and gender is a constant across cultures. Thus, this study adds to the existing research on non-Western cultures and highlights the need for further research on the socialization practices guiding and consequences resulting from children's ER.

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Appendix A

AFRICA



Appendix B

Children's Emotion Management Scale: **Anger**

Instructions: Please circle the response that best describes your behavior when you are feeling **angry**

		Hardly-Ever	Sometimes	Often
1.	When I am feeling mad, I control my temper.	1	2	3
2.	I hold my anger in.	1	2	3
3.	I stay calm and keep my cool when I am feeling mad.	1	2	3
4.	I do things like slam doors when I am mad.	1	2	3
5.	I hide my anger.	1	2	3
6.	I attack whatever it is that makes me mad.	1	2	3
7.	I get mad inside but I don't show it.	1	2	3
8.	I can stop myself from losing my temper.	1	2	3
9.	I say mean things to others when I am mad.	1	2	3
10.	I try to calmly deal with what is making me feel mad.	1	2	3
11.	I'm afraid to show my anger.	1	2	3

Appendix Children

Children's Emotion Management Scale: **Sadness**

Instructions: Please circle the response that best describes your behavior when you are feeling **sad**.

		Hardly-Ever	Sometimes	Often
1.	When I'm feeling sad, I can control my crying and carrying on.	1	2	3
2.	I hold my sad feelings in.	1	2	3
3.	I stay calm and don't let sad things get to me.	1	2	3
4.	I whine/fuss about what's making me sad.	1	2	3
5.	I hide my sadness.	1	2	3
6.	When I'm sad, I do something totally different until I calm down.	1	2	3
7.	I get sad inside but don't show it.	1	2	3
8.	I can stop myself from losing control of my sad feelings.	1	2	3
9.	I cry and carry on when I'm sad.	1	2	3
10.	I try to calmly deal with what is making me sad.	1	2	3
11.	I do things like mope around when I'm sad.	1	2	3
12.	I'm afraid to show my sadness.	1	2	3