Socialization of emotion regulation: Use and understanding of display rules in East Indian children.

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Socialization of Emotion Regulation:
Use and Understanding of Display Rules in East Indian Children

by

Vaishali V. Raval

A Thesis
Submitted to the Faculty of Graduate Studies and Research
through the Department of Psychology
in Partial Fulfilment of the Requirements for
the Degree of Master of Arts at the
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Abstract

Children's ability to regulate their emotions is considered to be a major developmental task (Cole, Michel, and O'Donnell-Teti, 1994). However, very few studies have examined emotion regulation in cultures other than North America. This study investigated East Indian children's use and understanding of display rules in regulating anger, sadness, and physical pain. The relation between mothers' reactions to their children's expressions and children's regulatory decisions was also examined. Eighty nine children between the ages of 5 and 9 years and their mothers were interviewed. Dyads were recruited from two middle-class Gujarati speaking communities located in the city of Ahmedabad, Gujarat, India. Results revealed that all children reported expressing anger and sadness less than physical pain, regardless of who was present. All children reported expressing sadness and pain more in the presence of their mother than their father. Girls were less likely to report expressing anger than boys, however, no gender difference was found in the expression of sadness or pain. Older children reported controlling all feelings more than younger children, and more frequently cited norm maintenance for controlling their feelings, whereas younger children were more likely to refer to avoidance of scolding. Children from the old city community reported controlling all feelings more than children from the suburban community. Mothers' nonsupportive responses to their children's expressions of anger, sadness, and pain were negatively related to children's decisions to express that particular feeling. However, mothers' supportive responses were, for the most part, unrelated to children's regulatory decisions. Results are discussed in terms of similarities in aspects of emotional development across cultures, and the meaning of emotional displays in each culture. Implications for the study of atypical development are also discussed.
Acknowledgements

This study would not have been possible without the contributions and assistance from a number of individuals. First and the foremost, I would like to thank my advisor Dr. Tanya Martini for her enthusiasm, continued support, and guidance: Her input has been invaluable in all phases of this research including conceptualization, methodology, and the entire writing process. Thank you for all those hours I have spent in your office discussing, debating, and pondering, and for those you have spent reading this text. Your availability and promptness have been truly exceptional, and your comments thorough and insightful.

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Bringing a methodological blueprint to the “real world” is one of the toughest aspects of any study. I had planned this study knowing that I would be fully supported in this aspect (among many others) by my mother Dr. Pratiksha Raval, Department of Psychology, Gujarat University, India. I take this opportunity to express all those unspoken (and at times, taken for granted!) thank you’s for her incredible help with the pilot testing, translation of measures, recruitment and data collection for the main study, and coding of qualitative data for reliability purposes. Thank you for allowing me to exploit my privileges as your daughter to the topmost extent!
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Finally, I take this opportunity to express my deepest gratitude to my family and friends -- to Dadaji and Baa (my grandparents), to my parents and my brother, to my friends, and to my extended family...You all are “the various roots of my existence,” as someone has quite eloquently expressed, and make me feel well supported and firmly grounded.
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Chapter I

Introduction

As soon as they are born, humans interact emotionally with their environment. Newborn infants show generalized distress, as well as positive affect displayed by smiling (Rothbart, 1994). Emotions become more complex and differentiated as infants grow older and new emotions appear (Rothbart, 1994). As children approach preschool age, they become more sophisticated in their emotional transactions and better able to regulate their emotions. Emotional development goes hand in hand with the development of cognitive capacities (Rothbart, 1994). In particular, emotion regulation skills become more refined as children learn to talk and are able to use emotion words.

Most developmentalists would agree that the course of emotional development follows this general pattern. This pattern has been charted based on research conducted primarily in North America and is assumed to apply universally to all cultures. Sue (1999) points out that most psychological theories and principles are developed based on North American samples, which constitute less than 5% of the world’s population, and are assumed to apply universally to all human beings. Sue (1999) argues that generalizability is usually assumed rather than tested in psychological research. There may well be universal principles of human development, but this claim needs to be validated. Moreover, clinical practice informs us that the assumption of universality may not always hold: When models of normal development are applied to understand psychopathology in children from diverse cultural groups, they are often rendered inapplicable (Evans & Lee, 1998; Shweder, 1990). Clinicians have therefore been faced with a lack of theory and conceptualization as they meet the demands of increasingly
diverse immigrant populations in North America. As a result, the discipline of psychology is undergoing a revolutionary change in an effort to incorporate culture into the study of human development.

In the context of increasing recognition of cultural relevance, this study examined the development of emotion regulation in East Indian children, and the impact of parental socialization on children's regulatory capacities. In particular, children's use of display rules to regulate their emotions, and the relation between mothers' reactions to their children's emotional expressions and children's regulatory abilities were examined.

**General Context and Relevance of the Present Study**

A number of worldviews exist to explain the causes of human development. One such worldview-- Contextualism-- conceptualizes human development as an ongoing interplay between an active, changing organism and a multifaceted, dynamic context (Biglan, 1995; Cicchetti & Aber, 1998). From this perspective, human development is caused by ongoing interactions between the individual and the context. Hence, the development of an individual cannot be studied as isolated from the context in which it occurs. Contextual influences in human development include those that are familial, social, and cultural. Among the most important, though rarely considered, is the influence of culture (Cummings, Davies, & Campbell, 2000). In recent years, however, there has been increased recognition of the importance of culture in shaping human development. This recognition has led to an emerging body of research that incorporates culture in the study of child development. In a similar vein, this study examined the development of emotion regulation within the cultural context of India.

The study of emotion regulation in developmental psychology has received
substantial research attention, attracting both developmentalists and clinical psychologists. Learning to regulate one’s emotions is an important developmental task of early childhood and may emerge as early as preschool age. These regulatory abilities have a very real impact on children’s everyday interactions with the social world, and on their feelings of mastery. They are also implicated in children’s long-term developmental outcomes such as psychological well-being and physical health (Denham, 1998). Conversely, emotion dysregulation is viewed as a key feature of various forms of psychopathology (Cole, Michel, & O’Donnell-Teti, 1994). For example, internalizing psychopathology often involves dysregulation of emotions like fear and sadness, resulting in clinical syndromes such as anxiety and depression. Externalizing psychopathology often involves dysregulation of anger, resulting in behavior problems such as aggression. According to Cole et al. (1994), an important agenda for research in child mental health involves the following: (a) understanding individual differences in emotion regulatory capacities, (b) distinguishing psychopathology from more adaptive emotional functioning, and (c) identifying variations in emotion regulation that predict later maladjustment.

From this clinical perspective, studying how children from East Indian culture regulate their emotions is particularly useful. In the last decade, there has been a considerable increase in immigrants from South Asian countries (e.g., India, Pakistan, Sri Lanka, and Bangladesh) to North America. Several researchers (e.g., Evans & Lee, 1998) have noted that children of South Asian immigrants display significant emotional and behaviour problems. However, there is a lack of theory, conceptualization, and research to inform clinical practice that deals with the mental health issues of these children.
Studies that identify patterns of both normal and atypical development within this particular culture are needed, as studying the normative aspects of emotional development may provide useful insights into atypical development (Evans & Lee, 1998). Thus, information gained from this study will contribute directly to the understanding of normative patterns of emotion regulation in East Indian children, and indirectly to the study of dysregulation of emotions.

The literature on emotion regulation encompasses a variety of positive and negative emotions. However, much of the research on emotion regulation and emotion socialization has focused on negative affect (Eisenberg, Spinrad, & Cumberland, 1998), perhaps owing to its implications for both psychological well-being and physical health (Denham, 1998). In addition, negative emotions are thought to provide a richer opportunity for emotion socialization (Eisenberg et al., 1998). This study focused on the regulation of anger and sadness: As these emotions play an important role in internalizing and externalizing forms of psychopathology, studying them is of particular significance.

In addition to internalizing and externalizing forms of psychopathology, somatization is an another form in which people present their difficulties. A predominant view within cultural clinical psychology is that people from eastern cultures “somatize” their difficulties while westerners “psychologize” their symptoms (Kirmayer, 1984; Root, 1985; Sue & Zane, 1987). This claim is supported by two lines of inquiry. First, cross-cultural research on clinical depression suggests that people from eastern cultures report fewer psychological characteristics of depression (e.g., depressed mood, guilt, self-effacement) and more somatic symptoms (e.g., lack of appetite, sleep disturbances) than
westerners (Kaiser, Katz, & Shaw, 1998). Second, research on professional help seeking across cultures indicates that easterners have more favourable attitudes towards seeking help for physical illness than for mental illness (Kaiser et al., 1998).

Based on these findings, some researchers have concluded that in eastern cultures, physical illness is viewed as more "acceptable" and "legitimate" than psychological difficulties. This idea is supported by evidence that a majority of East Indians view mental illness less favourably than physical illness (Sethi, Thacore, & Gupta, 1968). Other researchers (e.g., Cheung, 1987) challenge this view and assert that it should be re-evaluated. They argue that westerners are as likely as easterners to present somatic symptoms of depression. They further argue that people in eastern cultures are less likely to seek help for mental health issues not because they view mental illness less favourably; rather, they prefer to seek help from family members than from professionals for psychological difficulties (Cheung, 1987).

Carrying this debate to the study of emotions, this study tested the idea that children from eastern cultures may be more likely to express physical symptoms than emotions, which are more psychological in nature. To compare the regulation of emotions—anger and sadness—to a physical process in East Indian children, this study investigated children's regulation of physical pain. The purpose of this aspect of the study was to investigate whether displays of physical pain are regulated less than displays of anger and sadness in East Indian children, as a result of them being perceived as more acceptable.

In addition to examining the development of emotion regulation, this study examined the socialization of regulatory abilities in East Indian children. Literature
suggests that emotion regulation does not occur in a social vacuum. Emotional
development occurs as a result of interpersonal systems and thus, emotional behaviors
cannot be separated from their social and cultural meaning (Saarni, 1989). Saarni (1989)
asserted that learning to regulate one’s emotions is an interactional process: Children
learn to regulate their emotions both by observing others and through direct instruction
from parents and others about appropriate ways of expressing emotions (Denham, 1998).
In these ways, socializers contribute significantly to children’s emerging regulatory
abilities. In Indian society, family members exert the greatest influence on an individual’s
life (Kakar, 1971), and child rearing is a shared activity. Thus, parents, grandparents,
aunts, and uncles are considered important socializing figures; neighbours and teachers
also play a role in the socialization process. However, the majority of women in urban
parts of India are homemakers, and child rearing is a task traditionally assigned to women
(Guzder & Krishna, 1991). Thus, mothers spend the most time with their children during
early to middle childhood (Guzder & Krishna, 1991). Because they are the foremost
socializers during this period, this study focused on mothers.

In sum, this study focused on developmental and gender differences in regulation
of children’s anger, sadness, and physical pain. In addition, the impact of maternal
socialization on regulatory skills was also examined. The subsequent sections of this
introduction begin with a description of Bronfenbrenner’s ecological model and the role
of culture in studying child development, and provide a brief introduction to East Indian
culture. Then, a framework for studying culture and emotions is presented, followed by a
review of the literature concerning children’s regulation of their emotions and the impact
of parental socialization on children’s regulatory abilities. Finally, research questions and
hypotheses tested in the present study are outlined.

**The Role of Culture in Human Development**

Most social scientists agree that culture plays a crucial role in shaping human development. However, there is less consensus about what this role may be. Some theorists believe that culture acts on a set of universals that are biologically determined and fundamental to the human species. Others take a more relativist position and argue that human existence is so embedded in culture that the two are inseparable from one another. From this relativist viewpoint, culture is the primary cause of human behavior. Within developmental psychology, the role of culture has been described by Bronfenbrenner in his ecological systems theory. Bronfenbrenner takes an intermediate position and considers human development as a result of ongoing transactions between biological and contextual aspects.

**Bronfenbrenner’s Ecological Systems Theory**

Bronfenbrenner (1979, 1986) has proposed a framework to understand human development as it unfolds over time. Within this framework, development is viewed as a joint function of the developing person and their environment. Bronfenbrenner has identified different environmental contexts relevant to human development and has attempted to organize them as nested levels with varying degrees of proximity to the individual. These contexts are thought to interact with one another and with the individual, resulting in development of the individual. This model is known as the ecological systems theory.

Bronfenbrenner (1989) has proposed four systems as nested layers with the first layer closest to the individual and the fourth layer farthest away. The innermost layer is
called the *microsystem*, which includes the developing child and his/her interpersonal relations with significant people, such as parents, siblings, teachers, friends, and others with whom the child interacts in his/her daily lives. Examples of microsystems are parent-child and sibling-child interactions at home, and teacher-child interactions at school. The second layer is termed the *mesosystem*, which comprises the relations between microsystems, such as those between parent-child system at home and teacher-child system at school. The *exosystem*, the third layer, consists of relations among two or more systems, whereby one of the systems does not directly involve the developing child as an active participant, but exerts significant influence on microsystems and mesosystems that involve the child. An example would be the influence of parent’s workplace on parent-child subsystem. Finally, social classes, ethnic or religious groups, communities, neighbourhoods, or other types of broader social structures that share particular characteristics constitute the fourth layer, or *macrosystem*.

A substantial body of research in developmental psychology is conducted within the macrosystem of White, middle-class, North American culture. Very few studies have examined developmental phenomena in other macrosystems. According to Bronfenbrenner's model, each macrosystem influences the developing child, as well as other systems, uniquely. Thus, the present study investigated children’s ability to regulate their emotions while interacting with others, and the link between mother’s response patterns and children’s regulatory abilities within the macrosystem of East Indian culture.

**East Indian Culture**

Visitors to India (e.g., Compton, 1904) have noted that most westerners think about India as they would about a more homogeneous country such as France, Spain, or
Germany. However, during their visits to India, they have discovered that India is not a homogeneous country. The term “Indian” refers to a heterogeneous group of individuals who belong to various geographic regions, speak many different languages, live in a variety of climatic conditions, and follow a variety of different traditions and customs.

Compton (1904) suggested that the term “Indian” should convey the same cosmopolitan meaning as the expression “European”. Writers from India (e.g., Guzder & Krishna, 1991) have also noted cultural diversity within the country. Guzder and Krishna (1991) reported that there are more than 30 major language groups with 250 distinct dialects, and numerous religious groups in India including Hindu, Moslem, Christian, Jain, Sikh, Buddhist, and Zoroastrian.

Despite this diversity, East Indians share the same basic hierarchical structure, based on age and gender: With increasing age, one achieves a higher status in the hierarchy, and males traditionally are given a higher status than females (Kakar, 1981; Guzder & Krishna, 1991; Reddy & Hanna, 1998). Gender roles are very clearly defined. The majority of women are home-makers and are assigned responsibility for the household. Men primarily work outside the home and assume the financial responsibility for the household. For generations, life in East Indian society has been centred around the family (Sethi et al., 1968; Kakar, 1981; Reddy & Hanna, 1998). Family is considered to be of utmost importance in an individual’s life. Kakar (1971) compared familial, educational, religious, social, and political sources of influence among East Indians, and found family to be the most important one, followed by religion (The impact of religion on people’s lives in India has also been noted by several other writers e.g., Dhruvarajan, 1990; Gazdar & Krishna, 1991; Reddy & Hanna, 1998; Shastri, 1998). A majority of
families live within an extended family network. A typical family unit consists of more
than two generations living together and the oldest male member of the family is
recognized as the head (Sethi et al., 1968; Kakar, 1981). However, these patterns are not
homogeneous across the country; they vary in urban versus rural parts and across
provinces. Moreover, these traditions have recently begun to change.

This study focused on one of the many language groups in India: Gujarati. Gujarat
is a province located in north-western India. Though the majority of the residents speak
Gujarati and follow the religious tradition of Hinduism, Jainism, Islam, and
Zoroastrianism are also practised. For most Gujaratis, religion is considered very critical
to their daily lives (Shastri, 1998). As Kakar (1971) pointed out, religion is so embedded
in the lives of Indians that it is almost inseparable -- it's a way of living. This study
focused specifically on middle-class families residing in the largest and the most
populated city of the province, Ahmedabad. Gujarat and other provinces in Northern
India have been subject to frequent attacks by foreign invaders, and thus have been
exposed to other cultures that have considerably influenced the lifestyles of people in
these regions. However, the basic hierarchical structure of East Indian culture has
remained the same. According to the most recent census data, a majority of middle-class
Gujarati families live in an extended family network (Directorate of Census and
Elections, Government of Gujarat; 1999). However, a substantial proportion of family
units are nuclear. While a majority of middle-class Gujarati women are homemakers, a
small proportion are employed outside of the home (Directorate of Census and Elections,
Government of Gujarat; 1999). Education is emphasized for both males and females in
middle-class Gujarati families. Hence, an average middle-class Gujarati adult would have
had some post-secondary education (Directorate of Census and Elections, Government of Gujarat; 1999).

**The Study of Emotions**

The study of emotions has received substantial research attention from psychologists in recent years. In the earliest studies of human emotions, psychologists examined their own internal processes and described their conscious experiences of emotion (Benjafield, 1996). With the rise of behaviorism in psychology, internal states were no longer considered acceptable targets of scientific study; only observable behaviors were investigated (Oatley & Jenkins, 1996). Consequently, emotions were rarely studied for several decades. With the revival of interest in cognitive psychology, internal states regained acceptance and became central to the understanding of human functioning. Still, however, the focus was strictly cognitive and emotions were considered to be by-products of cognition, not worthy of study in their own right (Oatley & Jenkins, 1996).

More recently, psychologists have begun to incorporate emotion into theoretical and empirical work, providing a more balanced view of internal states. The current view is that emotions are useful as they both influence and are influenced by human cognition and behavior (Denham, 1998). Emotions also serve an important interpersonal function: They are a means of communication that people use while interacting with others (Denham, 1998). This recognition has led to a revival of interest in the study of emotions in recent years.

**What is an Emotion?**

Despite an enormous body of research, there is a lack of agreement about the
definition of emotion (Shaver, Wu, & Schwartz, 1990). For the purposes of this study, the proposal put forward by Lewis and Michelson (1983) seems useful. These authors proposed viewing emotion as consisting of five components: emotional elicitors, emotional receptors, emotional states, emotional expression, and emotional experience. Each of the components, as well as linkages among them, can be seen as the target of socialization influences and thus subject to cultural influences (Lewis & Saarni, 1985).

*Emotional elicitors* are the first component of emotion. These are the stimuli that are appraised as causes of our emotional responses and are subject to social and cultural influence (Saarni, 1993). *Emotional receptors* -- the second component of emotion -- are hypothesized structures that create the interface between an emotion-eliciting situation and the individual (Saarni, 1993). For example, temperament and emotional intensity of responding may act as emotional receptors, and may result in individual differences in emotional responsiveness (Lewis & Saarni, 1985). *Emotional states* -- the third aspect of emotion -- refer to somatic changes that co-occur with emotional responding (Saarni, 1993). Biochemical, neurological, and physiological activity can be examined for patterns associated with different emotions (Saarni, 1993).

Emotional expression and emotional experience are the last two components of emotion. As the proposed study focuses specifically on these two components, each of them will be described in detail. *Emotional expression* is thought to be significantly influenced by socialization: In all cultures, children learn rules or guidelines about when and where to express emotions (Lewis & Saarni, 1985). Beliefs about which expressions of emotions are socially desirable or appropriate are referred to as "display rules" (Ekman & Frissen, 1975). Within every culture, there is a considerable agreement about what
kind of expression is appropriate in a given circumstance. Ekman and Frissen (1975) identified four strategies that adults in western culture use to modify their emotional expression: minimization, maximization, masking, and substitution. Minimization refers to minimizing the display of one's genuine feelings, while maximization refers to an exaggerated expression of how one really feels. Masking is the adoption of a neutral expression, and substitution refers to expressing an emotion that is altogether different from what one actually feels.

*Emotional experience* is viewed as the most cognitive component by some researchers (e.g., Lewis & Michalson, 1983). According to Lewis and Saarni (1985), it involves knowledge about emotions and the ability to use language to label emotions. Lewis and Michalson (1983) argue that the experience of emotion requires the ability to appraise a given internal state as a particular emotion. Hence, cognitive maturation is required for children to experience emotion (Lewis and Michalson, 1983). Although appraisal is often necessary, Denham (1998) has argued that emotion can be experienced without cognitive appraisal. Hence, even very young children experience emotion (Denham, 1998). As they mature, however, they acquire increasing insight into their own emotional states and the ability to infer emotional states in others (Saarni, 1993).

The impact of socialization on emotional experience is seen as affecting one's understanding of emotions and the knowledge of "emotion language", as well as providing cultural information about what to feel under what circumstances (Lewis & Saarni, 1985). According to Lutz (1985), socialization influences are inherent in the construction of emotional experience. If an emotion is experienced by interpreting a given internal state as a particular emotion, then socialization can be viewed as
influencing the way in which one interprets the internal state.

In summary, emotion is viewed as consisting of five components. The aspects of emotion that are the clearest targets of socializing influence --and thus subject to cultural influence-- are emotional elicitors, emotional expression, and emotional experience (Saarni, 1993). The proposed study focused on the experience and expression of emotion.

How Does Culture Influence Human Emotions?

Like other psychological processes, emotions can be viewed as either universal or culturally determined. In fact, the debate about nature versus nurture-- the question of whether human behavior is more influenced by biological or environmental factors-- has been more pronounced in the study of emotions than other areas of psychology (Oatley, 1993). Universalists argue that emotions are primarily biologically determined and the role of culture is secondary. These theorists suggest that there are few basic emotions that are experienced by people in all cultures, however, the expression of these emotions is influenced by culture (White, 1993).

Social constructionists, on the other hand, view emotion primarily as a social construction. According to this view, emotions are like languages: Although there is a common basis for language in all human beings, each culture has its own vocabulary, syntactic form, and meanings. Similarly, each culture has distinctive patterns of emotions that are derived from societal practices and convey meanings and effects to the members of that culture (Oatley, 1993). These theorists view emotion experience as firmly embedded in cultural meaning systems and argue that culture not only shapes the expression of emotion but is also of primary importance in experiencing emotion (Lutz, 1988).
One of the mechanisms through which culture may shape the experience and expression of emotion is by influencing appraisals of interpersonal situations. It has been noted that decisions to express versus control emotions are centred around appraisals concerning the consequences of expressing emotion (Denham, 1998). These appraisals are made in terms of implications for the self and one’s relationship with others, and involve considerations of protecting one’s self-esteem, as well as conforming with social norms and expectations. For example, expressing one’s feelings of sadness may elicit comfort from others, but it may also lead to embarrassment for the experiencing self. Following Lutz (1988), it can be argued that evaluations of interpersonal consequences are made not only while deciding whether to express felt emotion, but also while experiencing a particular emotion. Thus, for example, people not only engage in evaluations of “Is it OK to express anger towards my mother?”, but also “Is it OK to feel angry at my mother?”.

Menon (2000) suggested that these appraisals of interpersonal situations are made based on the broader folk theories that people have in all cultures. Folk theories are a set of descriptions about how human beings behave, what our own and others’ minds are like, and what actions can be expected in certain situations (Bruner, 1990). People in all cultures learn the folk theories of their culture and use them to conduct their everyday social interactions. Most folk theories about human emotions include beliefs about what kind of situations elicit what kind of emotion, and what kinds of behaviors follow.

Menon (2000) examined folk theories about human emotions prevalent in East Indian culture and argued that for Hindus in India, folk theories are deeply rooted in Hindu religious ideology. According to these theories, emotions are not separated from,
and are not thought of as lower than, reason. Given this orientation, Hindus rarely claim that strong passions excuse a person’s behavior.

These folk theories also distinguish between what are called "uncivilizing emotions" such as rage/anger and laughter, and "refining emotions" such as shyness and embarrassment. This distinction between uncivilizing, coarse emotions and those that are considered more civilizing and refining arises from the Hindu goal of self-refinement -- the ultimate goal of human existence, according to Hindu philosophy. Cultivating the ability to experience refining emotions is thought to be an important component in achieving this ultimate goal. As a result, from a very early age, all children (both males and females) are socialized to experience and express emotions in the most civilized manner possible. However, in Hindu ideology, there is relatively more pressure for women to engage in self-refining behaviors than men. Expressions of uncivilizing emotions are tolerated more in men than women.

Two alternate views exist to explain this gender differentiation. One view argues that in Hindu ideology, women are perceived as impure due to natural processes of childbirth and nursing. Hence, the need for women to refine themselves is more acute. In contrast, men are pure to begin with and thus do not need to engage in as much refinement to achieve the ultimate goal (It should be noted that there is an apparent contradiction in this view: if men are pure to begin with, they would not express uncivilizing emotions. However, this doesn’t seem to be the case: men likely express uncivilizing emotions more than women, as it is socially more acceptable for them).

The other view argues that within Hindu ideology, women are perceived as inherently more capable of living up to the highest standards of morality than men. It is
believed that women are born with the inner strength required to bear the toughest aspects of life in accord with the strictest conventions, which men appear to lack (Dhruvarajan, 1990). Hence, women carry the burden of following the strictest rituals and maintaining the high moral standards for the rest of the society (Guzder & Krishna, 1991).

Regardless of the view taken, there is more pressure for women to behave in religiously, and thus, socially acceptable manner than men. From a very early age, girls are socialized to experience and express refining emotions such as shyness and shame/embarrassment. They are also socialized not to experience and express uncivilizing emotions. Hence, although it is socially undesirable to display uncivilizing emotions for both genders, it is relatively less acceptable for a little girl than it is for a little boy. Displays of uncivilizing emotions, such as rage/anger, are tolerated more in little boys than girls.

In sum, the previous discussion suggests that people in all cultures experience and express emotions in accord with the folk theories of their culture. Menon (2000) asserted that for Hindus in India, religious ideology contains folk theories about emotions. Because religion is embedded in the lifestyles of Gujarati people and a majority of them practice Hinduism, Hindu folk theories seem particularly relevant for this study. Hence, these folk theories were used to help understand, explain, and predict emotional behaviors in children in this study.

**Emotion Regulation in Children**

The topic of emotion regulation has received substantial research attention in recent years. As mentioned earlier, emotion regulation is viewed as an important aspect
of children's emotional competence (Denham, 1998). Investigators ask three crucial questions as they attempt to understand emotion regulation. The first question involves the purpose of regulation: Why are emotions regulated? The second question involves the target of regulation: What is regulated in emotion regulation? The third question deals with the issue of mechanisms: How are emotions regulated?

With respect to the first question, one purpose of emotion regulation is the management of heightened physiological arousal, as both positive and negative emotions can be stressful and can exceed children's coping resources (Denham, 1998). A second purpose of emotion regulation is interpersonal: children need to modulate emotional displays to conform with social rules and standards of appropriateness, or for prosocial reasons (e.g., to protect others' feelings). The present study was primarily concerned with the second purpose.

The second question concerns the target of regulation: Is emotion regulation primarily concerned with the management of emotional expressions, or the experience as well? Does it influence the discrete emotion or the quality of an emotional experience (e.g., intensity and duration of emotion)? The emotion-eliciting situation, emotional experience, and emotional expression are all considered targets of emotion regulation. The present study focused on the management of emotional expressions.

The third question addresses the mechanisms of emotion regulation. Both adults and children use various strategies to regulate their emotions, depending on the target of regulation (emotion eliciting situation, emotional experience, expression). Children can selectively approach or avoid situations based on their emotional impact; they can also modify the situation to alter its emotional impact (Gross, 1999). Moreover, children can
choose environments that are compatible with their emotional expressiveness, referred to as "niche picking." Emotional experience and expression may be modified through attentional, cognitive, or behavioral means (Denham, 1998). An example of an attentional strategy is distraction, in which the child may focus on non-emotion relevant aspects of the situation, or may shift attention away from the immediate situation altogether. For instance, a child who is feeling sad can think of something positive, like her favourite food or a fun activity. The child may also regulate through cognitive means, re-appraising the situation in order to alter its emotional significance (Gross, 1999). For example, a child who is scared of a TV show can say to himself, "Don't be scared. These are just cartoon characters, they are not real." The child may also use behavioral strategies to modify emotional expressive behavior, such as hiding their felt emotion by masking the expression, or substituting another emotion in place of felt emotion (Gross, 1999). For example, an angry child can modify her expression by looking happy on her face. The present study focused on one set of behavioral strategies for regulating emotions— the use of display rules to modify emotional expression.

**Use of Display Rules**

Literature on display rules in developmental psychology has focused on both children's use of display rules and their understanding of them. As children grow older, their expressive patterns become more complex and they learn to minimize, mask or substitute one emotion for another (Denham, 1998). The ability to modify emotional expressions often goes hand in hand with children's understanding of dissemblance-- the idea that expression of an emotion can differ from what is actually felt (Denham, 1998). With increasing age, children also learn to provide more complex reasoning for
regulating emotions. With increasing cognitive complexity and socialization, children learn to regulate their expressive emotional behavior according to social conventions and to explain their reasons for doing so (Saarni, 1979).

In one of the earliest studies of children's emotion regulation, Saarni (1979) investigated children's understanding of the distinction between felt and expressed emotion, and developmental trends in the acquisition of display rules. She also examined whether children's decisions to control their emotions were dependant on the person with whom they were interacting. It was expected that children would be more likely to control their emotions when interacting with a peer or an adult who was unfamiliar than one who was familiar. Children aged 6, 8, and 10 years were given scenarios in which a target child and an audience person were engaged in a conflict situation. The participants were then asked a series of questions concerning the affect experienced by the target child, target child's facial expression, and the reasoning behind participant's choice of a given facial expression. Results revealed that 10-year-olds used display rules more often than 6- and 8-year-olds. No sex differences were found, nor were there any differences in display rule usage based on the familiarity of the other person.

In another study, Underwood, Coie, and Herbsman (1992) focused specifically on the development of display rules for anger and aggression. Third, fifth, and seventh grade children were shown hypothetical videotaped vignettes intended to provoke anger, and then were asked to respond to a series of questions concerning display rules. The investigators predicted that children's use of display rules would increase with age as they become more aware of the consequences of expressing anger, and as they are socialized to understand cultural prohibitions against showing anger. They also expected
that the use of display rules would vary with the social context: Children were expected
to report the use of display rules more often with teachers than with peers because of greater
retribution from authority figures for angry behavior. Underwood et al. (1992) found
some support for these hypotheses: At all ages, children reported the use of display rules
more often with teachers than with peers. However, in the teacher condition, older
children used display rules more than younger children. Moreover, girls reported
regulating facial expressions more than boys.

Zeman and Garber (1996) elaborated on the idea that the presence of others might
influence children’s decisions to control or express their emotions. They argued that
social interactions are a central context for learning to regulate one’s emotions.
Emotional development occurs in an interpersonal context, from which it cannot be
-separated (Saarni, 1989). Based on the findings of Underwood et al. (1992) and others
(e.g., Gnepp & Hess, 1986; Saarni, 1988), they argued that children’s expressions of
negative affect are influenced by who is present, as well as child age and sex. In addition,
they argued that the literature concerning children’s use of display rules had focused
primarily on disappointment, embarrassment, shame, and rejection and that little was
known about display rules for sadness and anger. Based on these arguments, Zeman and
Garber (1996) included type of emotion (anger, sadness, physical pain) and type of
audience (mother, father, peer, alone) as factors, in addition to age and sex of the child.
Using hypothetical scenarios with first, third and fifth grade children, they found that
younger children reported expressing anger and sadness more than older children. Girls
were more likely to report expressing sadness and pain than boys. They also found that
regardless of the type of emotion, children reported controlling their expressions more in
the presence of peers than when they were with either their mother or father, or when they were alone.

This finding is interesting, given Underwood et al.'s (1992) finding that all children -- regardless of their age and sex -- reported controlling their expressions of anger less in the presence of peers than teachers. Given that children's decisions about expressing their feelings are guided by appraisals of interpersonal consequences from authority figures such as parents and teachers, it might have been expected that children would be more likely to control their expressions in the presence of both parents and teachers than peers. However, Zeman and Garber's (1996) findings contradict this line of reasoning. It may be that children perceive parents to be closer to them than peers and thus feel comfortable expressing their feelings in the presence of parents. However, children may feel more comfortable expressing their feelings in the presence of same-age playmates than less familiar adults, such as teachers.

A substantial body of research on children's use of display rules to regulate emotions has been conducted with North American children. Only two studies have examined related constructs in other cultures. One such investigation focused on Japanese children and the other examined East Indian children. Both of these studies focused on children's understanding of dissemblance (the idea that expression of an emotion can differ from what is actually felt) rather than reported use of display rules. Gardner, Harris, Ohmoto, and Hamazaki (1988) examined the understanding of real and apparent emotion in English and Japanese 4-year-olds. These researchers argued that because young Japanese children are expected to regulate the display of their feelings at an earlier age than Western children, they would show an earlier comprehension of the distinction
between real and apparent emotion. Their results, however, did not indicate that 4-year-old Japanese children comprehend the appearance-reality distinction any better than their English counterparts. Gardner et al. (1988) concluded that socialization factors are of secondary importance in attaining knowledge of the distinction between real and apparent emotion. Rather, children's understanding of this distinction is related to their cognitive maturation.

Joshi and MacLean (1994) suggested that before discarding the importance of socialization factors in children's understanding of display rules, it is necessary to think about the contexts in which it is important for a child to conceal emotion. They argued that in the Gardner et al. (1988) study, most of the stories involved a child concealing emotion from another child. Japanese society stresses the importance of hierarchy, and respect to elders. Hence, Joshi and MacLean (1994) argued that if Gardner et al. (1988) had used stories describing children in interactions with adults, Japanese children might have demonstrated a superior understanding of the distinction between real and apparent emotion compared to English children. Based on this argument, Joshi and MacLean (1994) added a story type variable (child-adult versus child-child) to Harris et al.'s (1986) original design and investigated the reality-appearance distinction in English and Indian preschoolers. Joshi and MacLean (1994) noted that because Indian society, like Japanese society, places greater emphasis on the display of respect to elders, Indian children would be required to conceal inappropriate emotions from significant elders at an earlier age than English children. They further stated that these cultural differences would also lead to an earlier understanding of the reality-appearance distinction in Indian children.

Joshi and MacLean (1994) recruited 24 preschool children and 24 school-entry
children in each of the two countries (i.e., India and England). Their design involved a 2
(age of the child: younger versus older) x 2 (sex of the child: male versus female) x 2
(culture: Indian versus English) x 2 (story type: child-adult versus child-child) x 2
(valence of emotion: positive versus negative) mixed design. Age and sex of the child
and their culture were between subject factors; story type and valence of emotion were
within subject factors. All children were told a series of short stories in which the main
character felt either a positive or negative emotion but needed to conceal that emotion
from the other person or people in the story. An example of a story from Joshi and
MacLean’s (1994) study is: “Sanjay’s uncle has just returned from trip to America and
has brought Sanjay a book. Sanjay doesn’t really like books and really wanted a toy gun,
but Sanjay tries to hide how he feels so that his uncle will not be upset”. Following this
story, children were asked: “How does Sanjay really feel when his uncle gives him the
book?” and “How does Sanjay try to look on his face when his uncle gives him the
book?” Children’s responses were scored as correct or incorrect: A response was judged
as correct if it showed reality-appearance shift in the appropriate direction. For example,
in the above story, the following shifts would be counted as correct: sad to happy, sad to
OK, and OK to happy. Number of correct responses was used as an index of the
understanding of the reality-appearance distinction.

Results revealed main effects of age, gender, story type, and valence of emotion
but not of culture: Older children understood the reality-appearance distinction better
than younger children and girls did better than boys. All children were able to grasp the
distinction better with stories involving adults interacting with children than children
interacting with children, and when the story involved concealing a negative emotion
rather than a positive emotion. In addition, two four-way interaction were found: age x sex x story type x valence, and age x sex x valence x culture. The first interaction (age x sex x story type x valence) revealed that in stories which depicted adults interacting with children, younger girls were better able to judge the reality-appearance distinction than younger boys. However, this pattern was not found with stories in which children interacted with children: In this condition, young girls and boys understood the reality-appearance distinction equally well. The second four-way interaction (age x sex x valence x culture) revealed that younger Indian girls grasped the reality-appearance distinction better than younger Indian boys and both younger English girls and boys. The superior understanding of younger Indian girls was restricted to stories involving concealment of a negative emotion. Joshi and MacLean (1994) suggested that their results point to a differential socialization for girls and boys in India. This suggestion is supported by the observations that in India, there is a greater emphasis on deference and decorum in girls than boys, as well as greater pressure for girls to conform. Overall, the main hypothesis of Joshi and MacLean (1994) -- that the inclusion of child-adult stories would allow Indian children to demonstrate an understanding of the reality-appearance distinction at an earlier age than English children-- was not supported. However, differences in the understanding of dissemblance were observed between young Indian girls and their English counterparts (young boys and girls) in stories involving concealment of a negative emotion.

In sum, the North American literature suggests that children’s decision to control versus express their emotion depends on their age and their sex, as well as on who they are interacting with. Zeman and Garber (1996) also looked at type of emotion as a factor
influencing the decision to control emotion and found age and emotion type, as well as sex and emotion type, interactions. The two studies that examined other cultures (Gardner et al., 1988; Joshi & McLean, 1994) focused on children’s understanding of dissemblance, which develops hand in hand with their ability to use display rules, and found age, sex, and emotion type differences (Joshi and McLean, 1994, also found a restricted four-way interaction involving a culture type difference). However, the use of display rules per se was not investigated in either of these studies (Gardner et al., 1988 and Joshi & McLean, 1994). Thus, the present study investigated the use of display rules to regulate anger, sadness, and physical pain in East Indian children. Two age groups were examined: A younger group of 5- and 6-year-olds and an older group of 8- and 9-year-olds. As mentioned previously, Indian society is hierarchical, and age and sex are two important determinants of this hierarchy. Children in India are expected to conform to social rules and learn lessons of self-control from a very early age (Kakar, 1981). However, older children are likely to feel more pressure to conform to social expectations than younger children. Hence, it is expected that older children will control anger, sadness, and pain to a greater extent than younger children.

In addition to developmental differences, gender differences were also expected. In Indian culture, gender roles are clearly defined and children are socialized differentially in accord with their gender (Dhruvarajan, 1990; Guzder & Krishna, 1991). As mentioned previously, in Hindu philosophy, self-refinement is the ultimate goal of human existence, and there is more pressure for women than men to engage in self-refining behaviors (Menon, 2000). Experiencing and expressing refining emotions like modesty and shyness is a part of this goal. Hence, from a very early age, girls are
socialized to experience and express refining emotions and are socialized not to experience and express uncivilizing emotions. On the other hand, boys face less pressure to engage in self-refining behaviors, and it is more acceptable for them to display uncivilizing emotions like anger and rage. Thus, it was expected that girls would be more likely to control anger, whereas boys would be more likely to control sadness.

With respect to physical pain, research in cultural clinical psychology suggests that in eastern cultures physical complaints may be perceived as more acceptable than psychological processes. Thus, the present study tested the hypothesis that Indian children would be more likely to express physical pain than anger or sadness, regardless of their age, sex, or who they are interacting with.

North American literature on emotion regulation suggests that children’s decisions to control versus express emotions depends on who they are interacting with. Pai (1999) has noted that East Indian children are encouraged to express emotions differently to people depending on their status in the family and societal power structure. In Indian society, family roles are differentiated according to hierarchy, and hierarchy is determined primarily by age. Greater emphasis is placed on respect for elders while socializing children (Joshi and MacLean, 1994). Moreover, in Indian society, family roles are also differentiated according to gender. In most families, men are considered to be authority figures and children feel greater pressure to obey their fathers than their mothers. Hence, it was expected that children's use of display rules would depend on both the age and sex of the other person they were interacting with. It was hypothesized that Indian children would be most likely to control anger, sadness, and pain in the presence of their fathers, followed by their mother and peers.
Understanding of Display Rules

Although young children understand the distinction between real and apparent emotion and are able to use display rules, they often find it difficult to explain why is it necessary to control felt emotion. Denham (1998) suggested that during early childhood, children’s understanding of display rules is rudimentary at best. Few children understand, even by first grade, that facial expressions can be minimized, masked, or substituted for prosocial or self-protective reasons. To investigate children’s understanding of reasons for concealment, a number of researchers have looked at the justifications children provide for concealing emotions. These justifications generally fall into three categories: (a) prosocial, (b) self-protective, and (c) norm maintenance (Jones, Abbey, & Cumberland, 1998). Prosocial justifications refer to children’s concerns about protecting others’ feelings (e.g., if I showed how mad I am, my friend will feel sad). Self-protective justifications refer to children’s concerns about avoiding negative consequences for themselves (e.g., if I showed how mad I am, mom will scold me). Saarni (1979) also included other self-protective reasons such as maintaining one’s self esteem (e.g., I would be embarrassed if I showed how scared I was). Norm maintenance refers to children’s reference to conforming with social rules (e.g., you should not show disappointment upon receiving a gift because it is impolite).

In their study of Indian and English children, Joshi and MacLean (1994) expected that all children—regardless of their age, sex, or culture—would provide more justifications regarding the concern to protect others’ feelings than those referring to norm maintenance or self protection. However, their results revealed that in the child-adult stories, the most frequent justification provided by all children—regardless of age,
sex, or culture -- was a desire to avoid negative consequences for themselves. Fifty-seven percent of Indian children and 48% of English children provided justifications concerning avoidance of being smacked or scolded by adults. Only two cultural differences emerged in the type of justifications children provided: Indian children made more references to social rules and physical punishment than did English children.

Other researchers (e.g., Banerjee, 1997) have also found that children more often provide justifications related to avoiding the negative consequences of displaying true emotions. In their study of first, third and fifth grade children, Zeman and Garber (1996) reported that across all ages and emotions studied, the primary reason for controlling expressions was an expectation of negative interpersonal consequences upon expressing feelings. This was true for both boys and girls. Saarni (1979) speculated that children of all ages understand self-protective reasons more readily than prosocial ones and that children under the age of seven years may only understand self-protective reasons. Saarni (1979) found that compared to 6- and 8-year olds, 10-year-old children provided more complex reasoning and used norm maintenance more often as a reason for regulating emotions. In a study of kindergarteners and third graders, Jones et al. (1998) found that older children provided all three types of justifications (e.g., prosocial, self-protective, and norm maintenance) more than younger children. In addition, girls were more likely to justify the masking or substitution of their emotion by referring to norm maintenance than boys. In sum, these findings suggest that there might be a developmental shift in children’s justifications for controlling emotions: Older children (8- to 10-year-olds) may be more likely to refer to norm maintenance as a reason for controlling their emotion than younger children. Younger children, on the other hand,
may be more likely to provide self-protective reasons for regulating their emotions. Prosocial reasons appear to be provided least often across all age groups.

In addition to developmental level, there might be methodological reasons for the variability in children’s justifications for controlling their expressions. Joshi and MacLean (1994) suggested that children’s justifications might be influenced by details contained in the stories they heard. For example, in their study, four of the eight child-adult stories contained references to verbal chastisement by the adult if the child revealed their true feelings. Children’s reference to others’ feelings rose to 42% in two stories that explicitly mentioned adults getting upset (e.g., sad or disappointed). This equalled the percentage of justifications referring to smacking and scolding (40%) in the stories that depicted adults getting cross or annoyed. Results of child-child stories were not reported by these researchers. Joshi and MacLean (1994) suggested that more research is required to determine the extent to which children’s responses to justification questions are determined by the rationale provided in the story for hiding emotion.

The present study further examined the justifications children provide for regulating their emotions. Literature on children’s justifications for concealing felt emotion has revealed significant age differences. However, findings on sex differences have remained inconsistent. Hence, this study examined the role of age and sex of the child in the type of reasons provided. Although children in India are expected to follow social rules from a very early age, older Indian children might experience more pressure to conform and hence, be more likely to refer to norm maintenance than younger children when controlling anger and sadness. Younger children, on the other hand, were expected to provide more self-protective reasons for controlling anger and sadness.
With respect to gender differences, Joshi and MacLean (1994) point out that there is greater emphasis on decorum and deference for girls than boys in Indian culture. Hence, girls might be more likely to provide justifications referring to norm maintenance than boys. Finally, it was expected that East Indian children would provide justifications that are qualitatively different from those reported by North American children (e.g., futility of expression, minimizing the significance of the emotion). It was also expected that when East Indian children referred to norm maintenance as a justification for regulating their feelings, they would mention implicit social rules that are specific to East Indian culture, and qualitatively different from those mentioned by North American children. (e.g., East Indian children might cite rules that refer to audience figure's status in the hierarchy; they might also cite implicit rules regarding what emotions are culturally acceptable and under what circumstances).

Socialization of Emotion Regulation

Though maturational processes are important in the study of emotion regulation skills, socialization processes are also likely to play a prominent role. Parents and other socializers contribute significantly to children’s developing abilities to regulate their emotions. The study of socialization involves examining the relations between aspects of children’s development, including emotion regulation, and parental behaviors, beliefs, and affective reactions. Parental behaviors and beliefs are influenced by beliefs and folk theories shared by their culture. Menon (2000) has discussed folk theories prevalent in East Indian culture that emerged from Hindu philosophy. The folk theories that are related to emotional experience are central to how parents communicate the experiential meaning of the emotion to their children (Saarni, 1987). These theories also influence the
way that parents respond to their children's emotions in an effort to teach them culturally appropriate ways of feeling and behaving. The Hindu folk theories about civilizing and uncivilizing emotions and differential gender expectations would cause a parent to respond differently to the emotional expressions of a male versus a female child. The process of socialization thus can be viewed as the transmission of these cultural meaning systems from parent to child. For example, a mother who says to her angry child, "you cannot be angry at your elders", is attempting to transmit culturally appropriate ways of feeling and behaving to her child. It is hoped that, in turn, the child will internalize these meaning systems and behave accordingly.

Research on socialization practices distinguishes two primary modes of emotion socialization: direct and indirect (Lewis & Saarni, 1985). Indirect methods refer to socialization through the observation of others' behaviour (Lewis & Saarni, 1985). This includes how parents' modelling of their own emotions influences children's emotional competence (Eisenberg et al., 1998). Direct methods of socialization are those in which one or more agents of socialization act on the child. This includes the way that parents respond to children's emotional expressions, discuss emotions with their children, and coach them to express their feelings (Eisenberg et al., 1998). The present study focused on one direct mode of socialization: mothers' reactions to children's emotional expressions.

It seems plausible that modes of socialization in East Indian culture are quite similar to those found in North American culture. For example, Indian mothers respond differentially to emotional displays of their children in everyday situations that are likely to elicit emotions. Though there may be additional modes of socialization relevant to
Indian culture (e.g., anthropological literature suggests that story telling is a prominent means of communicating moral beliefs and values in rural India (Narayan, 1989); thus, children may learn culturally appropriate ways of feeling and expressing by hearing stories from adults in the family), studying mothers’ responses to their children’s emotional displays as a mode of socialization seems meaningful and relevant to East Indian culture.

In Joshi and MacLean’s (1994) study, differences in the level of understanding between Indian and English children were attributed to differential socialization in the two cultures. However, socialization was not directly assessed in that study. What is it that parents in India do differently that leads to differential understanding? How do Indian parents react to their children’s emotions? These are some of the questions that remain to be explored. In fact, Joshi and MacLean (1994) suggested that research explicitly examining the relation between understanding and implementation of display rules, and the effect of parental expectations in both of these domains, is needed. Other researchers also suggest studying the influence of socialization on display rule usage. For instance, Denham (1998), stated that “little or nothing is known yet about the contribution of parental coaching and contingent responsiveness to young children’s display rule usage. This area is ripe for investigation.” (p. 129). Taking up these suggestions, the present study investigated the contribution of parental socialization to children’s use of display rules in Indian culture where children are required to regulate emotions from a very young age.

**Parental Reactions to Children’s Emotions**

The research on emotion socialization in North America distinguishes between
two broad classes of parental reactions: supportive and nonsupportive (Eisenberg et al., 1998). In general, research suggests that when parents are supportive of their children’s emotions, children learn effective coping strategies and are less likely to become over-aroused. This leads to positive child outcomes such as demonstrated social competence in everyday interactions (Eisenberg et al., 1998). In contrast, when parents are nonsupportive of children’s emotional expressions, children are less likely to learn effective coping and are more likely to be over-aroused. This leads to negative child outcomes such as internalizing or externalizing types of behavior problems (Eisenberg et al., 1998).

Researchers suggest that parental nonsupportive reactions to children’s everyday negative emotions such as distress, fear, sadness, and anger are associated with negative social and emotional outcomes for children (Eisenberg et al., 1998). Eisenberg et al. (1998) noted several nonsupportive parental reactions that have been examined in prior research. They reported that parents can respond in a punitive manner that decreases their exposure to children’s negative affect (e.g., tell the child that if they start crying, they’ll have to leave the room). Parents may also minimize the value of child’s emotional reaction (e.g., tell the child to stop over-reacting). Parents may experience discomfort when their children express negative affect (e.g., feel uncomfortable with child’s behavior). Finally, parental restrictiveness has also been considered as a type of nonsupportive reaction.

It has been documented that punitive parental reactions are associated with undesirable outcomes for pre-school and school-aged children (Eisenberg, Fabes, & Murphy, 1996). In one study, researchers found that preschool and kindergarten children
exposed to punitive parental reactions tended to either escape or seek revenge in real-life anger situations with peers (Eisenberg & Fabes, 1994). Parental minimizing reactions have been associated with avoidant coping style and low levels of socially appropriate behavior between ages 4 and 6 (Eisenberg et al., 1996). Parental discomfort with child’s emotion has not been consistently linked with negative outcomes for children; however, there is some evidence that they are linked to children’s behavioral avoidance or low levels of venting emotion when angered in pre-school and kindergarten (Eisenberg & Fabes, 1994; Eisenberg, Fabes, Carlo, & Karbon, 1992). For elementary school children, parental discomfort has been linked with externalizing problem behaviors (Eisenberg et al., 1998). Moreover, in a longitudinal investigation, Eisenberg and colleagues found that children’s problem behavior at ages 10 to 12 years was marginally predicted from maternal reports of problem behavior earlier, maternal reports of children’s behavior regulation, and maternal punitive or distress reactions (Eisenberg et al., 1999).

Literature on parental reactions to children’s affect often uses the terms “nonsupportive” and “restrictive” interchangeably. However, parental restrictive reactions should be distinguished from nonsupportive reactions; they may be considered as supportive or nonsupportive depending on the context. For example, Buck (1984) has hypothesized that children whose parents restrict their expression of negative emotions gradually learn to hide their overt expression of emotion but experience heightened physiological reactivity in emotion-evoking situations. A high level of physiological arousal compromises physical health and leads to further dysregulation of emotions (Gottman, Katz, & Hooven, 1996).

An alternate view is that parental restrictiveness can serve to enhance children’s
awareness about when it is appropriate to express various emotions, and the effect of one’s emotional expression on others. Consistent with this alternate view, Saarni (1985) found that maternal restrictive attitudes towards children’s expression of emotions were related to children’s high level explanations about how one decides whether or not to reveal one’s genuine feelings. It may be that children of restrictive mothers are forced to think about display rules more than other children, and are exposed to a more elaborate discussion of display rules (Saarni, 1985). Saarni’s (1985) findings point to the idea that parental reactions-- supportive or nonsupportive-- should be viewed in the context of the entire parent-child exchange. It may be that restrictive parental reactions in Saarni’s (1985) sample were accompanied by parental coaching and discussion of socially acceptable forms of expression. In this context, maternal restrictiveness can be thought of as a supportive response.

In sum, when parents are nonsupportive of their children’s emotions either by punishing or minimizing the value of child’s emotion, negative child outcomes follow. Parents’ feelings of discomfort with their child’s emotional expression may also lead to negative child outcomes, though the findings in this area are not as clear. Saarni’s (1985) findings show that parents who are restrictive—though not necessarily nonsupportive—of their child’s expression of negative emotions have children who display in-depth knowledge of social rules about emotions. Restrictive mothers in Saarni’s (1985) study appear to be similar to Gottman, et al (1996)’s description of parents who are supportive of their child’s emotional experience, but not necessarily the expression of emotion. Such parents act as emotion coaches in teaching their children socially appropriate displays. Thus, it seems that the literature on parental supportive and nonsupportive reactions
should distinguish between responses that are directed towards child's experience of emotion versus those that address emotional expression.

In contrast to nonsupportive parental reactions, supportive reactions (e.g., comforting, teaching constructive means of coping) appear to enhance children's social competence (Eisenberg et al., 1996). Several supportive parental reactions have been examined, including emotion-focused responses (e.g., comforting) and problem-focused responses (e.g., teaching the child how to deal with the situation that elicited the emotion). There is growing evidence that parental emotion-focused reactions to children's negative affect are linked to positive outcomes for children (Eisenberg et al., 1998). For example, Denham and colleagues found that 4- and 5-year-olds' perceptions of their parents' comforting reactions to children's negative emotions were positively related to cooperativeness, empathy, and better relationships with peers (Denham, Mitchell-Copeland, Strandberg, Auerbach, & Blair, 1997). Eisenberg et al. (1998) have suggested that as children grow older, parents tend to rely less on comforting and adopt a more problem-focused approach. Several researchers have found that parents' emphasis on helping children find ways to deal instrumentally with the situation that elicited negative emotion is related to positive social functioning for children.

In summary, there is some consensus that supportive parental reactions that are targeted at dealing with the emotion or the situation are linked with enhanced social competence for children. It is reasonable to argue that these links will hold in Indian culture even though the actual definitions of what constitutes "supportive" and "nonsupportive" may differ. Given the Hindu orientation towards self-refinement, it can be argued that a majority of mothers in East Indian culture may be more restrictive--
selectively supportive of displays that are socially and culturally acceptable. Hence, it seems more useful to distinguish between mothers who are generally nonsupportive of their children’s emotions from those who are nonsupportive of socially unacceptable expressions. A further distinction can be made based on whether maternal reactions to children’s emotions are accompanied by mothers’ help in dealing with the emotion or the situation. Hence, it was hypothesized that mothers who are supportive of their children’s expressions and respond in an emotion-focused or problem-focused manner would have children who are more likely to express their feelings of anger, sadness and pain. These children would likely provide more prosocial justifications for controlling their expression. In contrast, mothers who are nonsupportive of their children’s emotional expressions and respond in either a punitive manner, minimize the value of child’s feeling, or respond with discomfort to child’s anger, sadness, or pain would have children who are less likely to express that particular feeling. These children would be less likely to provide prosocial justifications for controlling their expression and would be more likely to refer to self-protective reasons.

Summary of the Present Study

The purpose of this study was to investigate children’s regulation of emotions and the impact of socialization on these regulatory abilities. In particular, this study examined children’s use of display rules to regulate expressions of anger, sadness, and pain as a function of (a) child age, (b) child gender, (c) feeling type, and (d) audience type. Children’s understanding of display rules to regulate expressions of anger, sadness, and pain were examined as a function of (a) child age and (b) child gender. Finally, the relation between children’s display rule usage and mothers’ reactions to children’s
expressions of anger, sadness, and pain was also examined.

Questions and Hypotheses

**Question 1: Are there differences in Indian children's use of display rules as a function of child age, sex, feeling type, and audience type?**

1. Child age: It was expected that older children would be more likely to control anger, sadness, and pain than younger children.

2. Audience type: All children—regardless of age, gender, and emotion type—would be most likely to regulate their expressions when they are interacting with their father, followed by their mother, followed by a same-age playmate—a peer.

3. Feeling type and child sex: A main effect of feeling type was expected: Regardless of age, gender, and audience, all Indian children would be more likely to control their expression of emotions—anger and sadness—than physical pain (this main effect would be qualified by child sex x feeling type interaction). Girls were expected to control anger more than boys, while boys were expected to control sadness more than girls. No gender differences were expected in children's regulation of physical pain.

**Question 2: Are there differences in East Indian children's understanding of display rules as a function of child age and sex?**

4. Child age: Older children would be more likely to provide justifications referring to norm maintenance for controlling their expressions compared to younger children. Younger children would be more likely to refer to self-protective reasons than older children.

5. Child sex: Girls would be more likely to provide justifications referring to norm
maintenance for controlling their expressions than boys.

**Question 3: How are mothers' reactions to children's emotional expressions related to children's use and understanding of display rules?**

6. It was hypothesized that mothers who were supportive of their children's expressions and responded in an emotion-focused or problem-focused manner would have children who were more likely to express that particular feeling. On the other hand, mothers who were nonsupportive of their children's emotional expressions and responded with punishment, discomfort, or by minimizing the value of child's feeling would have children who were less likely to express that particular feeling.

7. It was hypothesized that mothers who were supportive of their children's expressions and responded in an emotion-focused or problem-focused manner would have children who were more likely to provide more prosocial justifications for controlling their expressions. On the other hand, mothers who were nonsupportive of their children's emotional expressions and respond with punishment, discomfort, or by minimizing the value of child's feeling would have children who were more likely to refer to self-protective reasons for controlling their expressions.
Chapter II

Method

Pilot Testing

Pilot testing was carried out in order to investigate the validity of hypothetical scenarios to be used in the main study. A total of 13 stories were developed for this study: These stories were intended to elicit each of the two emotions—anger and sadness—and physical pain (see Appendix A). For each of the three states under investigation (anger, sadness, and pain), three stories depicted the child interacting with either mother, father, or a friend. Four additional stories were written for anger and sadness (two for each) to allow more variability in these two categories. Each story was written as a first-person narrative and was intended to elicit anger, sadness, or pain in the child if the events depicted really happened to them. To assess whether events depicted in the story would indeed elicit the intended emotion, the intended feeling was not specified in the story. The goal of pilot testing was to select stories rated as most likely to elicit the intended feeling.

Stories were pilot tested with 60 (35 females and 25 males) psychology students enrolled in MA programs at Gujarat University in Ahmedabad, India. These participants were not part of the main study. Participants were given the 13 stories in written format. Following each story, they were asked: “The child in the story is between 5 and 9 years old. How would the child feel as a result of the events happening to them?” Participants were asked to rate how likely the child would be to feel each of the following: angry, sad, happy, neutral (no emotion), and physical pain. The ratings were provided on a 7-point scale where 1 = not likely, 4 = somewhat likely, and 7 = very likely.
Results of the pilot testing are reported in Table 1. Overall, for stories involving pain and sadness, results were congruent with the expectation. Stories intended to elicit sadness were rated as eliciting sadness and stories intended to elicit pain were rated as eliciting pain.

Three of the five scenarios that were most highly rated as eliciting sadness were retained for the main study (child’s friend moving away, child’s birthday party being cancelled due to rain, child unable to play the lead role in school drama because s/he was sick). All three scenarios involving pain were highly rated as eliciting pain, and were retained for the main study (child having a stomach ache, child getting a headache and flu, child feeling cramps in their foot). However, for stories involving anger, results were noncongruent with the expectation: Stories intended to elicit anger were rated equally as eliciting either anger or sadness.

To resolve the discrepancy between intended and elicited emotion involving anger scenarios, a second round of pilot testing was carried out. Though results pertaining to the sadness and pain stories were as predicted in the first pilot test, all three were included in this round of testing (in order to be consistent). Ten mothers of 5- to 9-year old children from middle class Gujarati speaking families residing in Ahmedabad, Gujarat, India were recruited from local elementary schools. These mothers were interviewed and were asked to recall incidents in the previous few weeks when their child had felt anger, sadness, and physical pain. They described each incident and then responded to a series of questions (See Appendix B for a list of interview questions). Themes for incidents involving anger included sibling fights, and non-compliance related issues (particularly those involving fussy eating habits and completing household chores). Themes for incidents involving
Table 1

Mean Ratings of Intended Feeling in Each Scenario (Pilot Testing: N = 60)

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Feeling intended</th>
<th>Happiness</th>
<th>Sadness</th>
<th>Anger</th>
<th>Neutral</th>
<th>Physical pain</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Anger</td>
<td>1.4</td>
<td>4.9</td>
<td>5.3</td>
<td>1.7</td>
<td>1.8</td>
</tr>
<tr>
<td>2</td>
<td>Anger</td>
<td>1.7</td>
<td>5.0</td>
<td>4.9</td>
<td>2.2</td>
<td>1.8</td>
</tr>
<tr>
<td>3</td>
<td>Anger</td>
<td>1.5</td>
<td>4.9</td>
<td>5.4</td>
<td>2.0</td>
<td>1.8</td>
</tr>
<tr>
<td>4</td>
<td>Anger</td>
<td>1.7</td>
<td>5.4</td>
<td>4.6</td>
<td>1.9</td>
<td>1.5</td>
</tr>
<tr>
<td>5</td>
<td>Anger</td>
<td>1.3</td>
<td>4.0</td>
<td>5.8</td>
<td>1.9</td>
<td>1.6</td>
</tr>
<tr>
<td>6</td>
<td>Sadness</td>
<td>1.6</td>
<td>5.0</td>
<td>3.2</td>
<td>2.6</td>
<td>1.8</td>
</tr>
<tr>
<td>7</td>
<td>Sadness</td>
<td>1.3</td>
<td>5.9</td>
<td>1.5</td>
<td>2.3</td>
<td>1.5</td>
</tr>
<tr>
<td>8</td>
<td>Sadness</td>
<td>1.9</td>
<td>5.8</td>
<td>2.7</td>
<td>2.4</td>
<td>1.6</td>
</tr>
</tbody>
</table>
Table 1 (continued)

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Feeling intended</th>
<th>Happiness</th>
<th>Sadness</th>
<th>Anger</th>
<th>Neutral/Physical pain</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Sadness</td>
<td>1.2</td>
<td>5.9</td>
<td>5.4</td>
<td>1.9</td>
</tr>
<tr>
<td>10</td>
<td>Sadness</td>
<td>1.4</td>
<td>5.6</td>
<td>4.3</td>
<td>2.0</td>
</tr>
<tr>
<td>11</td>
<td>Pain</td>
<td>1.3</td>
<td>2.6</td>
<td>2.4</td>
<td>2.2</td>
</tr>
<tr>
<td>12</td>
<td>Pain</td>
<td>1.7</td>
<td>3.0</td>
<td>3.1</td>
<td>2.3</td>
</tr>
<tr>
<td>13</td>
<td>Pain</td>
<td>1.5</td>
<td>3.4</td>
<td>2.2</td>
<td>2.2</td>
</tr>
</tbody>
</table>

Note. Figures in the bold face represent highest ratings for each scenario.
sadness included the mother leaving the child with relatives for a few days, and the child's friend moving away. Themes for incidents involving pain included complaints of stomach aches, headaches, flu, cuts and injuries.

The incidents involving pain and sadness reported by mothers in this second round of testing coincided with the pain and sadness scenarios selected from the first round of pilot testing, adding credence to the initial results obtained with graduate students. Therefore, those scenarios were retained for the main study. With respect to anger scenarios, sibling fights and non-compliance regarding food/eating habits were the most frequently reported themes, and were also the clearest examples of anger that involved no other emotion. Thus, these two themes were used as a basis for constructing the anger scenarios used in the main study. In addition, the questions in the child interview protocol for the main study were made more specific, focusing on the relevant aspect of the story (i.e., the story element likely to lead to the emotion). For instance, instead of asking about their feeling in general, children were asked about their feeling towards the particular target person (e.g., mother) or a target event (e.g., birthday party being cancelled) that was expected to elicit the target emotion. Overall, a total of nine stories were actually used in the main study (See Appendix C).

**Main Study**

**Participants**

**Recruitment.** Mother-child dyads were recruited from four elementary schools located in two different communities in the city of Ahmedabad, Gujarat, India. Two schools were located in an suburban area of the city (referred to as the suburban community), while the other two were located in the downtown area (referred to as the
old city community). The researcher visited these schools, contacted families whose first
language was Gujarati, and introduced the study as one that explores the way in which
children learn how to respond to emotional situations. Parents were asked if they would
be interested in participating. Those who volunteered were contacted for participation.

**Characteristics of the sample.** The sample for this study consisted of mother-child
dyads from Gujarati-speaking middle-class families residing in the city of Ahmedabad,
Gujarat, India. The sample included mothers and one of their children, aged 5 to 6 years
old or 8 to 9 years old. The initial sample comprised of 89 dyads including 47 from the
old city community and 42 from the suburban community. (See Table 2 for the
distribution of cases across child age and child sex).

**Demographic information.** Dyads in the two communities differed on some of the
demographic variables; hence, the demographic information is presented separately for
the two communities in Table 3. Overall, mothers in the suburban community were
significantly older than mothers in the old city. The annual family income was
significantly greater in the suburban community than old city. Mothers and fathers in the
suburban community had significantly more education than mothers and fathers in the old
city.

**Procedure**

A graduate student in Psychology from Gujarat University in Ahmedabad,
Gujarat, India assisted the researcher in collecting data. This research assistant underwent
6 hours of training with the researcher in conducting meetings with mothers and
interviews with children. In addition, she observed the researcher conduct five sessions
with mothers and children prior to conducting such sessions independently. The research
Table 2

**Distribution of Cases Across Two Communities (N = 89)**

<table>
<thead>
<tr>
<th>Community type</th>
<th>Child sex</th>
<th>Child age</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Younger</td>
<td>Older</td>
</tr>
<tr>
<td>Suburban</td>
<td>Male</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>(n = 42)</td>
<td>Female</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Old city</td>
<td>Male</td>
<td>14</td>
<td>10</td>
</tr>
<tr>
<td>(n = 47)</td>
<td>Female</td>
<td>12</td>
<td>11</td>
</tr>
</tbody>
</table>
Table 3

**Demographic Differences Between Two Communities (N = 89)**

<table>
<thead>
<tr>
<th></th>
<th>Old City community</th>
<th>Suburban community</th>
<th>Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td></td>
</tr>
<tr>
<td>Mother’s age (in years)</td>
<td>31.53</td>
<td>4.75</td>
<td></td>
</tr>
<tr>
<td></td>
<td>34.00</td>
<td>3.24</td>
<td>t (87) = 2.83**</td>
</tr>
<tr>
<td>Father’s age (in years)</td>
<td>35.50</td>
<td>4.93</td>
<td></td>
</tr>
<tr>
<td></td>
<td>37.09</td>
<td>3.49</td>
<td>t (86) = 1.74+</td>
</tr>
<tr>
<td>Child’s age (in months)</td>
<td>82.87</td>
<td>18.71</td>
<td></td>
</tr>
<tr>
<td></td>
<td>86.69</td>
<td>17.27</td>
<td>t (87) n.s.</td>
</tr>
<tr>
<td>Annual family income (in Rs.)</td>
<td>84382.98</td>
<td>58589.79</td>
<td></td>
</tr>
<tr>
<td></td>
<td>216,214.30</td>
<td>149,383.70</td>
<td>t (87) = 5.59***</td>
</tr>
<tr>
<td>Number of persons in the household</td>
<td>5.68</td>
<td>1.69</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5.48</td>
<td>1.60</td>
<td>t (87) n.s.</td>
</tr>
<tr>
<td>Annual income per person (in Rs.)</td>
<td>14830.19</td>
<td>7373.79</td>
<td></td>
</tr>
<tr>
<td></td>
<td>40526.34</td>
<td>6044.37</td>
<td>t (87) = 6.18***</td>
</tr>
<tr>
<td>Mother’s education (in years)</td>
<td>13.25</td>
<td>2.25</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15.88</td>
<td>1.60</td>
<td>t(87) = 6.28***</td>
</tr>
<tr>
<td>Father’s education (in years)</td>
<td>13.43</td>
<td>1.95</td>
<td></td>
</tr>
<tr>
<td></td>
<td>16.36</td>
<td>1.74</td>
<td>t(87) = 7.45***</td>
</tr>
<tr>
<td></td>
<td>Old City community</td>
<td>Suburban community</td>
<td>Statistic</td>
</tr>
<tr>
<td>--------------------------</td>
<td>--------------------</td>
<td>--------------------</td>
<td>-----------</td>
</tr>
<tr>
<td><strong>Family type</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nuclear</td>
<td>21.3%</td>
<td>26.2%</td>
<td>$\chi^2(1)$ n.s.</td>
</tr>
<tr>
<td>Extended</td>
<td>78.7%</td>
<td>73.8%</td>
<td></td>
</tr>
<tr>
<td><strong>Mother's religion</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hindu</td>
<td>72.3%</td>
<td>70.0%</td>
<td>$\chi^2(1)$ n.s.</td>
</tr>
<tr>
<td>Jain</td>
<td>27.7%</td>
<td>30.0%</td>
<td></td>
</tr>
<tr>
<td><strong>Mother's marital status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>97.9%</td>
<td>100%</td>
<td>$\chi^2(1)$ n.s.</td>
</tr>
<tr>
<td>Widowed</td>
<td>2.1%</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td><strong>Mother's employment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home-maker</td>
<td>91.5%</td>
<td>78.6%</td>
<td>$\chi^2(1)$ n.s.</td>
</tr>
<tr>
<td>Employed</td>
<td>8.5%</td>
<td>21.4%</td>
<td></td>
</tr>
</tbody>
</table>

$+.05 > p > .10$

* $p < .05$

** $p < .001$
assistant conducted 38 of the 89 meetings with mothers and 34 of the 89 interviews with children.

Mothers who agreed to participate were contacted by telephone to arrange a meeting with either the researcher or the research assistant. These meetings took place at the school from which mothers were recruited. During the meeting, the study was explained in more detail and mothers were asked to complete a consent form agreeing to their own and their child’s participation. Mothers were then instructed as to how to complete the two questionnaires. Those who felt that they understood the task completed questionnaires independently (n = 69), while the researcher/research assistant remained available to answer any questions. For those who felt that they needed additional help (n = 20), the researcher/research assistant read questionnaire items in an interview format. Children were interviewed in Gujarati at the school itself. During the interview, they were read nine hypothetical situations, each followed by the same series of questions.

Both child and maternal measures were translated in Gujarati from English by two bilingual individuals independently. Measures were back translated in to English to ensure conceptual equivalence.

**Design**

The design for the experimental portion of the study consisted of a 2 (child age) x 2 (child sex) x 3 (feeling type) x 3 (audience type) mixed design. Age and sex of the child were between subject factors, and the type of audience (mother, father, friend) and emotion (anger, sadness, pain) were within subject factors.
Measures

Child interview. Each child was first shown the materials that they would use to provide their responses during the interview. These materials included five faces, each depicting one of four emotions (happy, sad, mad, and neutral) and physical pain. The child was asked to identify emotions depicted in each of the five faces and was then shown how to use these faces to indicate how they feel. For example, if the child felt happy, s/he chose a “happy” face from the pile. In addition, the child was shown a four-point scale and was instructed as to how to use it.

To control for order effects, four possible story orders were derived using the random number table of SPSS 8.0. Each child heard the nine stories in one of the four orders (see Appendix C for a list of stories). Interviewers read each story individually to each participant. Following each story, the child was asked four questions (adapted from Zeman and Garber, 1996). The first question assessed child’s feeling in given situation. For anger scenarios (1, 2, and 3), the child was asked: “If this really happened to you, can you show me how you would feel towards your mother/ sibling/ peer?” For sadness scenarios (4, 5, and 6), the child was asked: “If this really happened to you, can you show me how you would feel about your birthday party being cancelled because of the rain/ losing the lead role because you were sick/ your friend leaving with their parents?” For pain scenarios (7, 8, and 9), the child was asked: “If this really happened to you, can you show me how you would feel if you had eaten too much/ if you had been running around and felt cramps/ if you had the flu?” The child then selected one of the five faces that best described how they would feel.
The second question assessed child's decision to control or express their feeling. The child was asked: "Would you show or not show how (mad/ sad/ much pain) you feel?" The child responded on a scale of 1 to 4, where 1 = definitely would not show, 2 = probably would not show, 3 = probably would show, and 4 = definitely would show.

The third question assessed child's facial expression. They were asked: "If someone looked at you, can you show me how would you look to them?" The child then selected one of the five faces that best depicted how they would look on their face.

The fourth question assessed child's reasons for not showing felt emotion. If the child indicated that they would definitely or probably not show how they feel, they were asked: "Why would you not show what you feel?"

**Maternal measures.** Mothers were asked to complete a questionnaire to gather demographic information (See Appendix D). Mothers were also asked to complete a self-report measure in which nine scenarios parallel to the ones given to children were described (See Appendix E). Each scenario described their child experiencing anger, sadness or physical pain in the presence of either their mother, father, or peer. The scenarios were written from mother's perspective, and if the mother was not the audience figure present in the story, the story was prefaced with the statement, "Your child comes to you and tells you what happened to them when they were with their father or a peer."

The intended emotion was specified in the scenarios given to mothers, as the purpose was to assess mothers' reactions to specific child expressions. Following each scenario, seven different ways in which parents could respond to the situation were provided. Mothers were asked to indicate how likely they would be to use each of those ways on a 7-point scale (1 = not very likely, 4 = somewhat likely, 7 = very likely). The ways in which
mothers could respond were summed for each of the three levels of *affect type* and *audience type*, as well as across all nine scenarios to compute an overall score for each of the seven ways. This measure was adapted from Coping with Children’s Negative Emotions Scale (CCNES; Fabes, Eisenberg, & Bernweig, 1990).
Chapter III

Results

The results are reported in two sections: Preliminary analyses are followed by the main analyses (results pertaining to each of the three research questions and related hypotheses).

Preliminary Analyses

Differences were observed between the two communities in children’s ability to correctly identify the emotions depicted in the materials (i.e., faces showing anger, sadness, happiness, neutral expression, and physical pain): A higher percentage of children from the suburban community (87.5%) correctly identified the depiction of anger than children from the old city (65.0%; $\chi^2(1) = 5.59, p < .05$). In addition, more children from the suburban community (90%) correctly identified the depiction of sadness than the old city (62.5%; $\chi^2(1) = 8.35, p < .01$). No significant differences were found between the two communities in the identification of happiness, physical pain, or neutral expressions. In addition to the demographic differences observed between the two communities, these data provide further justification for including the community type variable in the main analyses.

The original sample included 89 dyads. Following the presentation of each story, children were asked how they would feel if the event depicted in the story had really happened to them. Nine children from the original sample indicated that they would not feel the intended emotion in one or more of the nine scenarios. These dyads were excluded from further analyses. Thus, the new sample included 80 dyads, 40 in each community. The resulting distribution of cases for both age groups and sexes in each
community was as follows: younger male (n = 10), younger female (n = 10), older male (n = 10), and older female (n = 10). Children were presented stories in one of four random orders to control for order effects. One-way analyses of variance (ANOVA) and chi-square tests of significance (where applicable) revealed no significant effects of order of presentation on any of the dependent variables under consideration.

Main Analyses

Use of Display Rules

The first research question was concerned with the impact of four independent variables on children’s use of display rules: child age, child sex, feeling type, and audience type. Based on the demographic information and preliminary analyses, community type (suburban versus old city) was included as the fifth independent variable. This research question was analyzed using a repeated measures ANOVA. The dependent variable was the likelihood of the child expressing anger, sadness, or physical pain. These responses were provided on a 4-point scale (1 = definitely would not show, 2 = probably would not show, 3 = probably would show, and 4 = definitely would show). Within subject factors included feeling type (anger, sadness, pain) and audience type (father, mother, peer). Between subjects factors included child age (younger versus older), child sex (male versus female), and community type (old city versus suburban). Hypotheses 1 to 3 examined the effects of the four independent variables, and are summarized below, followed by the results pertaining to these hypotheses. Post hoc comparisons were performed for significant main effects and interactions.

Hypothesis 1: Child age. It was expected that older children would be more likely to control anger, sadness, and pain than younger children. As predicted, results revealed a
significant main effect of child age ($F(1, 73) = 11.40, p < .01$): Older children ($M = 2.57, SD = .59$) reported expressing all of their feelings less than younger children ($M = 2.98, SD = .53$). Thus, this hypothesis was supported.

**Hypothesis 2: Audience type.** It was hypothesized that all children—regardless of age, gender, and feeling type—would be most likely to regulate their expressions when they were interacting with their father, followed by their mother, followed by a same-age playmate—a peer. As predicted, results revealed a significant main effect of audience type ($F(2, 146) = 6.77, p < .01$). However, this main effect was qualified by a significant feeling type x audience type interaction ($F(4, 292) = 3.82, p < .01$). As anticipated, all children reported expressing anger less in the presence of their mother than a peer. However, contrary to expectation, no differences were found in the expression of anger between mother and father, or father and peer (see Table 4). As predicted, all children reported expressing sadness and pain less in the presence of their father than their mother. However, contrary to prediction, no differences were found in the expressions of sadness and pain between mother and peer, or father and peer (see Table 4). This interaction also revealed that in the presence of their mother, all children reported expressing anger less than sadness, as well as anger and sadness less than pain (see Table 4). In the presence of their father or a peer, all children reported expressing anger and sadness less than pain; however, no difference was found between the expression of anger and sadness (see Table 4). Overall, children’s decisions to control versus express their feelings in the presence of various audience figures depended on the feeling type, hence, this hypothesis was only partially supported.

**Hypothesis 3: Feeling type and child sex.** It was anticipated that a main effect of
feeling type would be qualified by a feeling type x child sex interaction. Regardless of age, gender, and audience, all Indian children were expected to control their expressions of emotions—anger and sadness—more than physical pain. Moreover, child sex was expected to interact with feeling type such that girls would control anger more than boys, while boys would control sadness more than girls. No gender differences were expected in children’s regulation of physical pain. As expected, results showed a significant main effect of feeling type ($F (2, 146) = 101.81, p < .001$) that was qualified by a child sex x feeling type ($F (2, 146) = 4.23, p < .05$) interaction. As predicted, girls reported expressing anger less than boys, and no gender differences were observed in the expression of physical pain. However, contrary to expectation, no gender differences were found in the expression of sadness (see Table 5). This interaction also revealed that both girls and boys reported expressing anger and sadness less than physical pain. In addition, girls reported expressing anger less than sadness; however, no such difference was found for boys (see Table 5). Overall, a gender difference was found in the expected direction for anger but not sadness; thus, this hypothesis was partially supported.

In addition to hypothesized effects, a significant main effect of community type revealed that children from the old city community ($M = 2.62, SD = .50$) expressed all feelings less than children from the suburban community ($M = 2.93, SD = .64$) ($F (1,73) = 6.71, p < .05$). Moreover, children’s decisions to express all feelings were positively related to the following demographic characteristics: annual family income ($r = .32, p < .01$), years of mother’s education ($r = .22, p < .10$), and years of father’s education ($r = .30, p < .01$).
Table 4

**Feeling Type x Audience Type Interaction in Children’s Use of Display Rules**

<table>
<thead>
<tr>
<th>Feeling type</th>
<th>Audience Type</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mother</td>
<td>Father</td>
<td>Peer</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Anger</td>
<td>2.001, a</td>
<td>1.21</td>
<td>2.141, 2, a</td>
</tr>
<tr>
<td>Sadness</td>
<td>2.781, b</td>
<td>1.22</td>
<td>2.282, a</td>
</tr>
<tr>
<td>Pain</td>
<td>3.741, c</td>
<td>0.71</td>
<td>3.352, b</td>
</tr>
</tbody>
</table>

Note. n = 80 in each cell. Means in the same row that do not share numerical subscripts differed at p < .05 in the Bonferroni multiple comparisons. Means in the same column that do not share alphabetical subscripts differed at p < .05 in the Bonferroni multiple comparisons.
Table 5

*Child Sex x Feeling Type Interaction in Children’s Use of Display Rules*

<table>
<thead>
<tr>
<th>Feeling type</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Anger</td>
<td>2.43\textsubscript{1,a}</td>
<td>.61</td>
</tr>
<tr>
<td>Sadness</td>
<td>2.48\textsubscript{1,a}</td>
<td>.88</td>
</tr>
<tr>
<td>Pain</td>
<td>3.60\textsubscript{1,b}</td>
<td>.52</td>
</tr>
</tbody>
</table>

*Note.* \( n = 40 \) in each cell. Means in the same row that do not share numerical subscripts differed at \( p < .05 \) in the Bonferroni multiple comparisons. Means in the same column that do not share alphabetical subscripts differed at \( p < .05 \) in the Bonferroni multiple comparisons.
Understanding of Display Rules

The second research question was concerned with the impact of two independent variables on children’s understanding of display rules: child age and child sex. Based on demographic information and preliminary analyses, community type should have been included as the third independent variable. However, only a few children (N ranges from 5 to 55 out of 80 across scenarios) from the present sample indicated that they would definitely or probably not show their feeling and were asked to provide their reasons. Thus, the inclusion of community type would have led to very small number of cases per group and was therefore not included in these analyses.

Children’s justifications for not showing their feelings were assessed using responses to the question, “Why would you not show what you feel?” A scheme was developed for coding these responses based on previous coding systems prevalent in the display rules literature (e.g., Gnepp & Hess, 1986; Saarni, 1979). Additional categories were added based on the responses of participants in this study. Responses were coded in Gujarati and coding categories were then translated into English. Each response received only one primary code that was used in the analyses. Coding categories included: social rules (norm maintenance), avoidance of trouble/scolding, maintaining self-esteem (avoidance of embarrassment), prosocial reasons (concern about other’s feelings), futility of expression, minimizing significance of the event, and avoidance of parental reminders (regarding social rules, futility of expression, and insignificance of the event) (see Appendix F for a detailed description of each coding category). Responses of 20 participants were coded in Gujarati independently by a second coder for reliability purposes. Cohen’s Kappa was computed for each coding category, and for the overall
scheme (see Table 6). Frequencies and proportions in each coding category for nine
cenarios are presented in Table 7. Proportions were computed by dividing the frequency
in each coding category by the total frequency of responses for the given scenario.

**Anger scenarios (1, 2, and 3).** Fifty-five children (68.75%) reported that they
would definitely or probably not show their anger to their mother, 49 (61.25%) indicated
that they would not show it to their father and 35 (43.75%) indicated that they would not
show it to their peer. The most frequently cited reason for not expressing anger in the
presence of child’s mother was a desire to avoid trouble/scolding from mother, followed
by norm maintenance (see Table 7). The most frequently cited reason for not expressing
anger in the presence of child’s father was norm maintenance, followed by a desire to
avoid trouble/scolding. In the presence of peer, the most frequently cited reason for not
expressing anger was a desire to maintain self-esteem, followed by minimizing
significance of the event.

**Sadness scenarios (4, 5, and 6).** Twenty-nine children (36.25%) indicated that
they would definitely or probably not show their sadness in the presence of their mother,
40 (50%) reported not expressing sadness in the presence of their father, and 35 (43.75%)
reported not expressing it in presence of a peer. The two most frequently cited
reasons for not expressing sadness in the presence of mother were a desire to avoid
parental reminder and futility of expression. In the presence of father, a desire to avoid
parental reminder and minimizing significance were cited most frequently for not
expressing sadness. In the presence of a peer, prosocial reasons were cited most
frequently, followed by norm maintenance.
Pain scenarios (7, 8, and 9). Five children (6.25%) reported that they would definitely or probably not show their pain to their mother, 12 (15%) indicated that they would not show it to their father, and 7 (8.75%) indicated that they would not show it to a peer. The most frequently cited reason for not expressing pain in the presence of mother or father was a desire to avoid trouble/scolding. However, in the presence of peer, the most frequently cited reason for not expressing pain was a desire to maintain self-esteem.

Age and sex differences. The impact of child age and child sex on children's justifications for not showing their feelings was examined separately for each scenario. The data in each of the coding categories could not be summed across nine scenarios because sample sizes for different scenarios were small and varied across scenarios (see Table 7). In addition, the sample sizes were very small in all three pain scenarios (n = 5, 12, and 7, respectively); therefore, the data in these scenarios were not analyzed.

Proportional data in each coding category could not be used as the dependent variable because Cohen and Cohen (1983) have suggested that the use of proportions can lead to over- or under-adjustment of values, or adjustment nonuniformly over the range. Cohen and Cohen (1983) have recommended conducting a normalizing transformation to address problems associated with proportional data. Hence, a probit transformation (a type of normalizing transformation) was conducted on proportion data in the present study. A series of univariate ANOVAs were conducted for each of the six scenarios, with transformed proportional data in each coding category as the dependant variable, and child age and child sex as independent variables. Hypotheses 5 and 6 examined the
effects of these two independent variables, and are summarized below, followed by the results pertaining to these hypotheses.

**Hypothesis 4: Child age.** It was predicted that older children would be more likely to provide justifications referring to norm maintenance for controlling their expressions than younger children. Younger children would be more likely to refer to self-protective reasons (particularly, avoiding trouble) than older children. As expected, results showed that in three of the six scenarios (1: anger-mother, 2: anger-father, and 4: sadness-mother), older children referred to norm maintenance more than younger children, and in all but one scenario (Scenario 3: anger-peer), younger children referred to avoiding trouble more than older children (See Table 8). As age differences were not found in all scenarios, this hypothesis was partially supported.

**Hypothesis 5: Child sex.** It was expected that girls would be more likely to provide justifications referring to norm maintenance for controlling their expressions than boys. Contrary to expectation, results showed no significant main effect of child sex on children’s justifications for concealing their feelings in any of the six scenarios. Thus, this hypothesis was not supported.
Table 6

**Cohen's Kappa for reliability Between Two Coders**

<table>
<thead>
<tr>
<th>Coding Category</th>
<th>Cohen's Kappa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Norm Maintenance</td>
<td>.93</td>
</tr>
<tr>
<td>Avoiding trouble/scolding</td>
<td>.95</td>
</tr>
<tr>
<td>Maintaining self-esteem</td>
<td>.88</td>
</tr>
<tr>
<td>Prosocial reasons</td>
<td>1.0</td>
</tr>
<tr>
<td>Futility of expression</td>
<td>.74</td>
</tr>
<tr>
<td>Minimizing significance of event</td>
<td>.89</td>
</tr>
<tr>
<td>Avoiding parental reminders</td>
<td>.85</td>
</tr>
<tr>
<td>Overall scheme</td>
<td>.95</td>
</tr>
</tbody>
</table>
Table 7

**Frequency of Responses in each Coding Category**

<table>
<thead>
<tr>
<th>Feeling type</th>
<th>Audience type</th>
<th>Coding categories</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Norm maintenance</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Avoiding trouble</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maintaining self-esteem</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Prosocial reasonsexpression</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Futility of significance</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Minimizing reminders</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Parental reminders</td>
<td></td>
</tr>
<tr>
<td>Anger</td>
<td>Mother</td>
<td>17 (30.9%)</td>
<td>55 (100%)</td>
</tr>
<tr>
<td>Anger</td>
<td>Father</td>
<td>21 (42.9%)</td>
<td>49 (100%)</td>
</tr>
<tr>
<td>Anger</td>
<td>Peer</td>
<td>2 (5.7%)</td>
<td>35 (100%)</td>
</tr>
<tr>
<td>Sadness</td>
<td>Mother</td>
<td>4 (13.8%)</td>
<td>29 (100%)</td>
</tr>
<tr>
<td>Sadness</td>
<td>Father</td>
<td>3 (7.5%)</td>
<td>40 (100%)</td>
</tr>
<tr>
<td>Sadness</td>
<td>Peer</td>
<td>8 (22.9%)</td>
<td>35 (100%)</td>
</tr>
</tbody>
</table>
Table 7 (continued)

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Coding categories</th>
<th>Feeling type</th>
<th>Audience type</th>
<th>Norm maintenance</th>
<th>Avoiding trouble</th>
<th>Maintaining self-esteem</th>
<th>Prosocial reason</th>
<th>Futility of significance</th>
<th>Minimizing reminders</th>
<th>Parental reminders</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain</td>
<td></td>
<td>Mother</td>
<td>0 (0%)</td>
<td>4 (80.0%)</td>
<td>1 (20.0%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>5 (100%)</td>
</tr>
<tr>
<td>Pain</td>
<td></td>
<td>Father</td>
<td>0 (0%)</td>
<td>11 (91.7%)</td>
<td>1 (8.3%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>12 (100%)</td>
</tr>
<tr>
<td>Pain</td>
<td></td>
<td>Peer</td>
<td>0 (0%)</td>
<td>1 (14.3%)</td>
<td>6 (85.7%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>7 (100%)</td>
</tr>
</tbody>
</table>

**Note.** Figures in the parentheses are proportions. Figures in the bold face represent two most frequently cited reasons for each scenario.
Table 8

Children’s Justifications for Not Showing their Feelings as a Function of Child Age

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Coding category</th>
<th>Younger group</th>
<th>Older group</th>
<th>Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>SD</td>
<td>n</td>
</tr>
<tr>
<td>Feelingtype</td>
<td>Audience type</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anger</td>
<td>Mother</td>
<td>-.02</td>
<td>.32</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Avoiding trouble</td>
<td>-.98</td>
<td>.32</td>
<td>25</td>
</tr>
<tr>
<td>Anger</td>
<td>Father</td>
<td>-.04</td>
<td>.34</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Avoiding trouble</td>
<td>-.58</td>
<td>.58</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Minimizing significance</td>
<td>.07</td>
<td>.00</td>
<td>21</td>
</tr>
<tr>
<td>Anger</td>
<td>Peer</td>
<td>-.21</td>
<td>.50</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Avoiding trouble</td>
<td>-.33</td>
<td>.56</td>
<td>17</td>
</tr>
<tr>
<td>Feelingtype</td>
<td>Audience type</td>
<td>Coding category</td>
<td>Younger group</td>
<td>Older group</td>
</tr>
<tr>
<td>------------</td>
<td>---------------</td>
<td>-------------------------------</td>
<td>---------------</td>
<td>------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>SD</td>
<td>n</td>
</tr>
<tr>
<td>Sadness</td>
<td>Mother</td>
<td>Maintaining self-esteem</td>
<td>-.53</td>
<td>.59</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Minimizing significance</td>
<td>.03</td>
<td>.27</td>
</tr>
<tr>
<td>Sadness</td>
<td>Father</td>
<td>Norm maintenance</td>
<td>.07</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Avoiding trouble</td>
<td>-.25</td>
<td>.53</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Prosocial reasons</td>
<td>.07</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Futility of expression</td>
<td>-.09</td>
<td>.41</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Parental reminders</td>
<td>-.42</td>
<td>.58</td>
</tr>
<tr>
<td>Sadness</td>
<td></td>
<td>Norm maintenance</td>
<td>.07</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Avoiding trouble</td>
<td>-.21</td>
<td>.51</td>
</tr>
</tbody>
</table>
Table 8 (continued)

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Coding category</th>
<th>Younger group</th>
<th>Older group</th>
<th>Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeling type</td>
<td>Audience type</td>
<td>M</td>
<td>SD</td>
<td>n</td>
</tr>
<tr>
<td>Sadness</td>
<td>Peer</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prosocial reasons</td>
<td>.07</td>
<td>.00</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Parental reminders</td>
<td>-.43</td>
<td>.58</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Norm maintenance</td>
<td>-.02</td>
<td>.33</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Avoiding trouble</td>
<td>-.31</td>
<td>.56</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Prosocial reasons</td>
<td>.07</td>
<td>.00</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Parental reminders</td>
<td>-.40</td>
<td>.59</td>
<td>12</td>
</tr>
</tbody>
</table>

Note: The values of transformed proportional score range from -1.07 to .07. n represents the number of children who provided a justification for the given scenario.

* p < .05
** p < .01
*** p < .001
The Relation Between Mothers' Responses and Children's Use and Understanding of DR

Research question three examined the relation between mothers' reactions to children's expressions and children's use and understanding of display rules in regulating their feelings. Mothers' mean ratings and standard deviations for each of the seven response types are presented in Table 9. In response to children's expressions of anger, mothers favoured emotion-focused responses and those that minimized the significance of child's anger. With respect to children's expressions of sadness and pain, emotion-focused and problem-focused responses were the most highly-rated response types.

Hypothesis 6. It was hypothesized that mothers who were supportive of their children's expressions and responded in an emotion-focused or problem-focused manner would have children who were more likely to express anger, sadness, and pain. To test the relation between mothers' reactions and children's use of display rules, correlation analyses were performed on mothers' responses to their children's expressions (mean scores for each of the seven ways of responding) and children's decisions to control versus express their feelings. Contrary to the prediction, results revealed that children's decisions to express anger, sadness, or pain were unrelated to mothers' emotion-focused or problem-focused responses (see Table 10). An additional finding showed that children's decisions to express sadness were positively related to a third type of maternal supportive response: encouragement of expression (see Table 10). However, this response type was unrelated to children's expressions of anger or pain.

It was expected that mothers who were not supportive of their children's emotional expressions and responded with punishment, discomfort, or by minimizing the value of child's emotion would have children who were less likely to express that particular feeling. As expected, results showed that children's decisions to express anger
were negatively related to mothers’ nonsupportive responses, particularly those that were punitive or conveyed that expressing anger was unacceptable (see Table 10). Children’s decisions to express sadness were negatively related to mothers’ nonsupportive responses, particularly those that were punitive or minimized the significance of child’s feeling (see Table 10). Finally, children’s decisions to express pain were negatively related to mothers’ nonsupportive responses, particularly those that were punitive or minimized the significance of child’s feeling (see Table 10). In sum, children’s decisions to express anger, sadness, and pain were negatively related to mothers’ nonsupportive responses; however, for the most part, these decisions were unrelated to mothers’ supportive responses. Thus, this hypothesis was partially supported.

**Hypothesis 7.** It was hypothesized that mothers who were supportive of their children’s expressions and responded in an emotion-focused or problem-focused manner would have children who were more likely to provide prosocial justifications for controlling their expressions. On the other hand, mothers who were nonsupportive of their children’s emotional expressions and responded with punishment, discomfort, or by minimizing the value of child’s emotion would have children who were more likely to refer to self-protective reasons for controlling their expressions. To test the relation between mothers’ reactions and children’s understanding of display rules, correlational analyses were performed on mothers’ responses to their children’s expressions (mean scores for each of the seven ways of responding) and children’s justifications for controlling versus expressing their feelings (transformed proportional data in each of the seven coding categories). Results showed that mothers’ responses to children’s expressions were unrelated to children’s justifications for hiding their feelings. Thus, this hypothesis was not supported.
Table 9

**Means and Standard Deviations of Mothers' Responses to their Children's Expressions**

<table>
<thead>
<tr>
<th>Response Type</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anger</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respond with frustration/distress</td>
<td>1.44</td>
<td>.84</td>
</tr>
<tr>
<td>Punitive response</td>
<td>2.72</td>
<td>1.52</td>
</tr>
<tr>
<td>Expression unacceptable</td>
<td>5.05</td>
<td>1.47</td>
</tr>
<tr>
<td>Minimizing significance</td>
<td>5.18</td>
<td>1.71</td>
</tr>
<tr>
<td>Emotion focused</td>
<td>6.64</td>
<td>.78</td>
</tr>
<tr>
<td>Problem focused</td>
<td>4.92</td>
<td>1.55</td>
</tr>
<tr>
<td>Encourage expression</td>
<td>1.29</td>
<td>.67</td>
</tr>
<tr>
<td>Sadness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respond with frustration/distress</td>
<td>1.22</td>
<td>.63</td>
</tr>
<tr>
<td>Punitive response</td>
<td>3.44</td>
<td>1.79</td>
</tr>
<tr>
<td>Expression unacceptable</td>
<td>4.60</td>
<td>1.75</td>
</tr>
<tr>
<td>Minimizing significance</td>
<td>3.76</td>
<td>1.67</td>
</tr>
<tr>
<td>Emotion focused</td>
<td>6.87</td>
<td>.37</td>
</tr>
<tr>
<td>Problem focused</td>
<td>6.94</td>
<td>.21</td>
</tr>
<tr>
<td>Encourage expression</td>
<td>3.05</td>
<td>1.59</td>
</tr>
</tbody>
</table>
Table 9 (continued)

<table>
<thead>
<tr>
<th>Response Type</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Respond with frustration/distress</td>
<td>1.30</td>
<td>.65</td>
</tr>
<tr>
<td>Punitive response</td>
<td>3.25</td>
<td>1.59</td>
</tr>
<tr>
<td>Expression unacceptable</td>
<td>2.38</td>
<td>1.41</td>
</tr>
<tr>
<td>Minimizing significance</td>
<td>3.79</td>
<td>1.71</td>
</tr>
<tr>
<td>Emotion focused</td>
<td>6.80</td>
<td>.53</td>
</tr>
<tr>
<td>Problem focused</td>
<td>6.85</td>
<td>.52</td>
</tr>
<tr>
<td>Encourage expression</td>
<td>2.32</td>
<td>1.69</td>
</tr>
</tbody>
</table>

*Note.* N = 80. Figures in the boldface represent two most highly rated response types for each scenario.
Table 10

**Correlations Between Mothers' Responses and Children's Decisions to Express their Feelings**

<table>
<thead>
<tr>
<th>Response type</th>
<th>Children's decision to express</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Anger</td>
</tr>
<tr>
<td>Nonsupportive responses</td>
<td></td>
</tr>
<tr>
<td>Respond with distress/frustration</td>
<td>.03</td>
</tr>
<tr>
<td>Punitive response</td>
<td>-.35**</td>
</tr>
<tr>
<td>Expression unacceptable</td>
<td>-.33**</td>
</tr>
<tr>
<td>Minimizing significance</td>
<td>-.04</td>
</tr>
<tr>
<td>Supportive responses</td>
<td></td>
</tr>
<tr>
<td>Emotion focused</td>
<td>-.13</td>
</tr>
<tr>
<td>Problem focused</td>
<td>.17</td>
</tr>
<tr>
<td>Encourage expression</td>
<td>-.01</td>
</tr>
</tbody>
</table>

+ .05 < p < .10  
* p < .05  
** p < .01  
*** p < .001
Chapter IV

Discussion

This examination of display rule use and understanding in East Indian children shows consistencies with the literature concerning North American children’s use and understanding of display rules. Results of this study indicate that children’s decisions to regulate their emotionally expressive behavior were influenced by the type of feeling experienced and the type of audience figure present, as well as child age and gender. Children’s regulatory decisions were also related to their mothers’ responses to their expressions.

Not only were these variables related to East Indian children’s use and understanding of display rules, but for the most part, their influences were in directions similar to those documented in North American children. Thus, overall, the results of this study point to more similarities than differences in emotional development between East Indian and North American cultures. However, similarities in emotionally expressive behavior across cultures does not necessitate that these behaviors hold the same meaning in each culture (Saarni, 1998). Often, similar behaviors that occur in different cultural settings involve different explanatory systems (Saarni, 1998). Thus, findings of the present study should be interpreted in the broader context of East Indian culture.

Children’s Use and Understanding of Display Rules

Age Differences

Results showed that older East Indian children were more likely to conceal their feelings than younger children when regulating their displays of anger, sadness, and pain. This finding is consistent with the literature on display rule usage in North
American children, which has documented a positive relation between use of display rules and child age (Gnepp & Hess, 1986; Saarni, 1979; Zeman & Garber, 1996). Age differences in the regulation of emotional expression are thought to reflect cognitive maturation as well as socialization influences. The ability to successfully use display rules involves having knowledge about how to alter emotional displays, the ability to implement this knowledge appropriately in emotional situations, and the physical ability to control necessary muscles involved in regulating facial expressions (Zeman & Garber, 1996). In addition, children’s ability to reason about antecedents and consequences of emotional expression is also critical (Saarni, 1989). Thus, the positive relation between use of display rules and age reflects a complex interaction of physical, social, cognitive, and language development (Saarni, 1989).

With respect to children’s justifications for controlling emotional displays, results indicated that older children were more likely than younger children to refer to norm maintenance and prosocial reasons, while younger children were more likely to refer to avoiding both scolding and parental reminders. These findings are also consistent with the display rule literature concerning North American children, which suggests that children’s reasoning becomes more sophisticated and complex as they grow older (Saarni, 1979; Fuchs & Thelen, 1988; Jones et al., 1998). Children’s ability to provide justifications for regulating their displays reflects their ability to reason about consequences of expressing felt emotion. In order to engage in such reasoning, children need to first understand the cause and effect relationship between their emotional expression and an external event, such as their mother scolding them or their friend looking hurt. This kind of causal reasoning is thought to increase in complexity and sophistication during middle childhood; thus, superior reasoning of
older children regarding regulation of their feelings can be considered a special instance of general development in this area (Saarni, 1979; Thompson, 1989). In a similar vein, the ability to provide a prosocial reason requires children to be able to take other’s perspective in order to understand how they may feel (Jones et al., 1998). Perspective taking skills also become more sophisticated as children grow older; thus, increasing use of prosocial reasons in older children likely reflects general development in the area of perspective taking.

Along with cognitive maturation, socialization processes play an important role in children’s understanding of display rules. Parents of young children typically provide a reminder or even a reprimand to ensure that their child’s behavior is in accord with social rules. As they grow older, children internalize parental beliefs and social rules and, in turn, begin to self-regulate (Lewis & Saarni, 1985). Thus, external reminders are not required with older children. Instead, they spontaneously make reference to social rules that they have internalized. This process of internalization reflects both cognitive maturation and the influence of socializing agents (Lewis & Saarni, 1985).

In addition to physical maturation, cognitive development, and the influence of particular socializing agents, broader societal expectations are also critical. Given that age is an important determinant of the hierarchy observed in East Indian society, differential age expectations are deeply rooted in this culture. In Indian society (as in North America), an older child is expected to understand societal rules better and is under greater pressure to behave in accord with those rules than a younger child (Kakar, 1981). Emotional displays that are socially unacceptable are tolerated more with a younger child due to their lack of maturity. Moreover, these expectations based
on age are explicitly conveyed to children in India, as well as in North America. For example, an older Indian child who expresses her/his anger is likely to be told that the expression is unacceptable because s/he is sufficiently old to understand social conventions and act accordingly.

Audience Type

Though a main effect of audience type was anticipated, results indicated that its influence on children’s decisions to express their feelings depended on the type of feeling experienced. Children reported expressing anger less in the presence of their mother than a peer. In contrast, Zeman and Garber (1996) found that North American children were less likely to express their feelings of anger, sadness, and pain in the presence of a peer than when they were alone or in the presence of their mother or father. Saarni (1989) has proposed that degree of affiliation and status differentiation between a child and the audience figure are salient factors in children’s decisions to express emotion. It may be that degree of affiliation with the audience figure is more salient to North American children, while status differentiation is relatively more important to East Indian children. North American children may perceive their parents as more receptive to their negative emotional displays than peers, and thus, feel more comfortable expressing their feelings in the presence of their parents (Zeman & Garber, 1996). East Indian children, on other hand, may feel less comfortable expressing anger in the presence of their mother because of greater likelihood of retribution from mothers for angry behavior. If this is the case, however, it is noteworthy that no differences were found in East Indian children’s control of anger with their father versus a peer, or their father versus their mother. This is particularly surprising given the hierarchical nature of East Indian society, in which
fathers typically have a higher status than mothers (Kakar, 1981). A methodological reason might explain this discrepant finding: The anger scenarios used in the present study not only varied in the type of observer present, but also varied in the target of emotional display. For example, the mother and the peer were depicted as responsible for causing the negative situation and were thus the target of child's anger. In contrast, the father was only partially responsible for causing the anger, and was not the primary target of child's anger. Thus, children might have felt more comfortable reporting that they would express their anger in the father scenario (as the anger was not directed towards their father), while they might have felt less comfortable reporting that they would express their anger in the scenario involving their mother or peer, as the anger was directed towards those individuals.

Although the likelihood of children regulating their anger did not differ between fathers and peers, or between fathers and mothers, their reasons for controlling anger did. The percentage of responses in each coding category revealed that in the presence of their father, children most frequently cited norm maintenance for controlling anger, whereas in the presence of their mother, they most frequently referred to avoiding scolding. Finally, in the presence of a peer, children were most likely to refer to maintenance of self-esteem. These differences suggest that for East Indian children, behaving in accord with social and cultural rules is more important in the presence of their father than their mother or a peer, and children spontaneously refer to those rules when they are with their father. This finding is consistent with Kakar's (1981) proposal that East Indian children owe more formal deference to their fathers than their mothers. In contrast, in the presence of their mother, children expect a reprimand for not behaving in line with social rules. It may be that mothers, being
the primary socializers, assume the disciplinarian role and assume more responsibility for ensuring that their children learn culturally appropriate ways of behaving. Finally, in the presence of peers, children need to maintain their self-esteem, as behaviors that are socially inappropriate may be ridiculed by peers, causing embarrassment for the self. Ridicule by peers can be thought of as a form of social disapproval; thus, by disapproving inappropriate behavior, peers act as socializing agents and contribute to children's knowledge of appropriate ways of behaving. A number of researchers have proposed that based on their past experiences with a particular audience figure, children develop a set of expectancies regarding the outcome of expressing their feelings. These expectancies, in turn, guide children's decisions to express or control felt emotion in future transactions (Gnepp & Hess, 1986; Saarni, 1989; Underwood et al., 1992; Zeman, Shipman, Nesin, & Fitzgerald, 2001a). Thus, based on their interactions with each of these socialization figures (mother, father, and peer), children expect different consequences of displaying their feelings (e.g., reprimand versus a ridicule), and act accordingly.

The finding that children in the present study distinguished between avoidance of trouble/scolding and maintenance of self-esteem (avoidance of embarrassment) is also significant. The literature on display rules often places these two categories under a single umbrella (self-protective reasons), as they are both motivated by a desire to avoid negative consequences for the self (Gnepp & Hess, 1986). However, it should be noted that these two categories involve different types of negative consequences: One involves reprimand, while the other involves ridicule and embarrassment. Children's reports from the present study imply that the type of negative consequence to be avoided depends on the audience figure: In the presence of an authority figure
(i.e., mother), the self needs to be protected from being scolded, while in the presence of a peer, self needs to be protected from being ridiculed. Thus, in the light of this finding, future research should consider the importance of distinguishing between different kinds of self-protective reasons.

With respect to sadness and pain, the results indicated that East Indian children were more likely to express these two feelings to their mothers than their fathers. This finding contradicts what was found concerning anger--that children were less likely to express anger to their mothers than peers. This apparent contradiction is conceivable once hostile emotions are distinguished from nonhostile emotions. Anger is considered a hostile emotion and involves a different constellation of parental beliefs than sadness or pain, which are nonhostile (Eisenberg et al., 1998). Thus, mothers may be more receptive to their children's displays of sadness or pain that are nonhostile than those of anger. Although the types of emotions were not specified, Pai (1999) noted that Gujarati children preferred to share emotional experiences with their mother. In India, mothers are typically the primary caregivers and children spend more time with their mothers than their fathers. Fuchs and Thelen (1988) found that North American children perceived their mothers to be more understanding and receptive of their sad expression than their fathers. North American children's primary motivation behind expressing feelings such as sadness and pain appears to be the expectation of interpersonal support (Zeman & Shipman, 1996; Zeman et al., 2001a). Thus, North American mothers likely provide more support and comfort in response to their children's sadness than fathers. This may also be the case for East Indian children, such that they feel more at ease seeking comfort from their mothers, and may even find that mothers are more effective in making them feel better than fathers,
as they may be more likely to provide the support needed.

Examining the influence of audience on feeling type revealed that, as predicted, both anger and sadness were expressed less than physical pain, regardless of who was present. This finding could be explained in the context of the popular view in cultural clinical psychology that physical symptoms are viewed more favourably than psychological processes in Eastern cultures. In Zeman and Garber’s (1996) study, North American children reported that expressions of pain would be perceived as more acceptable by others than those of anger or sadness. These children’s informal reports suggested that they found the expression of physical pain as beyond their control and therefore, more acceptable to exhibit (Zeman & Garber, 1996). Thus, it may be that East Indian children reported regulating physical pain less often for similar reasons, and that displays of physical pain are considered more appropriate in Eastern cultures because of perceived lack of control over these displays. It should be noted that perceptions of appropriateness or acceptability of these expressions were not assessed in the present study. Future work should directly assess children’s perceptions of propriety in order to further explore the claim that eastern cultures view physical symptoms as more appropriate.

**Feeling Type and Sex Differences**

Overall, sex differences were found in children’s use of display rules but not in their understanding of them. Consistent with the expectation, results showed that East Indian girls reported expressing anger less than boys. Contrary to expectation, boys did not report expressing sadness less than girls. Moreover, girls reported expressing anger less than sadness, whereas for boys, no difference was found between the regulation of anger and sadness. These findings are somewhat consistent
with the Hindu folk theories concerning the distinction between uncivilizing and refining emotions discussed earlier (Menon, 2000). According to these folk theories, it is socially more acceptable for a little boy to display uncivilizing emotions such as anger and rage than it is for a little girl. From a very early age, girls are socialized not to experience and express uncivilizing emotions. Joshi and McLean (1994) have noted that there is a greater emphasis placed on deference and decorum in the socialization of girls than boys in India. Moreover, according to one version of Hindu folk theory, females’ behaviors are evaluated in accord with the strictest criteria because they are expected to serve as role models for the rest of the society. Thus, in the context of these indigenous theories, the findings of the present study seem plausible.

Literature on North American children has documented similar sex differences in the usage of display rules. For example, Underwood et al. (1992) found that girls used more display rules than boys in regulating anger and aggression, and attributed this difference to differential socialization histories for boys and girls. This suggests that differential gender socialization is practised in North America, as well as India and can explain gender differences in children’s use of display rules in both cultures. However, the mechanisms through which differential socialization operates, as well as its roots may be distinct. For example, in North America, boys are rewarded for expressing anger and aggression -- displays consistent with masculine gender stereotypes; whereas girls are rewarded for displaying internalizing emotions such as sadness and fear, as these expressions are concordant with feminine gender stereotypes. In contrast, in India, anger is considered an uncivilizing emotion, and therefore, unacceptable for both boys and girls; however, it is relatively less acceptable for girls. Consequently, children are not rewarded for their displays of
anger; rather, they are discouraged from expressing it (girls more so than boys). Thus, with respect to anger, social disapproval seems to be a more prominent mechanism of socialization than social affirmation in India.

In addition to mechanisms, differential gender socialization may have distinct roots in the two cultures. Girls in India are socialized to not express externalizing emotions such as anger, and to be more tolerant and forgiving (Dhruvarajan, 1990; Guzdar & Krishna, 1991; Reddy & Hanna, 1998), as is the case in North America (Gilligan, 1977, 1979; 1982). This socialization practice in India, however, is deeply rooted in Hindu religious ideology (Dhruvarajan, 1990; Guzdar & Krishna, 1991; Reddy & Hanna, 1998). Differential gender expectations are conveyed to Indian girls with an explicit reference to this ideology and mythological role models (Dhruvarajan, 1990; Guzdar & Krishna, 1991; Reddy & Hanna, 1998). For example, a Hindu girl who expresses her anger is likely to be reminded that the expression is unacceptable because girls have to follow the strictest guidelines for acceptable behaviors.

Community Differences

Results indicated that children in the old city controlled their displays of anger, sadness, and pain more than children in the suburban community. Demographic differences revealed that parents in the suburban community had higher annual income and more years of education than parents in the old city. Moreover, annual family income and parental education were positively related to children’s decisions to express their feelings. Thus, children of parents with higher income and higher education were more likely to express their feelings than children whose parents had lower income and education.

According to the census data for Ahmedabad city, the mean annual income of
both old city and suburban community fall within the range of the "middle class" income for the city (Directorate of Census and Elections, Government of Gujarat; 1999). However, they represent two extremes of middle class: The mean annual income of suburban community is close to the "upper-middle class," while that of old city approximates the "lower-middle class" (Directorate of Census and Elections, Government of Gujarat; 1999). This suggests that there are only minor class differences between the two "middle class" communities in the present sample. How do these minor class differences explain differences in children’s decisions to express their feelings?

The positive relations between annual family income, as well as parental education and children’s decisions to express their feelings do not imply that parental education or income are directly related to children’s regulatory decisions. Dodge, Pettit, and Bates (1994) suggested that when socioeconomic status (SES) is found to be related to a psychological variable, such as children’s display rule usage, it may not be directly related to the given variable and cannot be used as an explanatory construct. Other variables such as socialization practices, availability of social support, intensity and frequency of life stressors are often associated with SES. It is through these associated processes that SES exerts its influence (Dodge et al., 1994). Thus, it is likely that there were additional factors that varied between the two communities but were not assessed in the present study. For example, the extent to which parents followed traditional beliefs, and the extent to which they were influenced by western values/attitudes may have differed between communities. These factors may be associated with SES and/or type of residence (urban versus rural). For example, differences in adherence to traditional beliefs and western
influence have been found between people from low versus high SES in India, and those residing in urban versus rural areas of India, such that people from low SES (and those from rural areas) more closely followed traditional Hindu beliefs and rituals, and were less influenced by western values (Shastri, 1998). Conceivably, urban versus rural residence can be conceptualized on a continuum, with urban on one end and rural on the other. Although both communities in the present study were located in an urban area, the old city (downtown) community likely falls in between rural residence on one extreme and urban on the other, while the suburban community is likely closer to the urban end. Thus, it may be that parents in the old city more closely follow traditional Hindu beliefs and rituals, and are less influenced by western values than parents in the suburban community. These differences may influence more specific parental beliefs and attitudes concerning appropriateness of emotional expressions, which in turn, may also differ across communities. Anecdotal evidence suggested that parents in the suburban community were more permissive overall and relatively more receptive to displays of negative emotions than parents in the old city. Moreover, mothers from the old city reported that they perceived negative emotions to be undesirable in their children and explicitly emphasized the importance of being happy and content while socializing their children.

Overall, the community type difference in display rule usage highlights the significance of within culture variability that is often neglected in cultural research. More specifically, it illustrates that aspects of children’s emotional development may vary not only between cultures but also within a single culture. The community type difference also underscores the importance of examining variables such as adherence to traditional beliefs, and influence of western values (in addition to
sociodemographic variables such as family income and parental education) while studying cultures other than North American. These variables may have direct or indirect impact on aspects of children's development under investigation.

**The Relation Between Mothers' Responses and Children's Use and Understanding of Display Rules**

**Use of Display Rules**

Results indicated that contrary to expectation, maternal supportive responses (emotion-focused and problem-focused) were unrelated to children's decisions to express anger, sadness, and pain. Two possible explanations can account for this lack of predicted relationships between supportive responses and children's use of display rules. First, an examination of mothers' ratings for each of the seven response types suggests that overall, emotion-focused and problem-focused responses were the most highly rated responses across all feeling types, and were also the ones with least variability (see Table 9). Thus, a methodological reason could explain the lack of predicted relationship between maternal supportive responses and children's regulatory decisions. Restriction of variance in one or both of the variables in a correlation can substantially influence the correlation coefficient; the outcome most commonly found is the reduction in the value of the coefficient (Howell, 1997). This explanation, however, doesn't address why East Indian mothers would consistently rate these two response types highly. It should be noted that the measure of maternal responses to children's expressions in the present study was self-report. A rather common limitation associated with self-report measures is that they assess participants' beliefs about their behaviors, which may not correspond to their actual behaviors. Emotion-focused and problem-focused responses may have appeared to be
the "right" ways of responding to children's emotional expressions, and the high ratings on these two response types may have been motivated by social desirability concerns.

The second possibility is that emotion-focused and problem-focused responses are indeed unrelated to children's regulatory decisions in East Indian culture. It may be that mothers in the present sample actually use emotion-focused and problem-focused responses predominantly; however, these responses may not necessarily contribute to greater likelihood of their children expressing their feelings. It should be noted that emotion-focused and problem-focused responses are not aimed at encouraging the expression of emotion but are intended to help the child in coping with the emotion. An emotion-focused response is aimed at comforting or soothing the child in order to reduce physiological arousal, and a problem-focused response is aimed at resolving the situation in an effort to make child feel better. Both of these responses acknowledge child's emotional experience but do not necessarily support the expression. Thus, this finding -- the lack of expected relation between maternal "supportive" responses and children's decisions to express -- highlights the need of distinguishing between responses that are supportive of children's experience of emotion versus those that support the expression.

Results revealed that, as anticipated, mothers' nonsupportive responses (particularly punitive responses and those that minimized the significance of child's feeling) to children's expressions of anger, sadness, and pain were negatively related to their children's decisions to express that particular feeling. This finding seems plausible if parents' intent behind their responses is taken into account: Both punitive and minimizing responses seem to be aimed at discouraging child's expression of
feeling. An interesting question that emerges from this finding is *why* parents use punitive and minimizing strategies. Gottman et al. (1996) suggest that parental responses to their children’s emotions are guided by two factors: parental cognitions concerning emotions, and parents’ own emotional responses.

The first factor thought to influence parents’ responses to their children’s emotions is *parents’ cognitions*. Some North American researchers (e.g., Saarni, 1987; Gottman et al., 1996) have proposed that parental belief systems concerning emotions are central to how they respond to their children’s emotions, and communicate the meaning of an emotional display to their children. In North America, parental punitive and minimizing responses are thought to be motivated by parental beliefs that negative emotions are aversive. Specifically, North American parents may believe that negative emotions are used for manipulation, are reflective of poor character, or are harmful to children (Fabes, Leonard, Kupanoff, & Martin, 2001). In the present study, mothers’ responses appeared to be guided by their beliefs and perceptions, which reflected broader cultural beliefs concerning propriety of emotions. For example, an informal examination revealed that mothers responded somewhat differentially to children’s expressions of anger and sadness: mothers were less likely to encourage the expression of anger than sadness, while they were more likely to minimize anger than sadness. This is consistent with the broader religious philosophy of Hinduism that considers anger less desirable than sadness. Thus, East Indian mothers in the present study likely used punitive and minimizing responses (particularly, to their children’s expressions of anger) because they *believe* that the expression (of anger) is unacceptable, and *therefore*, it should be discouraged.

The present study was restricted to maternal responses to children’s
expressions, and did not directly address maternal beliefs or perceptions. In fact, the role of parental beliefs and perceptions in socialization of emotion has not been investigated to any great extent within the North American literature. However, the consideration of parental beliefs becomes particularly critical in studies of emotional development across cultures, as parental beliefs typically reflect shared cultural beliefs. The influence of broader cultural context on children’s emotional development is mediated through these shared beliefs concerning emotions that are passed on from the parent to the child (Saarni, 1987). In this context, the process of socialization signifies the transmission of cultural beliefs. Thus, future work should investigate the role of parental beliefs and perceptions concerning emotions in children’s emotional development.

The second factor thought to influence parents’ responses to their children’s emotions is parents’ own emotions. Some parents themselves become emotionally distressed in response to their children’s emotional displays, and thus, are more prone to viewing their children’s emotions in a negative light. Hence, one of the reasons parents use punitive and minimizing responses could be their own emotional distress. In a study of North American preschoolers, Fabes and colleagues found that maternal punitive and minimizing responses were negatively related to the proportion of negative emotion (primarily anger) displayed by the preschoolers; however, this relationship was found only under the conditions of high parental distress (Fabes et al., 2001). Thus, it may be that when parents are distressed, they are more likely to view child’s emotion in a negative light, respond punitively or by minimizing significance (Fabes et al., 2001). In the present study, parents’ own emotional responses were not assessed. Thus, it could not be determined whether the relationship
between parental nonsupportive responses and children's emotional displays was moderated by variables such as parents' own feelings of distress (that is, it could not be assessed whether mothers in the present study used punitive and minimizing responses because of their own emotional distress). Future work should, however, investigate the role East Indian parents' own emotional responses play in the socialization of their children's emotion.

**Understanding of Display Rules**

Mothers' responses to children's expressions of anger, sadness, and pain were unrelated to children's justifications for controlling these expressions. The absence of this expected relationship suggests that mothers' immediate responses to their children's emotions may be less influential in children's understanding of display rules. Perhaps maternal behaviors that reflect their cognitions, rather than their immediate responses, are more critical in children's cognitions regarding display rules. As discussed earlier, parental belief systems are central to how parents respond to their children's emotional displays, and in turn, influence children's regulatory decisions. It seems that the role of parental beliefs and perceptions becomes even more critical in children's reasoning concerning regulatory decisions. Accordingly, modes of socialization that transmit belief systems from the mother to the child may be more important in children's understanding of display rules. Two such modes seem particularly relevant: parental coaching/discussion of emotions, and parental modelling of their own emotion regulation.

First, *parental discussion of emotion* and emotion-relevant topics conveys parental beliefs concerning emotions to their children. Parents who, in addition to providing an immediate response to their children's emotional display, use those
situations as an opportunity to coach their children in emotional competence (e.g., assist in verbally labelling feelings, explain why certain expressions are unacceptable, and teach alternate ways of coping) (Gottman et al., 1996) may have children who can provide more sophisticated reasoning for controlling their expressions (Eisenberg et al., 1998). In contrast, parents who do not go beyond an immediate response to their child's emotional expression may have children who are less able to provide complex reasoning.

Secondly, observational learning through *parental modelling* (an indirect mode of socialization) may also play a role in children's understanding of display rules. For example, parental expressiveness provides information about the emotional significance of events, behaviors that accompany various emotions, and consequences related to displaying emotions (Eisenberg et al., 1998). Thus, children's knowledge of display rules may come from observing how mothers manage their own emotions and how they justify the regulation of their displays. Mothers who provide extended explanations regarding the control of their own emotions may have children who provide more sophisticated reasoning when regulating their emotions. In contrast, mothers who do not explain reasons for controlling their displays may have children who are less sophisticated in their reasoning. The measure administered to mothers in the present study did not assess other methods of socialization (e.g., parental coaching and modelling) relevant to children's emotional regulation. Thus, these modes of socialization were not captured. However, future work should examine whether East Indian parents engage in coaching behaviors that are depicted in North American literature, and if so, what forms this coaching takes in East Indian culture. Moreover, the significance of parental modelling in children's emotion regulation should be
investigated.

In sum, mothers' nonsupportive responses were inversely related to their children's use of display rules in regulating their expressions; however, mothers' responses (both supportive and nonsupportive) were unrelated to children's understanding of display rules. North American literature on parental responses to children's negative emotions has primarily focused on the relationship between parental responses and measures of children's social functioning. The link between parental responses (both supportive and nonsupportive) and children's regulatory decisions or their understanding of them has been rarely investigated. This is quite surprising, given that the link between parental responses to children's emotions and children's social functioning is likely mediated by children's regulatory skills. Thus, the present study was among the few attempts that investigated the relationship between parental responses to children's emotions and children's emotion regulation that is implied, but rarely tested.

Limitations of the Present Study

When researchers trained in western psychology attempt to study another culture, the most critical issue is the applicability and meaningfulness of constructs investigated and the procedures used (Saarni, 1998). Researchers need to be aware that the meaning of the constructs, as well as the procedures used, are embedded in a particular cultural viewpoint—usually the western viewpoint (Rubin, 1998). Typically, the constructs under investigation are chosen because they are salient to western psychology and may not necessarily be meaningful to the target culture. The present study was primarily conceptualized from a western theoretical perspective concerning regulation of emotional displays; however, steps were taken to ensure
applicability on both methodological and theoretical grounds. First, on methodological grounds, the interview format with children involving hypothetical situations and self-report questionnaire format used with mothers were western in origin but were meaningfully applicable to East Indian culture. For example, although the scenarios presented to children and their mothers were hypothetical, a number of steps were taken to ensure their validity in real life situations: First, scenarios were pilot tested with graduate students in India and those rated as most likely to elicit intended feeling were selected for the main study. Secondly, with respect to scenarios involving discrepant ratings, a separate sample of mothers from India were interviewed and new scenarios were developed based on themes provided by these mothers. In addition, informal reports from mothers in the main study suggested that scenarios presented were indeed quite close to real life for this sample. For example, a number of mothers spontaneously stated that the two anger scenarios (non-compliance regarding eating habits and sibling fights) occurred quite frequently with their children. Others reported that their child has had his/her best friend move away, or that their child had been sick on an occasion and as a result, was unable to participate in extracurricular activities (themes of two sadness scenarios). Second, on theoretical grounds, attempts to understand and predict behaviors in this study were based on both a review of literature generated in North America, as well as on folk theories prevalent in East Indian culture. Moreover, the findings were interpreted primarily in the context of East Indian culture.

In order to balance the western psychology perspective, Sue, Kuraski, and Srinivasan (1999) have proposed incorporating alternative cultural viewpoints in research designs that involve other cultures. They advocate the use of parallel research
designs, which involve testing the salience of a construct by comparing alternative cultural viewpoints. This approach entails investigating a construct, such as emotion regulation, from the researcher’s viewpoint (typically, a western view), while concurrently examining equally plausible alternative explanations developed from the viewpoint of the culture under investigation (Sue et al., 1999). The researcher a priori develops two sets of descriptive and explanatory variables. Although rich and comprehensive, a research design of this sort was beyond the scope of the present study. However, in future research, it would be useful to examine the salience of emotion regulation, which is a western construct, from an alternative cultural viewpoint.

A second limitation concerning the design of the present study was that the experimental portion of this study was a cross-sectional design. Inferences concerning age changes and development in East Indian culture were made based on age differences. Although a longitudinal design is ideal in examining developmental patterns, it was beyond the scope of the present study. With respect to the nonexperimental portion of the study, the relationship between mothers’ responses and children’s decisions to control their expressions was correlational. Thus, the direction of effect could not be determined. It was unclear whether mothers’ responses to their children’s expressions influence children’s regulatory decisions, or are influenced by them. In future research, longitudinal designs that examine mothers’ response patterns and children’s regulatory abilities at various points in time might help make inferences about causal relations between these two variables.

A third limitation of the present study was that both mothers and children were asked to report on their behaviors and it is unclear to what extent participants’ self-
reports correspond to their actual behaviors. Moreover, the data on parental reactions to children’s expressions were obtained only from mothers. Thus, inclusion of observational measures, as well as information gathered from multiple sources such as fathers, other family members, and teachers might be useful in future work.

A final limitation of the present study could be the issue of generalizability. The present sample consisted of children from middle-class, well educated, Gujarati speaking families from an urban area. A majority of India’s population resides in rural areas, lives below the poverty line, and is not as well educated as the present sample. Thus, the present sample cannot be considered representative of the country. Moreover, even within the middle-class sample of the present study, a community type difference was observed in children’s display rule usage. In light of this difference, considerable caution should be taken in generalizing findings of the present study to all East Indian children.

Despite these limitations, the present study contributed to the scarce literature on children’s emotional development across cultures, with implications for the study of atypical development.

Implications and Future Directions

Emotional Development Across Cultures

In sum, the findings of the present study indicate effects of child age, sex, type of feeling, type of observer, and mothers’ responses on East Indian children’s use and understanding of display rules—effects that are similar to those found with North American children. Could the findings of the present study, then, be taken as an evidence of similarities in emotional development between East Indian and North American culture? Three alternative explanations suggest that we should be cautious...
about drawing such a conclusion. First, display rule usage in East Indian children may not be qualitatively different from North American children; however, there may be quantitative differences. For example, given the hierarchical nature of East Indian society, age and sex differences may be more pronounced in India than in North America. The present study did not directly compare display rule usage in East Indian and North American children. Thus, questions concerning quantitative differences could not be addressed in this study. Future work, however, should include a cross-cultural test that directly compares display rules and emotion regulation skills in these two cultures.

Second, the findings of the present study may not bear the same meaning as they do in North America. As Saarni (1998) points out, similarity in emotionally expressive behavior between two cultures does not necessarily dictate that these behaviors hold the same meanings in both cultures. For example, some cultures devalue emotionally expressive behavior, while others relish emotionally rich and expressive communication. This cultural difference in how emotions are perceived will dictate the meanings given to emotional displays and subsequent responses from others (Saarni, 1998). The popular view in cultural clinical psychology states that Eastern cultures perceive emotions less favorably than physical processes. Thus, in these cultures, children may refer to the insignificance of emotion as a justification for controlling their displays and mothers may respond to their children’s expressions by minimizing the significance of the emotion, or respond punitively. In contrast, in North America where emotions are relatively more acceptable, and at times cherished, children may refer to the importance of conveying one’s emotions and mothers may respond by encouraging such communication. Consistent with this
view, children in the present study cited insignificance of the event in causing emotion and futility of expression as justifications for controlling their emotional displays -- justifications that are rarely reported by North American children. In addition to beliefs regarding emotions in general, different cultures have different views regarding which emotions are desirable and which ones are undesirable. For example, in North America, anger is considered a powerful emotion and it is at times encouraged (e.g., in victims of abuse, assertiveness training), whereas Hindu philosophy considers anger an uncivilizing emotion, and therefore, undesirable in most circumstances. Thus, an expression of anger in North America could mean assertion of oneself, whereas an expression of anger in India would convey lack of maturity and lack of tolerance.

Third, the salience of the constructs under investigation may vary across cultures. The present study focused on one specific behavioral strategy (use of display rules) targeted at altering the expression of emotion. It may be that the salience of a particular strategy, or that of the target of these strategies may vary across cultures. A bulk of North American literature has predominantly focused on regulation through behavioral strategies that target the expression of emotion. In the present study, nine participants indicated that they would not feel intended emotion in one of the nine scenarios. This suggests that either the situation would indeed not elicit intended emotion in these children, or that these children may be reappraising the situation in an effort to regulate the experience of emotion, and concluding that they would not feel the emotion. Cole and Tamang (1998) found that, consistent with the Buddhist philosophy of keeping one's heart/mind clear of emotion, Nepali children reported that they would not feel intended emotion in hypothetical situations presented to them.
and emphasized the importance of staying calm and without emotion. Thus, it appears that some children regulate their emotions by targeting the experience of emotion. Perhaps in some cultures, (e.g., Nepali and Indian) regulating the experience may be more common than in others.

The Study of Atypical Development

Children’s decisions to express or control their feelings reflect the attainment of emotion regulation skills, and are thought to be implicated in children’s everyday social functioning, as well as their mental and physical health. Children who deviate from the normal course of development of emotion regulation skills are considered at risk for compromised health. In particular, studies of North American children have shown that aspects of emotion regulation and dysregulation are linked to poor peer relations (Hubbard & Coi, 1994), low academic achievement (Greenberg, Kusche, Cook, & Quamma, 1995), various forms of psychopathology (Casey, 1996; Zeman, Shipman, Suveg, & Stegall, 2001b) and poor physical health (Salovey, Rothman, Detweiler, & Steward, 2000). Thus, an important extension of the present study would be to examine emotion regulation in special populations of East Indian children who deviate from the normal course of development. Studies of North American children have shown that negative emotions such as anger and sadness play a crucial role in externalizing and internalizing forms of psychopathology. For example, Zeman, et al. (2001b) found that inhibition and dysregulation of sadness and anger predicted self-reported internalizing psychopathology in a community sample of fourth and fifth graders. In contrast, constructive coping with anger and sadness was inversely related to internalizing psychopathology in these children. Furthermore, Garber, Braafladt, and Zeman (1991) found that depressed North American children reported
withdrawing in response to sadness and becoming aggressive in response to anger-eliciting situations, whereas nondepressed children reported using problem solving strategies in response to negative emotions. Salovey et al. (2000) reported that inhibition or suppression of negative emotions are associated with lowered immune system activity and increased susceptibility to disease. In a similar vein, future research should explore processes that contribute to emotion dysregulation among East Indian children with different forms of psychopathology and frequent physical illnesses.

The study of normal emotional development can help construct a model that distinguishes emotion regulation from dysregulation (Cicchetti et al., 1995). The distinction between regulatory skills that are adaptive from those that are maladaptive is a critical first step in identifying pathways of atypical development. A decision to express or control one’s feelings can not be considered adaptive or maladaptive, in itself, and may not be predictive of children’s long-term functioning. A number of factors should be taken into account when determining whether a given regulatory decision is adaptive. First, the examination of children’s methods of expression can provide useful insight into whether the expression should be considered adaptive or maladaptive (Zeman & Shipman, 1996). For example, according to North American literature, expressing sadness by continuous crying or expressing anger by behaving aggressively may be considered dysregulated expressions, while expressing sadness or anger either verbally or facially may be considered more acceptable expressions. Similarly, children’s methods of concealment may provide insight into whether the decision to not show felt emotion was adaptive or maladaptive. For example, according to North American literature, controlling sadness by withdrawing may be
considered inhibition, while altering facial expression or controlling the intensity of felt emotion may be considered more adaptive.

Second, when children report that they would express felt emotion, assessing the intensity of their expression may also provide useful insight into adaptive/maladaptive nature of regulatory decisions (Fabes et al., 2001). For example, in the present study, informal reports suggested that children who stated that they would show felt emotion, also quite frequently mentioned that they would show only a small proportion of what they would actually feel, and not all of it. Thus, future research should examine children’s methods of control and expression and intensity of expression in order to assess the adaptive value of children’s regulatory decisions.

Third, regulatory decisions should be understood in the broader cultural context. What is considered a maladaptive expression in one culture might be quite adaptive in another. It may be that what appears to be an inhibition of affect or withdrawal to western mental health professionals might be controlled regulation to parents and professionals from another culture. For example, informal maternal reports in the present study suggested that what would be considered as withdrawal responses from North American perspective (i.e., sitting in a corner, not wanting to talk) appeared to be quite normal responses to mothers in the present sample.

In addition to children’s skills of emotion regulation, parental responses to children’s negative emotions are implicated in children’s social functioning and mental health. Parental nonsupportive reactions (e.g., punitive responses, and those that minimized the significance of child’s feeling) are linked with poor social functioning in children, while parental supportive reactions that address the emotion or the situation are linked with enhanced social competence for children. However, it
cannot be assumed that parental nonsupportive responses will have similar consequences in East Indian culture. As is the case with children’s emotional displays, the adaptiveness of parental response may vary across cultures. For example, in a study of Nepali children, Cole and Tamang (1996) found that prior to age 2 to 3 years, caregivers quickly attended to infant displays of negative emotion and responded with support and nurturance. However, with children older than 2 to 3 years of age, caregivers either ignored or were critical of child’s negative emotion, and rarely provided explanations, support, or comfort (as cited in Cole & Dennis, 1998). According to the North American child development literature, these responses would be classified as minimizing or punishing, which have been linked with psychological maladjustment in children. This implies that socialization practices employed by Nepali caregivers would interfere with the development of social competence in their children, and would place them at risk for developing behavior problems. However, researchers’ informal observations suggested that Nepali children’s social competence was well developed and no evidence of impairment was apparent. These findings suggest that the meaning of a parental response is embedded in the broader cultural context and that similar parental behaviors (i.e., minimization and punitiveness) may have different consequences in different cultures. Thus, the broader cultural framework must be understood when interpreting similar parental behaviors across cultures. In the present study, measures of children’s social functioning (e.g., peer relations) or behavior problems were not included. Thus, it could not be determined whether parental responses considered supportive or nonsupportive were related to positive or negative outcomes for children. However, future work should explore the relationship between East Indian
parents' responses to their children's emotional expressions and children's social functioning.

In sum, despite limitations, the present study contributed to the scarce literature on emotional development across cultures, and will, hopefully serve as a starting point for future research in this area. Extensions from the present study could include investigating how emotion regulation skills relate to East Indian children's global social functioning, as well as their mental and physical health. In addition, further exploration of how parental socialization practices contribute to both normal and atypical emotional development would be useful. Finally, examining the salience of emotion regulation in cultures other than North America and considerations of alternative cultural explanations is warranted.
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for displaying emotions: Children’s expectations of interpersonal support. Poster presented at the biennial meeting of the Society for Research in Child Development, Minneapolis, MN.

Appendix A

Scenarios for Pilot Testing I

Instructions:

This is a list of 13 scenarios involving a child between the ages of 5 and 9 years interacting with their mother, father, or a peer. Scenarios are written in first-person narrative and are addressed to a 5- to 9-year old child. Please read each of the scenarios carefully, and respond to the question that follows.
1. All of your friends always stay after school and play. You can never join them because your mom always picks you up right away. Today, they declared that they are going to play (favourite sport). You have been hoping all day that your **mom** comes late. It’s end of the day and there she is, as usual, on time. You ask your mom if you can play with your friends, just for a little bit. She says no, she can’t wait for you. You beg her that a few minutes won’t really delay her. But she refuses and asks you to hurry up and go along (**anger intended**).

If the events described in the scenario really happened to a child, how would s/he feel? Please indicate how likely it is that the child would feel each of the following:

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2. Your **mom** has taken you and your little cousin to the supermarket. You pass by an ice cream parlour and both you and your cousin beg your mom to buy you ice cream. She buys your cousin a big cone but says that you can’t have ice cream because you just got over a flu. You tell her that you’re not sick anymore... an ice-cream won’t really hurt. But she refuses to listen (**anger intended**).

Please indicate how likely it is that the child would feel each of the following:

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3. It’s Sunday and there’s a cricket match playing on TV. Your dad has been watching TV for the whole day. There is only one TV in your house and your favourite show is on. You ask your dad if you could watch your show but he seems too involved in the match. You beg him to switch the channels just for a little while and tell him that they’ll be replaying the match later on so he won’t really miss anything. But he refuses and tells you to stop bothering him (anger intended).

Please indicate how likely it is that the child would feel each of the following:

Happy:
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not likely | somewhat likely | very likely

Sad:
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not likely | somewhat likely | very likely

Angry:
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not likely | somewhat likely | very likely

Neutral:
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not likely | somewhat likely | very likely

Physical Pain:
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not likely | somewhat likely | very likely
4. All of the kids in your class are going on a trip to the Water Park. You are very excited about it because all of your friends are going! It’ll be so much fun! You go home and tell your dad about the trip. He tells you that you can not go because your great uncle is visiting that day... your dad wants you to stay with him and keep him company (anger intended).

Please indicate how likely it is that the child would feel each of the following:

**Happy:**

| not likely | somewhat likely | very likely |

**Sad:**

| not likely | somewhat likely | very likely |

**Angry:**

| not likely | somewhat likely | very likely |

**Neutral:**

| not likely | somewhat likely | very likely |

**Physical Pain:**

| not likely | somewhat likely | very likely |
5. Your uncle from America has sent you a very attractive toy. It’s a robot/doll that walks and talks! You take it to school and show it around. All of your friends watch you operate this new toy and are amazed! Suddenly, one of your friends (name) grabs it from your hand and runs away. He holds it in his hand and starts teasing you (anger intended).

Please indicate how likely it is that the child would feel each of the following:

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6. You are riding in a rikshaw with your **mom**. You’re very excited because your mom just bought you a new toy and you are playing with it. Suddenly, the rikshaw jerks and your toy falls out of the window. You want to get off and get your toy but the driver can’t stop...the traffic is very heavy and all the cars, buses and rikshaws are passing by. You can’t possibly get off and get it. Suddenly, you see that another rikshaw runs over it... it’s broken into pieces (**sadness intended**).

Please indicate how likely it is that the child would feel each of the following:

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7. Your birthday is coming up and you are very excited because your mom has promised you a big party! Lots of friends, lots of gifts, and the yummy cake! You can’t wait for the day to come! You are sending out invitations to all of your friends and your mom is making all the arrangements. The day before your birthday, it starts raining really hard. The water is up to the people’s waists and all the streets are blocked. There is no way to move around…no one can come to your party. Your mom tells you that she has to cancel it (sadness intended).

Please indicate how likely it is that the child would feel each of the following:

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8. You were very excited to be selected for the lead role of "Krishna" ("Radha") in your school drama for "Janmashtami" (a Hindu festival). You suddenly fell sick and couldn't go to school for a whole week. You missed a lot of rehearsals. The next week you go to school with your dad and find out that they couldn't wait for you, Janamashtami was coming soon...they had to select another kid to be Krishna/Radha (sadness intended).

Please indicate how likely it is that the child would feel each of the following:

**Happy:**

| not likely | somewhat likely | very likely |

| not likely | somewhat likely | very likely |

**Sad:**

| not likely | somewhat likely | very likely |

**Angry:**

| not likely | somewhat likely | very likely |

**Neutral:**

| not likely | somewhat likely | very likely |

**Physical Pain:**

| not likely | somewhat likely | very likely |
9. Your mom has gone out of town for a week to attend a wedding. She decided to leave you with your dad because she didn’t want you to miss a week at school. It has been 3 days since she left and you miss her a lot. You don’t like the food that your great aunt makes and no one helps you with your homework. Later when you are watching TV with your dad, your dad tells you to go to bed. You are still thinking about your mom and know that you will not be able to fall asleep (sadness intended).

Please indicate how likely it is that the child would feel each of the following:

**Happy:**

| not likely | somewhat likely | very likely |

**Sad:**

| not likely | somewhat likely | very likely |

**Angry:**

| not likely | somewhat likely | very likely |

**Neutral:**

| not likely | somewhat likely | very likely |

**Physical Pain:**

| not likely | somewhat likely | very likely |
10. X (name of a friend) is a very good friend of yours. The two of you do a lot of things together. You go to school together, you play together and you even live next door. One day, when you go to school, you see that X looks very excited. He tells you that his family is migrating to America! They are leaving next month! He will live there from now on and will go to school there. You suddenly realize that you won’t get to see him for a long time...you’ll surely miss him (sadness intended).

Please indicate how likely it is that the child would feel each of the following:

**Happy:**

| not likely | somewhat likely | very likely |

**Sad:**

| not likely | somewhat likely | very likely |

**Angry:**

| not likely | somewhat likely | very likely |

**Neutral:**

| not likely | somewhat likely | very likely |

**Physical Pain:**

| not likely | somewhat likely | very likely |
11. You go to a friend's birthday party and there are lots of things to eat. You and all of your friends eat a lot of chocolates, cake, and ice-cream. Your stomach feels full. You come home with your mom and your stomach begins to hurt. You wish you hadn’t eaten so much. (pain intended; adapted from Zeman & Garber, 1996).

Please indicate how likely it is that the child would feel each of the following:

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<td>Physical Pain:</td>
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12. It's Sunday evening and you have been playing outside in the neighbourhood. You are playing with your friends and running around. All of a sudden, you feel cramp in your side...you have been running around too much! Your foot hurts terribly and you don't know what to do. You decide to go home but find that your mom is not home. Your dad sees you rushing in. It's really hurting you (pain intended).

Please indicate how likely it is that the child would feel each of the following:

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13. Today, in school, you’re not feeling very good. You have got the flu and your head feels heavy and congested. It hurts. A few minutes later, it’s the recess time and you are with a friend. Now your head begins to hurt really bad and you feel very sick (pain intended).

Please indicate how likely it is that the child would feel each of the following:

**Happy:**

| not likely | somewhat likely | very likely |

**Sad:**

| not likely | somewhat likely | very likely |

**Angry:**

| not likely | somewhat likely | very likely |

**Neutral:**

| not likely | somewhat likely | very likely |

**Physical Pain:**

| not likely | somewhat likely | very likely |
Appendix B

Pilot Testing II: Interview Protocol for Mothers

Introduction: I am going to be asking you about the times in the past few weeks when your child was feeling anger, sadness, and physical pain. I would like you to describe each incident to me when your child was feeling each of the three feelings (anger, sadness, and physical pain) and then I will ask you some questions.

Anger:

1. Can you think of a time in the last couple of weeks (/or months) when your child was feeling angry? Tell me what happened.
2. How did you know that he/she was angry?
3. Was your child angry about something you did or did it have to do with someone else?
   Were you present for the entire incident? If not, how did you find out?
4. How angry would you say your child was if 1 is a little bit angry, 4 is somewhat angry and 7 is the angriest that your child has ever been?
5. How long did your child feel angry?
6. Would you say your child was feeling any other emotion (i.e., sadness, fear, contempt) or just anger?

- If the first incident was not the one in which the child was the angriest they have ever been or not a clear example of anger, then ask:
   Can you think of a time when your child was the angriest he/she has ever been?
OR can you think of a time when your child was feeling just anger (no other emotion)?

- Otherwise, ask to describe another incident.
- Repeat the same questions for each incident (should ask for at least 3 incidents of anger).

**Sadness:**

1. Can you think of a time in the last couple of weeks (/or months) when your child was feeling sad? Tell me what happened.

Repeat the same questions:

2. How did you know that he/she was feeling sad?

3. Was your child sad about something you did or did it have to do with someone else?
   
   Were you present for the entire incident? If not, how did you find out?

4. How sad would you say your child was if 1 is a little bit sad, 4 is somewhat sad and 7 is the most sad that your child has ever been?

5. How long did your child feel sad?

6. Would you say your child was feeling any other emotion (i.e., anger, fear, contempt, disappointment?) or just sadness?

- If the first incident was not the one in which the child was the most sad they have ever been or not a clear example of sadness, then ask:

   Can you think of a time when your child was feeling the most sad he/she has ever felt? OR can you think of a time when your child was feeling just sadness (no
other emotion)?

- Otherwise, ask to describe another incident.
- Repeat the same questions for each incident (should ask for at least 3 incidents)

**Pain:**

1. Can you think of a time in the last couple of weeks (or months) when your child was feeling **physical pain**? Tell me what happened.

Repeat the same questions:

2. How did you know that he/she was feeling pain?

3. Were you present for the entire incident? If not, how did you find out?

4. How much pain would you say your child was if 1 is a little bit pain and 7 is the most pain that your child has ever felt?

5. How long did your child feel the pain?

6. Would you say your child was feeling any other emotion (i.e., anger, sadness, fear) or just pain?

- If the first incident was not the one in which the child was feeling the most pain they have ever felt or if it was not a clear example of pain, ask:

  Can you think of a time when your child was the most pain he/she has ever felt?

  OR can you think of a time when your child was feeling just pain (no other emotion)?

- Otherwise, ask to describe another incident.

- Repeat the same questions for each incident (should ask for at least 3 incidents)
Appendix C

Scenarios for Child Interview in the Main Study

Anger intended:

1. You come home from school and find out that all of your toys are in a total mess and your books are lying on the floor. Your father tells you that it was your little brother/sister just playing with your things. You look at all of your toys taken apart scattered on the floor. He/she wasn’t just playing...he/she made a big mess! Besides, you don’t like him/her touching your stuff. You have even told him/her a million times that he/she is not allowed to touch your things and he/she still did that... and your father didn’t even scold him/her for making a mess. You can’t believe this.

2. You are at your school and your teacher has left the classroom for a few minutes. She has asked all of you to do the work she has given you. Your class captain is in charge while your teacher is gone. You are quietly doing your work when a friend next to you starts talking. You tell him to be quiet and let you do your work. He doesn’t listen and keeps talking. You tell him that if he doesn’t stop, you will tell the captain. In the meantime, the captain hears YOU talk and asks YOU to stand up. You try to explain that you were not the one talking. But s/he doesn’t want to listen. S/he says that s/he is going to tell the teacher... and your friend just sits there laughing at you.

3. It is suppertime and you are at the dinner table with your family. You hate eating the meals your mother cooks. You want to eat your favourite snacks instead. You tell
your mother that you are not hungry...you don’t want to eat. But she doesn’t listen.
She serves you the food and tells you that you have to eat it. You sit there staring at
your food, playing with it a little while others finish their dinner. You are the only one
left now. Your mother tells you that she is not going to let you get up until you finish
your food.

Sadness intended:

4. Your birthday is coming up and you are very excited because your mother has
promised you a big party! Lots of friends, lots of gifts, and the yummy cake! You
can’t wait for the day to come! You are sending out invitations to all of your friends
and your mother is making all the arrangements. The day before your birthday, it
starts raining really hard. The water is up to people’s waists and all the streets are
blocked. There is no way to move around...no one can come to your party. Your
mother tells you that she has to cancel it.

5. You were very excited to be selected for the lead role of “Krishna” ("Radha") in
your school drama for “Janmashtami” (a Hindu festival). You suddenly fell sick and
couldn’t go to school for a whole week. You missed a lot of rehearsals. The next week
you go to school with your father and find out that they couldn’t wait for you,
Janamashtami was coming close...they had to select another kid to be
Krishna/Radha.

6. X (name of a friend) is a very good friend of yours. The two of you do a lot of things
together. You go to school together, you play together and you even live next door.
One day, when you go to school, you see that X looks very excited. He tells you that his family is migrating to America! They are leaving next month! He will live there from now on and will go to school there. You suddenly realize that you won’t get to see him for a long time...you’ll surely miss him.

**Pain intended:**

7. You go to a friend’s birthday party and there are lots of things to eat. You and all of your friends eat a lot of chocolates, cake, and ice cream. Your stomach feels full. You come home with your **mother** and your stomach begins to hurt. You wish you hadn’t eaten so much. (adapted from Zeman & Garber, 1996).

8. It’s Sunday evening and you have been playing outside in the neighbourhood. You are playing with your friends and running around. All of a sudden, you feel cramp in your side...you have been running around too much! Your foot hurts terribly and you don’t know what to do. You decide to go home but find that your mother is not home. Your **father** sees you rushing in. It’s really hurting you.

9. Today, in school, you’re not feeling very good. You have got the flu and your head feels heavy and congested. It hurts. A few minutes later, it’s the recess time and you are with a **friend**. Now your head begins to hurt really badly and you feel very sick.
Appendix D

Demographic Information Questionnaire

Subject ID _______

1. How many children do you have? _______

Please list the names of your children and their date of birth:

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<th>Name</th>
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2. Please indicate your marital status (circle one): Married/ Divorced/ Widowed

3. Your age: _______ Your husband’s age: _______

4. Where were you born?

Your birthplace: _______ Your husband’s: _______

5. How long have you lived in Ahmedabad? _______

6. Please indicate your Religion (please circle one. If your and your husband’s religion is not the same, please indicate separately):

Hinduism    Jainism    Islam    Zoroastrianism
Christianity Other _______

7. Please indicate your Education:

You:

Elementary/middle school

Your husband:

Elementary/middle school
8. Please indicate your Profession:

You:

Home- maker

Employed: Full time/ part time

Your husband:

(please specify)

9. Which of the following languages do you speak?

You:

Gujarati

Hindi

English

Other (please specify):________

Other:___________________

Your husband:

Gujarati

Hindi

English

10. Do you live in:

Nuclear family OR with extended family? (please circle one)

11. How many members live in your household (including yourself)? ____________

12. Please indicate annual family income of your household: Rs. _____________
Appendix E

Mothers’ Responses to Children’s Emotions Questionnaire

Instructions:

We are interested in finding out how parents handle situations in which their children are feeling anger, sadness, or physical pain. Nine situations in which your child is experiencing one of the three feelings are described and six different ways in which you can respond to the situation are listed. A 7-point scale is provided (where 1 = not very likely, 4 = somewhat likely, 7 = very likely) for you to respond. The way in which you respond to these situations may depend on many things (such as your mood at the time, the situation you are in, etc.) so please indicate how LIKELY you would be to handle these nine situations in the way that we have listed. Please include other things that you might do in these situations, write them in the space provided, and indicate how likely you would be to respond to the situation in the way you have suggested.
1. It is suppertime and you are at the dinner table with your family. Your child doesn’t like eating the meal that you cook and wants to have snacks instead. Your child tells you that he/she is not hungry and that he/she doesn’t want to eat. You still serve the food and tell him/her that he/she has to eat it. Your child sits there staring at the food and playing with it while others finish their dinner. Your child is the only one left now. You tell him/her that you are not going to let him/her get up until he/she finishes the food. Your child looks **angry** at you.

What would you do/say to your child? Please indicate all the things that you would do:

(a) Try to calm my child (**emotion-focused**)

| not likely | somewhat likely | very likely |

(b) Tell my child not to make such a big deal of it (**minimizing**)

| not likely | somewhat likely | very likely |

(c) Convey to my child that demonstrating anger in this situation is not acceptable and that s/he should stop immediately (**expression unacceptable**)

| not likely | somewhat likely | very likely |
(d) Explain to my child that he/she needs nutritious food in order to grow up and so if he/she will have meals at mealtime then he/she can have snacks at snack time

(Problem-focused)

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(e) Tell my child that s/he is going to get in trouble for being angry (punitive)

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(f) Encourage my child to express his/her feelings of anger (encourage expression)

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(g) I will respond with frustration/distress (frustration/distress)

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2. Your child comes to you and tells you that today when he/she came home from school, all of his/her toys were in a total mess, taken apart and scattered, and his/her books were lying on the floor. He/she tells you that dad told him/her that it was the younger sibling who was just playing. Your child tells you that he/she wasn’t just playing, he/she made a big mess and dad didn’t even scold him/her. Your child also tells you that he/she doesn’t like younger sibling touching his/her stuff. He/she has told the younger sibling not to touch his/her things a million times but the sibling doesn’t listen. Your child looks **angry** at the sibling.

What would you do/say to your child? Please indicate all the things that you would do:

(a) Try to calm my child (**emotion-focused**)

| not likely | somewhat likely | very likely |

(b) Tell my child not to make such a big deal of it (**minimizing**)

| not likely | somewhat likely | very likely |

(c) Convey to my child that demonstrating anger in this situation is not acceptable, and that s/he should stop immediately (**expression unacceptable**)

| not likely | somewhat likely | very likely |
(d) Explain to my child that we will talk to the sibling so that they don’t do this again

    **(Problem-focused)**

    | not likely | somewhat likely | very likely |

(e) Tell my child that s/he is going to get in trouble for being angry (**punitive**)

    | not likely | somewhat likely | very likely |

(f) Encourage my child to express his/her feelings of anger (**encourage expression**)

    | not likely | somewhat likely | very likely |

(g) I will respond with frustration/distress (**frustration/distress**)

    | not likely | somewhat likely | very likely |
3. Your child comes home from school and tells you that today he got into trouble in school without having done anything wrong. He/she tells you that their teacher had left the classroom for a few minutes leaving the class captain in charge. Your child says that he/she was quietly doing the assigned work when a friend started talking. Your child says that he/she told the friend to be quiet but the friend kept talking. In the meantime, the captain heard your child talk and asked him/her to stand up. Your child says that he/she tried to explain that he/she was not talking. But the captain didn’t want to listen and the friend who was actually talking sat there laughing. Your child looks angry at the friend.

What would you do/say to your child? Please indicate all the things that you would do:

(a) Try to calm my child (emotion-focused)


not likely


somewhat likely


very likely

(b) Tell my child not to make such a big deal of it (minimizing)


not likely


somewhat likely


very likely

(c) Convey to my child that demonstrating anger in this situation is not acceptable, and that s/he should stop immediately (expression unacceptable)


not likely


somewhat likely


very likely
(d) Explain to my child that he/she should go and tell the teacher what had actually happened (problem-focused)

| not likely | somewhat likely | very likely |

(e) Tell my child that he/she is going to get in trouble for being angry (punitive)

| not likely | somewhat likely | very likely |

(f) Encourage my child to express his/her feelings of anger (encourage expression)

| not likely | somewhat likely | very likely |

(g) I will respond with frustration/distress (frustration/distress)

| not likely | somewhat likely | very likely |
4. Your child’s birthday is coming up and s/he is very excited because you have promised him/her a big party! Lots of friends, lots of gifts, and the yummy cake! S/he can’t wait for the day to come! You are making all the arrangements and your child is sending out invitations to all of his/her friends. The day before the birthday, it starts raining really hard. The water is up to the people’s waists and all the streets are blocked. There is no way to move around...no one can come to the party. You tell your child that s/he has to cancel the party. Your child looks sad.

What would you do/say to your child? Please indicate all the things that you would do:

(a) Try to comfort/soothe my child (emotion-focused)

| not likely | somewhat likely | very likely |

(b) Tell my child to stop over-reacting (minimizing)

| not likely | somewhat likely | very likely |

(c) Explain to my child that there was nothing we could have done and may be we will have another party (problem-focused)

| not likely | somewhat likely | very likely |
(d) Tell my child that if s/he starts crying, s/he’ll be in trouble (punitive)

| not likely | somewhat likely | very likely |

(e) Convey to my child that demonstrating sadness in this situation is not acceptable (expression unacceptable)

| not likely | somewhat likely | very likely |

(f) Encourage my child to express his/her feelings of sadness (encourage expression)

| not likely | somewhat likely | very likely |

(g) I will respond with frustration/distress (frustration/distress)

| not likely | somewhat likely | very likely |
5. Your child was very excited to be selected for the lead role of “Krishna” (“Radha”) in the school drama for “Janmashtami” (a Hindu festival). S/he suddenly fell sick and couldn’t go to school for a whole week. S/he missed a lot of rehearsals. The next week your child goes to school with dad and finds out that they couldn’t wait for him/her, Janamashthami was close...they had to select another kid to be Krishna/Radha. Your child comes home looking very sad.

What would you do/say to your child? Please indicate all the things that you would do:

(a) Try to comfort/soothe my child (emotion-focused)

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(b) Tell my child not to make such a big deal of it (minimizing)

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(c) Explain to my child that the teacher had to select another child because s/he was sick and may be next year s/he can take a part in the school play (problem-focused)

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(d) Tell my child that if s/he starts crying, s/he’ll be in trouble (punitive)

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(e) Convey to my child that demonstrating sadness in this situation is not acceptable

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(f) Encourage my child to express his/her feelings of sadness (encourage expression)

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6. Your child comes home one day and tells you that today in school, X (name of a friend) was very excited. X (name of a friend) is a very good friend of your child. The two of them do a lot of things together. They go to school together, they play together and even live next door. Your child tells you that X and his/her his family are migrating to America! They are leaving next month! S/he will live there from now on and will go to school there. Your child says that s/he won’t get to see the friend for a long time...s/he surely miss him/her. Your child looks sad.

What would you do/say to your child? Please indicate all the things that you would do:

(a) Try to comfort/soothe my child (emotion-focused)

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(b) Tell my child not to make such a big deal of it (minimizing)

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(c) Explain to my child s/he can always be in touch with the friend and write to him/her (problem-focused)

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(d) Tell my child that if s/he starts crying, s/he’ll be in trouble (punitive)

| not likely | | somewhat likely | | very likely |

(e) Convey to my child that demonstrating sadness in this situation is not acceptable (expression unacceptable)

| not likely | | somewhat likely | | very likely |

(f) Encourage my child to express his/her feelings of sadness (encourage expression)

| not likely | | somewhat likely | | very likely |

(g) I will respond with frustration/distress (frustration/distress)

| not likely | | somewhat likely | | very likely |
7. Your child has gone to a friend’s birthday party. You go to pick up your child and your child tells you that his/her stomach is hurting. There were lots of things to eat and all of them ate a lot of chocolates, cake, and ice-cream. Your child’s stomach feels full. S/he wishes they hadn’t eaten so much. Your child feels pain.

What would you do/say to your child? Please indicate all the things that you would do:

(a) Try to comfort/soothe my child (**emotion-focused**)

| -------------- | -------------- | -------------- | -------------- | -------------- | -------------- |

not likely     somewhat likely     very likely

(b) Tell my child not to make such a big deal of it (**minimizing**)

| -------------- | -------------- | -------------- | -------------- | -------------- | -------------- |

not likely     somewhat likely     very likely

(c) Explain to my child that I will give her/him some medicine so s/he will feel better soon (**problem-focused**)

| -------------- | -------------- | -------------- | -------------- | -------------- | -------------- |

not likely     somewhat likely     very likely

(d) Tell my child that if s/he starts crying, s/he’ll be in trouble (**punitive**)

| -------------- | -------------- | -------------- | -------------- | -------------- | -------------- |

not likely     somewhat likely     very likely
(e) Convey to my child the expressing pain in this situation is not acceptable (expression unacceptable)

| not likely | somewhat likely | very likely |

(f) Encourage my child to express his/her feelings of pain (encourage expression)

| not likely | somewhat likely | very likely |

(g) I will respond with frustration/distress (frustration/ distress)

| not likely | somewhat likely | very likely |
8. It's a Sunday evening and you had gone out. You come home and your child looks like they are feeling pain. Your child tells you that s/he was playing outside in the neighbourhood. S/he was playing with friends and running around. All of a sudden, s/he felt cramp in the side...s/he had been running around too much! His/her foot began to hurt terribly and s/he didn't know what to do. S/he decided to go home but found that you weren't home. Dad saw him/her rushing in. It was really hurting him/her. He/she was feeling pain.

What would you do/say to your child? Please indicate all the things that you would do:

(a) Try to comfort/soothe my child (**emotion-focused**)

| not likely | somewhat likely | very likely |

(b) Tell my child not to make such a big deal of it (**minimizing**)

| not likely | somewhat likely | very likely |

(c) Explain to my child that I am going to give her/him some medicine so s/he will feel better soon (**problem-focused**)

| not likely | somewhat likely | very likely |
(d) Tell my child that if s/he starts crying, s/he'll be in trouble (punitive)

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(e) Convey to my child that expressing pain in this situation is not acceptable

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(f) Encourage my child to express his/her feelings of pain (encourage expression)

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9. Your child comes home from school one day looking very sick. Your child tells you that today, in school, s/he was not feeling good. S/he had got the flu and his/her head felt very heavy and congested. It was hurting. During the recess time when s/he was with a friend. His/her head began to hurt really bad and s/he felt very sick S/he was feeling pain.

What would you do/say to your child? Please indicate all the things that you would do:

(a) Try to comfort/soothe my child (emotion-focused)

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(b) Tell my child not to make such a big deal of it (minimizing)

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(c) Explain to my child that I am going to give her/him some medicine so s/he will feel better soon (problem-focused)

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(d) Tell my child that if s/he starts crying, s/he’ll be in trouble (punitive)

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(e) Convey to my child that expressing pain in this situation is not acceptable

(expression unacceptable)

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(g) I will respond with frustration/distress (frustration/distress)

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Appendix F

Coding Scheme: Children’s Justifications for Controlling Expressions

- **Avoiding scolding/trouble:** Avoiding negative interpersonal consequences/negative interactions. Avoid getting into trouble, avoid being scolded. e.g., “if I show my anger, mom would be even more angry”, “If I show my pain, dad would get mad and say, why were you running around?”, “If I show my sadness, mom would get mad and say, what can I do if it starts raining?”, “if I show my sadness, he wouldn’t be my friend anymore.”

- **Maintaining self-esteem/avoid embarrassment:** Showing emotion would result in embarrassment, protecting self from feeling embarrassment. e.g., “If I show my anger, other kids will make fun of me”, “If I show how sad I am, others will laugh at me.”

- **Prosocial Reasons:** Concerns about protecting other’s feelings/avoid hurting other’s feelings. e.g., “If my friend is happy and if I show my sadness, my friend would cry and wouldn’t be happy anymore”, “If I show my sadness the other girl will feel bad”, “I wouldn’t show my anger because she is my younger sister, and I like her a lot, and I don’t want her to feel bad.”

- **Norm maintenance:** Reference to social rules/conventions (the don’ts: a lot of should not, can not). e.g., “you can not be angry with your elders”, “If someone is happy, you shouldn’t be sad”, “You can not be angry with younger siblings. They are younger and they don’t understand”, “One should not feel sad, one should be brave”, “you should always be happy, should never be sad.”
• **Futility of expression**: evaluating the usefulness of expressing felt emotion and concluding that expressing it would not serve any purpose. e.g., “I wouldn’t show my sadness because being sad doesn’t do anything”

• **Minimizing the significance of the event**: reappraising the event in a way that minimizes its significance in causing the emotion. e.g., “I would not show sadness because its not worth being sad about, its not a big deal”, “I would not show sadness because its OK, I can make new friends”, “I would not show my anger because even if the toy is broken, my dad will get me a new one”

• **Parental reminder**: Parental reminder of social rules. e.g., “I would not show that I am sad because if I show, dad would say, you should always be happy, never be sad”; Parental reminder of futility of expression, e.g., “If I show that I am sad, dad would say, its not good to be sad, it doesn’t get you anywhere in life”, “If I show my sadness, mom would say, what is wrong with you? Why are you sitting with a sad face? It’s not going to get your friend back.” Parental reminder of insignificance of event in causing emotion, e.g., “If I show my sadness, mom would say, just because your party is cancelled you shouldn’t be sad”, “If I show my anger, dad would say, he was just playing, if it is broken what’s the big deal? I’ll buy you a new toy”, If I show my anger, dad would say, don’t make a big fuss. He is younger than you, he was just playing”
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