

Parental Emotion Socialization of Seventh and Eighth Graders: Gender Differences in  
Independent and Interdependent Self-Construals

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ABSTRACT

The primary goal of the present study was to assess linkages between parents' beliefs about children's emotions, parent-child discourse, and children's independent and interdependent self-construals with sixty 7<sup>th</sup> and 8<sup>th</sup> grade children. Children were interviewed with the Self-Guide Questionnaire (Higgins, Klein, & Strauman, 1985) and completed an independent and interdependent reaction time measure (Watson & Quatman, 2005). Children's self-guide responses were coded for independent and interdependent traits and behaviors. Parents completed the Parents' Beliefs about Children's Emotions Questionnaire (Halberstadt et al., 2008) to assess their beliefs about the danger of emotions and parents' and children's roles in emotion socialization. Parents' elaborative reminiscing style and both parent and child emotion labeling were measured through a cooperative game designed to elicit emotion-related discourse. Results showed that girls responded faster to interdependent traits and included more interdependent and connected self attributes than did boys, whereas boys included more independent and unique self attributes than did girls. Parents who believe children can guide their own emotion socialization elaborated less about their children's independent and interdependent memories. Their children who responded more slowly to both independent and interdependent traits, with a stronger effect for independent compared with interdependent traits. The interaction between parents' beliefs about the danger of emotions and about their guidance of their child's emotions was related to girls', but not boys', balance of independent and interdependent traits in their self-construal. Results have implications for identifying beneficial developmental trajectories of positive adjustment and mental health.

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## TABLE OF CONTENTS

<b>Acknowledgement</b>	iii
<b>Table of Contents</b>	iv
<b>List of Figures</b>	vii
<b>List of Tables</b>	viii
Introduction and Background.....	1
Independent and Interdependent Self-Construals.....	3
Definition .....	3
Measurement .....	4
Significance .....	5
Gender and Self-Construal.....	7
Importance of Studying Self-Construals and Emotions Socialization in Early Adolescence .....	8
Parents' Emotion-Related Beliefs are Theoretically Related to Self-Construals and Parent-Child Discourse.....	10
Guidance of children's emotions.....	11
Emotions as dangerous.....	13
Aspects of Parent-child Discourse Theoretically Associated with Self-construal.....	15
Style of discourse .....	15
Content of discourse .....	17
Summary .....	20
The Present Study.....	21
Method .....	23
Participants .....	23
Procedures .....	24
Materials .....	25
Parents' Beliefs about Children's Emotions (PBACE) Questionnaire.....	25
Tanner's Stages of Pubertal Developmental Questionnaire.....	25
Demographics.....	26
Self-Guide Questionnaire .....	26
Independent and Interdependent Adjective Scale.....	28

LifeStories® Game .....	29
Discourse Coding.....	30
Style .....	31
Content.....	31
Results.....	32
Preliminary Analyses.....	32
Distributions.....	32
<i>T</i> -tests.....	33
Correlations.....	33
Child sex differences in the pattern of correlations.....	34
Measures of self-construal.....	34
Associations with demographic variables.....	35
Regression Analyses: Linkages between Parents’ Beliefs and Parent-Child Discourse..	35
Parents’ elaboration about children’s independent memories.....	36
Parents’ elaboration about children’s interdependent memories.....	36
Parents’ and children’s reference to ego-focused and other-focused emotions...	37
Repeated Measures Analyses of Variance: Linkages between Parents’ Beliefs and	
Child Self-Construal.....	37
Implicit self-construals.....	38
Explicit self-construals.....	39
Discussion.....	40
Multi-Faceted Measurement of Self-Construal.....	41
Associations of Demographic Variables with Parents’ Beliefs about Emotions, Parent-	
Child Discourse, and Children’s Self-Construals.....	45
Child sex differences.....	46
Children’s pubertal maturation and grade.....	49
Parents’ education.....	50
Assessment of Conceptual Model.....	51
Parents’ beliefs about emotions and parent-child discourse.....	51
Parent-child discourse and self-construal.....	54
Parents’ beliefs about children’s emotions and children’s self-construals.....	56

Strengths and Limitations.....	59
Conclusions.....	61
References.....	63
Appendices	
Appendix A: Letter to Participants.....	83
Appendix B: Advertisement Text for List-serve Ads.....	84
Appendix C: Informed Consent, Parent.....	85
Appendix D: Informed Consent, Child.....	87
Appendix E: Consent for Use of Videotape and Transcripts.....	88
Appendix F: Parents’ Beliefs about Children’s Emotions.....	89
Appendix G: Demographics.....	91
Appendix H: Self-Guide Questionnaire.....	94
Appendix I: Independent and Interdependent Adjective List.....	98
Appendix J: Pubertal Maturation Scale.....	99

## List of Figures

Figure 1: <i>Conceptual Model</i> .....	100
Figure 2: <i>Girls' reaction time was significantly faster than boys' for both independent and interdependent traits, and the effect was stronger for interdependent traits</i> .....	107
Figure 3: <i>Children of parents low in the belief that children can guide their own emotion socialization showed faster reaction times, especially for independent traits</i> .....	108
Figure 4: <i>Daughters of parents low in the belief that emotions are dangerous and high in the belief that parents need to guide children's emotion socialization reported balanced, explicit bi-dimensional self-construal</i> .....	109

**List of Tables**

Table 1: *Hypotheses and Evaluation of Conceptual Model* .....101

Table 2: *Means, Standard Deviations (SD), and Ranges for All Study Variables* .....102

Table 3: *Correlations among Variables for Full Sample* ..... 103

Table 4: *Correlations among Variables by Child Sex*.....104

Table 5: *Standard Coefficients and Standard Errors for Predictors of Parents' Elaboration about Children's Independent Memories*.....105

Table 6: *Standard Coefficients and Standard Errors for Predictors of Parents' Elaboration about Children's Interdependent Memories*..... 106

# Parental Emotion Socialization of Seventh and Eighth Graders: Gender Differences in the Development of Independent and Interdependent Self-Construals

## Introduction and Background

How we define ourselves in relation to others has a large impact on how we think, feel, and behave, and is ultimately related to our identity (Cross & Madson, 1997; Erikson, 1968; Harter, 1999; Markus & Kitayama, 1991; Singelis, 1994). Erikson argued that identity development was a fundamental achievement of adolescence because it sets forth the foundation for future positive socio-emotional development (Erikson, 1968). Two widely studied dimensions of identity are self-construals of independence and interdependence. These two dimensions were initially developed to explain cross-cultural differences (Markus & Kitayama, 1991, 1994; Singelis, 1994) and have been extended to explain gender differences within societies. Boys and men typically endorse a more independent self-construal whereas girls and women typically endorse a more interdependent self-construal (Cross & Madson, 1997; Moscovitch, Hofmann, & Litz, 2005). These divergent aspects of self are thought to be socialized throughout development and have strong implications for differences in affect, cognition, and behavior. Evidence suggests clear relations between self-construals and socio-emotional outcomes, with the combination of both high independent and high interdependent self-construal associated with beneficial socio-emotional outcomes (Cross & Madson, 1997; Lam, 2006; Markus & Kitayama, 1991; Oyserman, Coon, & Kimmelmeier, 2002; Singelis, 1994). However, few studies have investigated parent socialization strategies that may affect how individuals come to define themselves as independent and interdependent. Therefore, understanding the development and socialization of self-

construals may contribute to intervention and prevention strategies targeted at the sense of self and improvement of well-being.

Research confirms that two important goals parents have for children are promoting independence and interdependence (Dennis, Cole, Zahn-Waxler, & Mizuta, 2002; Dennis, Talih, Cole, Zahn-Waxler, & Mizuta 2007; Kobayashi-Winata & Power, 1989; Markus & Kitayama, 1991; Rothbaum, Pott, Azuma, Miyake, & Weisz, 2000; Tamis-LeMonada et al., 2008). Yet, despite well-documented research regarding parents' emphasis on these two dimensions, relatively little is known about how independent and interdependent construals of the self are socialized. Theorists posit that emotions are central to the development of self because we so often use emotions as a way of communicating the self in relation to others (Brody, 1999; Markus, & Kitayama, 1991; Super & Harkness, 1993; Wang 2003; Wang, Hutt, Kulkofsky, McDermott, & Wei, 2006). Thus, parents' emotion socialization strategies, evidenced by their emotion-related beliefs and behaviors, may be one way parents influence the development of the self (Cooley, 1902; James, 1890).

Parents transmit beliefs and values about how one should act, think, and feel through their socialization strategies, which, in turn, may influence children's self-construals (Bornstein, 2002). Researchers propose that parent-child discourse may be the most direct route through which emotion socialization occurs (Eisenberg, Cumberland, & Spinrad, 1998) and empirical work suggests that parent-child discourse may influence children's development of the self (Dunn, Brown, & Beardsall, 1991; Eisenberg et al., 1998; Fivush, Berlin, Sales, Mennuti-Washburn, & Cassidy, 2003; Fivush, 2007; Wang 2001). Furthermore, past studies demonstrate that parent-child discourse is influenced by

parents' emotion-related beliefs (Dix, 1991; Dunsmore & Halberstadt, 1997; Gottman, Katz, & Hooven, 1996; 1997; Her & Dunsmore, 2006; Her, Dunsmore, & Steltner, under revision, Katz, Wilson, & Gottman, 1999; Perez-Rivera, 2008).

The purpose of this study is to examine whether parents' emotion socialization strategies, in particular their emotion-related beliefs and discourse, are associated with 7<sup>th</sup> and 8<sup>th</sup> graders' self-construal, and if so, which linkages are similar and different for boys and girls. In the following pages, I will first define self-construals. I will then address gender differences in self-construals, followed by a discussion of why it may be especially important to study the development of self-construals in early adolescence. Next, I will present research on parents' emotion-related beliefs and describe how these beliefs theoretically relate to discourse and to children's self-construal. Finally, I will discuss how parents' discourse, in particular their elaborative reminiscing style and emotional content, may relate to their children's self-construals.

### *Independent and Interdependent Self-Construals*

*Definition.* Self-construals as constructs emerged from self-schema theory, and are therefore viewed as cognitive structures in addition to personality constructs or traits. Independent self-construals are definitions of the self that depict an individual as distinct from others, de-emphasize relationships, and value uniqueness, whereas interdependent self-construals describe the self in relation to others and place value on relationships and maintaining connectedness with others (Markus & Kitayama, 1991). Similar distinctions include agency versus communion, individualism versus collectivism, idiocentricism versus allocentricism, and masculinity versus femininity (Oyserman et al., 2002).

Conceptually, these labels are different from self-construal and may convey different meanings to different researchers.

Although self-construal was traditionally measured and discussed as a dichotomy (Triandis, McCusker, & Hui, 1990), current research on self-construal suggests that independent and interdependent self-construals may co-exist in the same individual (Lam, 2006; Singelis, 1994; Singelis, Triandis, Bhawuk, & Gelfand, 1995; Suizzo, 2007; Tamis-LeMonda et al., 2008; Trafimow, Triandis, & Goto, 1991; Tulviste & Ahtonen, 2007). Thus, independence and interdependence are considered orthogonal dimensions. For example, studies show that parents from industrialized Western cultures that place an emphasis on independence have also endorsed values associated with interdependence, and parents from collectivistic, interdependent cultures have reported endorsing independent values (Leyendecker, Harwood, Lamb & Schoelmerich, 2002; Tamis-LeMonda, Wang, Koutsouvanou, & Albright, 2002). Therefore, examining self-construal as a dichotomy may be unwise and limiting because there is much heterogeneity within cultures and individuals. The co-existence model may provide a more adequate reflection of an individual's identity, especially when assessing within-culture variations in self-construal (Kim, Hunter, Miyahara, & Horvath, 1996; Lam, 2006).

*Measurement.* Self-construals have been explicitly measured through self-report instruments such as a Likert-scale response or open-ended self attributes questionnaire (Levine et al., 2003). Because self-construal is a social-cognitive construction, one way researchers have assessed the cognitive aspect of self-construal is by utilizing the self-reference effect, which involves assessing participants' reaction time in relation to their sense of self (Kuiper & Rogers, 1979; Markus, 1977; Wagar & Cohen, 2003). The self-

reference effect suggests that the more highly elaborated a self-schema is in long-term memory, the quicker the response time will be on the recognition task. The self-reference effect draws upon the “chronic” self that is derived from past experiences and is considered an implicit measure of the self (Wagar & Cohen, 2003).

Previous research supports this pattern in the self-reference effect. First, research on expertise has shown that information in one’s area of expertise is chronically accessible because the knowledge is more frequently activated by situations (Raufaste, Erolle, & Marine, 1998). Second, research on object recognition has shown that when shapes are associated with category labels, categories of items that present a higher degree of similarity (i.e., are more elaborate) are associated with faster reaction times than categories of objects that present a smaller degree of similarity (i.e., are less elaborate). And third, research demonstrates that self-schemas facilitate the processing of information about the self, such that information encoded in salient domains (i.e., independence and interdependence) of the self-concept is accessed faster than information not encoded in self-relevant domains (Markus, 1977; Wager & Cohen, 2003). These lines of research support the notion that the more elaborate or salient one’s self-construal is on a particular dimension, the faster the reaction time will be on that dimension. Using the self-reference effect with reaction time measures in this study will advance our understanding of self-construal development by taking into consideration both explicit and implicit influences.

*Significance.* Investigating the precursors and antecedents of self-construal may be particularly important for a variety of reasons. First, a number of studies have demonstrated that self-construals are associated with positive socio-emotional outcomes.

High scores on interdependence correlate positively with adaptive coping strategies (Zaff, Blount, Phillips, & Cohen, 2002), relationship harmony (Kwan, Bond, & Singelis, 1998), greater social support (Cross & Vick, 2001) and intimate peer relations (Gore, Cross & Morris, 2006), whereas high scores on independence are associated with higher self-esteem scores (Singelis, Bond, Sharkey, & Lai, 1999) and lower social anxiety and depression (Cross, Gore, & Morris, 2003; Ingman, 2003; Kim & Zane, 2004; Kleinknecht, Dinnel, Kleinknecht, Hiruma, & Harada, 1997; Okazaki, 1997, 2000; Sato & McCann, 1998). When researchers employ the co-existence model, high scores on both construals are associated with increases in self-esteem and positive peer support among adolescents (Lam, 2006), lower stress and better coping (Cross, 1995), higher life satisfaction (Kwan et al., 1998), and positive cultural adaptation (Yamada & Singelis, 1999). Watson and Quatman (2005) found that among Caucasian-, Asian-, and Hispanic-American adolescents (aged 11-18 years), those who reported a more balanced and well-developed self-orientation including both independent and interdependent self-orientations reported higher levels of self-esteem than those who valued only interdependence or only independence.

Likewise, another important reason to study the socialization and development of self-construal is to help identify individuals at potential risk for depression and maladaptive behaviors. It is important to note that when examining maladaptive outcomes researchers must also consider the context in which the self is embedded to thoroughly understand the consequences of self-construal. Context specificity plays a critical role in determining outcomes. For example, Moscovitch and colleagues (2005) found that men attending an Ivy League university reported greater social anxiety when

they endorsed a stronger interdependent self-construal. That is, in the context of a highly competitive and independence-oriented environment, men who described themselves as strongly interdependent tended to report more social anxiety. Empirical studies on cultural adaptation confirm the importance of examining social and developmental contexts in relation to self-construal and socio-emotional outcomes (Cross, 1995; Yamada & Singelis, 1999). A person living in an interdependent or collectivistic society might fare well with a salient interdependent self-construal, but when embedded in an individualistic society, development of an independent self-construal may be necessary for adaptive functioning. Furthermore, both types of self-construal may be essential in navigating various contexts throughout daily life, as some contexts may call for independence and others for interdependence, and some may draw on both.

#### *Gender and Self-Construal*

There is growing recognition that in the context of an individualistic culture, children may experience socialization strategies that encourage both independence and interdependence (Tamis-LeMonda et al., 2007), and these strategies may be influenced by child gender. Although the adult literature on self-construal suggests that men tend to adopt a more independent self-construal and women tend to adopt a more interdependent self-construal (Cross & Madson, 1997), more recent work suggests that male and female children and adolescents are similar in their ratings of independence, though girls are more likely than boys to endorse very high ratings on interdependence (Markowitz, Weaver, & Her, 2006; Watson & Quatman, 2005). Recent work by Dennis and colleagues (2007) showed that middle-class American mothers more actively encouraged independence in preschool-aged daughters than sons (Dennis et al., 2007). That is,

middle-class American mothers may counteract gender stereotypes and actively socialize autonomy and independence in their daughters. These results may point to the pervasive influence of the United States as a developmental context, making independence a more salient trait regardless of one's gender. The evidence may also reflect changing views of girls and women as no longer primarily interdependent and connected with others.

Because interdependent and independent self-construals have implications for cognitive and social functioning in adulthood, it is important to understand how parent socialization strategies are related to children's self-definition. In addition, it is important to identify whether the gender differences in independent and interdependent self-construals documented in adulthood emerge in early adolescence, when individuals experience an increased focus on the self and on gender identity, or whether they emerge later (Urdu & Klein, 1998). Thus, one aim of the current study is to examine whether there are gender differences in independent and interdependent self-construals in 7<sup>th</sup> and 8<sup>th</sup> graders.

#### *Importance of Studying Self-Construals and Emotion Socialization in Early Adolescence.*

Although one's search for identity may be socialized early on, it is not until early adolescence that youths become more focused on how they define themselves (Erikson, 1968; Harter, 1999). Early adolescence is an important time to study self-construal because the sense of self shifts from relatively concrete descriptions of one's behavioral and social behaviors in childhood to more abstract differentiated traits (Harter, 1999; Jacobs, Bleeker, & Constantino, 2003; Montemayor & Eisen, 1997). Moreover, during the transition to adolescence, children are likely to re-organize their self-perceptions and develop new self-concepts (Wigfield, Eccles, MacIver, Reuman, & Midgley, 1991) and

begin to view themselves in terms of personal beliefs and standards of others (Harter, 1999). Additionally, increased capacity to think in more complex ways allows early adolescents to reflect on their current and past experiences in an attempt to understand who they are (McLean & Thorne, 2003). Therefore, early adolescence may be a time during which the self begins to crystallize, and it may be especially advantageous to study self-construal during this formative period.

Not only do cognitions about the self change in early adolescence, but changes in one's present environment can also lead to a self-construal that best suits the environment (Markus & Kunda, 1986). Middle schools tend to place greater emphasis on relative ability and competition than do elementary schools (Urda & Klein, 1998). Because children in this age group have experienced a shift in context from elementary to middle school, the focus of adaptive self-construals may be less interdependent and more independent. Whenever the individual or context changes, opportunities for reformulating identity exist (Yoder, 2000). Investigating precursors to adaptive self-construals within developmental contexts may be crucial in learning how to best promote youths' positive identity development.

Finally, extant research on emotion socialization has been conducted primarily with young children, with an emphasis on preschoolers' emotional development. Researchers argue that parents' socialization strategies continue to be important influences on children's development in early adolescence (Steinberg, 2001). Development does not stop in middle childhood, and parents may continuously adjust their beliefs and socialization efforts to accommodate their children's changing social, cognitive and physical development. Therefore, this study fills a gap in the literature by

investigating parents' emotion socialization strategies with 7<sup>th</sup> and 8<sup>th</sup> graders.

*Parents' Emotion-Related Beliefs are Theoretically Related to Self-Construals and Parent-Child Discourse*

Eisenberg and colleagues (1998) proposed that parents hold different goals and beliefs in regard to emotions that influence parents' socialization strategies. Indeed, research demonstrates that parents' emotion-related beliefs have a significant effect on how parents react to children's behaviors, and, ultimately, contribute to children's outcomes (Dix, 1991; Dunsmore & Halberstadt, 1997; Gottman et al., 1996; 1997; Her & Dunsmore, 2006; Her et al., 2008; Katz et al., 1999; Perez-Rivera, 2008).

Why might parents' emotion-related beliefs influence children's outcomes?

Several reasons are apparent from research in this area, and because none is exclusive, it is likely that most emotion socialization strategies incorporate several of these conceptual pathways. First, parents' beliefs may influence their socialization behaviors such as their discourse about emotion-related events. These conversations are important because they provide an avenue for parents to convey their own beliefs about emotions or the goals they have for their children. For example, if parents believe their children can learn about emotions on their own, they may convey to the child their confidence in the child's independence, which may be associated with an independent self-construal. Second, children may be more motivated to accept their parents' messages, internalize parents' requests for competent behavior, and learn about emotions when their parents are positive and elaborative rather than dismissing or negative (Grusec & Goodnow, 1994). Over time, repeated exposure to parents' emotion socialization strategies are likely to influence children's developing emotion knowledge (Cervantes & Callanan, 1998; Laible, 2004;

Laible & Thompson, 2000; Thompson & Lagattuta, 2006), and the development of the self (Dunn et al., 1991; Eisenberg et al., 1998; Fivush et al., 2003; Fivush, 2007; Wang 2001).

Some parents may believe in actively guiding their children about emotion, expression and coping, whereas other parents may believe that children can actively learn about emotions on their own through their interactions with others. Some parents may see emotions as potentially harmful or dangerous and therefore they may not express or discuss emotions with their children, whereas other parents may see emotions as valuable or important, and use children's emotional experience as an opportunity to guide their children about emotion, expression, and coping (Gottman et al., 1996, 1997). In this study I focus on two broad dimensions of parents' emotion-related beliefs: (a) beliefs about parents' and children's role in emotion socialization, and (b) beliefs about the danger of children's emotions.

*Guidance of children's emotions.* Parents' beliefs about their role in guiding their children's emotions may impact the way in which they teach their children about emotions. Some parents may have a tendency to encourage interdependence and connectedness in their children and therefore, provide more guidance to their children about emotions in order to promote emotional sensitivity towards one another or maintain group harmony. During parent-child discourse they may openly discuss emotions, focusing more on *other-focused* emotions. Being able to label and express an *other-focused* emotion such as love, sympathy, and shame may lead to an interdependent sense of self. On the other hand, some parents may have a tendency to promote independence and their emotion socialization may emphasize *ego-focused* interpretations of their

child's and others' emotional experience, thereby leading their child to greater independent self-construal.

Because past research has demonstrated gender differences in self-construal, parents' socialization goals may be influenced by their child's gender. Thus, it is expected that for girls, parents' belief in guiding children's emotions will relate to a greater interdependent self-construal, whereas for boys, parents' belief in guiding children's emotions will relate to a greater independent self-construal. Most of the evidence from early childhood to middle childhood demonstrates adaptive outcomes of parents' belief in guiding children's emotions on emotion regulation, social behavior, internalizing symptoms and behavior problems (Katz & Gottman, 1997; Katz & Hunter, 2007; Katz & Windecker-Nelson, 2004, 2006; Lagacé-Séguin & Coplan, 2005; Lagacé-Séguin & d'Entremont, 2006; Lunkenheimer, Shields, & Cortina, 2007; Shipman et al., 2007; Stocker, Richmond, Rhoades & Kiang, 2007), all of which may contribute to children's sense of self.

Additionally, whether or not parents believe their socialization role is important, some parents may believe that children can learn about emotions on their own. This, in turn, may affect children's sense of independence as they learn about emotions on their own (e.g., sticking up for oneself when angry, etc) that may enhance a more accessible independent self-construal. For example, being able to label an *ego-focused* emotion such as anger and express it openly can be considered as a way of communicating to others about something important to you, therefore affecting the development of an independent self-construal. Although less is known about children guiding their own emotions, one recent study (Perez-Rivera, 2008) suggests that at least among Latino preschoolers,

mothers' belief that children can learn emotions on their own was detrimental to children's emotion knowledge. However, Her and colleagues found that, for 9- to 10-year old Lumbee Native Americans, when parents believe that children can play an active role in their own emotion socialization, children include more interdependent traits in their self-construals (Her et al., 2008). Because Lumbee Native American culture is characterized as having an interdependent or collective orientation, values are not only transmitted by parents but may also be transmitted by community members who may play roles in collective child-rearing. Likewise, since the context of middle school encourages independence and autonomy, when parents believe children can learn about emotions on their own, children may report a greater independent self-construal. This study may shed some light on whether the belief that children can actively learn about emotions on their own is adaptive or maladaptive during early adolescence.

*Emotions as dangerous.* Because interdependent self-construals are associated with regulating emotional expression in order to maintain smooth and harmonious interpersonal relationships (Markus & Kitayama, 1991; Matsumoto, 1989), parents' belief about the danger of emotions may be associated with children's interdependent self-construals. First, parents who believe emotions are dangerous may simply dismiss the emotion, and may not attempt to discuss emotions or teach strategies about experiencing or expressing emotions. By ignoring the child's emotional experiences, parents may convey the belief that emotions are unimportant or even threatening. Therefore, parents who do not teach or encourage emotion discourse may put their children at a disadvantage in learning about emotions and developing self-construals.

Preliminary empirical evidence has established a link between parents' belief about the danger of emotions and children's outcomes. For example, Her and colleagues (2008) found that when parents believe emotions are dangerous, African-, European-, and Lumbee Native American 9- and 10-year old children included fewer independent and fewer interdependent traits in their self-construals. The evidence is consistent with existing literature that suggests being low in both independence and interdependence is most problematic for socio-emotional health (Cross, 1995; Kuperminc, Allen, & Arthur, 1996; Lam; 2006; Moscovitch et al., 2005; Yamada & Singelis, 1999).

Likewise, elementary-school-age children of parents who believe emotions are dangerous reported more avoidant and distracting coping mechanisms following a set of terrorist attacks (Halberstadt, Thompson, Parker, & Dunsmore, in press). In turn, passive or avoidant coping strategies have been linked to children's externalizing and internalizing behaviors (Blair, Denham, Kochanoff, & Whipple, 2004). Recently, Lunkenheimer and colleagues (2007) showed that parents' dismissal of children's negative emotions correlated negatively with children's emotion regulation and positively with internalizing behaviors (Lunkenheimer, et al., 2007). These findings demonstrate the importance of continuing to investigate how parents' beliefs about the danger of emotions may promote or hinder children's development of both independent and interdependent self-construals.

It is also important to investigate potential interactions between parents' belief that emotions are dangerous and their belief that they should actively guide children's emotions socialization. Parents' beliefs about guiding children's emotion socialization and the danger of emotions may interact to predict parents' discourse and children's self-

construal. Stated otherwise, the effect of parents' belief about their own guidance of children's emotions may depend on their belief about the danger of emotions. However, no study to date has examined whether the interaction of parent's guidance and their belief that emotions are dangerous relates to children's self-construals. It may be especially important to investigate how parents' beliefs about guiding their child's emotions interact with their belief about the danger of emotions to further understand adaptive and maladaptive belief structures. The studies discussed thus far lend support to the idea that parents' beliefs may underlie how parents respond to their children's emotions and may ultimately affect children's developmental outcomes, including self-construal.

#### *Aspects of Parent-child Discourse Theoretically Associated with Self-construal*

Without full understanding of emotions or recognition of the emotional significance of events, children may be unable to process the personal relevance of events. Parent-child discourse about past events can help children form coherent personal stories of the past and build a unique identity (Buckner & Fivush, 1998; Fivush et al., 2003; Welch-Ross, Fasig, & Farrar, 1999). Two major research approaches in parent-child emotion socialization have focused on either *style* or *content* of parent-child discourse and their influence on children's socio-emotional development.

*Style of discourse.* Differences in parents' reminiscing *style* include how parents introduce new information and structure the process of discourse. Researchers have discovered that mothers tend to use two distinct styles of discourse when discussing past events with their children (Fivush & Fromhoff, 1988; Hudson, 1990; Reese & Fivush, 1993). *Elaborative* mothers tend to provide rich descriptions of events and questions,

probing about the event in question which embellish children's memory, whereas *repetitive* mothers tend to provide fewer details when discussing the past or simply encourage a 'yes' or 'no' response (Fivush & Fromhoff, 1988).

An elaborative reminiscing style during parent-child discourse is associated with adaptive outcomes. For example, Laible (2004) found that amount of elaboration mothers used in conversations with preschool-aged children was related to children's emotion knowledge. Furthermore, elaborative discourse has been found to be related to children's understanding of internal processes such as conscience development (Laible & Thompson, 2000), understanding of emotions and theory of mind (Laible & Song, 2006; Ontai & Thompson, 2002; 2008), event representation (Fivush & Fromhoff, 1988; Haden, Haine, & Fivush, 1997; Reese & Fivush, 1993; Tessler & Nelson, 1994), and sense of self (Fivush, 2007). According to Fivush and colleagues (2003) elaborative conversations with others about emotional experience function in three ways to foster the development of the self: (a) *self-defining* (this is the kind of person I am), (b) *self-in-relation to others* (this is how I share and express myself in relation to others), and (c) *coping* (this is how I resolve and cope with negative feelings).

Whereas previous research has documented distinct parental discourse styles that vary on the dimension of elaboration, less is known about whether level of parental elaboration may be related to the type of memory or event being discussed. Are parents more elaborative when discussing memories about independence vs. interdependence? Based on previous research, parents' elaboration may function as a way of helping children construct a more elaborated definition of the self (Fivush et al., 2003), such that parents who elaborate more about children's independent memories may influence

children to develop more independent self-construal, whereas parents who elaborate more about children's interdependent memories may influence children to develop more interdependent self-construal. By providing new information, or asking more questions about the event under discussion, parents can help children form a more coherent and elaborated independent and/or interdependent self-construal.

*Content of discourse.* Equally informative may be differences in the *content* of these conversations. Parents might differ in their focus on discussing different type of emotions. Emotional expression and experience vary across gender and culture and research suggests that these differences in emotional expression and experience may be, at least in part, explained by independent and interdependent self-construals (Dennis et al., 2002; Frijda & Mesquita, 1994; Markus & Kitayama, 1991; Matsumoto, 1989; Mesquita, Frijda, & Scherer, 1997). If parent-child discourse is related to children's definition of the self, then parents who choose more emotion words that focus on the needs of others may have children with more interdependent self-construals, whereas parents who choose more emotion words that focus on personal experience may have children with more independent self-construals.

For individuals with an interdependent self, emotions must be expressed in a well-regulated manner in order to maintain smooth and harmonious interpersonal relationships. Not only are display rules different, but how we interpret and therefore experience an emotion may also vary depending on the construal of the self. During an emotion-eliciting event, the frame of reference for the emotion in an interdependent self is some other individual or a group. As a result, we experience sympathy because of a relationship based on mutual affection, and through shame and guilt, we experience

discrepancies between our perceived and ideal self and how others may perceive us (Frijda, 1986). These emotions are described as *other-focused*.

In contrast, for individuals focused on independence, clear expression of both positive and negative emotion is thought to be important for an autonomous, assertive self (Markus & Kitayama, 1991; Matsumoto, 1989). Here, the frame of reference is the individual's own personal experience (e.g. anger, pride, frustration), rather than another individual or group that serves as the frame of reference. Therefore, these emotions are described as *ego-focused*. It is through anger that we confirm our rights and beliefs, through pride that we experience satisfaction from our own accomplishments and through frustration that we experience the blocking of our goals or needs.

Thus, when discussing emotion-laden memories, parents may pay more attention to or select specific emotions over others, e.g., sadness over anger and fear. Studies of both discourse style and content have found that mothers tend to be more elaborative and talk more about sadness with their preschool-age daughters than with their sons (see Fivush & Buckner, 2003, for a review). O'Kearney and Dadds (2004) demonstrated that adolescent girls' responses to a hypothetical vignette eliciting either anger or sadness included more references to sad affect, whereas boys' responses included more references to anger. By focusing on specific emotions -- *ego-* vs. *other-focused* -- parents may socialize children to begin to define themselves as a person who experiences certain emotions over others. Parents' emphasis on *ego-* vs. *other-focused* emotions may be influenced by child gender.

There are good reasons to predict that independent and interdependent self-construals would be related to differences in emotional expression and experience. First,

self-report studies of individuals characterized as independent showed greater frequency of experiencing *ego-focused* emotions, whereas individuals characterized as interdependent show greater frequency of experiencing *other-focused* emotions (Kitayama, Markus, & Kurokawa, 2000). Although no study has measured self-construal in regard to the emotional meaning an individual takes from an event (e.g. how s/he would feel in a situation), past developmental research provides preliminary evidence that there are individual and group differences in emotional meaning of situations. Studies with adults and children show that the same situation can elicit different types of emotion based on cultural emphases on independence and interdependence (Han, Leichtman, & Wang, 1998; Wang, 2003; Wang & Leichtman, 2000). As these researchers and others have suggested, (Campos, 1994; Matsumoto, 1989; Stein, Trabasso, & Liwag, 1993; Zahn-Waxler, Friedman, Cole, & Mizuta, & Hiruma, 1996) the emotion elicited within particular contexts may differ depending on self-construals. As such, these differences may be reflected in parent-child discourse about emotion-laden events. Furthermore, parents' beliefs about emotions may influence such discourse. For example, parents who strongly believe that emotions are dangerous and strongly believe in guiding their own children's emotion socialization may elaborate with their children about emotion-laden events to foster children's regulation of emotion or expression of emotions in a non-threatening manner, especially when their children discuss interdependent memories.

Because *ego-focused* emotions, such as anger or pride, may be seen as disrupting group harmony, parents high on both danger and guidance may use fewer *ego-focused* emotions and more *other-focused* emotions in their discourse. Parents who less strongly believe emotions are dangerous, and strongly believe it is important for parents to guide

children's emotions may also elaborate more to children's memories, but may do so especially when discussing children's independent memories and may introduce more *ego-focused* emotions in their discourse. Finally, if parents do not believe in guiding children's emotions, regardless of their belief about the danger of emotions, they may elaborate less about children's independent and interdependent memories and introduce fewer *ego-focused* and fewer *other-focused* emotion words during discourse.

### *Summary*

Overall, a body of empirical research suggests that parental emotion socialization and self-construal may be related. Investigating gender differences in self construal and delineating strategies parents may use to encourage independent and interdependent self-construals in their daughters and sons will have important implications for adolescents' socio-emotional adjustment. Examining parents' emotion socialization and children's development of the self within an individualistic culture and during a transitional period when children begin to strive for autonomy, yet remain interdependent (Steinberg, 1990) may be particularly useful in understanding adaptive and maladaptive outcomes in early adolescence. Early adolescents' increased need for autonomy may be enhanced by encouraging an independent self-construal to influence children's self-esteem and well-being. Children's interdependence encouraged in early to middle childhood (e.g., Her & Dunsmore, 2006) may also continue to be socialized through discourse about emotions. Finally, understanding how parents socialize independence and interdependence through emotion-related beliefs and discourse about personally relevant memories may help elucidate how parents effectively emphasize the dual coexistence of self-construals.

### *The Present Study*

The goal of this study was to establish how parents' beliefs, parent-child emotion discourse, and youths' self-construal are interrelated in early adolescence, and, if these relations exist, evaluate which pathways are similar and which are different for boys and girls. Parents' emotion-related beliefs were measured using a self-report questionnaire. Parent-child emotion discourse was observed using a standard task from previous studies. Children's self-construal was assessed using an explicit standard interview and an implicit reaction time measure. The hypotheses being tested are presented graphically in the conceptual model in Figure 1 and listed in Table 1.

Based on previous research, I expected that girls would include more interdependent traits than boys in their explicit self-description and respond faster than boys to the interdependent traits on the implicit reaction time task. Because previous studies in middle childhood did not show any sex differences in independent self-construal (Her & Dunsmore, 2006; Her et al., under revision, Markowitz et al., 2006), and independence is a highly valuable characteristic in the United States, it is predicted that there will be no child sex differences in independent self-construal.

In regard to parents' beliefs, when parents believe that children can actively guide their own emotions I expected them to use less of both *ego-* and *other-focused* emotions and to elaborate less about both independent and interdependent memories during parent-child discourse. Second, I predicted that parents' belief that emotions are dangerous may moderate the influence of parents' belief about their role in guiding children's emotion socialization on their emotion discourse. I predicted that when parents strongly believe emotions are dangerous, and also strongly believe it is important for parents to guide

children's emotions, they would show greater elaboration to children's interdependent memories and introduce more *other-focused emotions*. In contrast, parents who less strongly believe emotions are dangerous, and strongly believe it is important for parents to guide children's emotions would elaborate more to children's independent memories and introduce more *ego-focused* emotions in their discourse. When parents less strongly believe in guiding children's emotions, regardless of their belief about the danger of emotions, they are expected to refer less to both types of emotions and elaborate less about both types of memories during parent-child discourse

Next, I hypothesized that children whose parents engage in more elaboration about children's interdependent memories and introduce more *other-focused emotions* would score higher on the explicit measure of interdependent self-construal and respond faster to interdependent traits on the implicit task. I expected that parents who elaborate more about children's independent memories and include more *ego-focused* emotions would have children who score higher on the explicit measure of independent self-construal and respond faster to independent traits on the implicit task.

As the conceptual model implies, I also expected parents' beliefs to relate to children's self construals. Because a belief that children can learn about emotions on their own may tacitly communicate confidence in children's independence, I predicted children of parents high in this belief to score higher on independent self-construal. As stated above, a belief that emotions are dangerous may be related to interdependence, thus I predicted children of parents high in this belief to score higher on interdependent self-construal. Furthermore, I expected an interaction between parents' beliefs about their role in guiding their child's emotion socialization and their beliefs about the danger of

emotions such that parents who strongly believe that emotions are dangerous, and strongly believe it is important to guide children's emotions, will have children with greater interdependent self-construal. Parents who strongly believe it is important for parents to guide children's emotions and less strongly believe emotions are dangerous would have children with greater independent self construal.

Finally, because previous findings suggest that there may be child sex differences in parent-child discourse, I also expected that child sex might moderate relations of parents' beliefs about emotions and parent-child discourse variables with youths' self-construals such that, for girls, parents' beliefs and discourse would be more strongly related to their interdependent self-construal whereas for boys, parents' beliefs and discourse would be more strongly related to their independent self-construal. Please see Table 1 for a list of hypotheses.

## Method

### *Participants*

Participants were sixty parent-child (57 mothers, 3 fathers, parents' mean age=41 years, SD =4.7) dyads with 7<sup>th</sup> and 8<sup>th</sup> grade children (30 females, 30 males; 35 7<sup>th</sup> graders and 25 8<sup>th</sup> graders; mean age = 12 years, 7 months, SD = .81). Parents reported children's ethnicity. Four children were African-American, four were Asian-American, thirty-nine were European-American, four were Hispanic-American, one was Native American, and eight were identified as "other". Most parents were married (65%), and most were well-educated (26% had completed 4-year college degrees; an additional 44% had completed graduate or professional degrees). The average of number of children in each household was approximately two. These families had incomes ranging from less

than \$10,000 to more than \$79,999 per year. Parent-child dyads were recruited through announcements at Virginia Tech and at North Carolina State University, via email and phone calls through a database of previous participant families and a commercial database, and by flyers distributed through schools, community programs, churches, and merchant stores in Montgomery County and Roanoke City, Virginia.

Effect sizes from previous research range from small ( $d = .11$ ) to large effects ( $d = .85$ ) with a median effect size of  $d = .61$ . Thus, a moderate to large effect size was expected (see Oyserman et al., 2002 for review). A power analysis was conducted using the procedure of substantial case-to-IV ratio for multiple regression analyses (Green, 1991). Power analyses indicated that there was sufficient power to detect a medium effect size with four predictors and the dependent variable, including testing for moderation by gender in the regression models (Erdfelder, Faul, & Buchner, 1996).

### *Procedures*

Two or three trained assistants traveled to the family's home or, at the family's request, met the family at the Social Development Lab at Virginia Tech (1 interviewer for parent, 1 interview for the child, and 1 babysitter if needed for other children). Of the 60 families, 14 chose to visit the Social Development Lab to complete the study. Parents were fully informed of the procedure and general purpose of the study before agreeing to participate. Parents completed the informed consent process and children gave informed assent before beginning the study. Parents completed questionnaires regarding their emotion-related beliefs (Halberstadt et al., 2008), children's pubertal maturation, and demographics. Children were asked to describe themselves using an open-ended format and then completed a computerized reaction time measure. Together, parents and

children played a game designed to elicit emotion-laden independent and interdependent memories for discussion. Each data collection session lasted approximately 1 ½ hours.

### *Materials*

*Parents' Beliefs about Children's Emotions questionnaire (PBACE, Halberstadt et al., 2008).* This measure consists of statements that relate to beliefs, attitudes, and feelings about emotion. Parents described their agreement with the items on a 6-point Likert-type scale (1= strongly disagree, 6= strongly agree). The questionnaire demonstrates discriminant validity (lack of relation to anxiety or depression) and convergent validity (expected relations with two questionnaires measuring parents' typical reactions to children's positive and negative emotions) (Halberstadt et al., 2008). The subscales of focus in this study were (1) parents' belief about the danger of emotional expression and experience (15 items; sample item: "Kids feelings can get hurt if they show too much emotion,"  $\alpha = .79$ ), (2) parents' belief about guiding children's emotions (10 items, sample item: "It's a parent's job to teach children how to handle negative feelings,"  $\alpha = .89$ ), and (3) parents' belief that children can guide their own emotions (9 items; sample item: "Children can learn how to handle their emotions,"  $\alpha = .81$ ). Please see Appendix F for all items of this measure.

*Tanner's Stages of Pubertal Developmental Questionnaire (Tanner, 1962).* This questionnaire is based on clinical evaluation of secondary sexual characteristics and correlates well with bone maturity and hormone levels. Pubertal status is used as a covariate because parents' emotion socialization behaviors and beliefs may change as children transition to adolescence. Puberty is a significant biological marker of the transition to adolescence (Brooks-Gunn, & Edward, 1993). Puberty may also affect the

level of negative and positive emotional expression during parent-child interactions (Montemayor, Eberly, & Flannery, 1993). Parents were asked to rate their child's physical maturation based on secondary sexual characteristics on a 5 point scale from prepubertal (stage = 1) to postpubertal (stage =5). Questions focused on the child's physical development, including growth spurt, body hair and skin change for both boys and girls. For boys, questions about facial hair, and voice change were included, and for girls, questions about breast development and menarche were included. The Tanner stages of Pubertal Development have shown high validity and reliability (Marshall & Tanner 1969, 1970), and are correlated with physician's assessments of pubertal maturation (Dorn, Susman, Nottelmann, Inoff-Germain, & Chrousos, 1990). Please see Appendix J for the complete measure.

*Demographics.* Parents' marital status, education, family income and composition and child's age and racial/ethnic group were assessed to be controlled if they related to the dependent variables. Previous research has shown relations among SES, ethnicity and self-construal (Oyserman, et al., 2002).

*Self-Guide Questionnaire (Higgins, Klein, & Strauman, 1985).* A modified version of The Self-Guide Questionnaire was used to assess youths' sense of self. The Self-Guide requires individuals to generate up to 10 attributes they would use to describe the person they actually are (self-actual), would ideally like to be (self-ideal), and feel they should be or ought to be (self-ought). In addition, individuals are asked to generate the attributes they believe other people would use to describe them in each of these domains. For this study, children generated words they believed reflected the perceptions of the parent who was participating with them. Following similar procedures by Cobb

and colleagues (1998), children were presented with five prompt cards to help generate words to describe themselves. These cards were presented in random order and placed in front of the child: (1) Family and friends (2) Preferences (3) Ownership (4) Responsibilities, and (5) Talents. Six self-guides were elicited (self-actual, parent-actual, self-ideal, parent-ideal, self-ought, and parent-ought) (Cobb, Cohen, Houston, & Rubin, 1998). This questionnaire was successfully used in previous work on children's independent and interdependent self-construal in middle childhood (Her & Dunsmore, 2006).

Three trained undergraduates coded the self guides into six mutually exclusive categories: (1) *independent*, traits or behaviors that reflect uniqueness of the self (e.g. "I should say what's on my mind"), (2) *private*, traits or behaviors referring to personal qualities, attributes, beliefs or behaviors unrelated to other people (e.g., "I have a horse," and "I am smart"), (3) *collective*, responses concerning social or demographic categories and group membership (e.g., "I am a girl," and I'm on the cheerleading team"), (4) *public*, statements concerning interpersonal relations, responsiveness to others, or sensitivity to the viewpoints of others (e.g., "I love hanging out with my friends," and "My friends think I'm nice"), (5) *career*, statements related to future career aspirations (e.g., "I want to be an astronaut"), and (6) *other*, statements that did not fit into one of the 5 categories above and irrelevant to children's self-definition (e.g., "I am hungry"). Each category was given a score by calculating the number of children's responses in each category over the number of children's total responses. Next, following procedures from Wang (2006) and Triandis and colleagues (1991), an independent self-construal score was calculated by adding the proportions of private and independent self-descriptions,

and an interdependent self-construal score was calculated by adding the proportions of collective and public self-descriptions. Because a proportional method was used, it is expected that the explicit independent and interdependent self-construal will be highly negatively correlated. Twenty-five percent of the data was coded twice to assess for reliability. Reliability and the inter-rater reliability of the coding was good (Cohen's Kappa = .81).

*Independent and Interdependent Adjective Scale (Watson & Quatman, 2005).*

Developed with adolescents aged 11-18 years, this scale measures the degree to which individuals endorse independent and interdependent orientations. Orientations are rated on a Likert-scale from 1 to 7, with 1 being “not at all like me” and 7 being “very much like me”. Cronbach's alphas for independence and interdependence were  $r = 0.79$  and  $0.80$ , respectively. For this study, instead of using a Likert-scale response to measure children's endorsement, these adjectives were presented randomly on a Dell Dimension laptop using Media Lab software to assess children's reaction times. Two control words (*peaceful* and *tired*) were always presented first as “warm-ups” and were not included in the analyses. The remaining 24 adjectives (12 for independent and 12 for interdependent), and 24 control words were presented in random order. Prior to examining judgment latencies, reaction time (RT) scores were log-transformed to reduce the positive skew typical of RT distributions (Fazio, 1990). Judgment latencies to independent and interdependent adjectives were averaged to obtain, respectively, implicit independent and interdependent self-construal scores. Next, they were  $z$  transformed to ease interpretation. Please note that faster reaction times were associated with lower, negative scores and slower reaction times were associated with higher, positive scores.

*LifeStories® Game.* The age-appropriate game LifeStories®, made by Talicor, Inc., was used to assess parent-child emotion discourse. The game is suggested for players aged 6 years to 106 years, and has received a Parents' Choice Award. The purpose of the game is to promote interesting conversations about players' life experiences. Like most board games, in LifeStories® each player rolls the dice and moves to the appropriate box on their path. Upon landing on a box, he/she must draw from the corresponding deck of cards. There are four decks of cards. Three (Memories, Etchings, and Valuables) ask the player to describe life experiences. For example, one card states "Describe a movie that brought tears to your eyes." The fourth deck of cards, Alternatives, may be drawn from when the player does not want to describe the life experience requested on the card she/he has drawn or when the player cannot think of any relevant life experience. Players may draw the Alternative cards twice during the game.

Both players answer the card before the other player rolls the dice and begins his/her turn. When a player reaches the end of his/her path, the other player is asked to tell about a favorite time with him/her. All cards were placed in the same order with "warm-up" cards placed on top of the deck and pre-selected cards placed near the top of deck to make certain that each dyad had the opportunity to discuss independent and interdependent themes. Research conducted with children in middle childhood in our lab has shown this game to be effective at eliciting emotion-laden discourse and has been highly enjoyable for the families participating. Although no time limit was given, most families finished the game in approximately 30 minutes. The game was videotaped and transcribed verbatim for coding. Only parent and child responses to five pre-selected cards were coded to accurately compare dyads' discourse in relation to independence or

interdependence themes.

The following are the pre-selected cards:

- (1) Describe a time when you felt left out and all alone.
- (2) Tell about a time when you saw someone being teased.
- (3) Describe a time when you were upset with a friend or family member.
- (4) Name one thing that has been challenging. How did you handle it?
- (5) Tell about a risk you took.

*Discourse Coding.* All parent-child discourse during the LifeStories® game was videotaped and transcribed verbatim. Twenty-five percent of the data was coded for reliability using Cohen's Kappa to account for chance agreements.

Although careful attention was used in selecting independent- and interdependent-focused cards, children and parents varied in their own responses as to whether they introduced an independent or interdependent memory (e.g., selecting a risk that was more relationally-oriented than physically-oriented, etc.). Thus, prior to coding parents' elaboration to children's independent and interdependent memories, two trained undergraduates coded both parent and child responses to the pre-selected cards for independence and interdependence orientations.

An independent orientation was coded if the response referred to independence and uniqueness, if the parent or child used others as a comparison of how unique or different he/she is, or referred to ways that people are different (e.g., "I hate when your grandma drinks too much"). A response was coded as an interdependent orientation if it referred to a connection with others, focused on needs/wishes of others, emphasized relationships among people rather than uniqueness or a reflected a disturbance in unity or

relationships. Because the “upset” card prompted the dyad to discuss a disturbance in a relationship, it already had an interdependent theme. Thus, in order for a response to be coded as interdependent, it had to be relationship-oriented (e.g. “She took my boyfriend,” vs. “She had everything out on the floor and didn’t clean it”). Inter-rater reliability for scoring parent elaboration was good, Kappa = .75.

*Style.* Parents’ discourse style to children’s responses was coded for elaboration or the lack thereof on a scale of 1 (no elaboration) or 2 (elaboration) for each response. The unit of analysis was each response given by a player to the pre-selected card. Using past coding procedures on discourse style (Farrant & Reese, 2000; Wang, 2006), parents’ utterances were coded as an elaboration when they introduced a topic of discussion relevant to the child’s memory, prompted the child to provide new information about the event (e.g., “Did you do anything to stop the teasing?”) or asked any question requiring the child to confirm or deny a piece of information (e.g., “I thought s/he was trying to get attention. Was s/he?”) Some families did not have a response or used an alternative for the pre-selected card and therefore, the level of elaboration was divided by the total number of responses available to code with regard to the child’s references to independence and interdependence. This yielded two scores: (1) parents’ elaboration about children’s independent memories, and (2) parents’ elaboration about children’s interdependent memories. Inter-rater reliability was very good, Kappa = .85.

*Content.* Parent-child discourse was further coded for references to *ego-focused* and *other-focused* emotions (Kitayama, Markus, & Kurokawa, 2000). Parents’ and children’s emotion words or phrases from their own personal memories and to the other player were coded as *ego-focused* if they referred to a socially disengaged emotion that

was directed toward their own self (e.g., “frustrated,” and “fairly crossed”). Emotion words or phrases were coded as *other-focused* if they referred to a socially engaged emotion that involved interdependence or a connection with other people, focused on needs of others, or involved awareness of others (e.g., “felt sorry,” and “love”).

Because the words lonely, left-out, and upset are descriptors for emotion terms (Lazarus, 1991) and also used in the pre-selected cards, parents and children’s use of these words the first time in their response to those cards were not counted. All other mention of those words thereafter were counted and included in the analyses. Again, the number of emotion words used was divided by the total number of cards available to code. This yielded four scores: (1) parents’ ego-focused emotions, (2) children’s ego-focused emotions, (3) parents’ other-focused emotions, and (4) children’s other-focused emotions. Inter-rater reliability was very good, Kappa = .95.

## Results

### *Preliminary Analyses*

*Distributions.* Each variable was examined for skewness and kurtosis to assure that the data were normally distributed. Parents’ and children’s references to *ego-focused* and *other-focused* emotions were infrequent and positively skewed. Therefore these four variables were transformed according to Osborne’s guidelines (2002) to normalize their distributions. In addition, for the implicit self-construal reaction times (RTs), a square root transformation was used to normalize the distribution and scores were transformed to *z*-scores for analyses. All other variables had normal distributions (skewness range = -1.45 to .06 and kurtosis range = -1.32 to 3.30). Descriptive data for each variable is presented in Table 2.

*T-tests.* Next, independent *t*-tests were conducted to analyze differences between girls and boys, and between 7<sup>th</sup> and 8<sup>th</sup> graders, for all variables. Five significant child sex differences were found. First, parents' belief in guiding children's emotions was significantly greater for parents of daughters ( $M= 5.3, SD= .47$ ) compared with parents of sons ( $M= 4.9, SD= .56; t(58) = -3.05, p < .05$ ). Second, parents of sons elaborated more about their child's interdependent memories ( $M= .73, SD= .33$ ) compared with parents of daughters ( $M= .53, SD= .39; t(58) = 2.16, p < .05$ ). The remaining three child sex differences involved children's self-construal. Girls' reaction time for interdependent traits was significantly faster ( $M= -.28, SD= .92$ ) compared with boys' ( $M= -.28, SD= 1.01; t(58) = 2.81, p < .05$ ). Girls also included a greater proportion of interdependent traits in their explicit self-description ( $M= .47, SD= .13$ ) compared with boys ( $M= .37, SD= .12; t(58) = -3.18, p < .01$ ). Finally, boys included a greater proportion of independent traits in their explicit self-description ( $M= .55, SD= .23$ ) compared with girls ( $M= .45, SD= .21; t(58) = 3.48, p < .01$ ). Because of this pattern of sex differences in children's self-construals, children's sex was controlled in subsequent analyses predicting self-construals.

Only one significant difference emerged in regard to grade level. Parents of seventh graders elaborated more about their child's independent memories ( $M= .65, SD= .36$ ) compared with parents of 8<sup>th</sup> graders ( $M= .41, SD= .42; t(58) = 2.18, p < .05$ ).

*Correlations.* Next, Pearson's correlations were used to assess relations among all study variables, including demographic variables of child age, puberty level and parents' education. Correlations for the full sample are reported in Table 3. Those conducted within child sex are reported in Table 4. I first examined correlations to

address differences in the pattern of correlations according to child sex, followed by intercorrelations within measures of self-construal, and finally addressing relations of predictor and criterion variables with demographic variables.

*Child sex differences in the pattern of correlations.* Fisher's  $z$  was used to examine differences between correlations according to child sex for correlations that were statistically significant for only one sex. The correlation between parents' belief about the danger of emotions and explicit interdependence for girls was significantly different from that for boys ( $z = 3.45$ ). Therefore, subsequent analyses including parents' belief that emotions are dangerous as a predictor variable for children's self-construal were conducted separately for boys and girls.

*Measures of self-construal.* Regarding the self-construal measures, the implicit measures were positively correlated ( $r = .74, p < .01$ ), whereas the explicit measures were negatively correlated ( $r = -.87, p < .01$ ). The strong positive correlation for the implicit measures may likely reflect children's general speed of processing information. As expected, the proportional calculation of children's independent and interdependent explicit self construal yielded a highly negative correlation. As a result, in order to account for within-subjects factors that might influence relations between these measures of independent and interdependent self-construal, I conducted MANOVAs to examine predictors of independent and interdependent self-construals. Finally, the absence of relations of the implicit measures of self-construal with the explicit measures suggests that these two different types of measures may be tapping different aspects of self-construal (Rudman et al., 2007).

*Associations with demographic variables.* I next examined the correlation matrices associated with demographic variables of child age, pubertal maturation, and parent education. Pubertal maturation was significantly positively related to children's use of *ego-focused* emotions ( $r = .27, p < .05$ ). Parents' education was significantly related to their belief that emotions are dangerous ( $r = -.34, p < .05$ ) and with their belief that it is important for parents to guide children's emotion socialization ( $r = -.36, p < .01$ ), and positively associated with the belief that children can guide their own emotions ( $r = .33, p < .01$ ). Because none of these demographic variables were significantly related to children's self-construal, they were not controlled for in subsequent analyses predicting self-construal.

*Regression Analyses: Linkages between Parents' Beliefs and Parent-Child Discourse*

In order to test hypotheses about how parents' emotion-related beliefs might predict parent-child discourse, I next conducted multiple regressions. Multiple regressions allow for the examination of both the combined variance explained by each step and the unique variance explained by each predictor variable in the model. As recommended by Fuhrman and Holmbeck (1995), measures were assessed for outliers that were  $\pm 3$  SDs from the mean score because outlier scores significantly influence multiple regression equations. None of the variables had any outliers so all participants were included in the regressions.

The first step of each regression included any demographic variables that were correlated with the dependent variable. The second step included the three parental beliefs (emotions are dangerous, parents need to guide children's emotions, children can learn about emotions on their own). The third step included the hypothesized interaction

between parents' belief that emotions are dangerous and parents' beliefs that parents need to guide children's emotions. When the interaction between parents' beliefs about danger and parental guidance and any main effects for parental beliefs were non-significant, they were dropped from follow-up models. Reduced models are reported below.

*Parents' elaboration about children's independent memories.* Because children's grade level was significantly related to parents' elaboration about children's independent memories, it was included on step one. The first step of the equation including children's grade level was significant,  $F(1, 56) = 4.75, p < .05$ , and accounted for 9% of the variance in parents' elaboration about children's independent memories. Adding parents' belief that children can guide their own emotions on the second step explained an additional 4% of the variance. Therefore, the complete model accounted for 13% of the variance in parents' elaboration about independent themes,  $F(2, 55) = 3.54, p < .05$ . The beta coefficients indicated that lower grade level and parents' lower belief that children can guide their own emotion socialization predicted parents' greater elaboration about children's independent memories. Please see Table 5.

*Parents' elaboration about children's interdependent memories.* The first step of the equation included children's sex and puberty level and was significant  $F(2, 54) = 6.45, p < .01$ , accounting for 19% of the variance in parents' elaboration about children's interdependent themes. When parents' belief that children can guide their own emotion socialization was entered in the second step, the model again was significant, and accounted for an additional 9% of the variance. Therefore, the complete model accounted for 28% of the variance in parents' elaboration about children's interdependent memories,  $F(3, 53) = 6.97, p < .001$ . The beta coefficients indicated that parents of sons,

parents of children with greater pubertal maturation, and parents who less strongly believe that children can guide their own emotion socialization elaborated more about children's interdependence. Please see Table 6 for standardized regressions coefficients for predictors of parents' elaboration about children's interdependent memories.

*Parents' and children's reference to ego-focused and other-focused emotions.*

Parents' beliefs about children's emotions did not predict parents' or children's reference to ego-focused or other-focused emotions, all  $F_s < 1.26$ , all  $p_s > .60$ .

*Repeated Measures Analyses of Variance: Linkages between Parents' Beliefs and Child Self-Construal*

As discussed above, in order to address within-subjects variation in both types of measures of children's self-construal, MANOVAs were used to assess linkages between parents' emotion-related beliefs and implicit and explicit measures of children's self-construals. Because correlation analyses suggested that parent-child discourse was unrelated to children's self-construal, parent-child discourse variables were not included in these analyses. Two MANOVAs were conducted.

In the first MANOVA, repeated dependent measures were children's independent and interdependent self-construals, measured implicitly. In the second, repeated dependent measures were children's independent and interdependent self-construals, measured explicitly. For both, parent education was controlled, and the initial analysis was conducted separately by child sex. The between-subjects predictors were the three parental beliefs (emotions are dangerous, parents need to guide children's emotions, children can learn about emotions on their own) and the hypothesized interaction between parents' belief that emotions are dangerous and parents' beliefs that parents need to guide

children's emotions. When the interaction between parents' beliefs about danger and parental guidance and any main effects for parental beliefs were non-significant, they were dropped from follow-up models. When parents' belief about danger was dropped from follow-up models, the analysis was done with the full sample and child sex was included as a between-subjects predictor. Only predictors whose effects were significant at  $\alpha = .05$  were retained in the final reduced models, which are reported below.

*Implicit self-construals.* Results demonstrated a significant between-subjects main effect for parents' belief that children can guide their own emotions,  $F(1, 56) = 4.10, p < .05$ . When parents more strongly believe that their children can learn about emotions on their own, their children are slower in responding to both independent and interdependent traits.

There were also two interactions of between-subjects predictors with the within-subjects effect of type of self-construal. First, type of implicit self-construal interacted with child sex, Wilks' Lambda = .92,  $F(1, 56) = 4.96, p < .05$ . As Figure 2 shows, girls responded more rapidly than boys to interdependent traits. As mentioned above in the Preliminary Analyses section, *t*-tests showed significant differences in boys' and girls' implicit interdependent but not independent self-construals.

Second, type of self-construal also interacted with parents' belief that children can guide their own emotion socialization, Wilks' Lambda = .90,  $F(1, 56) = 5.96, p < .05$ . To illustrate this interaction, a median split was conducted on parents' scores for their belief that children can guide their own emotion socialization and means were calculated for children's implicit independent and interdependent self-construal. As mentioned above, there was a between-subjects effect for more rapid responses by children of parents lower

in the belief that children can guide their own emotion socialization compared with children of parents higher in that belief. As Figure 3 shows, this effect was stronger for independent compared with interdependent traits.

*Explicit self-construals.* Results demonstrated no significant within-subjects effects (all  $ps > .40$ ) for girls or boys. For boys, there were also no between-subjects effects of influence of parents' beliefs on explicit self-construals, all  $ps > .10$ . There were significant between-subjects effects for girls. For girls, parents' belief about guiding children's emotions,  $F(1, 25) = 17.76, p < .001$ , parents' belief that emotions are dangerous,  $F(1, 25) = 20.12, p < .001$ , and the interaction of parents' belief about guiding emotions with parents' belief that emotions are dangerous,  $F(1, 25) = 15.12, p < .001$ , were all significant between-subjects influences on girls' explicit self-construals.

It is noteworthy that because there was no interaction with type of self-construal, this between-subjects interaction shows that for girls, the interaction of parents' beliefs about danger and parental guidance affects both independent and interdependent explicit self-construals. Also, please recall that independent and interdependent explicit self-construals were negatively related, because they were calculated as proportions of children's total responses. Therefore, to ease interpretation of this interaction, I calculated a single self-construal score by subtracting each girl's explicit independent self-construal score from her interdependent self-construal scores. Conceptually, this procedure provided the ability to examine relative salience between independent and interdependent self-views within each individual, rather than the absolute strength of each self-construal (Suh, Diener & Updegraff, 2008). None of the girls exhibited both low independence and low interdependence. Thus, the closer this difference score is to 0, the more balanced the

girl is in both types of self-construal. Scores higher than 0 indicate greater salience of interdependence compared with independence, and scores lower than 0 indicate greater salience of independence compared with interdependence.

To illustrate the interaction, a median split was conducted on parents' scores for both beliefs, thus yielding four groups (high in belief about danger and about parental guidance, high in belief about danger and low in belief about parental guidance, low in belief about danger and high in belief about parental guidance, and low in both beliefs), and means for this single self-construal score were calculated for each group. As Figure 4 shows, parents low in the belief that emotions are dangerous and high in the belief that parents need to guide children's emotion socialization had daughters who reported the most balanced explicit bi-dimensional self-construal. On the other hand, when parents are high in the belief that emotions are dangerous, their daughters report a more interdependent than independent explicit self-construal, and this effect is stronger when parents' also strongly believe in guiding children's emotion socialization. Finally, parents low in both beliefs had daughters who reported a more independent than interdependent explicit self-construal.

## Discussion

The present study offers the first original empirical evidence supporting the argument that parents' emotion socialization influences 7<sup>th</sup> and 8<sup>th</sup> graders' self-construal. Importantly, these results also highlight gendered developmental pathways to identity development. Using both observational and quantitative methodology, this study confirms and expands several previous findings relating to emotion socialization of early adolescents and offers innovative methods for understanding the development of self-

construals. Overall, the empirical evidence suggests that parents' beliefs about emotions are related to 7<sup>th</sup> and 8<sup>th</sup> graders' independent and interdependent self-construal.

In the following sections, I first discuss my measurement of children's self-construal, emphasizing the importance of including both implicit and explicit measures. I next discuss relations of child and parent demographics to the variables under investigation. I then turn to assessing my hypothesized model. I conclude by discussing the strengths and limitations of the current study, and make suggestions for future research.

### *Multi-Faceted Measurement of Self-Construal*

Findings for the current study add to past research and theoretical conceptualizations of independence and interdependence as separate, orthogonal dimensions. Evidence suggests that being low in both independence and interdependence is most problematic for socio-emotional outcomes (Cross, 1995; Kuperminc et al., 1996; Lam; 2006; Moscovitch et al., 2005; Yamada & Singelis, 1999). Research has suggested that despite the typological approach, which dominates the literature on self-construal, differences in self-construal are a matter of degree, rather than categorical (Oyserman et al., 2002). This study supports the importance of treating independence and interdependence as separate dimensions. As can be seen, parents' beliefs about the danger and guidance of children's emotions interacted to predict both independence and interdependence in girls.

Using multi-faceted measures, this study also highlights the importance of understanding how self-construal is manifested implicitly and explicitly. It is noteworthy that the unusually high correlation between implicit measures of independent and

interdependent self-construal may suggest that general processing speed is a possible source of systematic measurement error (Blanton, Jaccard, Gonzales, & Christi, 2005). These current findings are similar to previous positive correlations of orthogonal constructs using reaction time measures by Blanton and colleagues (2005). Conducting repeated measures analyses allowed me to account for within-subjects variance due to general processing speed.

In the same regard, children's explicit self-construal scores were strongly negatively correlated due to the proportional calculation of each self-construal score. On one hand, using proportions for each self-construal score was necessary to account for differences in the total amount of self-attributes provided by the child, yielding a more accurate relation between the salience of one self-dimension in comparison to all other attributes. However, a drawback was the necessarily high negative correlation between the explicit measures of self-construal. Again, conducting repeated measures analyses allowed me to account for within-subjects variance due to the negative relation between the two proportions. Using open-ended self attributes allows children to describe traits/behaviors that are less contextually limited and to provide researchers with attributes that are important to children.

Nonetheless, results do not clearly support orthogonality of independent and interdependent self-construals in early adolescence. Future studies may incorporate the use of Likert-scale type questionnaires so that investigators can measure self-construal on a continuum rather than using a proportional score. Another modification for future studies may be to control for children's verbosity statistically using another measure of

verbal fluency so that self-construal scores may be obtained without using a proportional calculation.

Next, it was unexpected to find no relations between the implicit and explicit measures of each type of self-construal. Perhaps these two types of measures tap different levels of processing information about the self. Implicit measures may be more representative of unconscious or automatic processing whereas explicit measures may represent intentional responses that may be more influenced by the context (Wilson, Lindsey, & Schooler, 2000). It may be that children think of themselves in one way consciously, but older self-definitions still lie beneath these new “layers” of self-definitions. Likewise, empirical evidence by Rudman et al. (2007) suggests that explicit and implicit cognitions/attitudes come from disparate sources of information. Explicit attitudes may stem from more recent experiences whereas implicit attitudes may stem from earlier experiences. As such, it would not be surprising to find that implicit and explicit attitudes/beliefs differ. Because boys included more explicit independent self attributes in this study, perhaps girls receive less independent socialization or fewer opportunities to development an independent self-construal during early adolescence.

Finally, Payne and colleagues (2008) argue that when implicit and explicit measures of the same construct diverge a primary cause may be the structural fit of the assessments. According to Payne and colleagues, “structure” refers to how parts of a test work together to measure a construct. In the current study, children were asked to respond as fast as they could to words presented on the screen for the implicit task, which should minimize controlled processing and maximize automatic processing (Hoffman, Gawronski, Gschwendner, Le & Schmitt, 2005). However, the explicit self-description

task required children to deliberately and consciously generate six different self-guides about describing him/herself, with no time constraints. Though some might consider the explicit self-descriptions to be “spontaneous”, and therefore consider them as an index to implicit processing (Conner, Perugini, O’Gorman Ayres, & Prestwich, 2007), I consider it more likely that the two types of tasks lacked “structural fit” according to Payne and colleagues’ (2008) terms. That is, with the implicit measure, time constraints were used (e.g., “Respond as fast as you can”) and with the explicit measure, there were no time constraints, suggesting that these two methods tap different aspects of self-construal.

Future studies might incorporate asking children to generate words to describe themselves within the first five minutes of a session rather than during a thirty-minute session. Thus, having more similar time constraints may produce implicit and explicit self-construals with more conceptual correspondence focused on cognitive organization from early experiences. However, if researchers are interested in different sources of implicit and explicit self-construals (earlier developmental experiences vs. more recent experiences), then an open-ended explicit measure, as used here, may be more theoretically consistent than an implicit measure. Because I was interested in both the cognitive and social aspects of self-construal, it was important to include both measures in this study.

Incorporating both implicit and explicit measures led to a more nuanced understanding of self-construal. In this sample, girls’ and boys’ reaction times to independent traits were not significantly different. Nonetheless, boys reported more explicit independent traits and behaviors in their self-construal than did girls. In contrast, girls were much faster than boys in responding to interdependent traits, and girls reported

more explicit interdependent traits and behaviors in their self-construal than did boys. The results suggest that both the early experiences and concurrent experiences in girls' environments continue to be conducive to developing an interdependent self-construal.

Perhaps the social context in this middle school sample may emphasize more opportunities to define the self in terms of independence for boys and interdependence for girls. Because independence is a valued trait in the United States (Chao, 1995), it may be fruitful to target more "independent" opportunities for early adolescent girls. Not only is context important, but learning more about early adolescents' goals in relation to independence and interdependence may shed light on how and why children select certain roles or situations that may afford more opportunities for independent and/or interdependent experiences. Fueled with pressures to need to belong, youths in this age group may learn to adopt a self-construal that is most consistent with their social-cultural context.

*Associations of Demographic Variables with Parents' Beliefs about Emotions, Parent-Child Discourse, and Children's Self-Construals*

To understand the dynamics of why and how differences in self-construals develop, we need to go beyond cultural dichotomizations and employ process-oriented and contextual approaches. What kinds of family interactions or socialization strategies lead to different types of selves? And what kinds of socio-economic and developmental contexts produce or necessitate those family interactions and socialization strategies? Self-construal has been associated with demographic variables such as socioeconomic status and cultural niches. Thus, it is especially important to look for associations with demographic variables such as parent education and child sex because both may be

proxies for class and gender role socialization that may translate to self-construals. Emotion socialization is embedded within a cultural context (Frijda & Mesquita, 1994) and may be influenced by cultural beliefs, societal norms, and philosophies. Whether emotion socialization stems from parents or peers, it communicates to children what emotions are to be expressed and how individuals will experience them. In addition, understanding the developmental context in which self-construals emerge can elucidate the best fit between self-construal and one's present environment (Markus & Kunda, 1986). Therefore, child age and pubertal maturation may also be helpful because they may reflect the developmental context in which the self is expressed.

*Child sex differences.* As expected, I found multiple differences according to child sex in regard to parents' beliefs about emotions, parent-child discourse and children's self-construal. Parents of daughters more strongly believed that parents should guide children's emotions compared with parents of sons. This is consistent with past emotion socialization research in which parents, particularly mothers, tend to be more elaborative and talk more about emotions with their preschool-age daughters than sons (Fivush, 1989; Fivush et al., 2003). An important consideration, however, was that the current sample consisted primarily of mothers. Emotion socialization strategies differ between mothers and fathers, and mothers and fathers may jointly contribute to children's socio-emotional outcomes (Garner, Robertson, & Smith, 1997). Furthermore, Roberts and Strayer (1987) suggested that fathers are also important agents in the socialization of gender roles that may be related to children's self-construal. Her et al. (2008) found that fathers reported greater belief in the danger of emotions and less belief in the value of emotions compared to mothers. These differences in beliefs may lead to less discussion

of both *ego-focused* and *other-focused* emotions by fathers compared with mothers, perhaps even if fathers believe in guiding children's emotion socialization. Further work is necessary to assess differences in mothers' and fathers' socialization practices and how these socialization practices may be differentially influenced by children's gender and may affect children's socio-emotional development.

Nonetheless, the results suggest that gender socialization differences that emerge in early childhood continue through adolescence and may translate to later adulthood emotional experience and expression (Brody & Hall, 2000). Given girls' emphasis on interdependence in their self-construals, parents' belief that they should actively guide their daughters' emotions may be an important and adaptive belief to consider in understanding both adaptive behaviors such as empathetic responding and maladaptive behaviors such as relational aggression among girls. Perhaps, as both overt and relational aggression become more salient in middle school (Hawley, Little, & Card, 2007), the interaction of parents' beliefs in guiding children's emotions and that emotions can be dangerous communicates to girls how to balance the societal norms of refraining from outward expression of anger with effectively handling challenging situations in a constructive manner (Underwood, 2003).

Interestingly, despite greater belief that parents should guide children's emotions among parents of daughters compared with parents of sons, parents of sons were more likely to elaborate about their sons' interdependent themes compared with parents of daughters. Interdependence and connectedness may be socialized more readily in girls compared with boys through other means such as the media and institutions (Signorielli, 1993). Therefore, parents may be less inclined to elaborate to girls' interdependent

memories when there may already be several other mediums that contribute to girls' interdependent self-construal.

Perhaps in this sample, parents may have the goal of encouraging further development of their sons' interdependent self-construal, especially if they perceive that interdependence is not yet well developed in their sons. As such, when boys do talk about interdependence, parents may actively take the opportunity to elaborate on their sons' memories to help them form a more elaborate self-definition related to interdependence. Another plausible explanation is that independent memories need less elaboration overall than interdependent memories. At this age, interdependent discussions may provide parents the opportunity to learn more about their son's social environment outside of the home. In turn, these discussions about interdependence may be adaptive in reducing adolescent boys' delinquent behaviors (Kuperminc et al., 1996).

Child sex differences in self-construal were discussed earlier in the context of using multi-faceted measurements of self-construal. Despite little difference in boys' reaction time to independent traits compared with girls', boys did report a significantly greater proportion of independent and unique traits and behaviors compared with girls. As discussed earlier, explicit self-descriptions may correspond more closely to the situational or "working" self-concept that is drawn from recent experiences or social events (Rudman, et al., 2007; Wagar & Cohen, 2003). Because there were six self-guides that children responded to in the interview, children may have described the self in various contexts and situations where the "working" self is usually manifested. The social environment of boys may continuously draw on an independent self-construal; however,

the implicit reaction time results suggest that these affordances may not yet translate to the “chronic” self.

Priming studies in self-construal suggest that changes in context can prime for a particular self-concept, but that does not necessarily change an individual’s “chronic” self (McGuire, McGuire, Chile, & Fujioka 1978). Therefore, it is not enough to say that a particular context eliciting a self-construal will immediately affect the chronic self. Arguably, it may be well be over many years before the “chronic” self is gradually influenced by the “working” self-concept (Kelly, 1955). More longitudinal work will be necessary to assess the influence of the “working” self-concept to the “chronic” self-concept.

Finally, because all research assistants for this study were female, this may have inadvertently primed girls to emphasize interdependence in their explicit self-construal (e.g., similar characteristics, belonging to same group) more so than independence, whereas boys may have been primed to see themselves as independent (e.g., different characteristics, different gender) and emphasize their uniqueness and autonomy when working with the researchers. Future work may control for this possibility by using gender-consistent researchers.

*Children’s pubertal maturation and grade.* Correlations showed that children who were more physically mature tended to use more *ego-focused* emotions in their discourse. This is consistent with the work of Montemayor and colleagues findings that pubertal maturation affects adolescents’ discourse, especially with an increase in negative affect during parent-child discourse (Flannery, Montemayor, Eberly, & Torquati, 1993; Montemayor et al., 1993). It is interesting that this relation was only significant for *ego-*

*focused* and not *other-focused* emotions. The lack of association with *other-focused* emotions may be due to their infrequency during discourse, or may reflect a “pull” for adolescents to focus more on their own emotional experience when their body is going through rapid changes.

Next, parents of 7<sup>th</sup> graders elaborated more about their child’s independent memories than did parents of 8<sup>th</sup> graders. As discussed earlier, it may be that 7<sup>th</sup> graders have not yet developed an elaborate independent self and parents, aware of children’s growing autonomy, may encourage children’s independent self by elaborating about children’s independent memories. Furthermore, parents may perceive their eighth grade child who will soon be entering high school as independent and therefore as requiring less elaboration about independence.

*Parents’ education.* Parents with higher levels of education were less likely to believe that emotions were dangerous, less likely to believe they needed to socialize their children’s emotions, and more likely to believe children can learn about emotions on their own. This is consistent with previous findings with Latino parents of preschoolers (Perez-Rivera, 2008). It makes intuitive sense that if parents believe emotions are not dangerous, they may also believe there is no need to teach children about emotions. Perhaps parents’ education, which is typically an indicator of socioeconomic status, denotes a family environment in which children can freely express and articulate both negative and positive emotions in various modalities (e.g., online, face-to-face, text-messaging, etc.). Given their enriched environments, parents may believe less in guiding their children’s emotion socialization, especially during this time period when early adolescents strive for autonomy. In addition, higher socioeconomic status has been associated with childrearing

values oriented toward engendering self-reliance and autonomy in the child (Kagıtçibasi, 1990), and this valuation orientation may translate to how parents should guide their children's emotion socialization and whether emotions are dangerous. Overall, however, the relations found with family demographics suggest that socio-economic and developmental contexts may influence family interactions and socialization strategies.

#### *Assessment of Conceptual Model*

*Parents' beliefs about emotions and parent-child discourse.* Hypotheses regarding linkages between parents' beliefs and parent-child discourse were partially supported (see Table 1 for a review). Consistent with hypotheses, parents' belief that children can actively learn about emotions on their own was related to their use of less elaboration about children's independent and interdependent memories. This makes intuitive sense and supports the hypothesis that if parents believe children can learn about emotions on their own, they are less likely to elaborate on children's emotion-laden discourse. These findings show that parents' beliefs about emotions may influence their emotion socialization behaviors with their children. It is important to note, however, that parents may also be reacting to children's emotion discourse. When children have already elaborated thoroughly on their own memories, parents may elaborate less because there is little else to elicit from the child, and parents may perceive their child's elaborative discourse as a signal of emotional competence, thereby influencing parents' belief that their child can learn about emotions on his/her own.

The remainder of the hypotheses about parents' beliefs and parent-child discourse were not supported. Parents' beliefs about their role in guiding children's emotion socialization and the danger of emotions were not related to elaboration about emotion-

related memories. It may be these relations do not exist. However, methodological issues are important to consider. Previous studies with children in early to middle childhood have involved parent-child discussions of a shared memory event. When reminiscing with their child about a shared memory, parents may introduce different aspects of the event more readily. In the current study, parents' elaboration about their child's memory description tended to consist of simply asking a question about the event under discussion, which most of the parents did in this study. Thus, range of elaboration in the current study may be more constricted than in previous research. It may be fruitful in future research to investigate shared memory events to examine whether parental beliefs about emotions might relate to parents' elaboration about shared emotion-laden memories.

Surprisingly, there were no significant relations between parents' beliefs about children's emotions and parent-child labeling of *ego-focused* and *other-focused* emotions. This unexpected finding contradicts previous studies with preschool-age children's emotions (Cervantes & Seo, 2005; Dunsmore & Karn, 1994; Perez-Rivera, 2008). Again, it may be that these relations do not exist in early adolescents. However, I note that the infrequent use of emotion terms in both parent and child discourse may have limited associations with parental beliefs.

It is also possible that the paucity of significant relations between parental beliefs and parent-child discourse may reflect changing socialization practices with early adolescents. The discourse measures in the current study were based on research focused on early and middle childhood. As children become older, parents may adopt different socialization strategies most appropriate for their children's particular development. By

this age, children may have already learned to verbally express their emotions and have a basic understanding of typical causes and consequences of emotions (Pons, Harris, & de Rosnay, 2004). Thus, most early adolescents may not need their parents to model and explain emotions. Perhaps, instead of labeling emotions, parents may induce children to feel certain emotions more so than others when interacting with their children. Take, for example, a child who has recently won first place in the science fair project. In response to the child's behavior, the parent may praise the child, "*You are so smart!*," which in turn, may elicit a feeling such as happiness and pride in the child. In this interaction, the parent may have induced the child to experience a positive *ego-focused* emotion without labeling an emotion. Future studies might benefit from asking children explicitly how they felt during a particular memory to disentangle the relation between emotions and self-construal, or the types of emotions parents are trying to induce in a particular situation.

Furthermore, facial expressions of emotions are an important emotion socialization tool for parents beginning in infancy (Malatesta & Haviland, 1982) and continue to be important sources of information throughout the lifespan (Brody, 1993). Emotional displays, especially on the face, may be primary means of emotion socialization. Parents' nonverbal communication about emotion-laden memories may be even more salient as a socialization strategy compared with verbal labeling and explanation of emotions in this age group because children may have already acquired basic emotion knowledge.

Unfortunately, coding of parents' nonverbal emotion socialization could not be accomplished in this study because there were relatively few instances of parents' and

children's facial expressions of negative and positive emotions towards each others' memories. Most dyads throughout the game expressed positive emotions more towards the game than in reference to a memory. Eliciting more frequent and more intense nonverbal communication in future studies, perhaps through use of discussions of real conflicts and disappointments experienced in the family (Allen, Hauser, Bell, & O'Connor, 1994), might benefit further investigation of parents' beliefs about emotions in relation to naturalistic parent-child discourse.

*Parent-child discourse and self-construal.* The hypotheses regarding relations between parent-child discourse and children's self-construals were not supported. Even children's own references to *ego-* vs. *other-*focused emotions were not related to their self-construals. One possibility is that 7<sup>th</sup> and 8<sup>th</sup> graders have not committed themselves to a particular type of self-construal and therefore, their recall of personally relevant events in relation to self-construal may still be diffused (Neimeyer & Raeshire, 1994). A future consideration may be to ask participants how important being independent and interdependent is to their identity. Niemeyer & Raeshire (1994) found that adolescents who were more committed to a particular dimension of identity recalled more personally congruent memories related to their current self-perception. Another possibility as noted above may be low frequencies of emotion words used in parent-child discourse and restricted range of parents' elaboration.

Also, many of the pre-selected cards were negative rather neutral or positive. This bias in terms of negative emotions may have affected the type of emotions introduced in discourse. Although parents and children may have used *other-focused* emotions, it may have been with a negative valence (e.g., "felt sorry," "guilty", etc.), and was infrequent

during discourse. Therefore most of the emotions identified in the study were negative with an *ego-focused* orientation. Future work that includes both positive and negative emotion valences and considers intensity of emotions may help determine whether there are relations of *ego-focused* and *other-focused* emotions with independent and interdependent self-construals in early adolescence.

Regarding parents' elaboration, a more nuanced measure of elaboration may be useful. First, use of categorical scores (none vs. some elaboration) may not be sensitive enough to detect subtle emotion discourse differences. Second, future work might be worthwhile to examine what aspects of the event parents are highlighting when they do elaborate about children's emotions. Do parents confirm children's focus on independent or interdependent themes, or do they switch the focus of the conversation? Take, for example, an excerpt from a parent-child conversation:

*Child:* Tell about a time when you saw someone being teased. Hm, well it's not a specific time but (*Name*) used to always go and pick on people. I felt kind a sorry for all those kids. We stopped hanging around with (*Name*) because s/he would not stop. That's it.

*Parent:* Did you ever do anything about it when s/he teased those kids?

*Child:* Well, no...not really.

Particularly interesting in this conversation is that the child's response has an interdependent theme, yet the parent elaborates with a more independent theme. The complexity of parent-child conversations in early adolescence may yield itself to sequential investigations that incorporate bi-directional influences to explain how

elaboration during parent-child discourse functions to influence adolescents' definitions of themselves.

*Parents' beliefs about children's emotions and children's self-construals.*

Hypotheses regarding linkages between parents' beliefs and children's self-construal were partially supported. First, consistent with expectations, correlation analyses suggested that parents' belief that emotions are dangerous was linked with children's faster reaction time to interdependent traits, although this relation held only for girls and not boys. Second, parents' belief that it was important for them to guide their children's emotion socialization was positively correlated with children's inclusion of interdependent traits in their explicit self-construal. Third, and contrary to expectations, parents' belief that children could guide their own emotions was associated with children's slower reaction time to independent traits.

Follow-up analyses accounting for within-subjects variance in independent and interdependent self-construals demonstrated moderation among relations of parents' beliefs with children's self-construals. For the implicit measure of self-construals, type of self-construal moderated the association of parents' belief that children can guide their own emotions with children's reaction time to independent and interdependent traits. Specifically, the link between parents' belief that children can guide their own emotions and children's reaction time was stronger for independent compared with interdependent traits. However, the association was not in the expected direction; parents' belief that children can guide their own emotion socialization was related to *slower* reaction times, especially for independent traits, even after controlling for children's gender. It had been predicted that parents who strongly believe children can guide their own emotion

socialization would have children with a more salient independent self-construal and therefore be faster in responding to independent traits. Perhaps, when parents believe children can learn about emotions on their own, children may not have the autonomy or independence that parents believe they have. Because parents think children are able to learn on their own, they may not take the time to teach their children to speak up for oneself or experience pride as a result of winning a competitive race. As a result, their children may develop a less salient independent self-construal.

Another possibility is that a parent, recognizing that independence is a valued goal in US society (Chao, 1995), might perceive their child's lack of independence and therefore endorse children learning about emotions on their own as way of promoting independence. Perhaps children in this age group may "rebound" and develop a more chronically accessible independent self-construal in later years. Indeed, the means for the implicit measures of self-construal suggest that all children respond somewhat faster to the interdependent words than to the independent words. It is possible that children's implicit independent self-construal may not yet be developmentally salient in early adolescence because more recent environmental changes (e.g., changes in parent-child discussions, more opportunities to provide their input and participate in more autonomous learning activities) have not yet transferred over to the chronic self. Additional work, especially longitudinal research that addresses parents' goals for guidance (e.g., autonomy and conformity) is required to delineate the effect of this important aspect of parental beliefs on the development of self-construal (Miller & Harwood, 2002).

For the explicit measure of self-construal, type of self-construal did not moderate associations of parents' beliefs with children's self-construal. However, child sex did, and

parents' belief about the danger of emotions moderated the influence of their belief about guidance on girls' explicit self-construals. Partially consistent with expectations, parents with lower belief that emotions are dangerous and higher belief in guiding children's emotion socialization had daughters who reported a more balanced explicit bi-dimensional self-construal and confirms previous theoretical and empirical studies with societies undergoing urbanization and economic development. Development of both self-construals addresses two basic human needs for autonomy and relatedness (Hauser et al., 1994). Individuals with a well-balanced self-construal may be well adapted in navigating through various social and environment contexts that require independence and interdependence.

On the other hand, when parents strongly believe that emotions are dangerous, their daughters report a more interdependent than independent explicit self-construal. This is consistent with the hypothesis that parents who more strongly believe emotions are dangerous would have children who included more interdependent traits in their self-construals because this belief might be associated with concerns about disrupting smooth and harmonious interpersonal relationship. The fact that this effect is strengthened when parents also strongly believe in guiding their child's emotion socialization is also consistent with the hypothesis that parents' beliefs about danger would moderate the influence of their beliefs about guidance.

Finally, parents low in the belief that emotions are dangerous and low in the belief that parents need to guide children's emotions had daughters who reported a more independent than interdependent explicit self-construal. It may be that parents who believe that emotions are not dangerous may communicate to their daughters that it is

appropriate to express emotions that can be useful in developing one's independent self-construal. When combined with parents' belief that their guidance is less important in their daughters' learning about emotions, this may further contribute to girls' emphasis on independent self-construal because parents may grant young adolescents sufficient autonomy to learn about emotions that may be conducive to an independent self-construal.

In summary, the evidence suggests that the effect of parents' belief about their own guidance may depend on their beliefs about the danger of children's emotions and their child's sex. These findings have significant implications for intervention strategies targeted at the sense of self and improving well-being throughout adolescence and continuing into adulthood.

#### *Strengths and Limitations*

One important advantage in this investigation is that rather than relying on simple categorizations of countries or child sex to explain differences in the emergence of self-construal, I explored multiple parental beliefs about emotions, relied on parent-child discourse, and included demographic variables that might influence 7<sup>th</sup> and 8<sup>th</sup> graders' self-construal. Moreover, the multi-faceted measurement of self-construal revealed differing pathways for implicit and explicit self-construal that lay the foundation for future longitudinal research investigating change and stability in self-construal. Because there were no relations between parents' emotion-related beliefs and emotion-discourse, nor were there relations between discourse and self-construal, it may be useful in future work to examine other socialization strategies not captured in the current study. Having found that parents' beliefs do influence 7<sup>th</sup> and 8<sup>th</sup> grade children's self-construal, future

work must continue to operationalize and validate the basic development sequences themselves in order to delineate possible intervention and prevention strategies to promote optimal development.

There were some limitations to this study. First, this study focused on middle-class, predominantly European-American families in the United States, with the majority of parents having at least a college education. Additional research exploring a wider of variety of socioeconomic classes, parental educational levels, and ethnicities is certainly needed. In addition, parents and children discussed mostly mildly intense, negatively-valenced memories, yet within a game-playing context that elicited warm and positive parent-child interactions. This specific context may limit the generalizability of results. It may be that in a negatively charged context in which the parent and child are discussing an unresolved disagreement, greater discussion of emotions may have a very different effect and parents' beliefs about emotions may have a direct influence on their emotion discourse. It is important to note that although careful measures were used to have all five cards of interest drawn by each dyad, some participants simply opted to take an alternative or simply had no memories related to the card. There should be some caution in the interpreting the results because those participants may have had different reasons for not responding to particular cards, some of which may be related to their beliefs about emotions.

Next, the data is cross-sectional and therefore, no causal conclusions can be made. Future research should test the causal hypothesis more directly, for example, by experimentally manipulating beliefs (e.g., giving parents pamphlets/books about the importance of guiding emotion expression) and by testing the effects of such

manipulations on subsequent discourse and children's self-construal. In addition, longitudinal studies with larger samples may be helpful in understanding how links between parents' beliefs about emotion, parent-child discourse, and children's self-construal evolve over time. It may be especially interesting to investigate parental emotion socialization strategies from early childhood, a time when emotion socialization is critical in acquisition of emotion knowledge, through early adolescence, a time when self becomes more salient and crystallized.

Finally, all but three of the parents who participated in the study were mothers. As mentioned previously, fathers may have socialization goals that differ from mothers'. Future work should also investigate how fathers socialize their children about independence and interdependence, and how mothers' and fathers' joint socialization efforts in the whole-family context contribute to children's outcomes (Lunkenheimer, et al., 2007). For example, both fathers and mothers may believe that emotions are dangerous, but their socialization goals may differ (e.g., don't show emotions to avoid vulnerability vs show emotions that will maintain interpersonal relationships). Thus, the same belief may lead to different socialization behaviors and result in different pathways to children's self-construals.

### *Conclusions*

Overall, these findings shed light on associations between parental emotion socialization and 7<sup>th</sup> and 8<sup>th</sup> graders' self-construals. Parents' beliefs about the danger and guidance of emotions influenced their children's self-construals. Though parent-child emotion discourse was unrelated to youths' self-construals, other types of emotion socialization behaviors (such as non-verbal expression and emotion inculcation) not

captured in the current data may mediate relations between parental beliefs and children's outcomes in early adolescence. This study also provides an important first look at gender differences and similarities in specific linkages between parents' beliefs about children's emotions and self-construals among 7<sup>th</sup> and 8<sup>th</sup> graders. Parents' beliefs about the danger of emotions and their role in guiding their children's emotions seem especially relevant for their daughters' development of both independent and interdependent self-construals.

Despite the importance of early adolescence as a period during which the sense of self becomes more salient, children's independent and interdependent self-construals during this developmental period have been understudied. This study has addressed emotion socialization and self-construals in 7<sup>th</sup> and 8<sup>th</sup> graders in order to illuminate gendered pathways for adaptive and maladaptive functioning. In sum, this study demonstrates the complexity of ways in which parents' beliefs about emotions may be manifested in 7<sup>th</sup> and 8<sup>th</sup> graders' self-construals.

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## Appendix A: Letter to Participants

Dear X:

The Social Development Lab at Virginia Tech is conducting research on parents' ideas about their children's emotions and how 7th and 8th grade children describe themselves, and we would very much appreciate your help! Because you have previously participated in research with us, or with Dr. Robin Panneton (Cooper)'s Infant Perception Laboratory or Dr. Martha Ann Bell's Developmental Cognitive Neuroscience Laboratory, we believe that you may have a child who is in 7<sup>th</sup> or 8<sup>th</sup> grade. And, we hope that you had a positive experience in your previous participation and might be interested in our study!

Briefly, the purpose of this study is to understand how parents' beliefs about emotions may affect their children's sense of self, and parents' and children's discussions during an everyday activity, playing a game together. We will visit your home to complete the study. If you would prefer, you and your child may visit us in the child-friendly Social Development Lab in Williams Hall on the Virginia Tech campus for one 1 ½ hour session. We will provide free parking. ☺

During the session, we will ask you to fill out two questionnaires, one about a variety of beliefs you may (or may not) agree with regarding children's emotions and the other about your child's maturation. Your child will complete a questionnaire with the assistance of one of our students, about his or her sense of self. We will next ask your child to select adjectives that are most like him or her on a computer. Finally, we will ask you and your child to play a cooperative game in which you talk about memories. We want to make sure we get everything you and your child talk about so we'll videotape you and your child during the game. All of your responses will, of course, be kept confidential.

Because we sincerely appreciate your time and energy, we'd like to give your child two free movie passes!

We will be in contact in the following weeks to answer any questions you may have and to schedule a time to meet if you are interested. In the meantime, please do not hesitate to get in touch with us to find out more about the study or to express an interest in participation. We may be reached by telephone at (540) 231-8179 or via email at [socdev@vt.edu](mailto:socdev@vt.edu). Thank you very much for your time and consideration.

Sincerely,  
Pa Her, M.A.  
Developmental and Biological Psychology Doctoral Candidate  
Graduate Research Assistant, Social Development Lab

Julie C. Dunsmore  
Assistant Professor  
of Psychology  
Director, Social  
Development Lab

## Appendix B: Advertisement Text for List-serve Ads

We are looking for parents and their 7<sup>th</sup> and 8<sup>th</sup> grade adolescents to participate in a study on parents' ideas about emotions and what adolescents think about themselves. We will ask parents to fill out some surveys about children's emotions and their child's maturation, and their children will get to tell us what they think about themselves. Parents and children will also play a fun game together about family memories.

Participating will take about 1 ½ hours. We will come to your house! If you would like, you can request to come to the Social Development Lab at Virginia Tech. Adolescents will be given a Certificate of Appreciation and two free movie tickets!

If you are interested in finding out more about the study or in scheduling an appointment, please call the Virginia Tech Social Development Lab at 231-8179 or e-mail us at [socdev@vt.edu](mailto:socdev@vt.edu). We look forward to talking with you!

## Appendix C: Informed Consent, Parent

### **VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY** Informed Consent for Participants in Research Projects Involving Human Subjects

**Title of Project:** Parents' Beliefs, Parent-Child Conversations, and Children's Sense of Self in Middle School

**Investigators:** Pa Her, M.A. and Julie C. Dunsmore, Ph.D.

**I. Purpose of this Research:** We invite you and your child to participate in our research on parents' beliefs about emotion and how children describe themselves. The purpose of this study is to understand how parents' beliefs about emotion and their conversations may be related to children's sense of self in middle school children. Up to sixty parent-child pairs will be needed to participate in this study.

**II. Procedures:** You and your child will participate at your home. If you wish, you may instead visit the Social Development Lab at Virginia Tech to complete the study. We will ask parents to fill out a questionnaire about their beliefs about emotion and a brief questionnaire about their child's maturation. We will ask children some questions about what they think about themselves and what others think about him or her. After filling out the forms, we'll ask your child to complete a computerized task identifying adjectives that are descriptive of them. Together, you and your child will play a cooperative game about past memories. The game will be recorded for later data analyses. The whole time should take approximately 1 ½ hours.

**III. Risks:** There are no foreseeable risks for you and your child.

**IV. Benefits:** No promise or guarantee of benefits has been made to encourage you and your child to participate. Benefits may include the opportunity to think about your beliefs about emotion and to discuss family memories with your child. Benefits for your child may include the opportunity to think about how she or he defines her or himself. For developmental scientists, this research will contribute to understanding how parents' beliefs and conversations are related to children's development of their sense of self. If you like, we will send you a letter describing the results of this study at the conclusion of this project.

**V. Extent of Confidentiality:** The information in the study records will be kept completely confidential. Your child's data and your own data will be treated privately, which means that we will not be able to share your child's responses with you. Your and your child's materials, including audio and video recordings, will be identified by a code number only. The audiotape will be erased after being transcribed. Videotapes will be accessible only to Research Assistants supervised by Dr. Dunsmore and Pa Her, M.A. and will be erased after 7 years. Information linking your and your child's names and code numbers will be kept in a locked room. All materials will be stored securely in a locked room and will be made available only to persons conducting the study unless you

specifically give permission in writing to do otherwise. No reference will be made in oral or written reports that could link you to the study. In any study involving children, direct evidence of abuse must be reported.

**VI. Compensation:** Your child will receive two free movie passes for his or her time.

**VII. Freedom to Withdraw:** Your participation in this study is voluntary. You or your child may decline to participate without penalty and without loss of benefits. You and/or your child may choose to discontinue participation at any time during the study without penalty. If you or your child withdraw from the study before data collection is completed the data will be returned to you or destroyed

**VIII. Approval of Research:** This research project has been approved, as required, by the Department of Psychology's Human Subjects Committee and by the Institutional Review Board for Research Involving Human Subjects at Virginia Tech.

**IX. Parent's Responsibilities:** None.

**X. Parent's Permission:** I have read and understand the above information. I have received a copy of this form. I have had all my questions answered. I hereby acknowledge the above and give my voluntary consent for myself and my child named below to participate in this study.

**Parent Participant name**

---

**Child Participant name**

---

**Parent Participant's signature**

---

**Date**

---

**CONTACT INFORMATION:** If you have questions at any time about this study or study procedures, you may contact Dr. Julie C. Dunsmore at [jdunsmor@vt.edu](mailto:jdunsmor@vt.edu) or (540) 231 – 4201. If you feel you have not been treated according to the descriptions in this form, or that your rights as a research participant have been violated during the course of this project, you may contact Dr. David W. Harrison, Chair of the Psychology Department Human Subjects Committee at [dwh@vt.edu](mailto:dwh@vt.edu) or (540) 231 – 4422 or Dr. David Moore, Chair of the Virginia Tech IRB Research Involving Human Subjects, [moored@vt.edu](mailto:moored@vt.edu) or (540) 231 – 4991.

Appendix D: Informed Consent, Child

**VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY**  
Informed Assent for Participants in Research Projects Involving Human Subjects

**Title of Project:** Parents' Beliefs, Parent-Child Conversations, and Children's Sense of Self in Middle School

**Investigators:** Pa Her, M.A. and Julie C. Dunsmore, Ph.D.

We invite you and your mother or father to participate in our research on how children describe themselves! The purpose of this study is to understand how parents' beliefs about emotion and discourse may be related to how their children describe themselves.

We will come to your house or you and your parent may come to our family-friendly Social Development Lab at Virginia Tech to participate in this study. First, your parent will fill out some forms in a separate room. We will ask you some questions about what you think about yourself and what others think about you. We will audiotape this to make sure to get exactly what you say. After filling out the forms, we'll ask you to complete a computerized task to identify adjectives that are like you or not like you. Next, you and your parent will play a fun cooperative game about memories. While you play this game, we will videotape you both so that we can get exactly what you both say and learn about how you and your parent talk about emotions. We ask you to play just like you would in any other game. In all of this, there are no right or wrong answer. We want to know what you think! The whole time should take approximately 1.5 hours.

We don't expect anything in this study will make you feel bad or uncomfortable. But, if you decide you are uncomfortable, or want to stop, it's okay to tell us, and we will stop right away. To thank you, we will give you two free movie tickets!

If you have any questions, please ask during our visit or call as at (540) 231-8179. In research, questions are a good thing! And remember that you can ask any questions you have at any time during your participation.

I have read and understand the information in this form. I have received a copy of this form. I agree to participate in this study.

Participant's Signature \_\_\_\_\_

Witness signature \_\_\_\_\_

Date \_\_\_\_\_

## Appendix E: Consent for Use of Videotape and Transcripts

An important part of research is to share our research findings with the community. When explaining our research findings, it may be useful to show some portions of some videotapes or transcribed sessions of the conversation to our colleagues. For example, the videotapes could demonstrate how enjoyable the game was for the children and parents, and how children were able to talk to their parents about current issues going on with their life. It would be very helpful to have your permission to show the videotapes or transcripts to our colleagues, however, this permission is not necessary for us to complete the study. This will not affect your child's participation in any way. If you do not want to give your permission, your child will never be shown in any videotapes when we talk about the study, nor will transcripts of the conversation be shared.

Please indicate below what you are you comfortable with. In all cases, you and your child's name will be kept confidential. Please remember that you and your child's participation in the study is important whatever permission level you choose.

Write Yes or NO in each blank.

\_\_\_\_\_ You have my permission to show my child in videotapes/use transcripts of our conversation when you are talking about this study with faculty or students at Virginia Tech.

\_\_\_\_\_ You have my permission to show my child in videotapes/use transcripts of our conversation when you are giving presentations about this study at other universities.

\_\_\_\_\_ You have my permission to show my child in videotapes/use transcripts of our conversation when you are giving presentations about this study at national and international conferences.

\_\_\_\_\_  
Your Printed Name

\_\_\_\_\_  
Date

\_\_\_\_\_  
Your Signature

## Appendix F: Parents' Beliefs about Children's Emotions

**Instructions** These statements express different beliefs about children's emotional development and about parents' roles in helping children with their emotions. Please read each statement and write in the number that shows how much you agree with the statement. Put this response in the column titled "Answer". Because children's abilities develop over time, please pick a child age (somewhere between the 7<sup>th</sup> and 8<sup>th</sup> grade) that you are familiar with, and respond to these statements for children of that age.

1	2	3	4	5	6
Strongly Disagree	Somewhat Disagree	Slightly Disagree	Slightly Agree	Somewhat Agree	Strongly Agree

Number	Item	Answer
1	Feeling negative emotions is sort of a dead end street, and children should do whatever they can to avoid going down it.	
2	Showing anger is not a good idea for children.	
3	When children get angry they create more problems for themselves.	
4	Feeling sad is just not good for children.	
5	When children are too loving others take advantage of them.	
6	Children who are too loving can get walked all over.	
7	Feeling angry is just not good for children.	
8	When children get angry, it can only lead to problems.	
9	When children are too happy, they can get out of control.	
10	When children show pride in what they have done, it is a good thing.	
11	It is important for children to avoid feeling sad whenever possible.	
12	Feeling sad helps children to know what is important to them.	
13	When children express anger, someone in the family ends up having to deal with the consequences.	
14	Anger in children can be emotionally dangerous.	
15	Children who feel emotions strongly are likely to face a lot of trouble in life.	
16	Children can think more clearly when emotions don't get in the way	

17	Children's feelings can get hurt if they love too much.	
18	When children start to show strong emotions, one never knows where it will end up.	

19	When children become sad or upset, parents can let them manage their feelings on their own.	
20	It's the parent's job to teach children how to handle negative feelings.	
21	It's the parent's job to help children know when and how to express their positive emotions.	
22	How and when to show positive emotions is something that children have to figure out for themselves.	
23	It's important for parents to help a child who is feeling sad.	
24	It is important for parents to teach children when and how to show pride in themselves.	
25	It's a parent's job to teach children about happiness.	
26	When children are feeling angry, parents can help them work through those feelings.	
27	Children can figure out how to express sad feelings on their own.	
28	It is a parent's job to teach their children how to handle their emotions.	
29	Children generally learn how to deal with their angry feelings, without parents telling them how.	
30	It's usually best to let a child work through their negative feelings on their own.	
31	Children can learn to manage their emotions without help from parents.	
32	It's important for parents to teach children the best ways to express their feelings.	
33	It's a parent's job to teach children how to deal with distress and other upsetting feelings.	
34	When children are angry, it is best to just let them work it through on their own.	
35	Children can figure out how to express their feelings on their own.	

Appendix G: Demographics

We are very interested in conducting our research with a representative population. Please let us know how diverse our population is by filling out the information below.

**Yourself: Age?** \_\_\_\_\_

**Relationship to child? (e.g., mother, father, grandmother, stepfather, etc.)**  
\_\_\_\_\_

**Education (please check one):**

**HS begun** \_\_\_ **HS degree** \_\_\_ **College begun** \_\_\_ **College degree** \_\_\_ **Grad begun** \_\_\_ **Grad degree** \_\_\_

How would you describe your ethnic background? (check as many as apply):

African American \_\_\_ Asian American \_\_\_ European American \_\_\_  
Hispanic American \_\_\_ Native American \_\_\_ Other \_\_\_

**Your child's other parent: Age?** \_\_\_\_\_

**Relationship to child? (e.g., mother, father, grandmother, stepfather, etc.)**  
\_\_\_\_\_

**Education (please check one):**

**HS begun** \_\_\_ **HS degree** \_\_\_ **College begun** \_\_\_ **College degree** \_\_\_ **Grad begun** \_\_\_ **Grad degree** \_\_\_

How would your child's other parent describe his/her ethnic background? (check as many as apply):

African American \_\_\_ Asian American \_\_\_ European American \_\_\_  
Hispanic American \_\_\_ Native American \_\_\_ Other \_\_\_

What is your marital status? Single Married Divorced Separated Widow Co-Habit

What, if any, religion are you affiliated with? \_\_\_\_\_

What region of the country are you from (spent your formative years)? \_\_\_\_\_

What kind of area are you from? Rural Urban Suburban Other (Please Specify)

\_\_\_\_\_

Please describe the kind of community that you grew up in:

\_\_\_\_\_

\_\_\_\_\_

How much is **your family** yearly income? Please make the best estimate you can and include income from all sources, such as wages, salaries, Social Security, retirement benefits, help from relatives, rent from property, and so forth.

<u>Yearly</u>	<u>Monthly</u>
_____ \$0-\$4,999	(0-\$416)
_____ \$5,000-\$9,999	(\$417-\$833)
_____ \$10,000-14,999	(\$834-\$1,249)
_____ \$15,000-\$19,999	(\$1,250-\$1,666)
_____ \$20,000-\$29,999	(\$1,667-\$2,499)
_____ \$30,000-\$39,999	(\$2,500-\$3,333)
_____ \$40,000-\$49,999	(\$3,334-\$4,166)
_____ \$50,000-\$59,999	(\$4,167-\$4,999)
_____ \$60,000-\$69,999	(\$5,000-\$5,833)
_____ \$70,000-\$79,999	(\$5,834-\$6,666)
_____ \$80,000 & over	(\$6,667 & over)

Do you consider **your family** to be: (Please circle one of the sentences below)

Upper upper class (e.g., rich, influential, highly educated, you live in the very best neighborhoods, you travel all over the world when you feel like it)

Lower upper (e.g., professionals, such as physicians, lawyers; owner of a major industry)

Upper middle (e.g., professionals such as teachers, social workers; owner of a good business; owner of a large farm)

Lower middle (e.g., clerical, small entrepreneurs; farmer)

Upper lower (e.g., skilled worker, small farmer)

Lower lower (e.g., unskilled, unemployed)

Participating child's birthday \_\_\_\_\_

Participating child's sex \_\_\_\_\_

Participating child's ethnic background (check as many as apply):  
 African American\_\_\_\_ Asian American\_\_\_\_ European American\_\_\_\_  
 Hispanic American\_\_\_\_ Native American\_\_\_\_ Other\_\_

How many children do you have? \_\_\_\_\_

Please list their sex and age below:

Age	Sex	Age	Sex
Child #1	_____	Child #4	_____
Child #2	_____	Child #5	_____
Child #3	_____	Child #6	_____

**Thank you very much!**

Appendix H: Self-Guide Questionnaire

*Directions:* Please have the child respond to the following questions. For each question, please have them list at least 10 traits or attributes. These traits/attributes may be negative or positive descriptions, and he/she may repeat an answer from one question to another. Should there be a pause, please ask child, "Can you think of anything else?" or "Are there any more words or phrases that describe you?" After all self descriptions are completed; ask for any clarification of any vague answers.

A. What type of person are you?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_

B. What type of person would you like to be?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_

7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_

C. What type of a person should you be?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_

D. What type of person would your mother (father) think you are?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_

7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_

E. What type of person would your mother (father) like you to be?

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_
10. \_\_\_\_\_

F. What type of a person would your mother (father) think you should be?

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_

8. \_\_\_\_\_

9. \_\_\_\_\_

10. \_\_\_\_\_

Appendix I: Independent and Interdependent Adjective List  
(presented on computer using MediaLab software)

Independent Composite Scale

1. Defend my own beliefs
2. Independent
3. Assertive
4. Willing to take a stand
5. Self-reliant
6. Self-sufficient
7. Self-assured
8. Competitive
9. Ambitious
10. Able to stand up for myself
11. Like to do things myself
12. Outspoken

Interdependent Composite Scale

1. Sympathetic
2. Sensitive to the needs of others
3. Reliable
4. Understanding
5. Compassionate
6. Eager to soothe hurt feelings
7. Helpful
8. Loyal
9. Adaptable
10. Appreciative
11. Considerate
12. Cooperative

Control Words

1. At ease
2. Mistrustful
3. Enthusiasm
4. Lost
5. Cautious
6. Sweaty
7. Uneasy
8. Numb
9. Shaky
10. Isolated
11. Serious
12. Hungry
13. Tired
14. Adventurous
15. Bashful
16. Careful
17. Firm
18. Gentle
19. Lively
20. Neat
21. Organized
22. Persevering
23. Pleasant
24. Practical
25. Sensible

Appendix J: Pubertal Maturation Scale

*Instructions: Please circle the stage of puberty that your son or daughter is in.*

Girls' Puberty Scale:

Stage	Breast Development	Pubic Hair	Other
1	Pre-Puberty No breast changes	Pre-Puberty No visible pubic hair	
2	Breast Budding	Sparse growth of slightly pigmented hair	
3	Breast tissue grows beyond the pinkish ring around the nipple	Hair is coarser, curled, and pigmented	Acne Underarm hair
4	Nipple and ring around nipple from secondary mound	Has adult characteristics but not as much as an adult	First period
5	Adult-breast—Full growth	Adult hair in quality and quantity	

Boys' Puberty Scale:

Stage	Pubic Hair	Other
1	Pre-Puberty No visible pubic hair	
2	Sparse growth of slightly pigmented hair	Decrease in total body fat; might notice body is getting slimmer
3	Hair is coarser, curled, and pigmented	Voice break Muscle mass increase
4	Has adult characteristics but not as much as an adult	Voice change Acne Underarm hair
5	Adult hair in quality and quantity	Facial hair Muscle mass continues to increase after this stage

Figure 1

*Conceptual Model.*

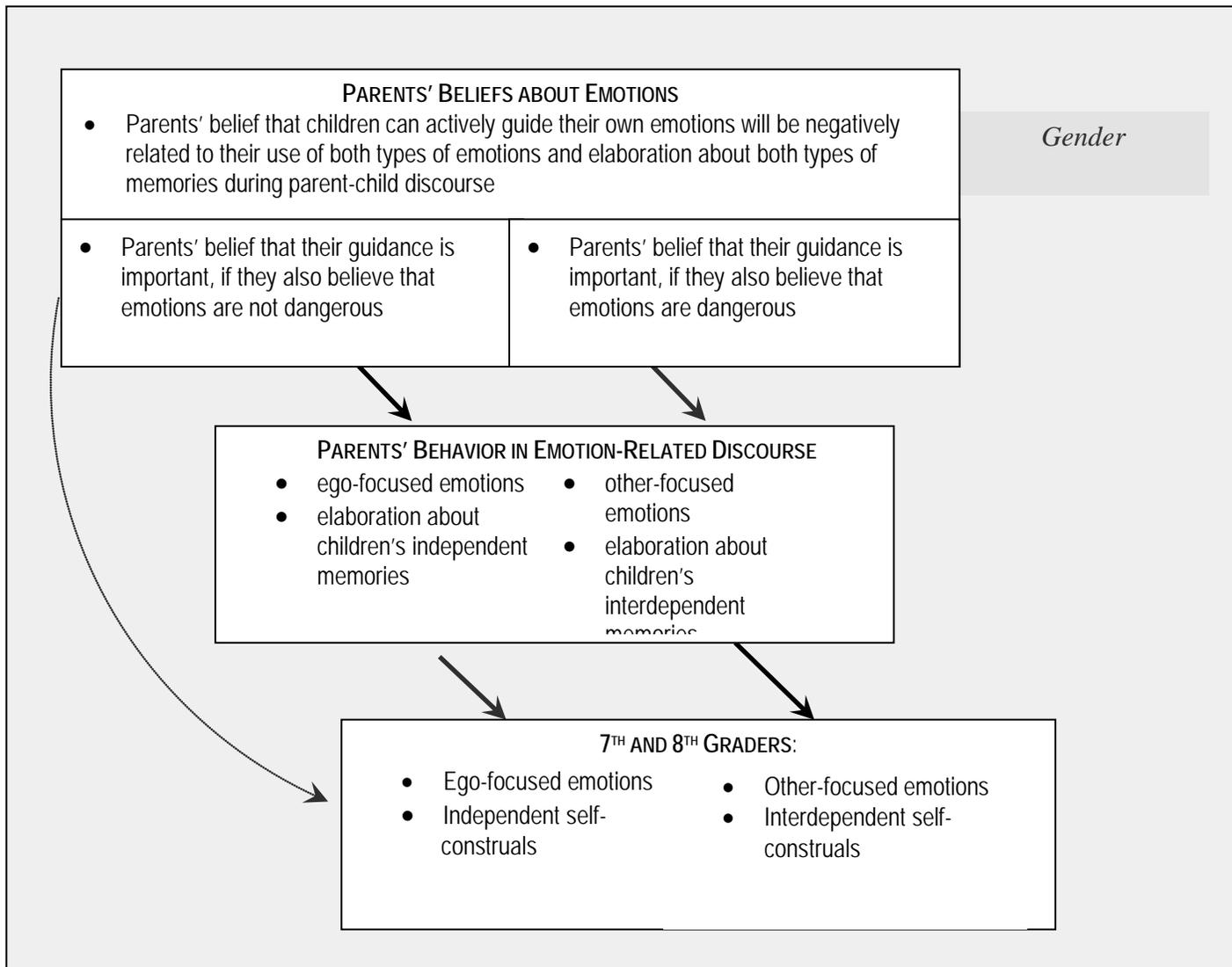


Table 1  
Hypotheses and Evaluation of Conceptual Model

	Hypothesis	Results
1.	Gender differences:	
	a. Girls will include more interdependent traits than boys in their explicit self-description and respond faster than boys to the interdependent traits on the implicit reaction time task	Supported
	b. Parents' beliefs and discourse will be more strongly related to interdependent self-construal for girls and more strongly related to independent self-construal for boys.	Partially supported
2.	Parents' beliefs and parent-child emotion discourse:	
	a. Parents who believe that children can actively guide their own emotions are expected to refer less to both <i>ego-focused</i> and <i>other-focused</i> emotions and to elaborate less about both independent and interdependent memories during parent-child discourse	Partially supported
	b. Parents who strongly believe emotions are dangerous and also strongly believe it is important for parents to guide children's emotions are expected to elaborate more about children's interdependent memories and to introduce more <i>other-focused</i> emotions	Not supported
	c. Parents who less strongly believe emotions are dangerous and strongly believe it is important for parents to guide children's emotions are expected to elaborate more about children's independent memories and to introduce more <i>ego-focused</i> emotions	Not supported
	d. Parents who less strongly believe in guiding children's emotions, regardless of their belief about the danger of emotions, are expected to refer less to both types of emotions and elaborate less about both types of memories during parent-child discourse	Not supported
3.	Parent-child emotion discourse and children's self-construals:	
	a. Parents who elaborate more about children's independent memories and introduce more <i>ego-focused</i> emotions are expected to have children who include more independent traits in their explicit self-descriptions and respond faster to independent traits.	Not supported
	b. Parents who elaborate more about children's interdependent memories and introduce more <i>other-focused emotions</i> are expected to have children who include more interdependent traits in their explicit self-descriptions and respond faster to interdependent traits.	Not supported
4.	Parents' beliefs and children's self-construals:	
	a. Parents who believe that children can actively guide their own emotions are expected to have children who include more independent traits in their explicit self-descriptions and respond faster to independent traits on the reaction time task.	Not supported
	b. Parents who strongly believe emotions are dangerous and also strongly believe it is important for parents to guide children's emotions are expected to have children who include more interdependent traits in their explicit self-descriptions and respond faster to interdependent traits on the reaction time task.	Partially supported
	c. Parents who less strongly believe emotions are dangerous and strongly believe it is important for parents to guide children's emotions are expected to have children who include more independent traits in their explicit self-descriptions and respond faster to independent traits on the reaction time task.	Partially supported
	d. Parents who less strongly believe in guiding children's emotions, regardless of their belief about the danger of emotions, are expected to have children who include fewer interdependent and fewer independent traits in their explicit self-descriptions and respond more slowly to both independent and interdependent traits on the reaction time task.	Not supported

**Table 2**  
*Means, Standard Deviations (SD), and Ranges for All Study Variables*

Variables	Mean	SD	Range
1) Child Age	12.71	.82	11.00-15.00
2) Pubertal Maturation	3.10	1.11	1.00-5.00
3) All emotions are dangerous	2.65	.77	1.12-5.38
4) Parent Guidance	5.09**	.55	3.78-6.00
5) Child Guidance	2.94	.77	1.12-4.88
6) Parents' elaboration to independence	.55	.40	.00-1.00
7) Parents' elaboration to interdependence	.62*	.37	.00-1.00
8) Parent ego-focused emotions	.54	.36	.00-1.41
9) Parent other-focused emotions	.47	.30	.00-1.13
10) Child ego-focused emotions	.23	.26	.00-1.14
11) Child other-focused emotions	.10	.16	.00-1.00
12) Implicit independent RT <sup>+</sup> (ms)	2063.78	680.14	920.50-4077.83
13) Implicit interdependent RT <sup>+</sup> (ms)	1863.18*	599.70	834.92-3492.25
14) Explicit independent	.50***	.13	.14-.74
15) Explicit interdependent	.42**	.13	.12-.67

Note: \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$  for significant gender differences

+ For implicit self-construal RTs, a square root transformation was used to normalize the distribution and scores were transformed to z-scores for analyses. Raw times are reported here for ease of interpretation.

Table 3

*Correlations among Variables for Full Sample.*

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. Child age	1														
2. Pubertal maturation	-.04	1													
3. Parent education	-.31*	.13	1												
4. Emotions are dangerous	.21	-.20	-.34**	1											
5. Children can guide	-.20	.06	.33*	.00	1										
6. Parents need to guide	-.06	-.20	-.36**	.10	-.42***	1									
7. Parent ego emotion	.15	.15	-.09	.04	.04	-.16	1								
8. Parent other emotion	.12	-.11	-.09	-.06	-.05	-.02	.41***	1							
9. Child ego emotion	.13	.27*	-.16	-.14	-.11	-.12	.39**	.28*	1						
10. Child other emotion	.16	.18	-.04	-.13	.03	-.22 <sup>†</sup>	.04	.14	.23 <sup>†</sup>	1					
11. Parent Elab. -Indep.	-.02	-.24 <sup>†</sup>	.06	.07	-.26 <sup>†</sup>	.12	-.07	.03	.02	-.05	1				
12. Parent Elab. - Inter.	-.05	.29 <sup>†</sup>	.09	-.09	-.24 <sup>†</sup>	-.10	-.09	-.05	.01	.15	.12	1			
13. Implicit independent	.06	-.20	.06	-.14	.36**	-.03	.09	.10	-.04	-.12	-.14	-.19	1		
14. Implicit interdependent	.02	-.07	.14	-.28*	.21	.18	.17	.05	-.02	-.06	-.23	.01	.74**	1	
15. Explicit independent	.13	.15	.17	-.13	.17	.16	-.15	-.11	.02	-.10	-.02	.08	-.03	-.05	1
16. Explicit interdependent	-.10	-.24 <sup>†</sup>	-.10	.26*	-.13	.29*	.07	.02	-.13	.04	.01	-.15	.03	.01	-.87**

Note: <sup>†</sup> p<.10, \*p<.05, \*\*p<.01, \*\*\*p<.001

Table 4

*Correlations among Variables by Child Sex*

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Child age	1	.10	-.54**	.23	-.40*	-.08	.39*	.33 <sup>†</sup>	.28	.29	-.17	.10	.12	.18	-.06	-.02
2. Pubertal maturation	-.23	1	-.05	-.18	-.05	-.09	.29	-.15	.19	.37*	-.22	.30	-.19	-.20	.09	-.17
3. Parent education	-.05	.29	1	-.23	.56**	-.38*	-.48**	-.31	-.58**	-.13	-.18	-.12	.12	.05	-.01	.13
4. Emotions are dangerous	.21	-.22	-.42*	1	-.23	.12	-.12	-.04	.01	-.13	.04	.02	-.11	-.18	-.09	.01
5. Children can guide	.01	.12	.08	-.14	1	-.32 <sup>†</sup>	-.30	-.20	-.33 <sup>†</sup>	.03	-.26	-.35 <sup>†</sup>	.35 <sup>†</sup>	.26	-.03	.06
6. Parents need to guide	-.09	-.27	-.26	.10	-.44*	1	-.16	.01	-.05	-.28	.10	-.05	.06	-.06	.06	.07
7. Parent ego emotion	.10	-.03	.27	.12	.35 <sup>†</sup>	-.28	1	.40*	.47**	.12	.01	.17	-.01	.22	-.11	-.02
8. Parent other emotion	-.15	-.02	.16	.09	.15	-.21	.41*	1	.26	.08	.15	.13	.09	.29	-.14	.11
9. Child ego emotion	-.10	-.37*	.34 <sup>†</sup>	.24	.09	-.25	.32 <sup>†</sup>	.30	1	.49**	.40*	.30	-.23	-.14	-.01	-.14
10. Child other emotion	-.11	-.20	.10	-.16	.02	-.15	-.07	.27	-.19	1	-.07	.28	-.21	-.17	-.04	-.02
11. Parent Elab. -Indep.	.21	-.29 <sup>†</sup>	.03	-.12	-.30	.27	-.13	-.06	-.39 <sup>†</sup>	-.02	1	.17	-.02	-.14	.05	-.12
12. Parent Elab. - Inter.	-.15	.22	.18	-.14	-.27	.02	-.25	-.15	-.24	-.01	-.01	1	-.08	-.13	-.32	.20
13. Implicit independent	.01	-.24	-.03	-.17	.35 <sup>†</sup>	-.03	.20	.15	.16	.02	-.30	-.35 <sup>†</sup>	1	.75**	-.23	.24
14. Implicit interdependent	-.21	-.02	.13	-.34 <sup>†</sup>	.07	-.10	.19	-.10	.11	.10	-.49*	-.04	.73**	1	-.30	.38*
15. Explicit independent	.38*	.09	.20	-.14	.16	-.07	-.14	.03	.06	-.26	-.23	.16	.03	-.11	1	-.89**
16. Explicit interdependent	-.22	-.22	-.18	.42*	-.14	.28	.10	.20	-.15	.17	.28	-.25	-.06	-.08	-.72**	1

Note: <sup>†</sup> p<.10, \*p<.05, \*\*p<.01, \*\*\*p<.001; boys above the diagonal, girls below the diagonal

Table 5  
*Standard Coefficients and Standard Errors for Predictors of Parents' Elaboration about Children's Independent Memories*

Step and Variable	$\beta^b$	SE $\beta$	$\Delta R^2$
Step 1:			
Child Grade <sup>a</sup>	-.28*	.11	.09
Step 2:			
Child Guidance	-.20*	.07	.04

<sup>a</sup>Seventh graders=1 and Eighth graders=2

<sup>b</sup>Standardized regression coefficients

\*p<.05

Table 6

*Standard Coefficients and Standard Errors for Predictors of Parents' Elaboration about Children's Interdependent Memories*

Step and Variable	$\beta^c$	SE $\beta$	$\Delta R^2$
Step 1:			
Child Pubertal Maturation <sup>a</sup>	.35*	.04	.19
Gender <sup>b</sup>	-.30*	.09	
Step 2:			
Child Guide	-.31*	.06	.09

<sup>a</sup>Child pubertal maturation on a Likert-scale from 1 (little to no maturation) to 5 (highly matured)

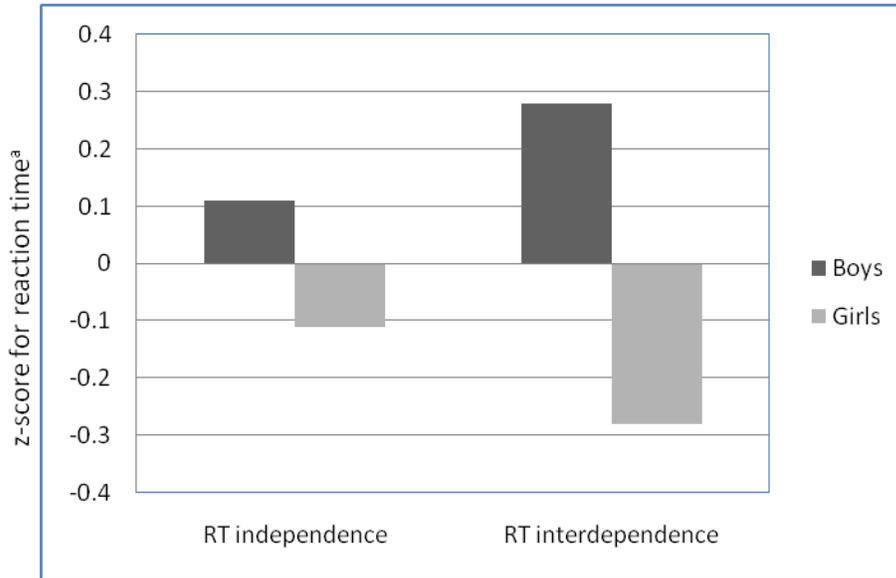
<sup>b</sup>Boys = 1, Girls = 2

<sup>c</sup>Standardized regression coefficients

\* $p < .05$

Figure 2

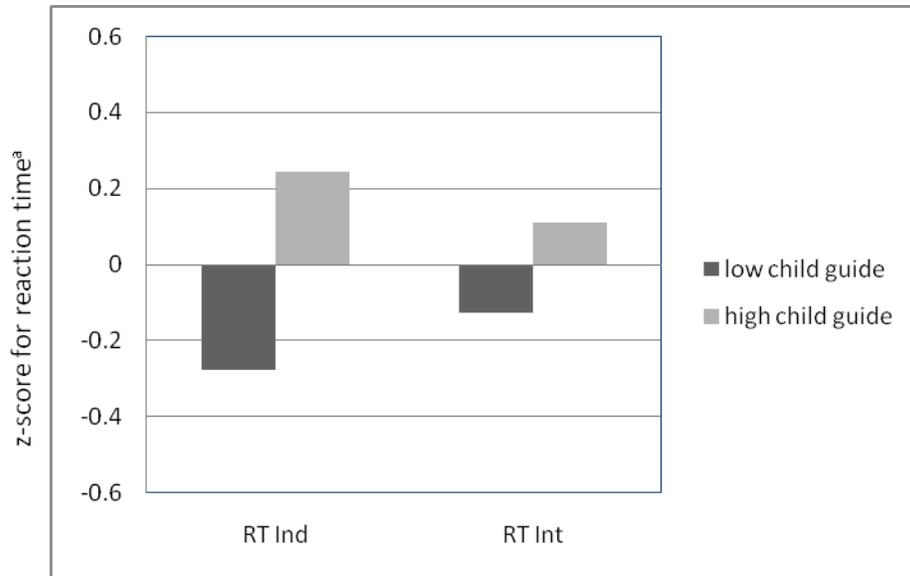
*Girls' reaction time was significantly faster than boys' for both independent and interdependent traits, and the effect was stronger for interdependent traits.*



<sup>a</sup>Negative scores reflect faster processing

Figure 3

*Children of parents low in the belief that children can guide their own emotion socialization showed faster reaction times, especially for independent traits.*



<sup>a</sup>Negative scores reflect faster processing

Figure 4

*Daughters of parents low in the belief that emotions are dangerous and high in the belief that parents need to guide children's emotion socialization reported balanced, explicit bi-dimensional self-construal.*

