THE RELATIONSHIP BETWEEN KOREAN MOTHERS’ COMMUNICATION PRACTICES WITH THEIR CHILDREN AND CHILDREN’S DELIBERATION-RELEVANT COMMUNICATION ABILITIES: EMOTIONAL REGULATION CAPACITY AND SOCIAL COGNITIVE DEVELOPMENT

DISSertation

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Public deliberation occurs everywhere in a today’s Korean society. However, public deliberation does not seem to operate as well as it is expected to. Particularly, public deliberation in the online sphere is frequently marred due to anonymous discussants’ uninhibited linguistic expressions. Hence, this study began with two questions: (1) What causes online public deliberation to malfunction? and (2) how are today’s Korean citizens able to fix the problematic factors to online public deliberation?

With regards to the first question, I assume that a lack of online discussants’ deliberation-relevant communication skills would be the major culprit to damaged public deliberation. With respect to an answer for the second question, I believed that the acquisition of deliberation-relevant communication abilities through parental communication should be the patent medicine to cure injured public deliberation. This study was to investigate the effects of Korean mothers’ communication practices on their children’s emotion-regulative and social-cognitive abilities that are essential properties to develop deliberation-relevant communication abilities. Eighteen hypotheses were established to test relationships between mother-child communication practices and children’s emotion-regulative and social-cognitive abilities. Data were collected with 329 college freshmen and 52 their mothers by using the paper and pencil questionnaire.
The results showed that emotional regulation capacity was positively associated only with the descriptive mode of maternal linguistic expression. Interpersonal construct system properties were positively associated with the interrogative mode of maternal linguistic expression. Perspective taking skill was positively associated with the descriptive mode of maternal linguistic expression. Neither social-cognitive nor emotion-regulative abilities were associated with the imperative mode of maternal linguistic expression.

I also found that perceived problem-solving of mother-child communication, the duration of mother-child communication, and the descriptive mode of maternal linguistic expression were positively associated with mothers’ emotion coaching. Finally, the results showed that perceived problem-solving of mother-child communication was positively associated with the duration of mother-child communication. Perceived problem-solving of mother-child communication was also positively associated with the interrogative mode of maternal linguistic expression. Discussions about these results including implications, limitations, and suggestions for future research were presented in the final chapter.
Dedicated to my father, mother, sister, brother-in-law, and nephew
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CHAPTER 1

INTRODUCTION

An online discussion culture in Korea has developed a new and revolutionized democratic environment. Korean online discussants, called “Netizens,” have become a powerful checking force in providing criticism of social and political issues. They have also formed critical public opinion and offline civic movements by way of online contacts. Even news programs from major broadcasting stations have started to deal with Netizen opinions on current social and political controversial issues. However, from the perspective of deliberative democracy, it is doubtful as to whether Netizens’ communicative processes and outcomes are substantively based on the deliberative reflection of their opinions, for a number of irrational and uninhibited linguistic expression appear in the online discussion spaces. Irrational and uninhibited discussions by some Netizens a so-called “Choding” sometimes reduce online discussions into emotional fighting (also see So, 2005, Dec 27).

I suspect that two factors are involved in these phenomena: (1) The characteristics of the medium in (or through) which communicative interaction occurs; and (2) The communication skills of the online discussants who participate in the discussions.
With regards to the first factor, anonymity and a lack of social and context cues in the online sphere possibly instigate online discussants to use irrational and uninhibited verbal expression when discussants encounter controversial and disagreeable issues. In fact, some researchers have contended that anonymity and a lack of social and context cues in computer-mediated contexts encourage discussants to feel closely related with each other, to coordinate with them and adopt group norms (Postmes, Spears, & Lea, 1998; Spears & Lea, 1994; Spears, Lea, & Lee, 1990; Walther, 1994, 1996, see the SIDE model). Walther (1994, 1996) has also demonstrated that sufficient temporal allowance for online group discussions alleviated the negativity of anonymity and social context cues. However, based on a meta-analysis, Baltes, Dickson, Sherman, Bauer, and LaGanke (2002) have shown that anonymity negatively affects member satisfaction in computer-mediated groups. They have also found that anonymous group discussants take more time than non-anonymous group discussants to make decisions. Along with Hirokawa’s (1988) critical requirements for successful group decision making, Baltes et al. (2002) ascribed the low effectiveness of group decision making in computer mediated settings to the absence of “nonverbals”. That is, communication research findings still support the claim that anonymity and the lack of social context and nonverbal cues by a specific communication medium might, to some extent, negatively affect the outcomes of communicative interactions particularly when tasks require coordination among members’ activities or consensus on issues that are influenced by attitudes or values of the group members (see Strauss & McGrath, 1994; Baltes et al., 2002).

It should be critically important to comprehend and reveal the technological conditions and characteristics of the medium in facilitating deliberative communication.
practices. However, probing the first factor is not the principal interests in this research. Rather, investigation of online discussants’ communication skills is the core purpose of this study. With respect to the second factor of communication skills, I suspect that a lack of social-cognitive abilities, emotional regulation capacity, and argumentative communication skills might disable Korean online discussants from deliberating about disagreeable issues. If Korean children, adolescents, and even young adults do not increase their social-cognitive abilities and do not learn argumentative communication skills and emotional regulation capacity from the first educational entity, their families, and the second educational entity, their schools, it is reasonable to suspect that Korean children, adolescents, and young adults might have a strong tendency to irrationally and emotionally communicate with others in online discussion spheres. Particularly, I argue that the family education system as the primary educational entity in Korea should be the major culprit in terms of generating young adults who are lacking in social-cognitive abilities, emotional regulation capacity, and argumentative communication skills. The reason is because a number of today’s Korean parents appear not to be devoted to their roles of promoting their children’s social-cognitive, emotional, and communicative developments through communicative interactions with their children. Thus it is worthwhile to investigate two following questions: (1) How do Korean parents, particularly Korean mothers, communicate with their children?, and (2) how are mother-child communication practices in Korea significantly associated with children’s social-cognitive abilities, emotional regulation, and argumentative communication abilities, which are essential properties for deliberative communication practices.
For the second question, the relationship between maternal communication and children’s argumentative communication ability will not be examined in this study. Before reviewing the literature on the constructs that are related to the proposed topics in this study, I provide a brief explication of the proposed topics here.

From Aristotle through Jean Jacques Rousseau, and John Stuart Mill to John Dewey and Jürgen Habermas, scholars have made considerable efforts to develop a description of the optimal political mechanism, public deliberative discourse (Bohman, 1996; Conover, Searing, & Crewe, 2002; Elster, 1998; Fishkin, 1995, 1999; Gastil, 2000, 2004; Gastil & Dillard, 1999; Habermas, 1989; Rawls, 1971). Philosophy, community, political science, education, and communication scholars all have participated in this work. However, deliberative discourse has been often viewed as an irrelevant system to modern society by ideologies generated from cognitive-instrumental rationality, mass media, and technocracy (see Dewey, 1954; Goodnight, 1982; Habermas, 1984a, 1984b, Putnam, 2000).

Recognizing the democratic implication of deliberative discourse, recent deliberation theorists have reevaluated the virtues of deliberation and have found the positive effects of traditional face-to-face (FTF) deliberative communication on a variety of social and political issues in modern society (e.g., town meetings, workplaces, civic affiliation groups, jury systems, etc. (Ackerman & Fishkin, 2002, 2004; Bohman, 1996; 1997; Cohen, 1997; Fishkin, 1997; Fishkin & Luskin, 1999; Gastil, Deess, & Weiser, 2002; Gastil & Dillard, 1999; Mendelberg, 2001; Mendelberg & Obleske, 2000; also see Burkhalter, Gastil, & Kelshaw, 2002). However, they have also acknowledged that it is fairly infeasible for today’s citizens to be able to have access to traditional FTF
deliberative communication in physical space, reasoning that today’s citizens lack the
temporal and financial capacities to be engaged in traditional FTF deliberative
discussions (Etzioni & Etzioni, 1999; Groper, 1997; N. H. Kline, 1999; also see Brady,
Verba, & Schlozman’s (1995) SES resource model). Thus recent political science and
communication researchers have devoted considerable attention to online discussion as
an alternative public sphere to traditional FTF discussion for deliberative discourse.
Online discussion spheres such as online discussion communities, forums, chat rooms,
electronic bulletin boards, etc. are conceived as a revolutionized public sphere for the
public’s deliberative discussions, for they enable the public to easily participate in social
and political discussions and movements regardless of temporal and financial restrictions
(Blanchard & Horan, 1998; Dutton, 2002; Price, Cappella, & Nir, 2002; Putnam, 2000;
Turner, Grube, & Meyers, 2001; Wallace, 1999; Weger & Aakhus, 2003; Wellman &
Gulia, 1999; Wilhelm, 2000).

However, I suspect that whether today’s citizens who are engaged in online
discussions deliberatively discuss controversial problems and that they are able to
generate consensual solutions to problems. This suspicion comes from the structural
features or affordances of online discussion spaces such as anonymity and a lack of
physical and social context cues (Doctor & Dutton, 1998; Lee & Nass, 2002; Sypher &
Collins, 2001; Walther & Burgoon, 1992). According to the engineering perspective,
anonymity and a lack of the physical and social context cues tend to reduce normative
social influence that regulates discussants’ communicative behaviors, which ignites
flammable communication (Kiesler & Sproull, 1992; Siegel, Dubrovsky, Kiesler, &
McGuire, 1986). That is, the technical settings in the online discussions have the
potential to stimulate discussants to disregard the other’s face and express their uncontrollable emotions without hesitation. Some researchers have presented several internal regulation systems (e.g., netiquette, cooling-down system, controlled filtering mechanisms, etc.) in order to control uninhibited communication, or flaming\(^3\) (Baym, 1995; Dahlberg, 2001; Doctor & Dutton, 1998; Etzioni & Etzioni, 1999; Pfaffenberger, 1996; Sypher & Collins, 2001). However, most presented systems do not effectively control undesirable communication patterns.

For the purpose of confirming whether uninhibited communication has in reality occurred on Korean electronic bulletin board discussions, I analyzed a transcript of the electronic bulletin board (EBB) discussion in a real EBB of an AGORA discussion room at the DAUM portal website. First, an eyeball analysis of the discussions showed that a number of abusive and uninhibited interactions occurred in the EBB of the AGORA discussion room. Second, I retrieved and analyzed one transcript from the EBB discussion, which dealt with a topic of “teachers’ physical punishment to elementary school students.” The frequency of anonymous discussants referring to (or clicking) this posting was 51421 (at present), which demonstrates that many anonymous online discussants were enormously interested in reading an important social issue. These higher numbers of clicking the posting also imply that numerous online users have paid greater attention to the social issue presented in online discussion spaces. Each number of short and long reply postings to the original posting was respectively 344 and 33. Although the number of reply postings to the original posting is far fewer than that of discussants’ clicking the original posting due to presumably many lurkers, the number of replying postings still represent that reasonably many online discussants were virtually
engaged in communicative interactions in online discussion spaces. Finally, among 33 long reply postings, I selected a transcript of one posting and analyzed it. A modified version of the measure of Thompsen and Foulger’s (1996) of five negative socioemotional interactions (i.e., divergence, disagreement, tension, antagonism, and profane antagonism) was used for coding. Instead of using a 5-point Likert scale for each category, I coded a complete thought or change of thought as a unit of coding into five ranked negative socioemotional interactions (1 = divergence, 2 = disagreement, 3 = tension, 4 = antagonism, and 5 = profane antagonism). The result supported my expectation that anonymous online discussants were very likely to use abusive words or expression to other discussants. Among 37 thoughts, no thought was put into a category of divergence. Six thoughts were associated to a category of disagreements, while 11 thoughts were related to a category of tensions. Ten thoughts each were respectively categorized into antagonism and profane antagonism. This finding confirms that a substantial amount of uninhibited communicative interactions occurs in Korean anonymous online discussions.

Given that uninhibited communicative interactions have been viewed as either “electronic emotion” (Rice & Love, 1987) or “the expression of strong and uninhibited opinions, consisting of extreme emotional behavior expressed through uninhibited speech,” (Castella, Abad, Alonso, & Silla, 2000, p. 143) or “a form of negative self-expression and may be invoked by hostile messages,” (Alonzo & Aiken, 2004, p. 208) managing emotional states in a controlled way should be better important to reduce obnoxious communicative interactions and construct conditions for deliberative discussion.
With respect to values of emotion, some communication researchers have already suggested that emotional states and non-strategic thoughts are as important as rational cognition and strategic thoughts in conversational behaviors (Cegala & Waldron, 1992; Waldron, 1990; Waldron & Applegate, 1994; also see Wilson, 2002). Moreover, since Korean culture is conceived as considerably emotional, I assume that Korean discussants’ emotional states and management should have the potential to influence their rational thinking and reason-giving more than discussants in other countries.

Some communication researchers have recently diverted their attention from the effects of social perception skills to the effects of emotion on social-cognitive and perception skills (Burleson & Planalp, 2000; Wilson, 2002). Burleson and Planalp (2000) and Wilson (2000) have recently asserted that emotion is considered as an underlying force that influences social-cognitive knowledge and perspective-taking. They have maintained that emotional regulation capacity should be an important communicative skill to develop persuasive messages in certain contexts, on the grounds that (1) emotions themselves indicate a complex of physiological, psychological, and behavioral tendencies (Burleson & Planalp, 2000); (2) emotions expressed verbally and nonverbally during influence interactions may affect criteria for using and suppressing arguments; and finally (3) regulating emotions may be a secondary goal in constraining communicative behaviors to achieve primary influence goals (see Dillard, Segrin, & Harden, 1989). In this respect, if emotional regulation capacity is significantly important in deliberative communication, the next question should be: “Where and how (should) do people learn these emotional regulation strategies to develop their emotional regulation capacity?” For this question, I assert that emotional regulation strategies and instructions
might be learned from parental communication. Thus the first objective of this study is to examine the educational role of parental communication, particularly maternal communication, in the development of young adults’ emotional regulation capacity.

In contrast with the engineering perspective, a perspective on communicative interaction puts more emphasis on individuals’ communicative skills and social contexts than on the structural features of the medium for understanding online communicative processes. Constructivist researchers have found that diverse reflection-enhancing and person-centered communication strategies such as strategies to generate persuasive, comforting, regulative and reflective messages were positively affected by social-cognitive abilities. Constructivist researchers such as Clark and Delia (1976) and Delia, S. L. Kline, and Burleson (1979) have found that social-cognitive systems and perspective taking skill were significantly related to persuasive argument strategies. For instance, Clark and Delia (1976) found that older children were likely to use higher-order and more diversified request and support strategies, which reflected more advanced modes of perspective taking than did younger children. Delia et al. (1979) found that social-cognitive systems such as interpersonal construct complexity and abstractness significantly affected persuasive communication strategies. Some communication researchers have also asserted that social-cognitive systems and perspective taking skill were relevant properties to generate comforting messages for relieving emotionally distressed others (Burleson, 1982b; Burleson & Samter, 1985; Delia & Clark, 1977). For instance, along with the finding that the levels of sophisticated comforting communication skills increase substantially with increasing age, Burleson (1982b) has claimed that affective perspective taking significantly influences the use of more
sophisticated comforting strategies, reasoning that “sensitive comforting of a distressed other implies the abilities to recognize emotional states, perceive the reasons for these states, and understand how the other views the affectively charged situation” (p. 1586). Along with confirming Wernerian developmental theory, Delia and Clark (1977) also noted that making inferences of particular listener characteristics from social-cognitive systems was a necessary precondition for employing adapted communication strategies.

Given that constructivists have demonstrated that social-cognitive knowledge structures significantly affect regulative, comforting, and persuasive message production strategies which should be important properties to help discussants to deliberatively discuss, it should be critically important to investigate what factors will contribute to development of discussants’ social-cognitive properties. Applegate, Burke, Burleson, Delia, and S. L. Kline (1985) proposed that a parent’s person-centered, reflection-enhancing regulative and comforting communication with their children would facilitate children to elaborate their schemas to differentiate other’s psychological experience. Applegate and Delia (1980) found that individual differences in interpersonal constructs occurred through exposure to psychologically centered socialization practices. Burleson (1989) has argued that since a number of studies have found that highly person-centered messages are more effective than less person-centered strategies in terms of achieving a variety of communication goals, it is desirable to develop training programs for promoting person-centered communication. Burleson, Delia, and Applegate (1995) claimed that parental person-centered mode of communication play a significant role in socializing children’s social-cognitive and communicative orientation.
Thus along with asserting that parental emotional communication practices play a significant role in children’s development of emotional regulation capacity, I also assert that parental, in particular, maternal person-centered and reflection-enhancing communication practices with children should play an important educational function in the development of children’s social-cognitive abilities and communicative performances. Thus, the second objective of this study is to investigate how Korean mother-child communication practices will influence children’s social-cognitive abilities.

However, educative interactions through parental communication hardly appear to occur in Korean home environments. It is not unusual that a good amount of Korean elementary, middle, and high school students attend at least two or three private institutes to learn English, math, computer use, piano playing, writing, etc (Yoon, 2005). In addition, immediately after coming back from school and private institutions, they are indulged in either watching TV or playing computer games due to their parent’s absence at home. Simply put, they may not be able to talk with their parents. I contend that intensive private education systems cause not only financial burden of the family but also lesser parental communication with children due to the tight working schedules of children. A parent who has two elementary school students has to pay around 1,000 Dollars for their child’s private education such as English, writing, math study. Similarly, a parent who has middle and high school students has an expense of private education from 300 to 1,000 dollars (Yoon, 2005).
A more serious problem which I believe exists is that Korean parents seem to regard their children’s private education to be more important than their parent-child communication, even though parent-child communication plays critically important role in the development of children’s social-cognitive, emotion-regulative, moral-reasoning, and communication abilities.

The other problem, I believe, concerns the types of communication practices that exist between parents and their children. Even though parent-child communication occurs, children do not appear to develop their social-cognitive and emotional abilities through communication because they are accustomed to hearing the same imperative mode of linguistic expression such as “Study hard,” “Do homework,” “Clean your rooms,” etc. (Jeong, 2005). Due to their parents’ imperative and command modes of linguistic expression and their expectation of their children’s obedience to parents’ authority, rules, and restricted codes, children may not be able to learn a variety of communicative strategies and develop their social-cognitive knowledge structures (see Applegate & Delia, 1980; Applegate, Burleson, & Delia, 1992; Bernstein, 1971/1974; Chaffee, McLeod, & Wackman, 1973; Hoffman, 1975; Fitzpatrick & Caughlin, 2002; Koerner & Fitzpatrick, 1997a). Moreover, Korean children are inclined to form a negative attitude against their parent’s imperative mode of linguistic expression because children are more likely to consider it as interference than affection in their lives. In other words, parents’ communicative education in the socialization of children’s social-cognitive and communicative orientation with children does not appear to work well in today’s Korean home environment. Of course, considering that cultural differences may exist in parenting styles between western and oriental countries, we should be cautious in
evaluating Korean parenting styles with a yardstick of western parenting styles. However, it is challenging to investigate whether positive attributes of parenting styles in western counties such as reflection-enhancing and conversation-oriented parental communication may positively influence children in oriental countries. Consequently, some Korean children are likely to lose a precious opportunity to develop their social-cognitive, emotional, and communicative abilities, which they are supposed to learn through parental communication. Thus the third objective of this study is to demonstrate the effect of mother-child communication practices, particularly modes of maternal linguistic expression on children’s emotional regulation capacity and social-cognitive system development.

To summarize, along with a brief of explication of the reason why emotional management should be seriously considered within the context of online deliberative discussion, I establish the first objective of this study: examination of the educational role of maternal communication in the development of young adults’ emotional regulation capacity. Second, with a brief introduction of an educative role of parental communication in the socialization of children’s social-cognitive and communicative orientation, a second objective is established: investigation of the effect of Korean mother-child communication practices on children’s social-cognitive abilities. Third, along with introduction of the problems of a lack of communicative interaction and a certain undesirable mode of parents’ linguistic expression with their children in today’s Korean home environment, the final objective is constructed: demonstration of the effect of modes of maternal linguistic expression on children’s emotion regulation capacity and social-cognitive system development.
CHAPTER 2

LITERATURE REVIEW

This literature review consists of two parts. First, I will review the social and political values and benefits of deliberation to contemporary society and then compare and contrast the existing concepts of deliberation. Second, I will review how mother-child communication, social-cognitive and emotion-regulative abilities are systematically associated with deliberation. The second part comprises three sub-parts. First, I will review a tradition of constructivist research to investigate how social-cognitive abilities such as interpersonal cognitive systems and perspective taking skill play an important role in development of individuals’ communicative strategies of diverse message production. I will also examine how maternal communication practices have a significant impact on children’s social-cognitive abilities. Second, given that emotion and emotional regulation capacity have been conceived as a powerful psychological force to development of social-cognitive knowledge structures as well as communication skill, I will introduce the concepts of emotion, emotional regulation capacity, and parents’ emotion coaching. Finally, I will review two perspectives of parenting styles and the educative role of person-centered or reflection-enhancing parental communication in children’s social-cognitive development and communication skill as well.
2.1 Deliberation and Deliberative Democracy

Many political philosophers and communication researchers have applied Habermas’s critical perspective and his theory of communicative rationality in constructing their theoretical bases for deliberative democracy. First, Habermas (1971) claims that accumulation of knowledge by cognitive-instrumental rationality no longer enables modern citizens to approach truth (also see Burleson & S. L. Kline, 1979). He reasoned that (1) empirical and analytical knowledge is used by power elites to maintain their social, economic and political hegemonies, and (2) empirical knowledge generated by cognitive-instrumental rationality prevents citizens from having access to true knowledge. Thus Habermas (1971) believed that citizens need to develop an emancipative knowledge through self-reflective and communicative rationality in order to enable them to identify and free themselves from the ideological control and oppression of cognitive-instrumental rationality. Following Habermas’ (1971, 1984a, 1984b) critical approach, philosophers such as Bohman (1996), Rawls (1971), and Gutmann and Thompson (1996); and political scientists such as Page (1996), Putnam (1995, 2000); communication researchers such as Delli Carpini, Cook, and Jacobs (2004), Ackerman and Fishkin (2002, 2004), Fishkin (1995, 1999) and McLeod et al. (1999) have critically acknowledged that public deliberative discourse is harnessed by mass media and power elites to prevent the public from learning facts and truths and having needed deliberative discussion on important social, political, and cultural issues and events. In this respect, Habermas’s perspective of self-reflective and communicative rationality provides a foundation for communicative reason-giving and deliberation.
Second, Habermas (1984b), from the perspective of the critical tradition, introduced two oppositional entities that comprise society: (1) system (i.e., a social entity consisting of apparently autonomous institutions and organizations that become connected with each other via the delingusitized media of communication\textsuperscript{4}), and (2) lifeworld (i.e., a multidimensional concept encompassing the structural components of cultural reproduction, social integration, and socialization) (Habermas, 1984b). Habermas (1984b) proposed that citizens’ intersubjective discourse through communicative and reflective rationality in the lifeworld should play a role in disclosing key semantic contents from ideologies generated by the system. In order to create and guarantee citizens’ intersubjective discourse, Habermas used a perspective of universal pragmatics to assert that linguistically competent speakers who rationally reconstruct the dialogue-constitutive universals, or linguistic structures of intersubjective communication can mutually understand shared situations (also see Burleson & S. L. Kline, 1979). Habermas also emphasized normative conditions such as equality to have access to the public sphere, and freedom to make arguments. Because Habermas’s normative conditions influence citizens’ conception of accountable justice, equality and freedom will significantly affect citizen’s deliberative discussions.

Finally, from critical and communicative perspectives, Habermas (1984a) claimed that citizens’ warrant-establishing arguments with communicative rationality and actions would be the most optimal apparatus to revitalize justification of knowledge and truth. Through the practice of various forms of argumentation embedded in reasons that are related systematically with the validity claim of a problematic expression, citizens are likely to criticize validity claims and redeem them with “a rule of inference” (p. 26). In
the process of redeeming validity claims, Habermas (1984a) contends that arguments that are supported by evidence of different kinds, or with different “backing” or “grounding” have a genuine power to uncover truth.

2.1.1 Why Deliberation?

Why have political philosophers, political scientists, and communication scholars paid extensive attention to deliberation and deliberative democracy? I suspect that these scholars consider deliberation and deliberative democracy to be the ultimate tool and system to enable citizens to make their own justified decisions to control their own lives, and finally, to enhance their citizenship and development of a common will in democratic communities through rational argumentation and mutual respect (Conover et al., 2002; Deli Carpini et al., 2004; Kim, 1999; Kim, Wyatt, & Katz, 1999; McLeod et al., 1999; Mendelberg, 2001).

The values of deliberation stem from a principle of democracy, which is that citizens can resolve problematic situations and acquire their interests and needs through coordination with other citizens by utilizing face-to-face dialogue, or communication (McLeod et al., 1999). That is, a process of deliberation is to resolve conflicting situations with communicative acts and reach accommodative solutions to controversial problems. Under Habermas’s (1984a) assertion that conflict resolution should be accomplished through language use, or communicative acts, some deliberation theorists have asserted that conflict resolution must be a primary goal in the process of deliberation and the deliberative process should be executed by communication actions such as dialogue, discourse, arguments, speech, etc. (Bohman, 1996; Muhlberger, 2000, K. A. Pearce & W. B. Pearce 2001, also see Stewart, 1978). Kim et al. (1999) contends that
deliberative democracy is based on a discursive system in which discourse might play a primary role in sharing information, talking about issues, constructing opinions, etc (also see Conover et al., 2002).

2.1.2 Benefits of Deliberation

As seen above, deliberation as a communicative practice enables citizens to contribute to development of a healthy democratic system. I will take a closer look at more benefits of deliberation to today’s society in the following. Four specific benefits of deliberation can be synthesized from the literature. First, deliberation enhances citizenship in today’s society. Deliberative democracy is regarded as a more advanced democratic system compared to representative democracy (Chambers, 2003). Compared with representative democracy in which citizens’ official political behaviors such as voting and participation in political campaigns are the staple issues, deliberative democracy invites citizens to generate opinions about public political issues with interactive communication. Through giving accounts, or accountability, citizens can publicly articulate, explain and justify public policy (Bohman, 1996; Gutmann & Thompson, 1996; also see Chamber, 2003). Second, more deliberative communication practices enable citizens to enhance their communicative rationality and persuasive message production strategies (see Bandura, 1986; Gastil & Dillard, 1999). Through deliberative discourse, citizens have an opportunity to learn how to express their opinions, listen to and understand other citizens’ opinions, and make inferences about links among political beliefs (Gastil & Dillard, 1999). Citizens can clearly analyze oppositional positions, accurately make reasonable judgments on oppositional positions’ logical grounds and critically develop appropriate and reasonable arguments against or for other
people's assertions. Citizens who are exposed to diverse viewpoints on controversial issues have the greater potential to develop persuasive message production strategies in order to effectively persuade people with opposing positions to accept their opinions or at least coordinate with their opinions (see S. L. Kline, 1991). Consequently, citizens who are well equipped with communicative rationality and persuasive message production strategies might be able to compromise conflicting perspectives with others. By utilizing appropriate persuasive communication skills such as presenting credible evidence, relevant warrants and valid claims, citizens can minimize the number and dimensions of conflicting issues on which they disagree and maximize coordinative and cooperative viewpoints (Gutmann, 1993, Knight & Johnson, 1997; also see Toulmin, 1958). Bohman (1996) also believes that deliberation has the greater potential to improve the epistemic quality of political justification by assigning citizens to a wide range of possible alternative opinions.

Third, deliberation helps citizens to change their attitudes and behaviors based on more relevant knowledge and perspectives. K. A. Pearce and W. B. Pearce (2001) have stated that citizens can discover the group embedded values that relate to “a small array of proposed action steps” (p. 119) through deliberation as a dialogue process. After identifying the basic values underlying issues, citizens critically evaluate them. Through this deliberative process, citizens accumulate relevant knowledge and acquire a better informative perspective about problematic situations, which makes them be willing to change attitudes and behaviors (Barber, 1984; Gastil, 2000; Gastil et al., 2002).

Finally, increases in the public’s active deliberative behaviors will increase the community’s social capital (Fishkin, 1997; Putnam, 2000; Wuthnow, 1994). Citizens
might have numerous opportunities to enlighten themselves through acquisition of
diverse information during attendance at public deliberation spaces (see Gastil, 2000;
Gastil et al., 2002; Habermas, 1984a; Mendelberg, 2001). Given the benefits of
deliberation and deliberation democracy for citizens’ lives, I will now examine more
closely how deliberation theorists understand and conceptualize the concept of
deliberation.

2.1.3 The Concept of Deliberation

Many deliberation theorists have emphasized components of deliberation such as
rational argumentation, coordination, reciprocity, mutual respect, consensus, etc.
(Bohman, 1996; Dryzek & List, 2003; Gutmann & Thompson, 1996; Habermas, 1984a;
Rawls, 1971; Simon & Xenos, 2002). Some deliberation theorists have asserted that
these several components of deliberation are executed through language use that plays a
driving force in revitalizing citizens’ non-coercive and justified decision-making
processes of public issues. For example, Bohman (1995) claimed that dialogue as
everyday talk should be relevant communicative actions, while Habermas (1984b) has
asserted that discourse based on communicative rationality should be appropriate speech
acts for citizens’ deliberative practices, or citizens’ justified, trustworthy, truthful, and
non-coercive decision-making processes. Under the umbrella of communicative action, I
will extract common dimensions from several well-known conceptual definitions of
deliberation and synthesize them in order to establish a working conceptual definition of
deliberation.

2.1.3.1 Reasonable argumentation. The first component of deliberation is
argumentation. Some deliberation and communication theorists have considered
argumentation including reasonable disagreement as one of the most crucially important components of deliberation (Benhabib, 1996; Gamson, 1992; Gutmann & Thompson, 1996; Habermas, 1984a, 1989; Infante & Rancer, 1986; Mendelberg & Oleske, 2000; Price et al., 2002). Argumentation theorists consider argumentation as “a form of language which is in principle designed to convince other language users of the acceptability or unacceptability of a given expression … opinion” (van Eemeren & Grootendorst, 1984, p. 4). Van Eemeren and Grootendorst claim that argumentation has “a specific communicative and interaction function” (1984, p. 4). Habermas (1984a, 1984b, 1989) has adopted similar ideas in his communication action theory that rational people can criticize others’ questionable validity claims with sound reasons or rationality. In other words, Habermas (1984a, 1989) has argued that rational people could justify their communicative actions with appropriate evidence. Habermas believed that only argument or argumentative discourse\(^6\) is the type of speech in which people can reach understanding about social issues and reach consensus. Dryzek and List (2003) also asserted that individuals, as members of a community and a society, would be willing to reflect on their arguable positions and change them. Through a reflective process of arguments based on criticizable validity claims, people’s “normatively regulated actions and expressive self-presentations” (Habermas, 1984a, p. 15) can be legitimately justified.

With respect to the value of argumentation in deliberation, several prominent political philosophers and political scientists also have claimed that argumentation or argumentative discourse should be the most critical component in the facilitation of the public’s deliberation (Arendt, 1958; Bohman, 1996; Conover et al., 2002; Gutmann & Thompson, 1996). However, their focus on argumentation is not about the mechanism of
communicative practices such as communicative strategies for reason-giving but about
the effect of argumentation such as obtaining and organizing new knowledge and
perspectives. Instead of analyzing communicative practices, Gutmann and Thompson as
political philosophers (1996), for example, have maintained that argumentative discourse
enables citizens to promote their impartiality and expand the scope and scale of their
thoughts through contact with different viewpoints. However, along with systematically
analyzing Habermas’s theory of communication, Burleson and S. L. Kline (1979)
understand argumentative discourse as communicative interaction. First, by explicating
Habermas’s dialogic-constitutive universals of intersubjective communication, and his
extension to Austin’s (1962) and Searle’s (1969) analyses of the speech act, Burleson and
S. L. Kline (1979) assert that understanding of a speech act that is composed of “a
performative verb expressing the speaker’s action with reference to some propositional
contents” (p. 415) is a fundamental step to account for a relationship between a speaker
and a listener within a certain relational context. Second, Burleson and S. L. Kline
(1979) assert that Habermas’s four validity claims that correspond to four categories of
performative verbs provide criteria to differentiate “the forms of knowledge produced
through rhetoric” from “the means of assessing the validity of that knowledge” (p. 428).
Third, if truth claims and claims to normative appropriateness are problematic, “the
supposition of mutual accountability (i.e., the ability to provide good reasons or
arguments for one’s position)” (Burleson & S. L. Kline, 1979, p. 418) resolves the
problematic claims in argumentative discourse. However, due to systematically distorted
communication that occurs through a neurotic disturbance or ideological communication
structures, Habermas recognizes that a sound consensus may be hardly guaranteed in the
empirical world. Thus Habermas asserts that people in an open minded system should freely move back and forth between the different levels of discourse, critically examine facts and validity claims and self-reflectively evaluate knowledge.

To facilitate effective argumentation including reasonable disagreement, it should be necessary to align one’s own views about disagreeable issues with others’ views. This communicative process of alignment between one’s own views and others’ view is viewed as the second component of deliberation.

2.1.3.1 Coordination. Claiming that deliberation is an ongoing, cooperative, and joint activity with the social action of dialogue, Bohman (1996) defined deliberation as “a dialogical process of exchanging reasons for the purpose of resolving problematic situations that cannot be settled without interpersonal coordination and cooperation” (p. 27). Communicants provide evidence of their understanding of others’ meaning (Clark & Schaefer, 1989). They change their content and form of the communication based on the other’s communicative action. The giving and taking process of communication is called a process of grounding, or a collaborative communication process in which people develop “shared information, mutual knowledge, mutual belief, and mutual assumption” that the subjects have understood what has been offered to a criterion sufficient for current purposes (Clark, & Brennan, 1991, p. 129). In a similar line with Clark and Brennan’s concept of a process of grounding, Habermas has asserted that communicative coordination fundamentally allow citizens to reach intersubjective understanding about social issues. From the perspective of communicative coordination, S. L. Kline (1991) used the term of “symbolic-coordination,” or “the process in which “people use speech and argument to create alignment between the persuadee’s views with one’s own views”
S. L. Kline (1991) claimed that a symbolically coordinated communicative action occurs in which people conceptualize the problem by using speech and argument to construct the problem with mutually held values and full descriptions. She also asserted that a coordinated communicative action occurs when people defend a proposal of the problem by using argument to emphasize appealing appropriateness and justification of a proposal to the persuadee’s views with explicit negotiation (S. L. Kline, 1991).

Habermas (1984a), Clark and Brennan’s (1991) and S. L. Kline’s (1991) assertions suggest that coordination is the fundamental communicative process to erect mutual understanding about a problem and facilitate the other parties to reflect on the conceptualized problem and proposed solutions.

Coordination is directly related to autonomy and equality in argumentative discourse, reasoning that recognition of other parties’ independent views based on granting legitimacy to their autonomous statuses is prerequisite to coordinated communicative interaction. In order to have autonomous, or non-coercive argument, Habermas (1984a) has asserted that citizens need to reach a common understanding with each others’ opinions along with shared definitions of the situation and coordinate with them within an underlying normative framework. Using Habermas’ communication theory, Muhlberger (2000) proposed that the concept of deliberation derives from the need to non-coercively coordinate with other people to resolve conflicts. In other words, Muhlberger has asserted that the fundamental function of deliberation is to minimize inadequate coordination, or conflict, in order to reach mutually acceptable solutions to problems.
In this respect, mutual understanding of others’ opinions through the communicative use of language, as Gutmann and Thompson’s (1996) and Habermas (1984a, 1989) have emphasized, might play an underlying role in enhancing people’s abilities to produce a healthy consensus in problematic situations. With overview of several different theoretical traditions about perspective-taking research (see, Flavell, 1968; Bulumer, 1969), Burleson (1982) claims that “the possibility of coordinated social action depends on the individual’s capability to “take” (i.e., imaginatively construct) the perspective of others” (p. 473). Through perspective taking, people can effectively generate the form and content of a message adapted to the other’s view and maintain coherence (Delia & B. J. O’Keefe, 1979). Thus I assume that perspective taking should be one of the fundamental deliberative communication capabilities that people need to acquire. Acceptance of autonomous status as a necessary condition for coordinative communication is also important in reciprocity as the third core component of deliberation.

2.1.3.3 Reciprocity. Reciprocity, as the third staple component of deliberation, is more or less related to coordination as the second component of deliberation. From a sociological perspective, reciprocity is referred to as “a mutually contingent exchange of benefits between two or more units” (Gouldner, 1960, p. 164). Street (1988) conceived reciprocity as “A and B performing similar behaviors within a given time period or in some temporal contingency to one another” (p. 145). When reciprocity occurs, the reciprocal behaviors are not necessarily identical but may be functionally equivalent.

Gutmann and Thompson (1996) understand reciprocity as the citizens’ capacities to “seek fair terms of social cooperation for their own sake” to be able to provide
mutually justifiable and acceptable reasons that surpass their egocentric interests (pp. 52-53). Providing reciprocal justifiable reasons has the implication of granting validity to the results of deliberation efforts. Gutmann and Thompson (1996) have also asserted that reciprocity is an underlying principle that guarantees citizens’ autonomous power, which enables citizens to account for public issues to everyone else (also see Conover et al., 2002). Williams and McGee (2000) have argued that coercive strategies which hurt individuals’ autonomy ultimately hinder deliberative negotiation. With respect to the relationship between the reciprocity of deliberation and pluralism, Chambers (2003) has claimed that reciprocal recognition should play an important role in achieving common agreement even in the context of diverse viewpoints. Williams and McGee (2000) also maintain that establishing trust and mutual respect should be of paramount important in deliberation.

2.1.3.4 Mutual respect. Mutual respect as the fourth component of deliberation is also an underlying principle that facilitates coordination and reciprocity. Gutmann and Thompson (1996) have stated that maintaining mutual respect for others’ opposing views and opinions should encourage people with diverse perspectives to reciprocally present justifiable arguments. Conover et al. (2002) posited that mutual respect embedded in listening to and hearing others’ opinions might play an important role in motivating people to attend to deliberative discussion. K. A. Pearce and W. B. Pearce (2001) have presented a comprehensive concept of listening that involves several cognitive and communicative activities, including “hearing, remembering, interpreting, paraphrasing, reflecting, summarizing, and asking exploratory and explanatory questions” (K. A. Pearce & W. B. Pearce, 2001, p. 113). In listening, listeners with an open-minded
posture allow a speaker to complete his or her thought. K. A. Pearce and W. B. Pearce (2001) hold that listening is an important precondition for dialoguers to be able to participate in a rich and successful dialogic conversation.

According to research on listening, two types of listening should be suited to deliberation. One is critical listening, while the other is empathic listening. From a review of empathic listening literature in speech communication, Arnett and Nakagawa (1983) found that the empathic listeners are willing to induce “the psychological intentions or internal states of the speaker” for reconciling the presumed separation between two independently existing subjects. Arnett and Nakagawa (1983) also found, however, that a pivotal point in empathic listening should not be “internal states of the speaker” but meaning generated from the relational system between partners, which is in accordance with a phenomenological and hermeneutic dialogue. Arnett and Nakagawa (1983) maintain that empathic listening plays a complementary role to critical listening. Listening to others’ different viewpoints has implications for respecting others’ opinions, which leads people to be willing to express their opinions and learn others’ views (Bohman, 1996; also see Burkhalter et al, 2002; W. B. Pearce & Littlejohn, 1997). Park (2000) asserts that ‘listening together’ should be a fundamental virtue of deliberative democracy in that listening to others’ views may contribute to fair terms of cooperation and the development of civil communities. Gastil (2000, 2004) also believes that mutual respect embedded in careful listening plays a crucially important role in elaborating the quality of deliberative arguments.

2.1.3.5 The most universally defensible accommodation. Fifth, some deliberation theorists have argued that the outcome of deliberative discussion such as consensus or
overlapping consensus by either unanimity or a majority rule should be considered since
deliberative discussion is a type of decision-making process. For example, Rawls (1971)
believes that people can achieve “overlapping” consensus on contested issues for citizens
regardless of their levels of communicative rationality as long as citizens are equipped
with minimum communication resources to enable them to express their arguments.
Rawls (1971) argues that people could reach “overlapping” consensus through
deliberative discussion, reasoning that although individuals had pluralistic views and
opinions on a specific issue, they might be able to reach overlapping consensus
considering that they had rational commonalities on the issues. Habermas’s argument is
somewhat stricter than Rawls’s in terms of the level of consensus. Habermas (1984a)
believes that citizens equipped with communicative rationality definitely could
accomplish consensus on argumentative issues as long as an acceptable normative rule
was firmly established. However, Chambers (2003) recognizes that few deliberation
theorists have supported the idea of unanimous or overlapping consensus as a realistic
outcome of deliberation (also see Delli Carpini et al., 2004). In this respect, Bohman’s
(1996) concept of accommodation would be a relevant type of outcome compared with
consensus as a result of deliberation. Accommodating occurs when subjects accept the
viewpoint of the opponent and decrease their own aspiration level. It may take the form
of “self-sacrifice, selfless generosity, charity, or obedience to another person’s wishes”
(Dorado, Medina, Munduate, Cisneros, & Euwema, 2002, p. 516). Additionally,
empirical findings do not support “reaching consensus” as the outcome of deliberation.
For example, Conover et al. (2002) found that people in deliberative discussion were
more likely to seek information rather than seek for consensus on conflicting issues.
Thus I decided to consider the most universally defensible accommodation as the fifth component of deliberation.

2.1.3.6 Understanding shared meaning based on communicative interaction. The last but not least component of deliberation is extracted from communication researchers’ concept of dialogue as well as the concept of constructivists’ communicative interaction. I hold that deliberation is a communicative process in which citizens constitute and understand shared meaning based on coordinated interactions. Compared with Bohman’s concept of dialogue, I will explicate why dialogue or dialogic communication provides a theoretical ground for implications of “constituting shared meaning from communicative interaction” in deliberation. I will account for the reason why “constituting shared meaning based on coordinated interactions” is an underlying foundation in deliberation. Then I will explicate how constructivists understand communicative interaction and why constructivists’ communicative interaction is suited for one of the components of deliberation.

Bohman (1996) referred to dialogue as a particular joint action in which the public uses communicative means to give and take reasons open to all citizens. Dialogue takes place against the background of shared values and beliefs. Bohman (1996) explicitly differentiated dialogue from discourse in terms of well-justified claims. He understood discourse as the communicative acts based on standards of rational justification and rule and specific regulative standards of justification. He also stated that discourses are typically organized toward specific claims of truth (Bohman, 1996). Bohman also suspected that well-established discourse for resolving “atypical and non-standard problematic situations and breakdowns of coordination” (1996, p. 42) hardly
exist in ordinary deliberative discussions. Alternatively, because dialogue is not necessarily aimed at generating well-justified claims, Bohman asserted that dialogue should be more realistic than discourse.

From a tradition of communication research, however, Bohman’s discourse is seen as somewhat ambiguous and narrow. From Burleson and S. L. Kline’s (1979) understanding of Habermas’ concept of discourse, Bohman’s concept of discourse is considerably restricted to “practical discourse”, for Bohman confines discourse to normative and appropriate utterances to validity claims. According to Burleson and S. L. Kline (1979), discourse is “a mode of communication in which the truth or appropriateness of an utterance is examined critically by interactants and either accepted or rejected through arguments. Problematic truth claims are redeemed in “theoretical” discourse, and norms are examined critical in “practical” discourse” (p. 418) (also see Habermas, 1981/1984a).

In order to explicate the concept of dialogue from a communicative perspective, I will examine one existentialist philosopher’s and some communication researchers’ ideas. Buber (1958), a contemporary existentialist philosopher, is a leading scholar who views dialogue in human communication. Buber understood dialogue by comparing an I-Thou relation representing dialogue with an I-It relation representing monologue. In the I-It relation, a person employing monologue has a tendency to manipulate others to obtain their own ends and profits by utilizing their power, while a listener is viewed as a thing to be exploited. That is, monologue is considered as unilateral communication in which mutual respect is lacking in.
To the contrary, in the *I-Thou*, people in dialogue are likely to represent mutuality, open-heartedness, frankness, and nonmanipulative intent in attitudes and behaviors.

Under the umbrella of Buber’s concept of dialogue, communication researchers such as Johannesen (1971), K. A. Pearce and W. B. Pearce (2001), and Stewart (1978) have critically developed a concept of dialogue. Johannesen (1971) describe six major characteristics of dialogue: (1) *Genuineness* in which dialoguers should be honest and open-minded to relevant information and feeling; (2) *Accurate empathic understanding* in which dialoguers should accurately reflect feelings; (3) *Unconditional positive regard* in which people should affirms the other as a unique individual; (4) *Presentness* in which dialoguers should be willing to reveal himself to other in being fully engaged with the encounter; (5) *Spirit of mutual equality* in which dialoguers should not impose their opinions; finally (6) *Supportive psychological climate* in which dialoguers should help others to freely express, understand, and judge opinions (p. 376).

Later, Stewart (1978) maintained that dialogue or dialogic communication is referred to as communicative practices in which people with intentional consciousness encounter or experience other subjects in situated, relational events and constitute the lived world. First, referring to Husserl’s (1964) intentional consciousness, Stewart (1978) contends that communication takes place based in relationships between the perceiver and the perceived and relational nature of reality is constituted by *intentional consciousness*. Second, compared with a communication model such as general system theory, Stewart (1978) contends that the “*transactional*” *experience* between subjects is a basic mechanism to constitute a lived world. Third, Stewart (1978) insists that *persons-in-relations* is the core component of the human communication. Not individuals but
persons-in-relations should be considered to comprehend the human being. Finally, from holism in philosophical anthropology, Stewart (1978) asserts that a point of view encompassing all “multitude interdependent cognitive, affective, behavioral, and contextual variables” should be taken into consideration to precisely understand human communication.

K. A. Pearce and W. B. Pearce’s (2001) concept of dialogue is also grounded on Buber’s concept of person-in-relations in dialogue. K. A. Pearce and W. B. Pearce (2001) stated that dialogue is a communicative performance in which people who hold positions willingly are open to other’s different and disagreeable views for exploration and further knowledge. Similar to Stewart’s (1978) and K. A. Pearce and W. B. Pearce’s (2001) understanding of dialogue, constructivists uphold that people reconstruct social reality based on meanings that are generated from the communicative interactions and interpretive processes. Structural-developmental theory holds that meaning is reciprocally created as a joint product of socially shared codes for the expression of thought and individual interpretative and behavioral processes (Delia, 1977; also see Grossberg, 1982). A constructivist approach to social interaction also emphasizes the interaction between socially shared codes and individual interpretive processes. An individual defines social contexts at a given time and takes and perceives the perspective of others within social contexts, generating shared meaning based on the coordinated interactions (Delia, 1977).

To summarize, I can establish a working conceptual definition from common components in the existing definitions of deliberation: *deliberation is a dialogic interaction in which people with communicative competence reach the most universally*
defensible accommodation, relying on argument of controversial issues with mutual respect on the basis of understanding of both a coordinated conception of the issue and its resolution.

According to Aristotle’s definition of persuasion, it rests on three modes: “a source’s credibility (ethos), emotional appeals (pathos), and/or logical appeals (logos) (Roberts, 1924)” (Larson, 1995, p. 8). Reasonable argument may contain all three modes. Aristotle also maintains that a common ground between persuader and persuadee should be established to generate most effective persuasion (Larson, 1995). Under the umbrella of a common ground, persuasion scholars have begun to emphasize the concept of reciprocal influence based on communicative interaction. For example, according to O’Donnell & Kable (1982), persuasion is “a complex, continuing, interactive process in which a sender and a receiver are linked by symbols, verbal and nonverbal, through which the persuader attempts to influence the persuadee to adopt a change in a given attitude or behavior because the persuadee has had perceptions enlarged or changed” (p. 9). O’Donnell and Kable (1982) argue that persuasion is a process of reciprocal and transactional communication influence to create and share “similar perceptions of reality for mutual satisfaction of goals” (p. 12). Within a rhetorical design logic, B. J. O’Keefe (1988) also argues that meaning and social reality are created through an interactive communication process and involves “repeatedly solving a coordination problem” (p. 87). Finally, adopting Burke’s a sense of identification, Larson (1995) refers to persuasion as “the co-creation of a state of identification or alignment between a source and a receiver that results from the use of symbols” (p. 9). Relying on Larson’s (1995), O’Donnell and Kable’s (1982), and B. J. O’Keefe’s (1988) arguments on persuasion, I also believe that
Aristotle’s implicit notion of common ground may be closely associated with coordination, reciprocity, the most universally defensible accommodation, and the understanding shared meaning based on communicative interaction. Based on the above arguments, it may be reasonable to think of deliberation as one of type of persuasion or persuasive communication.

However, according to Walton (1998), deliberation might be differentiated from persuasion dialogue. Recognizing important implications of everyday conversational arguments in a today’s democratic society, Walton (1998) introduce dialogue, “a goal-directed conventional framework in which two speech partners reason together in an orderly way, according to the rules of politeness or normal expectations of cooperative argumentation for the type of exchange they are engaged in” (p. 3). According to Walton, persuasion dialogue is based on the goal of “persuading the other party to accept some designated proposition, using as premises only propositions that the other party has accepted as commitment sets” (p. 31). The goal of persuasion dialogue is to “rationally persuade the other party to become committed to the proposition that is the original party’s thesis” (Walton, 1998, p. 41). On the other hand, the goal of deliberation dialogue is to resolve a practical problem which is involved with a group of concerned citizens who share common goals and information in a given situation through proposing and arguing diverse solutions to the problem with reasoned grounds. The ultimate goal of deliberation is to reach an agreement on a prudent course of action, which they can execute. Hence, the most important question is “how” to deal with encountering conflict or problem that is related to concerned people.
Given that conflicts to course of actions to problems occur among concerned citizens, Walton (1998) argues that decision-making may play an important role in deliberation dialogue.

From Walton’s arguments on differences between persuasion dialogue and deliberation dialogue, I speculate that deliberation is somewhat different from persuasion dialogue in terms of sharing common goals and a pool of information among concerned citizens, decision-making processes, and implementation of a prudent course of action. However, given that deliberation embodies core attributes of persuasion such as interactive communication based on creation of meaning and social reality through coordination and reasoned argument practices, it may be acceptable to hold that deliberation may be one of type of persuasion. Continuous efforts to produce a consensual definition of deliberation should be helpful to reveal similar and differential characteristics between persuasion and deliberation.

The next question I seek to answer is why some people are good at deliberatively discussing controversial issues with antagonists, while other people are not. I suspect that one reason why each person differently deliberates controversial issues is because each person is differentially equipped with emotion-regulative, social-cognitive, and communication abilities that affect deliberation. Therefore, I will investigate respectively how emotional regulation and social-cognition abilities affect deliberative communication capabilities. I will also investigate how maternal communication with children has an impact on emotional regulation and social-cognition abilities which are underlying properties of deliberative communicate skills.
From the perspective of constructivism, I will take a closer look at the effect of social-cognitive abilities such as interpersonal construct systems and perspective-taking skill on messages production and strategy.

2.2 Background of Constructivism

Constructivism takes an interpretive orientation and views communication as “an emergent, creative activity through which human social reality is constantly being re-created, repaired, and changed” (Delia & Grossberg, 1977, p. 36). Interpretive views of communication regard “the creative, emergent processes of the social reconstruction of reality as an interplay of individual interpretive processes and socially and historically constituted processes and contexts” (Delia, B. J. O’Keefe, & D. J. O’Keefe, 1982, p. 149). Delia and his colleagues (1982) elaborately delineated the constructivist view of communication in terms of four components: (1) interpretive processes, (2) human action, (3) human interaction, and (4) human communication.

With respect to interpretative processes, Delia et al. (1982) used Kelly’s (1955) theory of personal constructs to contend that persons who are active agents of interpretive processes of social actions and events reconstruct the world through the cognitive organization of experience by bi-polar dimensions (i.e. constructs). Constructs are organized by higher schemas (Fiske & Taylor, 1991). These constructs or interpretative schemes are closely related to structural-developmental orientations such as Piagetian structural-developmental orientation and Werner’s (1957) orthogenetic principle.
The Piagetian version of structural-developmental theory asserts that interaction between an individual’s cognitive structure and the demands of the world he/she is experiencing should be a driving force to temporally, hierarchically, and qualitatively transform his/her cognitive structures.

According to Werner’s Orthogenetic principle, with increasing age and/or social experience, social-cognitive knowledge and skills develop “from a state of relative globality and a lack of differentiation to a state of increasing differentiation, articulation, hierarchic integration” (1957, p. 126). The Wernerian framework suggests that over the course of childhood and adolescence, interpersonal construct and schema systems should become “(a) increasingly differentiated (i.e., contain a greater number of elements), (b) increasingly abstract (i.e., contain elements pertaining more to the psychological, motivational, and dispositional aspects of persons), (c) increasingly organized (i.e., contain elements more interconnected with one another), and (d) increasingly perspectivistic (i.e., contain elements freer from self-involvement and self reference)” (Applegate et al., 1985, p. 109). Through an increasing subject-object differentiation by reflective thinking, people are less impelled by their own affective states and needs and are more able to understand goals clearly and employ substitutive means and alternative ends with active and planned actions (Werner, 1957). Furthermore, people have a greater capacity to consider others’ needs and their goals. In a similar line, Delia and his colleagues have asserted that increasing abstract and complex interpersonal constructs are reflected in a movement away from global evaluation and its domination in judgment (see Delia & Clark, 1977; Delia et al., 1979; Delia & B. J. O’Keefe, 1979).
Second, human action is an action in which an actor concretizes and actualizes context-relevant intentions and beliefs generated by interpretative schemes. An actor chooses and uses a strategy or strategies to actualize his or her intentions in behavior. Strategies which an actor chooses depend on his or her own unique past experiences and knowledge. The strategically organized behavior from an actor’s history allows him or her to test their prediction about future and modify his or her interpretive schemes. Third, human interaction is viewed as a process of implicit and coordinative negotiation of schemes and adherence to schemes in which persons present and respond to their views of reality with an individual strategic choice and in which strategic choices reflect the emerging consensus about the reality that subjects share. Finally, human communication is considered as a process of interaction in which subjects with communicative intentions reciprocally express and recognize intentions in others (Delia et al., 1982). This occurs through systematic communicative processes of codifying meaning, coordinating intention, and doing cooperative practices.

In a phenomenological view of communication, Grossberg (1982) has argued that an individual is not an isolated entity but rather is an organism constantly oriented to its environment. Through communication, or the routine social practices people are engaged in, people organize and make sense of the world and constitute meaning.

According to the constructivist perspective, the other’s intentions, inner qualities, attitudes, and even the course of actions are understood as interpersonal perception within the perceiver’s cognitive structures (i.e., schemas and constructs). Properties of communication itself are perceived through constructs. Thus cognitive structures such as complexity, abstractness, and comprehensiveness as individual competencies in social
perception should be important to be able to interpret other’s viewpoints and develop appropriate messages adapted to other’s perspectives (Delia & Clark, 1977). Considering that deliberative communication actions should be conducted based on deliberative communication skills such as communication skills to generate messages for coordination, mutual respect, and rational argument, it is important to figure out how to acquire communicative skills to generate those deliberation relevant messages. Given that social-cognitive system properties are essential to effective communicative performance, it should be worthwhile to understand what and how educative sources play a significant role in development of social-cognitive knowledge structures. Before explicating the relationship between social-cognitive knowledge structures and educative sources to develop social-cognitive knowledge structures, I will examine how social-cognitive knowledge structures are associated with communication skills.

2.2.1 Influence of Social-Cognitive Development on Communication Skills

Before introducing my literature review about social-cognitive abilities, I will briefly explicate important attributes of skills and abilities by comparing them with the concept of communicative competence.

With respect to the definitions of skills, Spitzberg and Cupach (1984) and Spitzberg (2003) view skills as intentionally repeatable behaviors to achieve goals in social interaction with others. By differentiating skills and skill, Spitzberg (2003) maintains that social skills are the manifest behaviors produced by social skill as motivation and knowledge. Unlike Spitzberg (2003)’s behavioral aspect to skills, Burleson (1987), however, understands skills as social-cognitive and perceptual abilities such as interpersonal construct system complexity, a view that is employed in this study.
Skills, abilities, and competence are often used interchangeably. Even in defining skills, scholars have used the terms, abilities and competence. For instance, Schlundt and McFall (1985) defined social skills as “the specific component processes that enable an individual to behave in a manner that will be judged as “competent”. Skills are the abilities necessary for producing behavior that will accomplish the objectives of a task.” (p. 23). However, Spitzberg (2003) clearly differentiates skills from competence. According to Spitzberg (2003), competence can be defined as “an evaluative judgment of the quality of a skill” (p. 97). Spitzberg (2003) argues that skills are only important in society “to the extent they are considered competent or incompetent.” (p. 97).

By reviewing a significant number of communicative competence research, Parks (1994) introduced various definitions of communicative competence. Two definitions of communication competence are presented as follows: “An individual’s abilities to adapt effectively to the surrounding environment over time” (Spitzberg & Cupach, 1984, p. 35) and “the ability to formulate and achieve objectives, to collaborate effectively with others, to be interdependent; and the ability to adapt appropriately to situational and environmental variation” (Bochner & Kelly, 1974, p. 288) (cited in Parks, 1994, p. 593). Parks identifies three common components from various conceptualizations of communicative competence: Competence as (1) control, (2) adaptation, and (3) collaboration. First, given that “communication is inherently strategic and goal-directed,” motivation to control or influence others’ responses should be characteristic of communicative competence (Parks, 1994, p. 592). Second, abilities to flexibly adjust behaviors and respond to variations in social contexts are important to achieve their satisfaction and goals. Thus ability of adaptation characterizes the concept of
communicative competence. Finally, Parks (1994) maintains that collaboration in social interaction with others is significant in communicative competence, for individuals need to “often reconcile potentially incompatible requirements to influence others, to maintain others’ identities and their own, and to sustain an ongoing relationship (O’Keefe, 1988)” (Parks, 1994, p. 595). Based on these three components of communicative competence, Parks also provides his working definition of communicative competence as “the degree to which individuals satisfy and perceive that they have satisfied their goals within the limits of a give social situation without jeopardizing their ability or opportunities to pursue their other subjectively more important goals” (p. 595). According to these definitions of communicative competence introduced by Parks, two important ideas can be extracted. One is that communicative competence is in accordance with abilities. The other is that all three concepts are closely associated with adaptation and achievement of goals or objectives.

Finally, I believe that one of the most relevant ideas about the concept of communication competence to this study is Wilson and Sabee’s (2003) view of communication competence. They argue that communication competence may not be understood as a construct that is concretized by observables (i.e., measurement procedures). Rather, communication competence should be comprehended as a theoretical term, which Wilson and Sabee took from Kaplan’s (1964) pragmatism. The core idea of their argument is that the systematic meaning of communication competence should be analyzed within a theory of communication to explicate it. For example, within a theory of relational dialectics, communication competence can be judged based on dialogic principles (Wilson & Sabee, 2003, also see Baxter & Montgomery, 1996).
this study, I argue that comparable communication competence such as social-cognitive and emotion-regulative abilities, motivation, qualities needed for competence knowledge, and strategies for improving communication competence can be analyzed within a theory of deliberation (see Wilson & Sabee’s (2003) Table 1.1).

Social-cognitive skills are “the mental abilities through which people make inferences about the characteristics of others” (Burleson, 1989, p. 31). In this view, skills in generating adapted communication messages are expected to depend on social-cognitive knowledge structures. In this respect, a number of communication researchers have investigated the effects of the communicators’ social-cognitive system properties on their communication practices in order to understand differences in communicative performance. In the 1970s and the 1980s, communication scholars, particularly constructivist scholars, have argued that the development of social perception skill such as social perspective-taking and knowledge structures such as interpersonal construct systems should play a significant role in effectively developing persuasive, comforting or regulative and face-protective messages, because understanding the listener’s intention, attitudes, characteristics, and view of the situation is directly implicated in the content of effective communication (see Applegate, 1982, 1990; Applegate et al., 1985, 1992; Applegate & Delia, 1980; Burleson, 1982a, 1982b, 1983, 1984a, 1984b; Burleson, et al., 1995; Burleson & Samter, 1985; Clark & Delia, 1979; Delia, 1977; Delia et al., 1979; S. L. Kline, 1991; S. L. Kline & Chatani, 2001; S. L. Kline & Floyd, 1990; B. J. O’Keefe & Delia, 1979; B. J. O’Keefe, & Shepherd, 1987).

With respect to the effect of social-cognitive developments on communication skills and performances, this literature review is composed of two parts: First, I will
argue why perspective taking as social perception ability is still a valuable social-cognitive property of communication practices, particularly deliberative communication practices. Second, I will introduce how interpersonal cognitive system properties as social-cognitive knowledge structures play a substantive role in communication skill and performance.

### 2.2.1.1 Effect of perspective taking skill on communication skill and performance.

B. J. O’Keefe and Delia (1982) have claimed that social interaction should depend on speakers’ and hearers’ abilities to construe one another’s construction processes to enable them to formulate and interpret messages. This process of construing and understanding another’s viewpoint can be viewed as perspective taking. Within the cognitive-developmental framework, perspective-taking has been conceived as involving a perceptual and cognitive process in which the child progressively recognizes the existence of one’s own needs and affective states, which leads to differentiate one’s view from others’ points of view (Hale & Delia, 1976). Perspective taking models assume that individuals experience the world from different viewpoints and each individual’s experience to some extent depends on the particular viewpoint he or she holds (Krauss & Fussell, 1996). A number of social-cognitive and communication scholars have claimed that learning the ability of taking the perspective of the other should be a prerequisite to effective social communication (Clark & Delia, 1976, 1977; see Feffer, 1971; Flavell, 1968; Flavell, Botkin, Fry, Wright, & Javis, 1968; Mead, 1934). Delia (1982) also held that the speaker’s knowledge of other party’s views and feelings enables the speaker to create effective messages adapted to the listener’s needs and wants. With the framework of a listener-adaptation model of communicative development, for example, Clark and
Delia’s (1977) pioneering work found that children’s ability of taking the target’s point of view in given situations significantly affected the production of their persuasive messages adapted to the target’s views. Applegate, Burleson, and Delia (1992) also found that social and affective perspective taking skills were positively associated with communication skills such as persuasive skill, comforting skill, and listener-adapted skills at moderate to high levels of magnitude.

B. J. O’Keefe (1988) and B. J. O’Keefe and Delia (1988) have maintained that their conception of role taking, or perspective taking came through the fusion of Mead’s (1934) analysis of the social basis of thought and meaning with Piaget’s (1954) analysis of development as proceeding from a state of egocentrism toward increasing perspectivism. Mead (1934) argued that taking the other’s perspective and the subsequent consideration of one’s own action from that perspective taking through social interaction allows one to recognize the existence of a self. Mead (1934) believed that a child could learn how to coordinate with other’s role or perspective through game-playing, which later led him or her to develop a concept of the organized system, or the “perspective of the generalized other” that represented the abstract, normative or societal perspective. Learning social consensus or norms through perspective taking processes entitles an individual to become a socially rational, self-reflective, and cooperative being in the social group. However, with respect to the process of learning how to take the perspective of others, Mead (1934) did not consider the communicative interaction between the perceiver and the target. Later, Piaget (1955) claimed that a child should have intrinsic schemes and cognitive abilities to understand the external world and coordinate with it through the integrative processes of assimilation and accommodation.
The integrative processes of assimilation and accommodation with increasing age help a child to develop his or her social-cognitive knowledge structures. Based on social-cognitive knowledge structures, Piaget and Inhelder (1956) claimed that obtaining the ability of differentiating one’s own perspective from other’s one should be significantly important in an early developmental stage. However, some communication researchers have shown some contradictory findings against Piaget’s basic argument that a child’s social-cognitive knowledge and skills develops with increasing age, (i.e., maturation). Constructivist research has shown that individual differences in interpersonal construct system occur among children of the same age, too (Burleson, 1982a; Clark & Delia, 1977; Delia & Clark, 1977; Delia, et al., 1979). Along with introducing a Piagetian social-cognitive perspective, Kohlberg (1969) explained the effect of perspective-taking or role-taking skills on the development of social cognition. More specifically, Kohlberg’s (1969, 1976) moral development and reasoning perspectives have indicated that people’s systematically developed moral reasoning enables them to carefully consider others’ perspectives. His perspective also points out that people who have systematically developed their moral reasoning are better inclined to sincerely respect others’ perspectives. Kohlberg also indicates that people with advanced moral reasoning can objectively judge morally problematic situations.

Shantz (1975) presented a concept of social perspective taking as “the activity of and/or ability to take the perspective of another person and thereby infer his perspective” (p. 7). Emphasizing perception of situational attitudes and human interaction, Hale and Delia (1976) also defined perspective-taking as “a social perception process in which inferences are made about situation and others and inferences about others’ inferences” (p.
Later, Selman (1980) presented a working definition of social perspective taking in three points: (1) Social perspective taking encompasses a developing understanding of how human points of view are related and coordinated with one another; (2) social perspective taking relates to a developing understanding of the inherent psychological characteristics and capacities of individuals; (3) social perspective taking allows the child to understand and organize a significant number of social and psychological relationships. Selman and his colleagues have defined social perspective taking as the ontogenetic process by which a child can coordinatively understand psychological points of view between self and the other (see Selman, 1980; Selman & Bryne, 1974).

Based on Piaget’s cognitive developmental theory, Selman (1980) has investigated the ontogenesis of interpersonal concepts with respect to developmental levels of social perspective taking. He has generated five distinct developmental levels of the co-ordination of social perspectives: Stage 0: undifferentiated and egocentric (About ages 3 to 6), Stage 1: differentiated and subjective role-taking (About ages 5 to 9), Stage 2: self-reflective/second person and reciprocal perspective (About ages 7 to 12), Stage 3: third-person and mutual perspective taking (About ages 10 to 15), and Stage 4: in-depth and societal-symbolic perspective taking (About ages 12 to adults). Descriptions of concepts at each level are divided into sections on persons and on relations, describing a person’s notions of psychological processes and of coordinating individual perspectives (Selman, 1980).

Particularly, Levels 2, 3, and 4 should be an important stage in terms of deliberative communication skills. At Level 2, an individual learns how to mentally take a perspective of other with a two-way reciprocity. Level 3 allows an individual not only
to recognize the effects of action on him- or herself but also to reflect upon the self in interaction with the self. At Level 3, resolution must be coordinated to even the third person perspective on the basis of mutually shared thoughts and experiences. Finally, the adolescent or young adult can develop common expectations or awareness and have deeper levels of communication as well.

The capacity to differentiate perspectives between one’s own and the other’s perspective enables people to take the role, attitude or perspective of the other and understand messages (Krauss & Fussell, 1996). Through perspective-taking, communicators can identify the shared communicative contexts and understand other communicator’s messages and viewpoints. Due to understanding of others’ viewpoints, perspective-takers can modulate the articulation of contents in accordance with the other’s views or opinions (Burleson, 1984a; Krauss & Fussell, 1996). By taking the role or situational perspective of the others, people can empathize with others’ affective and cognitive aspects. In this respect, Ritter (1979) found that senior high school students whose levels of perspective-taking were higher used more sophisticated persuasive and empathic communication strategies than freshmen high school students whose levels of perspective-taking were lower. Thus I assert that perspective-taking skills should have the potential to improve discussants’ understanding and willingness to coordinate with other opposing views. Moreover, perspective-taking skill can encourage discussants to show mutual respect to the others’ views, too.

Hoffman (2000) suggested two types of perspective-taking: (1) self-focused perspective-taking – imagining how one would feel in the other’s situation, and (2) other focused perspective-taking – imagining how the other person feels or how most people
would feel in that situation. Hoffman (2000) believed that self-focused perspective-taking, on the one hand, would be more likely to be intense due to “activation of one’s own personal need system” (p. 56). In other words, people who take a self-focused perspective of others’ situations are more likely to evaluate the other’s situation from their egoistic needs, which results in a disregard for others’ problematic situations. On the other hand, people who take other-focused perspectives of situations or roles are likely to consider others’ situations for the best of the self and the others (Hoffman, 2000). Thus other-focused perspective taking is more stable and sustained than self-focused perspective taking.

Bohman (1996) has also claimed that the capacity for perspective taking implicit in communication allows discussants to recognize and appreciate others’ multiple viewpoints, which may lead to the resolution of face-to-face conflicts. Bohman (1996) emphasized that recognizing the generalized perspective is a benefit to the formation of coordination and the construction of generalized justifications for claims of truth.

Kohlberg (1969), however, found that young children are not well equipped with higher levels of moral reasoning such as perspective-taking, mutual respect, agreement, etc. According to Kohlberg’s (1969) moral development theory, taking others’ perspectives does not occur until Stage 3. Stage 3 is characteristic of mutual and interpersonal relationships. The assumption of this stage is that a child is an individual in relationships with other persons. Kohlberg (1969) reported that approximately 68 percent of a sample of 10-year-old American students belonged to Stage 1 (around 38 %) and 2 (30 %), which indicated that their moral logics were considerably dependent on egocentric concepts. Furthermore, he also found that approximately 50 % of 10-year-old
Taiwanese and Mexican students’ moral development stayed at the egocentric stage. Kohlberg’s (1969) findings imply that educative actions for young children’s perspective-taking, mutual respect and emotion regulation skills should be more systematically taken in order to help them become good citizen deliberators. Mead’s (1934), Piaget’s (1955), Kohlberg’s (1969, 1976), and Selman’s (1980) approaches to perspective or role-taking have fundamentally viewed perspective taking as the basic social-cognitive process underpinning communicative adaptation.

However, B. J. O’Keefe and Delia (1988) found that role or perspective taking itself is not a single logical operation, but rather “an amalgamation of conceptually and empirically distinguishable mental operations” (p. 72; also see Delia & B. J. O’Keefe, 1979; Falvell, 1974; Shantz, 1975). Hale and Delia (1976) have already recognized how construct systems affects perspective-taking. They conceived perspective-taking as “involving a second-order construal process in which one uses his system of personal constructs to construe how a situation appears within the construct system of another” (p. 198). Thus a number of communication researchers have paid attention to other properties of social-cognitive systems such as interpersonal construct differentiation (complexity), construct abstractness, and construct comprehensiveness, which were found to be closely related to role or perspective taking. For example, both the number of interpersonal constructs (cognitive complexity) and the quality of those constructs (e.g., their abstractness or comprehensiveness) have been found to be related to the level of perspective-taking in persuasive and comforting message strategies of children and adolescents (see, e.g., Burleson, 1982a; Delia et al., 1979) and of adults (see, e.g., B. J. O’Keefe & Delia, 1979). Through a hierarchical regression analysis, Burleson (1982b)
found that the influence of age on affective perspective taking was substantially diminished after controlling for interpersonal construct systems. This finding implies that interpersonal construct systems play an underlying function in performing affective perspective-taking skills such as Social Perspective Taking skill (SPT) and Comforting Message Rationales (CMR).

B. J. O’Keefe and Delia (1982) have argued that understanding the use of interpersonal constructs should be important in construing other persons’ actions and creating listener-adapted messages. Thus the various specific social perception processes such as social inference, impression formation, perspective taking, social valuation, etc. are viewed to take place through the application of schemas and constructs (Applegate et al., 1985). Delia et al. (1979) stated “within our constructivist perspective, social perception is conceived to occur through a system of bi-polar dimensions or constructs. Constructs are the schemes within which others’ behaviors are interpreted, evaluated, and anticipated… Since it is the impression one forms of another that serves as the basis for message formulation and adaptation, individuals who form more differentiated, stable, and psychologically-centered impressions tend to produce more listener-adapted messages” (p. 244). Since interpersonal constructs provide discriminations and specific beliefs of others, B. J. O’Keefe and Delia (1982) claimed that the development of a complex system of interpersonal constructs should be a necessary prerequisite for the relevant formulation of sensitively listener-adapted messages. Perceivers with a highly differentiated set of abstract and comprehensive interpersonal constructs are better capable of accommodating to different or newly available information in forming organized and coherent impressions of others (B. J. O’Keefe & Delia, 1988). More
specifically, persons with highly differentiated and abstract constructs were more effective than those with less differentiated and abstract constructs in identifying communication-relevant differences between multiple targets in the same context (Delia & Clark, 1977) and selecting appealing arguments to particular message targets rather than to “anyone” (Applegate & Delia, 1980; Burke & Clark, 1982; B. J. O’Keefe & Delia, 1979; also see Burleson’s (1989) and Wilson’s (2002) reviews).

Given that interpersonal construct systems as cognitive structure play a significant role in promoting perspective taking skill as cognitive process and generating effective messages adapted to the other parties (Applegate & Delia, 1980; Burleson, 1982b; Clark & Delia, 1977; Hale & Delia, 1976), I will discuss the concept and function of interpersonal construct systems with communication skills.

2.2.1.2 Effect of interpersonal construct differentiation (complexity) on communication skill and performance. Strategic communication is designed to encourage a listener to willingly provide desired responses to a speaker’s persuasive request. Thus it should be imperative to have the communicative capacity to make tacit inferences and predictions relating to the listener’s likely responses to persuasive strategies (B. J. O’Keefe & Delia, 1979). According to Kelly’s (1955) personal construct theory, persons understand the world through sets of personal construct systems that are organized, interrelated and bipolar dimensions of judgment. That is, Kelly (1955) argued that perceivers use personal constructs to understand, infer and predict social situations. Immediately after introduction of Kelly’s (1955) personal construct theory, Bieri (1955) proposed the concept of “cognitive complexity” that has been associated most closely with Kelly’s (1955) personal construct theory. Cognitive complexity was defined as “the
degree of differentiation in an individual’s construct system, i.e., the relative number of different dimensions of judgment used by a person” (Tripodi & Bieri, 1964, p. 122; also see Bieri, 1955). Later, Crockett (1965) developed the concept of cognitive complexity by fusing Kelly’s (1955) the personal construct psychology with Werner’s (1957) the comparative and organismic development theory. From Kelly’s (1957) personal construct as the basic unit of cognitive structure and Werner’s the Orthogenetic Principle, Crockett asserted that an individual’s system of personal constructs become increasingly differentiated, abstract, and organized with age and attendant social experiences.

With the framework of Crockett’s cognitive complexity, a number of constructivists have claimed that complex systems of interpersonal construct significantly affect both all advanced social perception processes and advanced communicative processes. Delia et al. (1979), for example, held that individuals with complex systems of interpersonal constructs had a tendency to constitute more organized, stable, and psychologically centered impressions of others. Individuals who constructed more differentiated, stable, and psychologically centered impression were likely to generate more listener-adapted messages, for the formulation of impression serves as the foundation for the message formulation and adaptation (Delia et al., 1979). B. J. O’Keefe and Delia (1979) and D. J. O’Keefe and Sypher (1981) have believed that sets of personal constructs could be a fundamental social-cognitive foundation for communicative strategy choices, reasoning that constructs had effective features to enable the speaker to evaluate communication-relevant listener’s characteristics.

Differences in the number and quality of a perceiver’s persuasive arguments and appeals should be inextricably related to difference in the number and quality of his or
her constructs employed (Applegate & Delia, 1980; Clark & Delia, 1977; B. J. O’Keefe & Delia, 1979). Clark and Delia (1977) found that interpersonal construct system differentiation was positively associated with the strategies of adapted messages based on persuasive skill. B. J. O’Keefe and Delia (1979) found that the number of persuasive arguments, appeals, and adaptations was positively related to subjects’ level of differentiation of their interpersonal construct systems. Moreover, Delia et al. (1979) also found that interpersonal construct system differentiation was positively associated with the level of persuasive strategies. In line with Delia et al.’s (1979) research, Applegate (1982) found that college students’ cognitive complexity were positively associated with the quality of their repertoire of persuasive strategies. Burleson (1983) claimed that social-cognitive knowledge structures should play an underlying force in performing argument as a skill or competency. Finally, consistent with B. J. O’Keefe and Delia’s (1979) and Delia et al.’s (1979) research, S. L. Kline (1991) also found that highly differentiated college students use more message strategies than less differentiated students in regulative contexts. Delia and B. J. O’Keefe (1982) also asserted that interpersonal construct system would be a fundamental structure to enable perceivers to choose appropriate messages sensitively adapted to listeners’ needs.

Since interpersonal construct differentiation, or the relative number of constructs available to the perceiver, plays a role in suggesting a number and variety of adaptational strategies to the perceiver, differentiation in the construct system should be reflected in quantitative features of messages. B. J. O’Keefe and Delia (1979) found that the number of arguments, appeals, and adaptations was significantly and positively related to subjects’ level of differentiation of their construct systems.
As a number of research findings have shown, interpersonal construct differentiation (complexity) influences massage strategies and production. However, Delia et al. (1979) presented that structural features of construct systems other than differentiation (complexity) might also be considered in figuring out the relationship between interpersonal perception processes and communicative performance. For example, construct differentiation is not a strong predictor for explaining perceivers’ qualitative message features such as appeal adaptation and strategic sophistication. Since the quality of argumentative messages is a crucially important component in deliberation processes, it should be necessary to take into consideration relevant social-cognitive knowledge. Thus I will take a closer look at interpersonal construct abstractness in order to thoroughly investigate the relationship between social-cognitive knowledge and message production.

2.2.1.3 Effect of interpersonal construct system abstractness on communication skill and performance. B. J. O’Keefe and Delia (1979) demonstrated that perceivers’ level of strategic adaptation to a target’s perspective was more based on the level of abstract constructs than on general cognitive differentiation. Based on findings of previous research that a substantial number of abstract interpersonal constructs are not developed until middle childhood (see Scarlett, Press, & Crockett, 1971), Delia et al. (1979) predicted and confirmed that abstract constructs played a more influential role than cognitive complexity in the acquisition of control over persuasive strategic communication performance with increasing age. That is, Delia et al. (1979) found that construct abstractness systems predicted late childhood aged group (7 to 12 graders)’s levels of persuasive strategies better than cognitive complexity. However, the
kindergarten and first-graders group and the middle aged group’s (2 to 6 graders) levels of persuasive strategies was conversely predicted. Applegate and Delia (1980) consistently found that interpersonal construct abstractness directly affected both interpersonal and regulative strategies across diverse adult populations such as a group of mothers of first and third-grade children, a representative group of college students, a group of teacher trainees, and a group of day care center teachers. Following studies on the effects of construct abstractness on persuasive strategies and regulative strategies (Applegate & Delia, 1980; Delia et al., 1979), Burleson (1984b) found that construct abstractness accurately predicted a systematic development of comforting skills with increasing age. Later, Applegate et al. (1985) confirmed that construct abstractness was the most important aspect of interpersonal construct system development affecting regulative and comforting strategies of mother’s communicative efforts as well as the person-centered and reflective-thinking communication strategies.

To sum up, interpersonal construct systems decisively affect message production through the message producer’s knowledge of recipients. In other words, construct systems have influence on message production through providing information about the specific message recipient that could be used in making message choices in a specific situation.

Wilson (2002) has recently argued that emotion might play a significant role in generating appropriate messages for speakers’ goals. With regards to the generation of rational and reflective messages, it should be significant as to whether people with emotional regulation capacity control their emotional arousal. Werner (1957) has proposed that engagement in intense emotional arousal in performance contexts dampens
the level of differentiation, articulation, and integration of the construct used. Given that
the level of social-cognitive structures affects communicative performances, it is assumed
that uncontrollable emotional arousal will ultimately oppress and restrain communicative
performances such as message production. Thus it is worthwhile to test whether
individual’s emotional regulation capacity is directly or indirectly associated with his or
her social-cognitive developments and communication skills such as message production
and strategy. To understand the relationship between emotion and emotional regulation
capacity and social-cognitive developments and communication skills, I will take a closer
look at the concept of emotion and the functions of emotion regulation and then probe
how mother-child communication practices may play a role in promoting children’s
emotional regulation capacity.

2.3 Relationships Between Mother-Child Communication Practices, Emotional
Regulation Capacity, Social-Cognitive Development, and Communication Skill

2.3.1 The Concept of Emotion

Dodge (1989) has assembled several concepts of emotions: “subjective valenced
experiences (Block, 1957), epiphenomena of cognition (Hesse & Cicchetti, 1982), states
of physiological arousal (Lange & James, 1922), discrete expression behaviors (Plutchik,
1980), and action tendencies (Izard, 1972; Tomkins, 1962)” (p. 339). According to J. J.
Campos, R. G. Campos, and Barrett (1989), emotions are not just feelings but are
“processes of establishing, maintaining, or disrupting the relations between the person
and the internal or external environment, when such relations are significant to the
individual” (p. 395, see Barrett & Campos, 1987). Campos et al.’s (1989) definition of
emotions, from the communication perspective, has important implications for
understanding how emotions play a role in initiating intra- and interpersonal communication and producing subsequent regulatory consequences. Emotions, with respect to intrapersonal communication, have a function of maintaining the organism’s behavior, while they, for interpersonal communication, have an expressive signal function that encourages other people to interact with others (Campos et al., 1989). Through expressing different types of emotions (e.g., joy, sadness, anger, fear, etc), an individual attempts to appropriately interact with environmental factors. Namely, expressing emotions has a close relationship with relational, communicative and interpersonal aspects. Additionally, Campos et al. (1989) also has emphasized that emotional expression is connected to cognitive actions. From the process of initiating, maintaining, and damaging interpersonal relationships, it may be expected that a certain level of negative emotional states are likely not only to mar interpersonal relationships but also dampen the use of social-cognitive abilities, which disable individuals from using appropriate communicative skills. Namely, discussants’ negative emotional states may do damage to interpersonal relationships with other discussants, which critically prevent them from using social-cognitive and communicative skills for deliberation. Considering that deliberating over diverse and disagreeable opinions needs cognitive strategies such as perspective taking and understanding of others’ viewpoints, as well as communication strategies, such as rational arguments, politeness strategies, and consensus building (Park, 2000), relationships between emotion and social-cognitive development and communicative competence imply how the important roles emotion and emotion regulation should play in improving individuals’ deliberation.
2.3.2 The Concept of Emotion Regulation

Cole, Martin, and Dennis (2004) have recently crystallized the value of the concept of emotion regulation: “The value of the concept of emotion regulation is as a tool to understand how emotions organize attention and activity and facilitate strategic, persistent, or powerful actions to overcome obstacles, solve problems, and maintain well-being at the same time as they may impair reasoning and planning, complicate and comprise interpersonal interactions and relationships, and endanger health” (p. 318). According to Cole et al.’s (2004) understanding of emotion regulation on reasoning and planning, emotion regulation that manages social-cognitive knowledge structures should be a fundamental competence to enable people to produce deliberative messages.

I reviewed several concepts of emotion regulation from psychology on emotion regulation (see Cole et al., 2004)) to the effect of emotion regulation on behavior (Eisenberg, 1996; Eisenberg, Gershoff, et al., 2001; Eisenberg, Losoya, et al., 2001; Eisenberg et al., 2003; Gottman & Katz, 1989; also see Eisenberg, Champion, & Ma, 2004; Eisenberg & Spinrad, 2004). Although few scholars such as Freud, Erikson, Hann, Lazarus, Flokman, and Kopp have paid attention to similar concepts to emotion regulation such as ego regulation, coping, and compliance, the topic of emotion regulation has not been intensively researched until the late 1980s and 1990s. Dramatic increase in works on the topic of emotion-related regulation occurred around 1990 and thereafter and it became recognized as significantly important topic in developmental psychology by the mid-1990s (see Eisenberg et al.’s (2004) review, also see Campos et al., 1989).
The initiating efforts to develop a consensual concept of emotion regulation was made in 1989 by several psychologists such as J. J. Campos, R. G., Campos, and Barrett (1989), Dodge (1989), Gottman and Katz (1989), and Kopp (1989). In line with stimuli-responses theory, Dodge (1989) defined emotion regulation as “the process through which activation in one response domain servers to alter, titrate, or modulate activation in another response domain” (p. 340). In addition to Dodge’s (1989) emphasis on cognitive and motoric functioning in emotion regulation, Campos et al. (1989) and Kopp (1989) put more values on the relational, communicational, and interpersonal aspects in concepts of emotion and emotion regulation. Based on communicative interaction about emotion expressions and regulations between children and caregivers, Kopp (1989) maintains that “language used in conjunction with cognitive processing skills (e.g., planful production of strategies) will likely play an important role as children struggle with emotion regulation (p. 349). Interpersonal and communicative aspects of emotion regulation that Campos et al (1989) and Kopp (1989) have emphasized in their definitions of emotion regulation are also regarded as important components in Eisenberg and her colleagues’ a working definition of emotion regulation. Gottman and Katz (1989) conceptualized emotion regulation as “ability to (a) inhibit inappropriate behavior related to strong negative or positive affect, (b) self-soothe any physiological arousal that the strong affect has induced, (c) refocus attention, and (d) organize themselves for coordinated action in the service of an external goal” (p. 373). Eisenberg (1996) views emotion regulation as “the ability to inhibit, enhance, maintain, and modulate emotional arousal” (p. 271). In a similar vein to Gottman and Katz’s (1989) concept of emotion regulation, Eisenberg and Morris (2002) extended Eisenberg’s (1996) definition of emotion regulation by
connecting it to behavior- and goal-oriented perspectives. They conceptualize emotion-related regulation as “the process of initiating, avoiding, inhibiting, maintaining, or modulating the occurrence, form, intensity, or duration of internal feeling states, emotion-related physiological processes, emotion-related goals, and/or behavioral concomitants of emotion, generally in the service of accomplishing one’s goals” (Eisenberg & Morris, 2002).

Eisenberg and Morris’ (2002) view of emotion regulation can be understood as secondary goals that help accomplish the primary goal. Based on a working definition of emotions Cole et al. (2004) believe that, “emotions are appraisal-action readiness stances, a fluid and complex progression of orienting toward the ongoing stream of experience. Emotions are moving targets that are usually unseen (and unfelt). Emotions must be inferred from evidence of the individual’s relation to surrounding events,” (p. 320), they present this working definition of emotion regulation as “changes associated with activated emotion” (p. 320). Cole et al. (2004) argue that emotion regulation has two types of regulatory phenomena: “emotion as regulating and emotion as regulated” (p. 320). Two types of regulatory phenomena denote that emotions have the potential capacity to regulate others’ cognitive and behavioral processes and to be regulated. Emotion as regulating is associated with intra-domain changes such as relations between emotional states and physiological activation. Emotion as regulating is also related to inter-domain changes such as the effect of one’s emotional states on another’s activity. On the other hand, emotion as regulated based on “changes in the activated emotion” is more closely related to inter-domain than intra-domain changes (Cole et al., 2004, p. 321).
For example, a child’s anger induces a mother to do soothing behaviors with her child and the child’s depression is modulated by her mothers’ behaviors.

Finally, Eisenberg and Spinrad (2004), have viewed Cole et al.’s (2004) definition as too encompassing, reasoning that Cole et al.’s definition does not differentiate emotion regulation from many aspects of the social interaction. Rather, Eisenberg and Spinrad (2004) contend that emotion regulation should be confined to Cole et al.’s (2004) definition of emotion as regulated. Eisenberg and Spinrad (2004) maintain that emotion regulation occurs when individuals who have clear goals and intentions to modulate their emotional states make voluntary and volitional efforts to activate or inhibit their cognitions, attentions, or behaviors. With two components of goals and volitional efforts to modulate cognitions, attentions, or behaviors, Eisenberg and Spinrad (2004) developed a working definition of emotion-related self-regulation as “the process of initiating, avoiding, inhibiting, maintaining, or modulating the occurrence, form, intensity, or duration of internal feeling states, emotion-related physiological, attentional processes, motivational states, and/or the behavioral concomitants of emotion in the service of accomplishing affect-related biological or social adaptation or achieving individual goals” (p. 338).

Broadly speaking, there have been three research foci that relate to emotion regulation: relationships between emotional regulation and (1) emotional states, (2) external behaviors, and (3) emotion-relevant parental interaction. With respect to the relationship between aroused emotional states and emotion regulation, Eisenberg, Fabes, Murphy, Karbon, Maszk, Smoth, et al. (1994) found that emotion regulation was negatively associated with personal distress as an aversive emotional reaction and
sadness. However, college students’ emotion regulation was positively associated with their perspective taking at a moderate level of magnitude (Eisenberg et al., 1994). This result implies that individuals’ social-cognitive ability and emotional regulation capacity are associated with each other. Second, Eisenberg and her colleagues found that children’s emotional regulation capacity was negatively associated with their externalizing problem behaviors such as lies, aggressiveness toward adults, and physically harm toward other children, but was positively associated with social competence, such as socially appropriate behavior and popularity (Eisenberg et al., 2003; Eisenberg, Gershoff, et al., 2001; Eisenberg, Losoya, et al., 2001). Finally, parents’ warmth (e.g., smiling, positive tone of voice, and verbal and physical affection), parents’ discussions of emotions, parents’ linking others’ emotions to their children’s experiences, and mothers’ expression of positive emotions were positively associated with their children’s emotion regulation and negatively associated with their children’s internalizing and externalizing problem behaviors (Eisenberg et al, 2003; Eisenberg, Gershoff, et al., 2001; Eisenberg, Losoya, et al., 2001). These results suggest that parents’ expression of positively-oriented affection and emotion-relevant communicative interactions with their children play an important role in the development of children’s emotional regulation and affirmative behaviors. Parents’ discussions of emotions will be dealt with in the following section on parental emotion coaching more carefully.

From all these definitions of emotion regulation and findings from emotion regulation research, I argue that emotion regulation should be an important capacity to enable citizens to facilitate deliberation, for (1) understanding, coordination and mutual respect as core components of deliberation are assumed to be facilitated through social-
cognitive skills such as perspective-taking skill which emotion regulation capacity are closely associated with and (2) emotion regulation is ability to organize oneself for coordinated action along with managing conflicts. Particularly within online discussion spaces in which online discussants are easily allured to express uncontrolled and uninhibited emotions, there is no doubt that online discussants’ ability to manage impolite communication should be critically important to achieve the goal of resolving conflicting viewpoints.

2.3.3 Parental Emotion Coaching

Some researchers have shown that family members’ emotion expression has a greater influence on children’s behaviors. For instance, Boyum and Parke (1995) found that family members’ negative emotion expressions affected their children’s aggressive behaviors. In addition, Denham and Grout (1993) found that family members’ positive emotion expression was likely to decrease children’s aggression. In line with the research on the effect of family members’ emotion expression on children’s behaviors, many researchers have asserted that parental emotion coaching is one of the best educative systems to help children to manage their emotion and social behaviors (Carson & Parke, 1995; Burleson, 1994b; Burleson & Kunkel, 1996, 2002; Eisenberg et al., 1994; Kopp, 1989; Melnick & Hinshaw, 2000; Robinson, Emde, & Korfmacher, 1997).

Parental emotion socialization – parents’ implicit and explicit expectations about and control of their children’s expressiveness – has been examined in terms of several different aspects of parenting behavior (e.g., parents’ ‘coping’ with their children’s negative emotions), all of which have been shown to relate to children’s socioemotional development (see, e.g., Berlin, & Cassidy, 2003; Boyum & Parke, 1995; Denham, 1998;
Denham & Grout, 1992; Denham, Mitchell-Copeland, Strandberg, Auerbach, & Blair, 1997; Gottman, Katz, & Hooven, 1997; Patterson, DeBaryshe, & Ramsey, 1989). For example, Patterson, DeBaryshe, and Ramsey (1989) from a developmental perspective found that abusive and negative parenting negatively affected children’s regulating their emotions such as anger and anguish. Children’s unregulated emotion generates antisocial behaviors, which isolates them from other peer groups. Unregulated emotion leads children even to fail to accomplish their academic goals. Rejection from peer groups and failure at academic achievement critically increases children’s antisocial behaviors.

Ramsden and Hubbard (2002) found that parental emotion coaching did not directly affect children’s aggressive behaviors. However, they found that parental emotion coaching could indirectly mitigate children’s aggressive behaviors through children’s emotion regulation. More specifically, levels of negative family emotion expression negatively related to levels of emotion regulation in children, while levels of maternal acceptance of the child’s emotions positively related to levels of emotion regulation in children. On the other hand, Hooven, Gottman, & Katz (1995) found that children who received parental emotion coaching were inclined to show higher attention and higher academic achievements than children who did not receive such instruction.

In similar fashion to research on the role of psychological development on emotion coaching, from a perspective of communication, Burleson (1994) and Burleson and Kunkel (2002) used a concept of “comforting” to explicate the effect of socializing agents’ emotional supports on children’s management of negative emotions. Burleson (1984b) defined comforting strategies as “messages having the intended function of alleviating, moderating, or salving the distressed emotional states of others.” (p. 140). He
also defined comforting as “message behavior having the intended function of alleviating or lessening the emotional distresses experienced by others.” (Burleson, 1994, p. 4).

With regards to the effect of maternal communication of emotion-focused expression of comfort on the child’s emotional support skill, Applegate, Burleson, and Delia (1992) found that a mother’s comforting skills significantly influenced the development of her child’s social-cognitive development and comforting skill (also see Eisenberg, Fabes, & Murphy, 1996). Burleson and Kunkel (2002) also demonstrated that maternal comforting skill was the strong predictor of the child’s comforting ability.

I assume that family interaction has significant effects on children’s emotion regulation and their behaviors related to emotion. The next question then is how family interaction, particularly parental communicative interaction with children, affects children’s emotion regulation. Denham et al. (1997) introduced two plausible hypotheses to account for the mechanism of the effect of family interaction on children’s emotion regulation: Parental modeling and emotion coaching hypotheses. According to parental modeling, children can learn emotion regulation skills from parental expressive styles and responsiveness to children’s emotions. Children can learn how to regulate emotion by being exposed to parental continuous responsiveness to their emotion. On the other hand, parental emotion coaching is based on interactive communication between parents and children. According to the emotion coaching hypothesis, children learn emotion regulation abilities through parental discussions of emotions. Through interactive communication for emotion coaching, children can accumulate emotion-related words, knowledge about emotion, and cognitive awareness of others’ emotions. In this respect, two approaches are considered: (1) parents are “coachers” (2) parents are “dismissers”.

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If parents play a role as emotion coachers, they are willing to understand children’s emotions and discuss emotions that children have, and provide instructions to their children to manage emotional arousal. However, if parents are dismissers, they try to ignore or oppress children’s emotions. Denham et al. (1997) found that children who learned how to regulate emotion from parents as emotion coachers improved their emotion regulation competences such as emotion-related words and knowledge of emotion than those from parents as dismissers.

Ramsden and Hubbard (2002) viewed parental emotion coaching as parental responsiveness to children’s emotions and instruction. They operationalized parental emotion coaching with three systematic stages: “(1) parents’ awareness of their child’s emotions, (2) parents’ acceptance of the child’s emotions and (3) the degree to which parents provided instruction to the child on managing his/her emotions” (Ramsden & Hubbard, 2002). Eisenberg, Losoya, et al. (2001) demonstrated that parental discussion of emotions and parental warmth positively affected children’s cognitive and behavioral development. Parental discussion of emotions decreased children’s aggressive behaviors, while parental warmth augmented children’s awareness of others’ emotions.

Ramsden and Hubbard’s (2002) first two systematic stages of parental emotion coaching (i.e., awareness and acceptance of the child’s emotions) more or less correspond to Applegate’s (1980) hierarchically sophisticated comforting strategies: A sensitive provider of emotional support needs to (1) acknowledge, (2) elaborate, and (3) legitimize the feelings of distressed others. From similarity between Ramsden and Hubbard’s (2002) process of parental emotion coaching and Applegate’s (1980) process of comforting, an important inference might be made: Social-cognitive developments should
play an important role in effective emotion coaching. The reasons are as follows: Perceptions of others’ feelings or emotions are the first necessary step to be able to provide relevant instruction of emotion management. Constructivist researchers have claimed that individuals could perceive others’ feelings and given situations in which others’ feelings are generated through their social-cognitive system properties (Applegate et al., 1992; Applegate, Burleson, & Delia, 1985). Accurate perceptions of others’ emotional states through social-cognitive developments will enable emotion coaches to provide relevant knowledge and instruction to others.

To sum up, Denham et al.’s (1997), Eisenberg, Losoya, et al.’s (2001), and Ramsden and Hubbard’s (2002) findings have an important implication in that parent-child “communicative” interactions are the major educative tool to promote children’s emotional regulation capacity. Hence, it should be important to figure out what parental communication practices play a significant role in developing their children’s emotion regulation capacity.

2.4 Relationships of Mother-Child Communication Practices with Emotional Regulation and Social-cognitive Development

The family is looked upon as a primary locus of a diversity of interactive communication (Applegate et al., 1992; Bochner & Eisenberg, 1987; refer to Maccoby & Martin, 1983). Through social and communicative processes among family members, children learn and internalize cultural knowledge and communication skills such as functional communication strategies, communication styles and manners. These communicative interactions with family members might have a significant impact on the development of children’s social-cognitive system properties and their emotional
regulation capacity. Particularly, parental communication plays a crucial and significant role in children’s learning social-cognitive, emotion-regulative, and communicative abilities, which are required for socialization. Burleson et al. (1995) maintain that parents’ person-centered or position-centered modes of communication with their children would be perpetuated through being re-created in children. That is, parent’s person-centered mode of communication with their children would facilitate their children to use more person-centered modes of communication. For example, S. L. Kline (1998) found that collaborative influence opportunities that children perceived themselves to have with their families were positively associated with three persuasive argument skills (i.e., problem conception, proposal advocacy, and motivating the other to act). Given that differences in parenting styles typically determine parental communication practices (Burleson et al., 1995), differences in parental communication practices will be explicated along with parenting styles. Two theoretical perspectives to family communication will be introduced to help comprehend features of familiar communicative interactions: (1) Interactional perspective and (2) Constructivist perspective.

2.4.1 Interactional Perspective to Family Communication

An interactional perspective to the function of the familial communication emphasizes reciprocal complements through interactive communication within its own unique communicative context (Bochner & Eisenberg, 1987; Koerner & Fitzpatrick, 2002a; Maccoby, 1992; McDevitt & Chaffee, 2000, 2002; Niemi & Junn, 1998). Through interactional relationships, family members develop consistent anticipation to their joint goals and share viewpoints and meanings that encourage members to
coordinate fully with each other (Maccoby, 1992). Bochner and Eisenberg (1987) tapped five significant features of interactional communication. First, messages should be comprehended within the condition that some messages may modify the meaning of other messages. Second, messages serve “both informative and directive functions” (1987, p. 544). This feature can be related to two components of family communication: conversation and conformity. Third, interaction is characterized as constant sequence. Fourth, interactional sequences are likely to be repetitive. Finally, family members’ behaviors can be accepted within a unique family communicative context. This feature could be directly related to family communication structures (Chaffee et al., 1973).

Chaffee, McLedod, and Wackman (1973) conceptualized two types of families in terms of communication: (1) concept-oriented family and (2) socio-oriented family. I assume that the concept-oriented family stands faithful to the interactional perspective in family communication. The concept-oriented family basically emphasizes familial interaction based on reciprocal arguments and reflective thinking (Fujioka & Austin, 2002). Parents allow their children to express opinions freely, to obtain knowledge systematically, and to discuss family issues actively. Interactional communication enables both parents and children to acknowledge, discuss, and renegotiate disciplines, (i.e., rules and norms) that govern their interactions and relationships (McDevitt & Chaffee, 2000, 2002; Koerner & Fitzpatrick, 2002a). Members in the concept-oriented family have a mutual and simultaneous influence on each other through interactive communication (Fitzpatrick & Caughlin, 2002). Through interactive communication, not only can children develop self-regulatory and imposed abilities but also they learn how to acknowledge, discuss, and negotiate argumentative familial issues.
In this respect, the concept-oriented family members have the great potential to flexibly handle opinions.

Fitzpatrick and Ritchie’s (1994) concept of conversation-orientation in families was established based on McLeod and Chaffee’s (1972) and Chaffee et al.’s (1973) the concept-oriented family. Conversation-orientation is defined as “the degree to which families create a climate in which all family members are encouraged to participate in unrestrained interaction about a wide array of topic” (Koerner & Fitzpatrick, 2002a. p. 85). Koerner and Fitzpatrick (2002a) maintain that conversation-orientation emphasizes the amount of parent-child communication interaction as well as openness of parent-child communication which was emphasized by the concept-oriented family communication. Family members are encouraged to spend a plenty of time in interacting with each other freely. Parents standing in this view conceive frequent communication with their children as the staple means to educate their children (Koerner & Fitzpatrick, 2002a). Thus, conversation-oriented family is primarily characteristic of openness and frequent communication (Koerner & Fitzpatrick, 2002b)

In contrast to the concept-oriented family, the socio-oriented family puts an emphasis on familial harmony and the status quo based on conformity and control (Chaffee et al., 1973; Fujioka & Austin, 2002). Children, in the type of socio-oriented family, are expected not to express their emotions (e.g., anger and anguish) in a group situation as well as to stay away from troublesome issues (Liebes & Ribak, 1992). Constraints on children’s emotional revelation by parents might have the negative potential to increase dissatisfaction of children’s emotion management, which negatively deteriorates children’s emotional regulation capacity. The socio-oriented family rarely
allows children to present topics which challenge elders’ dignity, which also may potentially prevent children from developing their communication skills.

Fitzpatrick and Ritchie’s (1994)’s conformity orientation family communication pattern fits the socio-oriented family. Conformity orientation is defined as “the degree to which family communication stresses a climate of homogeneity of attitudes, values, and belief” (Fitzpatrick & Ritchie, 2002, p. 85). Parents in this family communication are likely to expect obedience. Thus, Koerner and Fitzpatrick (2000b) maintain that the conformity-oriented family is closely associated with a traditional family structure which emphasizes cohesiveness and hierarchy.

After reviewing their past works (see Koerner & Fitzpatrick, 1997a, 1997b), Koerner and Fitzpatrick (2000b) found that conversation orientation in families was positively associated with seeking social supports and negatively associated with conflict avoidance and these relationships were reverse to conformity orientation in family. Thus they concluded that conversation orientation in family provided more benefits to children in terms of better conflict communication skills and effective management of negative consequences of interpersonal conflict (Koerner and Fitzpatrick, 200b). Given that deliberative discussion deal with conflictive and controversial issues, I maintain that conversation-oriented family will be better educative circumstance than conformity-oriented family for children to learn deliberation-relevant communication skill such as conflict management skill.

To sum up, the interaction perspective of family communication provides two important implications in terms of the influence of parent-child communication on children’s communication ability. First, the amount of parent-child communication is an
important construct to develop relationships between parent and children and promote children’s communication skills. Second, the openness of parent-child communication plays a significant role in enhancing reflective thinking and argumentation skills.

Based on two different features of family communication above, I assume that parents in the concept-oriented family communication might be likely to use interrogative and descriptive modes of linguistic expression with their children, which encourage children to reflectively think about problems and concerns, for the interrogative and descriptive modes of parental linguistic expression are characteristic of reflection-enhancing communication. Children in the socio-oriented family might have more chances to hear the imperative and directive modes of parental linguistic expression, reasoning that imperative and directive styles of parental linguistic expression possess the characteristics of one-sidedness and conformity.

In the next section, I will examine how constructivist researchers understand family communication and why constructivist perspective to family communication is important to understand the effect of parental communication on children’s emotion-regulative, social-cognitive, and communicative abilities as well.

2.4.2 Constructivist Perspective to Family Communication

Applegate et al. (1985) has stated that constructivist approach was used to explicate relationships among individual differences in social-cognitive knowledge structures and communicative skills. Sociolinguists have asserted that individuals learn “a sociolinguistic code”, or system of schemes organizing the appropriate social usage of language” in learning a language and “individuals’ internalization of these schemes in the socialization process orient them toward particular ways of structuring social reality
through the use of language (i.e., through communication)” (Applegate & Delia, 1980, p. 252). Under the context of parental communication, constructivists have employed the concept of reflection-enhancing communication, which stems from an integration of Hoffman’s (1977) analysis of power-assertive versus inductive parenting and Bernstein’s (1971/1974) position- and person-centered communication. “Power-assertive/authoritarian/position-centered parenting involves the direction assertion of parental authority through physical punishment, control of material resources, or verbal means (imperatives, commands, threats, and rules invocations). Inductive/authoritative/person-centered parenting, by contrast, involves offering reasons, particularly consequence-focused reasons, to guide the child’s thought and conduct” (Burleson et al., 1995, p. 39, also see Baumrind, 1968, 1971; Koerner & Fitzpatrick, 2000b).

Hoffman (1975) claims that power assertive parenting depending substantially on the threats of external threats (i.e., punitive consequences) prompts intensively-aroused emotions, which dampens his or her cognitive functioning in the situation. On the other hand, he asserts that inductive parenting primarily resting on logical communication encourages the child to reflectively think about the consequences of his or her actions for others, which enable him or her to comprehensively understand the ramifications of his or her behavior (Hoffman, 1975). The child should be allowed to make autonomous decisions grounded on information-processing. Inductive parenting should help the child amicably ease the emotional tension with parents’ requests and positively coordinate his or her desires with his or her parents’ moral standards (Hoffman, 1975). With examinations of the findings of past research and her own research, Baumrind (1971) also
asserts that parents who verbally explain reason to legitimate their directives (i.e., authoritative parent\textsuperscript{14}) are more likely to acquire children’s conscious and willing conformity to their directives and rules than those who use punitive in their demands (i.e., authoritarian parent\textsuperscript{15}) without verbal exchange with their children. In addition, children whose parents provide frequent verbal give and take for their directives are more socially responsible than those whose parents rely on frequent physical actions (Baumrind, 1971). Hoffman’s (1975) and Baumrind’s (1968, 1971) assertions and findings imply that rational communicative interaction between parents and children should play a crucial role in appropriately educate children’s cognitive, emotional, and behavioral and expectedly communicative competence.

However, based on fuller examinations of the findings of some past research about the influence of conversation orientation and conformity orientation on family behaviors, Koerner and Fitzpatrick (2002b) claim that parents’ reasons giving and taking to legitimate their demand in itself should not be helpful for children to develop their perspective taking and empathy abilities, reasoning that parents in conformity orientation family use verbal expression and explanation of rational justification for their directives which embodies coercive attributes. Given that children’s social-cognitive abilities such as perspective taking skill are substantially important for them to activate their deliberation-relevant communication abilities, Koerner and Fitzpatrick’s (2002b) claim implies that specific modes of parental linguistic expression including the attribute of non-coercive, social-cognitive, and emotional understanding and support should be used for children’s social-cognitive development.
From the perspective of sociolinguistic codes, Bernstein (1971/1974) presented two distinctive types of sociolinguistic codes which differentially influence the quality of communication: (1) “elaborated codes” and (2) “restricted codes” (p. 171). Bernstein (1971/1974) has held that the actualization of these sociolinguistic codes through communicative actions enables people to interpret social contexts in a certain way. The elaborated code encourages speakers to consider uniqueness or differences of each individual’s motivations, intentions, and feelings, while the restricted code makes speakers assume that the others’ assigned positions with a given context is the key factor to understand the identities of another and the meaning of his or her actions (Applegate & Delia, 1980). The elaborated code founded on recognition of different perspectives fosters a person-centered orientation that facilitates language use to reduce gaps between individuals’ differentiated perspectives, while the restricted code relying on conventional rules or roles fosters a position-centered orientation that dampens language usage focusing on individuals’ unique perspective (Burleson et al., 1995). However, constructivists have realized that Bernstein’s theory did not provide “any independent conceptualization of the nature and role of psychological structure in the process of linguistic and communicative development” (Applegate & Delia, 1980, p. 255). Thus constructivists made efforts to explain differences in communicative behaviors with psychological developments. Constructivists have claimed that individuals develop their social-cognitive systems in more complex and more articulated ways through their own experiences within significant features of their environment. Through these social-cognitive system developments, individuals perceive and understand others and objects, which enables them to formulate communicative strategies (Applegate & Delia, 1980).
Burleson defined person-centered communication as “message behavior reflecting awareness of and adaptation to the subjective, affective, and relational aspects of communicative contexts” (1989, p. 29). Person-centered communication is constructed based on recognition of uniqueness of individuals’ motivations, intentions, and feelings and differences between self and others (Applegate et al., 1985). Under the condition of recognizing individual differences, people with person-centered orientations tend to generate elaborating speech that fits others’ motivations (refer to Hoffman’s (1977) power assertion/inductive modes).

Within a family belief system, members’ sense of belonging to a family tends to lead them to be fit for a family belief-orientation through communicative interactions (Bochner & Eisenberg, 1987). Under the context of a family socialization system, Burleson et al. (1995) maintain that being exposed to parents’ behaviorally complex messages facilitates children to obtain a “generalized interpretative orientation” (p. 62) and develop more complex social-cognitive systems. Children well equipped with developed social-cognitive systems are inclined to develop more listener-adapted persuasive strategies and sophisticated comforting strategies. Constructivist researchers have claimed that the development of more differentiated, abstract, and integrated construct systems would be facilitated by a home environment in which a substantial amount of parental person-centered dialogue occurs (Applegate et al., 1985; Applegate et al., 1992; Applegate & Delia, 1980; Burleson et al., 1995). However, researchers have found that parental communication relying on the frequent availability of rules, authority, and coercive power (i.e., position-centered communication) in regulative contexts was not effective in the development of children’s social-cognitive system properties,
including social information-processing skill (Applegate & Delia, 1980; Weiss, Dodge, Bates, & Pettit, 1992). Rather, person-centered regulative communication relying on reasoning based explication of disposition or feelings of others was likely to expand children’s social-cognitive systems and even person-centered communication (Applegate et al., 1985; Applegate et al., 1992; Delia et al., 1979).

Some communication researchers have demonstrated that person-centered messages provided by parents enable children to reflect on their actions and short- and long-term consequence of them, to contrive alternative means to improve them, and to enhance their self-concept and empathy to others’ psychological states in complex social situations (Adam, 2001; Applegate & Delia, 1980; Applegate et al., 1985, 1992; Burleson et al., 1995). Namely, through the practices of reflecting on their actions, children, specifically, older children, can enhance their ability to construct person-centered communication strategies and empower interpretive logic that “guides the temporal emergent assessment and management of situations,” or their cognitive and communicative skills (Applegate et al., 1992, p. 8). Applegate et al. (1992) demonstrated that mother’s person-centered communication had a powerful influence on children’s communication and social-cognitive skill. They found that maternal reflection-enhancing or person-centered communication was positively associated with children’s interpersonal construct systems and social and affective perspective-taking skill, comforting skill, and listener-adapted skill (Applegate et al., 1992). These findings clearly demonstrate that socialization practices in a home environment as antecedents play an important role in the development of interpersonal constructs and person-centered communication.
Applegate et al. (1985) has asserted that person-centered communication based on the development of social-cognitive abilities should play a key role in accepting others’ autonomy, producing effective persuasive messages and improving comforting situations. Recognizing frequent occurrences of regulative communication in common and important contexts and underlying functions of social-cognitive systems in person-centered message production, S. L. Kline and Chatani (2001) also found that adolescents with highly differentiated interpersonal construct system were likely to generate explicit person-centered regulative messages grounded on an individuated understanding of others’ views and emotions, while adolescents with a lower level of interpersonal construct system differentiation were likely to use simple and short appeals based upon rules, norms, and roles. Similarly Burleson and Samter (1985) found that a greater proportion of sophisticated person-centered comforting strategies were regarded as an effective means to help distressed people manage their emotional distress. They found that comforters’ inclination to share their own experiences, knowledge, and feelings were more sensitively appreciated by other parties (Burleson & Samter, 1985). And I assume that comforters might use a certain mode of linguistic expression such as the descriptive and exploratory modes of linguistic expression to share their experiences, knowledge, and feelings. This finding implies that an elaborated person-centered comforting message with reciprocity of self-disclosure may function more effectively in emotionally support the distressed. Particularly, person-centered comforting communication should be closely related to emotion coaching, for strategies to generate comforting “(1) explicitly acknowledge the legitimacy of the feelings, (2) help the distressed other to understand why the feelings are present and/or (3) help develop constructive plans of
action to cope with those feelings” (Applegate, 1990, p. 218, also see Ramsden & Hubbard, 2002). These person-centered communication strategies were used not only in family communication but also in medical team communication. Zimmermann and Applegate (1992) also found that through interactive communication among hospice interdisciplinary teams who often fall in distress, they could understand other’s feelings and perspectives and provide comforting messages for other team members.

On the other hand, people adopting position-centered orientation relied much more on imperative and simple assertions of rules to communicate with others. For example, Applegate and Delia (1980) found that position-centered teachers were likely to depend on their authoritative tones to regulate children. They were more likely to use nonverbal means and a short imperative mode of linguistic expression than verbal means and an exploratory mode of linguistic expression to control children.

To summarize, a constructivist perspective to family communication provides significant implications in development of necessary emotion-regulative, social-cognitive and communicative abilities for deliberative communication skills: (1) Family communication, particularly, person-centered parental communication positively influences development of children’s social-cognitive systems and persuasive, regulative, and comforting communication skills, (2) social-cognitive systems properties are underlying forces to generate elaborated and sophisticated persuasive, regulative, and comforting messages, finally (3) each position- and person-centered communication are performed with use of differentiated modes of linguistic expression.
For example, position-centered parental communication is likely to use the short imperative mode of linguistic expression while person-centered parental communication is likely to use the descriptive and exploratory modes of linguistic expression.

I claim that emotional regulation capacity, social-cognitive development, and persuasive and comforting communication skills should be fundamentally important properties to actualize deliberative communication skills and deliberative communication performances. I also assert that person-centered and reflection-enhancing maternal communication should play a crucially important role in developing children’s emotional, social-cognitive, and communicative skills for their deliberation.

Based on arguments above, the following hypothesized model of the relationships among mother-child communication practices, children’s emotion-regulative and social-cognitive abilities and deliberation is established.
Note. Arrow = direction of influence, oval = latent factor, rectangle = observed variable

Figure 2.1 Hypothesized Model of Relationships among Mother-Child Communication Practices, Children’s Emotion-Regulative and Social-Cognitive Abilities, and Deliberation
Figure 2.1 presents an original model that reflects the entire processes of influence among mother-child communication practices, children’s emotion-regulative and social-cognitive abilities, and their deliberation. As can be seen Figure 2.1, this hypothesized model consists of three latent factors and 13 observed variables. The latent factor of mother-child communication practices is composed of four different types of mother-child communication practices. The latent factor of social-cognitive development comprises interpersonal construct system properties and perspective taking skill and that of deliberation is made up of six observed variables.

This hypothesized model describes two causal effects by using latent factors. One is the causal effects of mother-child communication practices on children’s social-cognitive abilities. The other is the causal influence of children’s social-cognitive abilities on their deliberation. In addition, it also delineates two causal influences between two latent factors and one observed variable. Given that children’s emotion-regulative capacity should play an important role in facilitating their deliberation, this hypothesized model presents the causal effect of children’s emotion-regulative capacity on their deliberation. This model also proposes the causal influences of mother-child communication practices on children’s emotion-regulative capacity. I claim that this model has a significant implication in theoretically bridging the domain of interpersonal communication with that of political communication.

However, considering the enormous amount of temporal and financial resources to collect all necessary data to test all these relationships at one time, this study aims to test the first half of the relationships in the hypothesized model. Namely, this study will test whether or not there are significant relationships between mother-child communication
practices and children’s emotion-regulative and social-cognitive abilities. Figure 2.2 presents the hypothesized model in which I will indeed test in this study.

I introduce more specific predictions that concretize my assertion about the relationships between mother-child communication practices and children’s emotion-regulative and social-cognitive abilities in the next chapter.
Figure 2.2 Hypothesized Model of Relationships Between Mother-Child Communication Practices and Children’s Emotion-Regulative and Social-Cognitive Abilities
CHAPTER 3

HYPOTHESES

This chapter presents 18 hypotheses, which will test relationships among mothers’ communication with their children, and children’s emotional regulation, and deliberation relevant social-cognitive developments. These factors were considered to be essential properties for discussants to be able to establish deliberative discussion.

The first three hypotheses were developed to investigate the interrelationships among measures of social-cognitive development (i.e., two interpersonal construct system properties and perspective taking skill) and emotional regulation capacity. The next nine hypotheses, from H4 to H12, tested whether maternal communication with their children is associated with children’s social-cognitive development. Another three hypotheses, (i.e., H13, H14, and H15), tested whether maternal communication with their children is associated with both mothers’ perception of their emotion coaching with their children and children’s perceptions of their mothers’ emotion coaching. Finally, the last three hypotheses tested whether three maternal communication patterns with their children would be interrelated. The specific hypotheses were as follows.

3.1 Interrelationships among Interpersonal Construct Properties, Perspective Taking Skill, and Emotional Regulation Capacity
Zajonc (1980) has asserted that individuals’ emotions have the great influence on their own cognitive processing when they engage in social interaction with others. Applegate et al. (1985) found that both mothers’ interpersonal construct system differentiation and abstractness were positively associated with regulative strategies at moderate levels of magnitude and that interpersonal construct system abstractness was positively associated with comforting strategies at a strong level of magnitude. Consistent with Applegate et al.’s (1985) findings, Applegate et al. (1992) also found that children’s social-cognitive development was positively associated with comforting skill at moderate to strong levels of magnitude. Given that (1) comforting strategies are significantly associated with social-cognitive development, (2) comforting strategies are associated with perceptual knowledge to understand emotionally distressed persons and the situations producing distressed feelings, and (3) both emotional regulation capacity and comforting strategies are related to the management of distressful emotions, Applegate et al. (1985) findings imply that emotional regulation capacity may be associated with social-cognitive development (see review in Burleson, 1994). Given that explicit person-centered appeals is associated with an individuated understanding the others’ feelings, I assume that individuals who acquire the ability to generate more sophisticated person-centered regulative appeals should have higher emotional regulation capacity.

Applegate et al. (1992) found that children’s affective and social perspective-taking skills were significantly and positively associated with their comforting skill at a moderate level of magnitude. Eisenberg et al. (1994) has argued that maintenance of optimal emotions should allow people to easily sympathize with others through
perspective taking. In line with Eisenberg et al.’s (1994) argument, Katz, Gottman, and Hooven (1996) proposed that the ability to soothe oneself physiologically should underlie abilities such as the ability to listen to what others say, the ability to take the perspectives of others, and the ability to empathize with others’ perspectives. From these assertions and findings, I predict that:

**H1:** Students’ perceptions of their emotional regulation capacity are positively associated with their interpersonal construct system differentiation and abstractness.

**H2:** Students’ perceptions of their emotional regulation capacity are positively associated with their perspective taking skill.

From the cognitive-developmental perspective, a number of constructivist scholars such as B. J. O’Keefe and Delia (1979), Delia et al. (1979), Applegate (1982, 1985), and S. L. Kline (1991) have shown that interpersonal construct properties play a significant role in affecting diverse communicative skills and message strategies. For example, along with an idea of “symbolic-coordination,” a process in which people use speech and argument to “create alignment between the persuadee’s views with one’s own views,” S. L. Kline (1991) found that highly differentiated students use speech and argument to understand the problem and to provide individualized appealing to the others by coordinating the proposed change with the others’ beliefs and desire. However, less differentiated students use speech and argument to define the problem globally and defend simply proclaimed proposals based on obligations and rights.

Hale and Delia (1976) found that differences in interpersonal construct system differentiation had a highly significant relationship with perspective taking skill in social
situations. Hale and Delia (1976) also suggested that qualitative attributes in constructs might affect perspective taking skills, reasoning that complexity in interpersonal constructs is highly associated with qualitative differences in constructs. B. J. O’Keefe and Delia (1979) demonstrated that the perceivers’ level of strategic adaptation to a target’s perspective for their arguments and appeals was more based on the level of abstract constructs than on general cognitive differentiation. In accordance with Hale and Delia’s suggestion, Burleson (1982) found that interpersonal construct system differentiation and abstractness were positively associated with affective perspective taking skills after controlling for age and gender at moderate magnitudes. Relying on Hale and Delia’s (1976) suggestion and B. J. O’Keefe and Delia’s (1979) and Burleson’s (1982) findings, I predict that:

H3: The more abstract interpersonal constructs students have, the more perspective taking skill they have.

3.2 Relationships Between Mother-Child Communication Practices and Children’s Emotional Regulation and Social-Cognitive Developments

Four maternal communication practices were examined for the extent to which they are closely related to children’s social-cognitive developments: (1) maternal emotion coaching with their children, (2) amount of children’s communication with their mothers, (3) frequency of children’s problem-solving communication with their mothers, and (4) mothers’ communication modes to their children.

From the developmental perspective, children who have learned emotional regulation capacity from their parents are inclined to internalize this regulation capacity and ultimately use strategies of emotional regulation in order to appropriately deal with
interpersonal relationships (Kopp, 1989). For example, Parke and O’Neill (1999) have argued that children’s emotional regulation capacity learned in the family context should enable them to effectively manage their emotional interactions with peers. Hoffman (2000) has asserted that through being exposed to parents’ discussions about emotional states, children learn how to empathize and sympathize with the others’ feelings by taking the perspective of other’s emotional status. Melnick and Hinshaw (2000) found that parental emotional regulation and advice-giving affected their children’s emotion regulatory behaviors when they were frustrated. From the finding that exposure to parental communication about emotion helps children manage their emotional behaviors, I assume that mothers’ emotion coaching should be related to their children’s emotional regulation capacity. Given that parental emotion coaching is communicative interaction and that mothers are more likely than fathers to talk with their children in Korea, I predict that:

H4: Children’s perceptions of their mothers’ emotion coaching with them would be positively related to children’s perceptions of their emotional regulation capacity.

From three findings that (1) parental emotion coaching are substantially identical to person-centered parental communication such as comforting communication in terms of awareness and acceptance of others’ emotions (see Applegate, 1980; Ramsden & Hubbard, 2002), (2) person-centered parental communication is positively associated with social-cognitive development (Applegate et al., 1985; Burleson, 1982a, 1984b; Delia et al., 1979; Delia & B. J. O’Keefe, 1982), and (3) person-centered maternal communication has a positive impact on the child’s social-cognitive development
(Applegate et al., 1992), it can be inferred that maternal emotion coaching is positively associated with the child’s social-cognitive development. Thus, I predict that:

H5a: Children’s perceptions of their mothers’ emotion coaching are positively associated with their interpersonal construct systems and perspective taking skill

With maternal reflection-enhancing communication assessed with six-level hierarchical coding systems, Applegate et al. (1992) found that maternal reflection-enhancing communication primarily affected positively children’s social-cognitive abilities. To extend Applegate et al.’ (1992) finding, I will test whether the amount of mother-child communication is significantly associated with children’s social-cognitive development. Holstein (1972) found that mothers’ level of moral reasoning and parental encouragement of their children’s participation in family discussions about moral dilemmas were positively associated with their children’s moral reasoning. Particularly, Holstein (1972) found that parents who allocated more time to explain the structural properties of moral problems had children who had more advanced moral development. Based on the suggestion in the socialization literature that “degree of influence is proportional to degree of exposure” (Holstein, 1972, p. 489), I believe that the more likely children are to converse with their mothers and discuss their personal problems and concerns, the more likely children are to learn diverse strategies and solutions to their problems. This learning process might develop children’s interpersonal construct system properties. I also claim that the more time children have to communicate with their mothers, the more opportunities they have to develop their interpersonal construct system properties through learning their mothers’ knowledge and experience.
Thus, I predict that:

H6: The frequency of children’s perceived problem-solving of mother-child communication is significantly associated with their (a) interpersonal construct system differentiation and (b) interpersonal construct system abstractness.

H7: The (a) frequency and (b) duration of children’s communication with their mothers is significantly associated with the differentiation of children’s interpersonal construct system.

H8: The (a) frequency and (b) duration of children’s communication with their mothers is significantly associated with abstractness of children’s interpersonal construct system.

Certain modes of mothers’ linguistic expressions also should be associated with their children’s emotional regulation capacity. For example, if children have frequently heard imperative mode of maternal linguistic expressions (e.g., “Do homework,” “Clear your room,” “Study hard,”), they might have fewer opportunities to learn ways of managing their emotions in desirable ways than those who frequently hear interrogative (e.g., “Do you have good friendships with your friends?,” “How was your life in school today,” “Why are you nowadays so depressive?”) and descriptive modes of maternal linguistic expressions (e.g., “Washing your hands and feet when coming back home will prevent you from catching cold,” “Studying hard will enable you to well prepare for your healthy future life,” “We are always proud of you and love you so much, my cute son/daughter!”) (see Koerner & Fitzpatrick, 2002b). I assume that the imperative mode of maternal linguistic expressions as short and simple assertions may make children feel
reluctant to disclose underlying reasons for their emotional states, which leads mothers to lose an opportunity to perceive and understand their children’s emotional states. Mothers lacking in perception and understanding their children’s emotional states may not be able to provide instructions to their children, which eventually fails to promote children’s emotional regulation capacity.

I also claim that certain modes of maternal linguistic expressions with their children should be associated with children’s social-cognitive development. Burleson et al. (1995) found that children who have more communicative actions with their parents were more likely to reflectively think about diverse issues and actively communicate with acquaintances than children who have unilateral and directive communicative interaction. With elementary school students, S. L. Kline (1998) also found that collaborative influence opportunities that children perceived themselves to have with their families were positively associated with their persuasive argument competencies. From these findings, I assume that children who frequently hear the interrogative and descriptive modes of linguistic expressions from their mothers will have more developed social-cognitive systems and perspective taking skill than those who frequently hear imperative and directive linguistic expressions from their mothers. So following four hypotheses were built:
H9: The frequency of children hearing an imperative mode of maternal linguistic expressions is negatively related to children’s perceptions of their emotional regulation capacity while the frequency of children hearing interrogative and descriptive modes of maternal linguistic expressions is positively associated with children’s perceptions of their emotional regulation capacity.

H10: The frequency of children hearing an imperative mode of maternal linguistic expression is negatively related with children’s levels of (a) interpersonal construct system differentiation and (b) interpersonal construct system abstractness.

H11: The frequency of children hearing interrogative and descriptive modes of maternal linguistic expressions is positively associated with children’s levels of (a) interpersonal construct system differentiation and (b) interpersonal construct system abstractness.

H12: The frequency of children hearing an imperative mode of maternal linguistic expressions is negatively associated with children’s perspective taking skills while the frequency of children hearing interrogative and descriptive modes of maternal linguistic expression is positively associated with children’s perspective taking skills.

3.3 Relationships Between Mother-Child Communication Practices and Mothers’ Emotion Coaching

Jurkovic and Prentice (1974) asserted that a lack of communication on reaching agreement with children should be characteristic of delinquent families. Given that
mothers’ emotion coaching is a communicative practice between mothers and children, emotion coaching directed toward their children should be performed in the interactions with their children in everyday life. Thus three hypotheses were established to test how communication practices between children and mothers were related to their emotion coaching toward their children.

While Korean elementary school students face problems that are related to their emotional, attitudinal, and behavioral makeup, they are expected to discuss those issues with their parents, for their parents are viewed as highly authoritative, credible and reliable persons. Parents in Korea are one of the most reliable and powerful persons in terms of advice-giving even when children become young adults.

Presumably, if children are likely to talk with their parents about their personal issues such as smoking or drinking problems, or concerns about their future lives, they are likely to express their ideas with certain modes of emotions to their parents, either intentionally or unintentionally. Through these interactions parents can be made at least aware of their children’s specific emotional states, which may stimulate them to help their children manage their children’s uncontrollable emotions. This assumption is partially supported by Sillars, Koerner, and Fitzpatrick’ (2005) finding that the more likely children are to talk with their mothers about their problems and concerns, mothers are more likely to understand their children’s self concept such as their relationships with same and opposite sex, their honesty, and academic ability. Thus, I assume that children who frequently talk with their parents about their personal issues may have higher opportunities to perceive their parents’ emotion coaching. Thus I expect:
H13: The frequency of children’s perceived problem-solving of mother-child communication is significantly associated with children’s perceptions of their mothers’ emotion coaching.

In line with the assumption of H13, I also assumed that the amount of communication between mothers and children might be positively associated with maternal emotion coaching. The more time mothers and children spend together communicating with each other, the more opportunities mothers might have to perceive their children’s emotional states (Koerner & Fitzpatrick, 2002b). The more likely mothers are to perceive their children’s uncontrollable and undesirable emotions such as depression, anger, or sadness, the more likely they are to coach their children on their emotions in order to help them to appropriately manage their emotions. In this respect, I predict that:

H14: There should be significant relationships between the frequency and duration of children’s communication with children’s perceptions of their mothers’ emotion coaching.

Given that maternal emotion coaching is based on communicative practices between mothers and their children, it is worthwhile to identify whether certain modes of maternal linguistic expression are significantly associated with children’s perceptions of mothers’ emotion coaching. Consistent with Sillars et al.’s (2005) baseline assumption that “families who demonstrate patterns of frequent, open, and direct communication should have greater understanding than families who communication is circumspect or censured,” (p. 106) they found that children’s perceptions of family conformity were negatively associated with fathers’ and mothers’ understanding of their children’s self-
concept. Fathers and mothers with parental power use did not help them understand their
children. I assume that the imperative and directive modes of maternal linguistic
expressions as one-sided communication may not allow children to reveal specific
grounds of their emotional states, which may not allow mothers to be aware of causal
factors to their children’s certain emotional states (see Liebes & Ribak, 1992). Mothers’
less awareness of their children’s emotional states will result in their fewer acceptances
of children’s emotional states, which leads to less instruction in the management of their
children’s emotions. Given that understanding of children’s general concepts such as
respect for the self is in a similar line with awareness and acceptance of children’s
emotional states, I suspect that children who frequently hear simple, imperative, and
directive modes of maternal linguistic expressions might be less likely to perceive their
mothers’ emotion coaching. On the other hand, the interrogative and descriptive modes
of linguistic expressions frequently used in mother-child communicative interactions may
allow both mothers and children to understand others’ ideas (see McDevitt & Chaffee,
2000, 2002; Koerner & Fitzpatrick, 2002a; Sillars et al., 2005). Sillars et al. (2005) found
that children’s perceptions of open and direct parental communication were positively
associated with parents’ understanding of their children’s self-concepts. They have also
asserted that children in conversation-oriented family are more likely to be transparent to
their parents, which enables their parents to understand their children’s self-concepts
(Sillars et al., 2005). I assume that parents in conversation-oriented families may be able
to provide more relevant knowledge and experience including strategies of management
of emotional control to their children. So the following hypothesis was developed:
H15: The frequency of children hearing an imperative mode of maternal linguistic expressions is negatively related to children’s perceptions of mothers’ emotion coaching while the frequency of children hearing interrogative and descriptive modes of maternal linguistic expressions is positively associated with children’s perceptions of their mothers’ emotion coaching.

3.4 Interrelationships among Mother-Child Communication Practices

I suspect the amount of communication between mothers and children in Korean families might be critically small, for even mothers are not able to reserve time to converse with their children because they need to work outside the home to make extra money to pay for their children’s private education fees. This situation, on the other side, may fundamentally disable children to converse with their mothers, which causes children to dampen or eliminate their intentions to converse with their mothers when they want to talk about their personal problems or concerns.

I also assume that certain modes of maternal linguistic expressions might be associated with the frequency of perceived problem-solving of mother-child communication. For example, if children are more likely to hear imperative modes than interrogative and descriptive modes of maternal linguistic expressions, they may be more reluctant to converse with their mothers, because their mothers’ imperative mode of linguistic expressions would be perceived as more demanding but less supportive, which discourages children from conversing with their mothers. Thus, I expect that:
H16: The (a) frequency and (b) duration of students’ communication with their mothers is significantly related to the frequency of perceived problem-solving of mother-child communication.

H17: An imperative mode of maternal linguistic expressions is negatively related to the frequency of perceived problem-solving of mother-child communication, while interrogative and descriptive modes of maternal linguistic expressions are positively related to the frequency of perceived problem-solving of mother-child communication.

H18: An imperative mode of maternal linguistic expressions is negatively related to the frequency and duration of children’s communication with their mothers, while interrogative and descriptive modes of maternal linguistic expressions are positively related to the frequency and duration of children’s communication with their mothers.

In this chapter, I presented 18 hypotheses that test relationships among social-cognitive abilities, emotional regulation capacity, and mother-child communication practices which are essential properties to promote deliberation-relevant communication skills. To test these hypotheses, I will introduce the rationale of selection of a certain type of participants and their demographic information. I will also describe procedure of this study, such as recruitment of participants and distribution of pencil and paper questionnaires. Finally, I will present tasks and measurements to assess variables related to the hypotheses.
CHAPTER 4

METHOD

For the purpose of testing 18 hypotheses, paper and pencil questionnaires were administered to 350 freshmen who attended three Korean universities, and their mothers. This chapter presents the participants’ demographic information, recruitment procedures, tasks, and measures.

4.1 Participants

4.1.1 Students

Approximately 350 first-year college students were recruited from three Korean universities. Originally college students were scheduled to be recruited from four universities. However, one university in Seoul was dropped due to scheduling conflicts. There were three major reasons why I recruited first-year college students for this study. First, the influence of communication with their parents on their social-cognitive knowledge, emotional regulation capacity, and communication skills remains considerable, since the period of leaving their sheltered home environment for school is fairly short compared with those of sophomores, juniors and seniors. Second, most first-year college students’ social-cognitive development is still in the adolescent period. Finally, compared with elementary, middle, and high school students, first-year college
students were more likely to engage in either face to face or online discussions on social and political issues, for they are starting to conceive of themselves as eligible actors who should take responsibility for coping with social and political problems.

One hundred first-year college students were recruited from one university located in Seoul, the capital of Korea, while 100 and 150 first-year college students were recruited, respectively, from two other universities situated in Daegu, the fourth largest city in Korea. Five students from one university in Seoul and 16 students from two universities in Daegu were dropped out due to incomplete answers on the questionnaires. Thus, the total number of the participants who completed the questionnaire was 329. The age of the participants ranged from 18 to 21 years old ($M = 18.74, SD = .78$). Most participants were 18 and 19 years old (86.6%). Female students ($N = 180, 54.7%$) somewhat outnumbered male students. Participants’ living places were fairly diverse. They lived in 23 different cities and three different provinces. However, three quarters of the participants lived in Daegu ($N = 163, 49.5%$) and Seoul ($N = 79, 24.0%$). Kyungsan City ($N = 20, 6.1%$) and North Kyungsang Province ($N = 15, 4.6%$) followed. The participants’ family incomes per month were also very extensive ($M = $5,004.80, $SD = $8,931.84$). The highest family income was $90,000.00 while the lowest was only $500.00 per month. The range of personal incomes was from $0 to $2,000 per month ($M = $132.30, $SD = $229.18$).

With regards to parents’ final education, fathers’ highest level of education was somewhat higher than mothers’ highest level of education. Most fathers graduated from high school ($N = 143, 43.5%$) or college ($N = 127, 38.6%$).
Twenty five fathers graduated from above graduate school (7.6%). Most mothers graduated from high school \((N = 178, 54.1\%)\), followed by college \((N = 80, 24.3\%)\) and middle school \((N = 36, 10.9\%)\). Most students had four family members \((N = 221, 67.2\%)\). Five \((N = 51, 15.5\%)\) and three family members \((N = 25, 7.6\%)\) followed. Finally, with respect to parent’s marriage status, 308 parents married (93.60%), while 11 parents were divorced (3.3%). Five parents had lost their spouse by death (1.5%), followed by one parent living separately (0.3%).

Daegu is about 110 miles from Seoul. The participants were recruited from required mass communication and journalism courses at the universities. More than half the participants majored in mass communication and journalism \((N = 182, 55.3\%)\), while others majored in Athletics \((N = 27, 8.2\%)\), Humanities \((N = 17, 5.2\%)\), Business Management \((N = 16, 4.9\%)\), English \((N = 15, 4.6\%)\), International Language Studies \((N = 14, 4.3\%)\), Political Science and Economics \((N = 13, 4.0\%)\), and others such as Civil Engineering and Architecture.

In return for their engagement in the study, participants were qualified to receive incentives such as book gift cards. For participants who completed the paper and pencil questionnaire, 20% of the participants won a book gift card with a value of around five dollars by lottery and all the participants received stationery. For those who were not able to participate in this research due to time conflicts, an alternative activity was offered to them, which asked them to summarize three articles on deliberation. However, no one applied for this option.
4.1.2 Mothers

The participants’ mothers were also recruited for the purpose of learning how mothers communicated with their child. In return for their participation in this study, 20% of the participants won by lottery a book gift card with around five dollars. Of 350 questionnaires distributed to the participants’ mothers, 54 questionnaires were returned. The return rate of the questionnaires was 15.43%. Two questionnaires were excluded due to incomplete answers.

4.2 Procedure and Design

During the seventh week in the spring semester, I distributed one handout and one envelope to the participants during their classes. The envelope contained a paper and pencil questionnaire, a return envelope, a stamp, and a consent form for each subject’s mother. The handout consisted of the copies of the consent form that included detailed descriptions of the study (e.g., the purposes and the procedures of the study, incentives, etc.). After distributing all the handouts, the participants were encouraged to read the description of the study in the handout (i.e., the consent form) carefully. While they were reading the handout, I also explained the procedure of the study orally for 10 minutes in order to help the participants understand it. After the oral explanation, participants were asked to complete the consent form and submit it to the investigator. Finally, participants were instructed to deliver the envelope to their mothers. As soon as their mothers completed the consent form and questionnaire, their mothers were instructed to send them back to the researcher either by mail or by their children’s delivery.

During the ninth week of the semester, a paper and pencil questionnaire was distributed to the student participants during their classes. This questionnaire contained
several tasks to measure (1) students’ perception of their mothers’ emotion coaching, (2) frequency and duration of communication between students and their mothers, (3) frequency of students’ problem-solving communication with their mothers, (4) mothers’ communication modes to students, (5) students’ emotional regulation capacity, and (6) students’ social-cognitive development. While participants were completing the questionnaire for one and a half hours, I carefully monitored the participants’ task performance and answered their questions to help them correctly complete the questionnaire. Participants were prohibited from talking with the other participants. After completing the questionnaires, they were instructed to give the questionnaires to the researcher.

4.3 Tasks and Measurements: Students

This section consists of two types of measurements: (1) measurements of communication practices between students and their mothers and (2) measurements of students’ emotional regulation capacity and their social-cognitive development. Both dimensions of measurements, respectively, were composed of four sub-dimensions. With relation to communication practices between students and their mothers, close-ended questions were asked to measure students’ perceptions of their mothers’ emotion coaching, amount of students’ communication with their mothers, and the frequency of students’ problem-solving communication with their mothers. In addition, open-ended questions were used to measure students’ recall of their mothers’ linguistic expressions to them. With regards to students’ emotional regulation capacity and their social-cognitive development, 10 close-ended questions were employed to measure students’ perceptions of their own emotional regulation capacity. To investigate students’ social-cognitive
development, free response tasks were used to measure interpersonal construct
differentiation, interpersonal construct abstractness, and perspective taking skills. All the
measurements are presented in the Appendix A.

4.3.1 Communication Practices Between Students and Their Mothers

4.3.1.1 Students’ perception of their mothers’ emotion coaching. In order to learn
students’ perception of their mothers’ emotion coaching, students were asked to recall
three school periods from elementary school to high school and answer a set of six items
for each school period. Three dimensions of maternal emotion coaching were assessed
with Ramsden and Hubbard’s (2002) six items. The dimensions of maternal emotion
coaching were: (1) “awareness (of the child’s emotions), (2) acceptance (of the child’s
emotions), and (3) instruction (provided to assist the child in coping with these
emotions)”. The items employed from Ramsden and Hubbard’s (2002) system were
slightly transformed to accommodate to the purpose of this study. Instead of Rasmden
and Hubbard’s 5-point scale, a 7-point scale was used for more precise assessment of
students’ perception of their mothers’ emotion coaching (1 = strongly disagree, 2 =
disagree, 3 = slightly disagree, 4 = neutral, 5 = slightly agree, 6 = agree, 7 = strongly
agree). Items indexing awareness were “my mother noticed my emotional states” and
“my mother knew the cause of my emotions”. Items assessing acceptance included “my
mother seemed comfortable with my emotional expressions” and “my mother empathized
with my emotions”. Finally, items measuring instruction were “my mother talked with
me about the nature of my emotions” and “my mother taught rules for appropriate
expressiveness to me.”
Cronbach alpha ($\alpha$), as an indicator of internal consistency of inter-item correlation, was computed in order to determine the extent to which inter items were related to each other. If the Cronbach alpha of all the items was above .70 or very close to .70, as a value typically regarded as the lowest acceptable level, all the items were preserved. However, if the Cronbach coefficient alpha was lower than .70, items not internally associated with other items were deleted.

I also used principle component analysis (PCA) with Varimax rotation in order to extract unknown and consecutive factors underlying items. However, if more than two factors were expected from the observed variables, PCA with oblique rotation was used to examine whether two factors were correlated or not. Otherwise, PCA with Varimax rotation was applied. Kaiser criterion was applied to drop the least important factors. Factors with eigenvalues, (i.e., the variance extracted by the factors) greater than 1 were retained. The scree plot as an auxiliary test also was used to determine the proper number of factors.

A six-item measure of maternal emotion coaching for students during elementary school had high internal consistency (Cronbach $\alpha = .83$). PCA with Varimax rotation showed that 54% of the variance was accounted for by a first factor. Additionally, the internal consistencies of the six-item measure of maternal emotion coaching when participants were middle and high school students were also high (middle school: Cronbach $\alpha = .90$ and high school: $\alpha = .89$). For the six-item measure of maternal emotion coaching for students during middle school, PCA with Varimax rotation indicated that 65.99% of the variance was accounted for by a first factor.
For the measure of maternal emotion coaching for students during high school, 65.68% of the variance was accounted for by a first factor. Each six-item measure was calculated for an average (elementary school: $M = 4.81$, $SD = 1.09$, middle school: $M = 4.17$, $SD = 1.23$, and high school: $M = 4.03$, $SD = 1.07$). Additionally, averages for each three levels of maternal emotion coaching were averaged to produce a global index ($M = 4.33$, $SD = 1.07$).

4.3.1.2 Frequency and duration of students’ communication with their mothers.

In order to measure how many times and hours participants communicated with their mothers when they were elementary, middle, and high school students, I constructed a simple measure of six open-ended questions. Students were asked to recall their three school periods from elementary school to high school and answer a set of two open-ended questions for each school period. Examples were “Recall conversations with your mother when you were in elementary school. How many times and hours on average did you communicate with your mother per day?” and “Recall conversations with your mother when you were in elementary school. How many times and hours on average did you communicate with your mother per week?” Given that the participants were likely not to answer the open-ended questions, 12 to 20 missing values were generated. Because replacing 12 to 20 missing values did not considerably change the variance of each variable, 12 to 20 missing values were replaced by the mean of each measurement.

4.3.1.3 Perceived problem-solving of mother-child communication. For measuring perceived problem-solving of mother-child communication, seven questions were employed from Sillars et al.’s (2005) measure. I asked students how likely they would be to talk with their mother about several situations. The situations were: (1) “If
you are having problems with your homework,” (2) “If you are trying to find a good book
to read or movie to watch,” (3) “If you are thinking about your plans for the future,” (4)
“If you have had a quarrel with your best friend,” (5) “If you want to know something
about alcohol or smoking,” (6) “If you are really anger or upset about something,” and
(7) “If you feel bad or guilty about something that you have done” (Sillars et al., 2005, p.
112). Students rated how likely they would be talk with their mother about each situation,
using seven 5-point scales (1: almost never, 2: not often, 3: sometimes, 4: often, and 5:
almost always). These scales were averaged to generate an index of perceived problem-
solving of mother-child communication. Sillars et al.’s (2005) reliability analysis showed
that Cronbach alpha was .89, which indicated that the internal consistency of the seven-
item measure of perceived problem-solving of mother-child communication was fairly
acceptable. The conclusion validity was more or less guaranteed from Sillars et al.’s
(2005) finding that problem-solving of mother-child communication was positively
associated with the mother’s understanding of the child’s self-concept ($r = .28, p < .05$).

The internal consistency of the seven items of perceived problem-solving of
mother-child communication was acceptable in this study (Cronbach $\alpha = .80$). PCA with
Varimax rotation showed that 46.19% of the variance was accounted for by the first
factor (eigenvalue = 3.23) and 14.64% of the variance was explained by the second factor
(eigenvalue = 1.03). Items 1, 2, and 3 hung together with the first factor and items 4, 5, 6,
and 7 formed the second factor. Since (1) the variance by the second factor was
somewhat small (14.64%), and (2) all the items were highly correlated with the first
factor with no rotation method, it was appropriate to extract only one factor.
These items were then averaged to provide an overall measure of the frequency of students’ problem-solving communication with their mothers ($M = 2.94, SD = .76$).

4.3.1.4 Mothers’ communication modes based on students’ recall. In order to reveal what communication modes the student participants heard from their mothers the most frequently, I asked the two following questions to the student respondents: “Please recall and answer the following question. When you were elementary, middle, and high school student, what kind of words or phrases or sentences did you hear from your mother the most frequently?” Three categories were used to code these responses: (1) imperative mode (e.g., “Do homework,” “Clear your room,” “Study hard,” etc.), (2) interrogative mode (e.g., “What did you do during school?,” “Did you friendly hang out with your friends today?,” “What’s matter with you?,” etc.), and (3) descriptive mode (e.g., “You must be tired,” “I am so proud of you,” “You are my pretty daughter,” etc.). An imperative mode of maternal linguistic expression is expected to frequently occur in closed and mother-centered interaction where position-centered communication frequently occurs. The interrogative mode and descriptive mode are expected to occur in open-ended and child-centered interaction where person-centered communication frequently occurs (Applegate & Delia, 1980). Responses which were not included in one of the three categories above were categorized into “Other”. Given that an imperative mode of maternal linguistic expression seems to be generated on the basis of mothers’ authority, it is likely to be a position-centered orientation toward language usage.
On the other hand, interrogative and descriptive modes of maternal linguistic expression appears to be produced based on explication of logical grounds and an ability to taking children’s perspectives, they are likely to be person-centered orientations toward language usage (Bernstein, 1971/1974).

Because 47 student respondents did not complete this question, 282 student respondents’ answers were used for analyses. Thirty questionnaires were randomly selected from 282 questionnaires to check interrater reliability of mothers’ communication modes. The results by the Holsti method showed that intercoders were in 94.62% agreement with the total number of pairs of judgments for mothers’ communication modes, which was highly acceptable. In order to generate a global index, each mode of maternal linguistic expressions from elementary school period to high school period was averaged. Other work has developed parallel measures of linguistic expression in the form of position-centered and person-centered communication (Applegate, 1980; Applegate & Delia, 1980).

4.3.2 Students’ Emotional Regulation Capacity and Their Social-Cognitive Development

4.3.2.1 Students’ perceptions of their own emotional regulation capacity. For measuring students’ perception of their own emotional regulation capacity, ten items were employed from the adult-report measure of emotion regulation from Shields and Cicchetti’s (1997) Emotion Regulation Q-Sort scale. Shields and Cicchetti (1997) constructed 10 items on Emotional Regulation from 100 items from the California Child Q-Set (CCQ). I only changed the term of “your child” to a term of “I” for each question to be suited for this study. Example items are “I can recover from stress,” and “I can admit to negative feelings”. A 5-point Likert scale was used to measure emotional
regulation capacity (1 = rarely/never, 2 = sometimes, 3 = not sure, 4 = often, and 5 = almost always). All negatively weighted items were reversely coded (items 6, 7, 8, 9 and 10).

According to Shields and Cicchetti’s (1997) reliability analyses, Cronbach alpha of their emotional regulation Q-scale was .85, which indicated that internal consistency was fairly acceptable. Newer reliability analyses at this data showed that the Cronbach alpha of all 10 items was fairly low (Cronbach α = .47). PCA with Varimax rotation showed that 49.76% of variance in all the items was accounted for by three factors. For each factor, the first factor was most highly correlated with only 3 items (items 7r, 8r, and 9r) and the internal consistency of 3 items was α = .66 which was close to the lowest acceptable level of .70. The interval consistency of 4 items (items 3, 4, 5, and 6r) which were highly correlated with the second factor was fairly lower than the lowest acceptable level (Cronbach α = .52). Reliability of the rest 3 items (items 1, 2, and 10r) was unacceptable (Cronbach α = .06). Thus only items 7r, 8r, and 9r were selected. Data from three items were averaged to generate an index of students’ emotional regulation capacity (N = 329, M = 2.71, SD = .69).

The construct validity of emotion regulation Q-scale was supported (Shields & Cicchetti, 1997). For example, the convergent validity was supported in that the emotion regulation Q-scale was significantly associated with the criterion measures of emotion regulation (r = .44). This convergent validity demonstrated that the emotion regulation Q-scale has a strong predictive validity in that it strongly predicts “emotional liability and negativity, sad and negative mood states, and a tendency toward positive mood and
adoptive regulation” (Shields & Cicchetti, 1997, p. 914). The discriminant validity was also supported in that the Q-scale was negatively associated with the criterion measures of autonomy (with the Student-Teacher Relationship Scale (STRS) rating of dependency: \( r = -.13 \), with the Minnesota dependency rating: \( r = -.24 \)).

4.3.2.2 Interpersonal construct differentiation (complexity) and interpersonal construct abstractness. The participants were instructed to fill out the two-peer version of Crockett’s (1965) Role Category Questionnaire (RCQ), a free-response task. The main reason why I used Crockett’s RCQ was grounded on D. J. O’Keefe and Sypher (1981) demonstration that Crockett’s approach to the assessment of cognitive differentiation was the most reliable and has the greater convergent and predictive validity than any other extent measure of cognitive differentiation. Burleson, Applegate, and Delia (1991) have confirmed that Crockett’s RCQ is a highly reliable measure of cognitive differentiation (also see Burleson, Applegate, & Neuwirth, 1981; Burleson & Waltman, 1988). The two-role version of Crockett’s questionnaire asked participants to write descriptions of two peers, one liked and one disliked. If the participants could not think about the disliked peer, they were asked to describe a peer who was not a “good” friend. The participants were instructed to specifically describe everything known and thought about both the liked and disliked peers. Each peer was described for approximately five minutes. Thus a total time for administration of the RCQ was approximately 20 minutes.

Coding work started with the identification with the individual constructs in the participants’ interpersonal impressions. Interpersonal constructs were operationally defined as “any characteristic, quality, trait, motivation, belief, habit, mannerism, or
behavior attributed by the subject to the describe person” (Burleson & Waltman, 1988, p. 6). Interpersonal construct differentiation was operationally conceptualized as “the number of constructs contained in the elicited impressions,” whereas interpersonal construct abstractness was operationally conceptualized as “the extent to which constructs pertain to such psychological characteristics as traits, motives, and dispositions” (Burleson & Waltman, 1988, p. 6). The measure of interpersonal construct differentiation was obtained from the RCQ by counting the number of constructs contained in each impression. Two coders (one of them having no other connection to this study) independently scored randomly selected RCQ’s. In training coders to code impressions for differentiation, six steps were employed from Burleson and Waltman’s (1988). First, the coder was asked to read through around five sets of RCQ impressions to give him a sense of the data. Second, the coder was introduced to relevant parts of the Crockett et al. (1974) coding manual, instructed to read these portions of the manual carefully, and ask questions. Third, the trainer modeled the coding of several impressions, illustrating and exemplifying the coding rules discussed in the coding manual. Fourth, the trainer and coder jointly worked through a sample of 20 to 30 sets of impression, discussed problems, the application of coding rules, and difficult cases. Fifth, the coder engaged in a “coding rehearsal,” scoring about 20 sets of impressions. This coding was reviewed by the trainer. Finally, the coder was ready to code impressions for differentiation independently, followed by a formal assessment of interrater reliability employing 25 sets of impressions. The step was repeated to train the coder in coding for abstractness (see Burleson & Waltman, 1988, p.9).
Interrater reliability of interpersonal construct differentiation, as assessed by Pearson correlation, was .98. This interrater reliability corresponded to the findings of previous research in which reliabilities are commonly exceeding .90 for differentiation coding (see Burleson & Waltman, 1988, pp. 7-8). Two missing values were found in a dataset of interpersonal construct system differentiation, which were replaced by a technique of mean replacement ($N = 329, M = 11.92, SD = 6.26$).

With respect to scoring interpersonal construct abstractness, several researchers have developed similar categorical systems. To assess interpersonal construct abstractness, Delia et al. (1979) used the five categorical system in the system developed by Delia, Clark, and Switzer (1974): “(a) physical characteristics, (b) behavioral acts and specific abilities, (c) role and demographic characteristics, (d) general attitudes, beliefs, and values, and (e) psychological traits, dispositions, and motivation” (p. 247). Later, four-level hierarchical systems for coding construct abstractness were developed (Burleson, 1984b; S. L. Kline, 1991). The scale’s levels were defined as followed (Burleson, 1984b, p. 44):

Level One: Physical and appearance constructs. Such constructs provide a description of the other’s physical qualities and appearance.

“She’s short, has brown hair, and brown eyes.”

“He’s real skinny and has freckles all over his face.”

Level Two: Social role, demographic, behavioral and specific interest, attitude, and ability constructs. Such constructs refer to specific, concrete aspects of the other’s social status, actions, and preferences.

“She’s a student at this school.”
“He’s a good kick-ball player.”

“He’s always hitting and pushing other kids.”

Level Three: Global evaluation and general interest, attitude, and ability constructs. Such constructs express a general affective evaluation of the other, or refer to general abilities or psychological characteristics of the other relevant only in a specific context.

“He’s really intelligent; he always does good in school.”

“She is a pure bitch.”

Level Four: Abstract, psychologically centered constructs. Such constructs refer to general traits, dispositions, and motivations that have implications for the other’s conduct and character across a range of situations and relationship.

“He’s the kind of person who knows what he wants and will do anything to get it.”

“He’s kind and gentle to others.”

Interrater reliability of interpersonal construct abstractness, as assessed by Pearson correlation, was .96. This interrater reliability corresponds to previous research that interrater reliabilities commonly exceed .90 for abstractness coding, too (see Burleson & Waltman, 1988, pp. 7-8). One missing value which was found in a dataset of interpersonal construct system abstractness was replaced by a technique of mean replacement. The abstractness scores for each construct were summed over all of the constructs elicited, yielding a total abstractness score ($N = 329, M = 40.85, SD = 20.24$).
4.3.2.3 Social perspective taking. To measure social perspective-taking, a written version of the Social Perspective Task (SPT) was employed from Hale and Delia’s (1976) study. In the task the participants were asked to identify two situations in which they have been involved during the past year: (1) “a social situation … in which someone you like hurt or disappointed you”; and (2) “a social situation … in which some you dislike did something which pleased or helped you”. An index of social perspective-taking capacity was supposed to be generated from the scores for the two situations. However, due to a number of incomplete answers for the latter situation, answers for the first question were only analyzed. After briefly describing each situation, the participants were asked to describe in as much detail as possible along with the following five questions: (1) “how was the other person in the situation feeling?”, (2) “what was he/she thinking in this situation?”, (3) “what was going through his/her mind?”, (4) “how did the situation appear from his/her point of view?” and (5) “what was he/she thinking regarding you and the situation?” (Hale & Delia, 1976, p. 200). Because 58 respondents did not complete any of the five questions, 271 respondents’ answers were used.

I then employed a modified version of Hale and Delia’s (1976) 9-point scoring system, for scoring system was somewhat too ambiguous and complicated to be able to accurately code the Korean students’ data (see Hale and Delia, 1976, pp. 200-201). The modified system was constructed from S. L. Kline’s (2006) 4-point scoring system. S. L. Kline’s (2006) three slightly different sets of 4-point scoring systems were combined to generate a set of 4-point global score system of social perspective taking. Participants’ responses for each question were coded: “0 = inability to answer the question, 1 = gives a global statement of hurt feelings or gives an unelaborated dispositional attribution,
particularly of an evaluative nature, 2 = gives elaboration of feeling state/elaborated dispositional or situational reasons or brings in additional situational or dispositional factors, and 3 = give individuation of feeling states and/or rational for inference or elaborates reasons and integrates them within an overall understanding of the situational context.”

In training coders to code respondents’ social perspective taking, five steps were conducted, which is fairly similar to Burleson and Waltman’s (1988) coding steps of interpersonal construct properties. First, the coder was asked to read S. L. Kline’s (2006) modified version of scoring system and ask questions. Second, the trainer illustrated and exemplified the coding rules. Third, the trainer and coder jointly worked through a sample of around 20 sets of respondents’ perspective taking, the application of coding rules, and difficult cases. Fourth, the coder engaged in a “coding rehearsal,” scoring about 20 sets of respondents’ perspective taking. The coder’s coding work was then reviewed by the trainer. Finally, the coder was ready to code respondents’ perspective taking independently, followed by a formal assessment of interrater reliability employing 32 sets of impressions. Interrater reliability of perspective taking, as assessed by Pearson correlation, was .95, which was considerably acceptable. The scores for each question were summed over all levels of perspective taking elicited, generating a total score for perspective taking \( (N = 271, M = 7.10, SD = 3.06) \). Burleson (1982a) found that SPT as one of affective perspective taking skills was highly correlated with the other two affective perspective taking abilities (i.e., Rothenberg’s Test of Social Sensitivity (RTSS) and CMR) beyond the effect of age.
Thus the convergent validity of this measure was supported. Also the construct validity of this measure was supported by Hale and Delia (1976).

4.4 Tasks and Measurements: Mothers

In order to learn (1) mothers’ communication practices to their children and (2) their children’ emotional regulation capacity, mothers were asked to complete both open-ended and close-ended questions which were almost the same as those used in the students’ questionnaires. With relation to communication practices between students and their mothers, close-ended questions were asked to measure mothers’ perception of their emotion coaching to their children while open-ended questions were used to measure mothers’ recall of their communication modes to their children. With regards to students’ emotional regulation capacity, close-ended questions were employed to measure students’ perception of their own emotional regulation capacity. All the measurements were presented in the Appendix B.

4.4.1 Communication Practices Between Students and Their Mothers

4.4.1.1 Mothers’ perceptions of their emotion coaching. The same task and measure used in students’ perception of their emotion coaching were used to measure mothers’ perception of their emotion coaching. The six-item measure of maternal emotion coaching was internally consistent (elementary school: Cronbach $a = .82$, middle school: $a = .77$, and high school: $a = .90$). For each school period, PCA with Varimax rotation showed that 53.10, 47.68, and 67.33% of the variance in all the items were accounted for by the first factor. Each six-item measure for each scale was averaged to provide an index of mothers’ perception of their emotion coaching.
4.4.1.2 Mothers’ recalled communication modes. Mothers also recalled what kind of words or phrases or sentences they have used to their child the most frequently. The coding system was the same as that used for coding students’ responses to the questions about mothers’ communication modes. However, because 21 mothers did not complete this question, this data was dropped.

4.4.2 Students’ Emotional Regulation Capacity

4.4.2.1 Mothers’ perceptions of their children’s emotional regulation capacity.

To learn about students’ emotional regulation capacity, mothers were asked to answer three sets of 10 questions about their children’ emotional regulation capacity for three different school periods (i.e., when their children were (1) elementary school students, (2) middle school students, and (3) high school students). Examples were: “Can your child recover from stress?,” “Can your child admit to negative feelings?,” and “Does your child tend to go to pieces under stress?”. All negatively weighted items were reversely coded (item 6, 7, 8, 9 and 10). Then data from three sets of 10 items were averaged.

Reliability analyses showed that all 10 items were internally consistent (Cronbach $\alpha = .72$). However, PCA with Varimax rotation showed that 66.21% of variance in all the items was accounted for by three factors. Items 6r, 7r, 8r, 9r, and 10r were highly correlated with the first factor while items 1, 2, and 3 were highly correlated with the second factor. Five items that were highly correlated with the first factor were internally consistent ($N = 52$, Cronbach $\alpha = .87$). PCA with Varimax rotation showed that 66.73% of variance in all five items was explained by the first factor. Because items 1, 2, and 3 were not internally consistent (Cronbach $\alpha = .64$), they were dropped out. Data from five
items were averaged to generate an index of mothers’ perception of their child’s emotional regulation capacity.

To sum up, this chapter first introduced participants’ specific demographic information such as age, gender, income, etc. Second, I described procedures of this study such as the way of having access to participants and the way of supervising participants’ completion of questionnaires for each student and mother participants’ engagement in this study. Finally, I presented tasks and measurements to assess variables. For student participants, eight measures were used to assess three different types of mother-child communications, their emotional regulation capacity, perceptions of their mothers’ emotion coaching, and three different types of social-cognitive developments. Three measures were used to assess their emotion coaching, perceptions of their children’s emotional regulation capacity, and modes of linguistic expression with their children. Reliability and validity for each measure were presented.
CHAPTER 5

RESULTS

This chapter presents the results of inferential tests of 18 hypotheses, along with the results of descriptive analyses of variables used in the hypotheses. This chapter consists of two sections: (1) the results of all 18 hypotheses tests with students’ self-reporting data and (2) the results of supplemental tests with mothers’ self-reporting data. Pearson correlation analyses were individually conducted to test all 18 hypotheses. A series of hierarchical regression analyses then was used to test relationships among the variables. Additionally, since the communicative practices between mothers and their children such as maternal emotion coaching and modes of maternal linguistic expression are regarded as the focal driving properties which foster deliberation-relevant communication abilities, paired sample $t$-tests were conducted to assess whether there were statistically significant differences in the students’ perceptions of their maternal emotion coaching and mothers’ perceptions of their emotion coaching. Independent sample $t$-tests were also used to assess whether there was an effect for gender on the modes of maternal linguistic expressions. The results of all statistical analyses conducted are presented in Tables, too.
5.1 Results of Hypothesis Tests: Students’ Self-Reporting Data

5.1.1 Interrelationships among Students’ Emotional Regulation Capacity, Interpersonal Construct System Properties, and Perspective Taking Skill

In order to investigate the interrelationships among students’ emotional regulation capacity, interpersonal construct system abstractness, and perspective taking skill, the first three hypotheses were tested with simple zero-order correlation analyses. Means and standard deviations for each variable and the results of correlation analyses are presented in Table 5.1.
<table>
<thead>
<tr>
<th>Constructs</th>
<th>Emotional regulation capacity</th>
<th>Interpersonal construct system differentiation</th>
<th>Interpersonal construct system abstractness</th>
<th>Perspective taking skill</th>
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</thead>
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<tr>
<td>Emotional regulation capacity</td>
<td>2.71</td>
<td>11.92</td>
<td>40.85</td>
<td>7.10</td>
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<td>Interpersonal construct system differentiation</td>
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<td>6.26</td>
<td>20.24</td>
<td>3.06</td>
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<td>Interpersonal construct system abstractness</td>
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<td>-.03</td>
<td>.93***</td>
<td>.07</td>
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<tr>
<td>Perspective taking skill</td>
<td></td>
<td></td>
<td></td>
<td>.36***</td>
</tr>
</tbody>
</table>

*Note. Cases with missing values were excluded listwise. N = 271. ***p < .001, two-tailed tests.*

Table 5.1 *Means, Standard Deviations, and Pearson Correlations of Children’s Perceptions of Their Emotional Regulation Capacity, Interpersonal Construct System Properties, and Perspective Taking Skill*
As shown in Table 5.1, neither interpersonal construct system differentiation nor interpersonal construct system abstractness was significantly associated with emotion regulation capacity. Table 5.1 also shows that there was no significant relationship between emotional regulation capacity and perspective taking skill, either. Thus neither H1 nor H2 were confirmed. However, interpersonal construct system abstractness and differentiation had significantly positive relationships with perspective taking skill. Thus H3 was confirmed. Perspective taking skill was moderately associated with the interpersonal construct system properties.

5.1.2 Relationships Between Mother-Child Communication Practices, Children’s Perceptions of Their Emotional Regulation Capacity, and Social-Cognitive Development

In order to examine relationships between mother-child communication practices and children’s emotional regulation and social-cognitive development, nine hypotheses were tested with simple zero-order correlation analyses. H4 tested the relationship between children’s perceptions of their emotional regulation capacity and their perceptions of their mothers’ emotion coaching. H5, H6, and H7 tested relationships between children’s perceptions of their mothers’ emotion coaching, perceived problem-solving of mother-child communication and the amount of mother-child communication and children’s interpersonal construct system properties. Another four hypotheses, H8, H9, H10, and H11 tested whether modes of mothers’ linguistic expressions are associated with their children’s emotional regulation capacity and social-cognitive development.
5.1.2.1 Perceptions of mothers’ emotion coaching. Means and standard deviations and correlations of children’s perceptions of their emotional regulation capacity and their perceptions of their mothers’ emotion coaching, interpersonal construct systems, and perspective taking skill during the elementary, middle, and high school are summarized in Table 5.2.
<table>
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<th>$SD$</th>
<th>Emotional regulation capacity</th>
<th>Interpersonal construct system differentiation</th>
<th>Interpersonal construct system abstractness</th>
<th>Perspective taking skill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceptions of mothers’ emotion coaching</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Elementary school</td>
<td>4.81</td>
<td>1.09</td>
<td>.12</td>
<td>.01</td>
<td>.01</td>
<td>.08</td>
</tr>
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<td>Middle school</td>
<td>4.17</td>
<td>1.23</td>
<td>.09</td>
<td>.07</td>
<td>.07</td>
<td>.06</td>
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<tr>
<td>High school</td>
<td>4.03</td>
<td>1.38</td>
<td>-.03</td>
<td>.05</td>
<td>.05</td>
<td>-.02</td>
</tr>
<tr>
<td>Emotional Regulation Capacity</td>
<td>2.71</td>
<td>.69</td>
<td>-</td>
<td>-.00</td>
<td>-.03</td>
<td>.07</td>
</tr>
</tbody>
</table>

Note. $N = 271$, Cases with missing values were excluded listwise. *$p < .05$, two-tailed tests.

Table 5.2 Means, Standard Deviations, and Pearson Correlations of Children’s Perceptions of Their Mothers’ Emotion Coaching and Children’s Perceptions of Their Emotional Regulation Capacity, Interpersonal Construct Systems, and Perspective Taking Skill
As shown Table 5.2, children perceived that mothers’ emotion coaching decreased when their children were grown up. A one-factor within-subjects repeated measures ANOVA was used to test the effect of the school periods on children’s perceptions of their mothers’ emotion coaching. Mauchly’s test of sphericity revealed the violation of the assumption of sphericity that the variances of all differences between pairs of scores be equal (Mauchly’s $W = .82, \chi^2 (df = 2) = 65.55, p < .001$). However, when degree of freedom was adjusted to correct the positive bias of the $F$-test, Huynh-Feldt’s epsilon coefficient indicated that the assumption of sphericity was not seriously violated, on the ground that Huynh-Feldt’s $\epsilon$ is .85, which is greater than .75 (Keppel, 1991, see Huynh & Feldt, 1976). The result by the Huynh-Feldt $F$-test shows that children’s perceptions of their mothers’ emotion coaching was significantly affected by the school periods ($F (1.70, 557.73) = 96.89, p < .001$). It was concluded that overall children’s perceptions of their mothers’ emotion coaching differ across all three school periods. The estimated partial eta-squared was .23.

In order to investigate which specific school period was higher than the other school periods in children’s perceptions of their mothers’ emotion coaching, a Bonferroni test for post hoc pairwise comparison was conducted. The result showed that the elementary school period was significantly higher than the middle school (Mean Difference ($MD$) = .64, $SE = .05, p < .001$) and high school periods ($MD = .78, SE = .07, p < .001$) in children’s perceptions of their mothers’ emotion coaching. Children’s perceptions of their mothers’ emotion coaching in the middle school period were higher than that of the high school period ($MD = .14, SE = .05, p < .05$).
It was concluded that children’s perceptions of their mothers’ emotion coaching were the highest when children were in the elementary school period.

In order to examine the relationship between mothers’ emotion coaching and children’s emotional regulation capacity and social-cognitive development, a simple zero-order correlation analysis was conducted. Table 5.2 shows that children’s perceptions of their mothers’ emotion coaching were not significantly associated with their perceptions of their emotional regulation capacity and social-cognitive development across all the school periods. Thus neither H4 nor H5 was supported.

5.1.2.2 Perceived problem-solving of mother-child communication. With regards to perceived problem-solving of mother-child communication, descriptive analyses showed that all seven items were significantly interrelated ($N = 329$, all $p < .001$). The interrelationships were considerably strong. All seven items were averaged to generate an index of perceived problem-solving of mother-child communication ($N = 329$, $M = 2.94$, $SD = .76$, Cronbach $\alpha = .80$).

In order to examine whether perceived problem-solving of mother-child communication is associated with children’s interpersonal construct system properties, zero-order correlation analyses were conducted (see Table 5.4). The results showed that there were significantly positive relationships between perceived problem-solving of mothers-child communication and children’s interpersonal construct system differentiation and abstractness respectively at a weak level of magnitude. Thus H6 was confirmed.

5.1.2.3 Frequency and duration of mother-child communication. Descriptive analyses showed that the frequency and duration of student participants’ communication
with mothers per day and week decreased when the children were more mature (see Table 5.3). Particularly, children communicated about three times less with their mothers when they were high school students than when they were elementary school students.
<table>
<thead>
<tr>
<th>Communication with mothers</th>
<th>Per day</th>
<th>Per week</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M$</td>
<td>$SD$</td>
</tr>
<tr>
<td>Frequency</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary School</td>
<td>4.83</td>
<td>4.09</td>
</tr>
<tr>
<td>Middle school</td>
<td>3.17</td>
<td>2.97</td>
</tr>
<tr>
<td>High school</td>
<td>2.11</td>
<td>1.76</td>
</tr>
<tr>
<td>Duration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary School</td>
<td>2.56</td>
<td>2.20</td>
</tr>
<tr>
<td>Middle school</td>
<td>1.59</td>
<td>1.38</td>
</tr>
<tr>
<td>High school</td>
<td>1.12</td>
<td>.95</td>
</tr>
</tbody>
</table>

*Note. $N = 329$.*

Table 5.3 *Frequency and Duration of Children’s Communication with Their Mothers*
<table>
<thead>
<tr>
<th>Perceived problem-solving of mother-child communication</th>
<th>Emotional regulation capacity</th>
<th>Interpersonal construct system differentiation</th>
<th>Interpersonal construct system abstractness</th>
<th>Perspective taking skill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>.15*</td>
<td>-.02</td>
<td>-.01</td>
<td>.06</td>
</tr>
<tr>
<td>Duration</td>
<td>.04</td>
<td>.00</td>
<td>-.00</td>
<td>.04</td>
</tr>
</tbody>
</table>

*Note. N = 329, *p < .05, two-tailed tests.

Table 5.4 Pearson Correlations among Perceived Problem-Solving and Amount of Mother-Child Communication with Emotional Regulation Capacity, and Social-cognitive Development
The results also showed that the frequency and duration of children’s communication with their mothers did not have a significant relationship with interpersonal construct system differentiation or abstractness. Thus H7 and H8 were not confirmed. Additional analysis showed that neither perceived problem-solving nor amount of mother-child communication was associated with perspective taking skill.

5.1.2.4 Modes of maternal linguistic expressions. Descriptive analyses showed that most children heard an imperative mode of linguistic expression more frequently than the interrogative and descriptive modes of expression from their mothers across all the school periods. The summary of the descriptive analyses is present in Table 5.5.
Modes of maternal linguistic expressions

<table>
<thead>
<tr>
<th>School period</th>
<th>Imperative</th>
<th>Interrogative</th>
<th>Descriptive</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary school</td>
<td>385 (58.78)</td>
<td>109 (16.64)</td>
<td>161 (25.58)</td>
<td>655 (100)</td>
</tr>
<tr>
<td>Middle school</td>
<td>369 (67.34)</td>
<td>88 (16.06)</td>
<td>91 (16.61)</td>
<td>548 (100)</td>
</tr>
<tr>
<td>High School</td>
<td>368 (54.52)</td>
<td>130 (19.26)</td>
<td>177 (26.22)</td>
<td>675 (100)</td>
</tr>
<tr>
<td>Total</td>
<td>1122 (59.74)</td>
<td>327 (17.41)</td>
<td>429 (22.84)</td>
<td>1878 (100)</td>
</tr>
</tbody>
</table>

Note. Numbers in parentheses are percents. \( N = 282 \).  

Table 5.5 Frequencies of Student Recalled Modes of Mothers’ Linguistic Expressions

A one-factor within-subjects repeated measures ANOVA was also used to test the effects of the school periods on the modes of maternal linguistic expressions. For each mode of maternal linguistic expression, Mauchly’s tests of sphericity revealed the violation of the assumption of sphericity that the variances of all differences between pairs of scores be equal (imperative mode: Mauchly’s \( W = .91, \chi^2 (df = 2) = 25.07, p < .001 \); interrogative mode: Mauchly’s \( W = .94, \chi^2 (df = 2) = 16.20, p < .001 \) and descriptive mode: Mauchly’s \( W = .88, \chi^2 (df = 2) = 35.49, p < .001 \) ). However, given that Huynh-Feldt’s epsilon coefficients (imperative mode: \( \varepsilon = .93 \), interrogative mode: \( \varepsilon = .95 \), and descriptive mode: \( \varepsilon = .90 \) ) were greater than .75, it was concluded that the assumption of sphericity for each mode of maternal linguistic expression is not seriously
violated. The results by the Huynh-Feldt $F$-tests showed that the frequency of an imperative mode of maternal linguistic expression which children heard from their mothers was not significantly different across all the school periods ($F(1.85, 520.92) = .44, p > .05$). Thus, it was concluded that overall frequency of children hearing an imperative mode of maternal linguistic expression is the same across all three school periods. However, the school period had a significant effect on the frequencies of the interrogative and descriptive modes of maternal linguistic expression which children heard from their mothers (interrogative mode: $F(1.91, 535.59) = 5.31, p < .01$, descriptive mode: $F(1.80, 505.22) = 15.80, p < .001$). Thus it was concluded that overall frequencies of children hearing interrogative and descriptive modes of maternal linguistic expression differed significantly across all three school periods. The estimated partial eta-squared is respectively .02 for interrogative mode and .05 for descriptive mode.

In order to investigate which specific school period was higher than the other school periods in the frequency of children hearing interrogative and descriptive modes of maternal linguistic expression, Bonferroni tests for post hoc pairwise comparison were conducted. With regards to the frequency of student hearing an interrogative mode of maternal linguistic expression, the results showed that the high school period was significantly higher than the middle school period ($MD = .15, SE = .04, p < .01$) and almost significantly higher than the elementary school period ($MD = .07, SE = .05, p = .051$). The elementary school period is higher than the middle school period but not significantly ($MD = .07, SE = .04, p > .05$). With regards to the frequency of children hearing a descriptive mode of maternal linguistic expression, the high school period is significantly higher than the middle school period ($MD = .31, SE = .05, p < .001$) but not...
significantly higher than the elementary school period ($MD = .06, SE = .07, p > .05$). The elementary school period is significantly higher than the middle school period ($MD = .25, SE = .06, p < .001$). Thus it was concluded that the frequency of children hearing the interrogative and descriptive modes of maternal linguistic expressions was the highest when children were in the high school, followed by the elementary school period.

Simple zero-order correlations were conducted to test whether modes of mothers’ linguistic expression were associated with their children’s emotional regulation capacity and their social-cognitive development. The results are presented in Table 5.6.
As can be seen in Table 5.6, all three modes of maternal linguistic expression were not significantly associated with children’s emotion regulation capacity. Thus H9 was not confirmed. However, the directions of associations between three modes of maternal linguistic expression and children’s emotional regulation capacity corresponded to my prediction. Table 5.6 also shows that the imperative mode of maternal linguistic expression was not significantly associated with interpersonal construct system properties. Thus H10 was not supported. The interrogative mode of maternal linguistic expression was positively associated with interpersonal construct system properties at a moderate level of magnitude while the relationship between the descriptive mode of maternal linguistic expression and social-cognitive system properties was not significantly associated. Thus H11 was partially supported. In addition to the relationship

<table>
<thead>
<tr>
<th>Modes of maternal linguistic expression</th>
<th>Emotional regulation capacity</th>
<th>Interpersonal construct system differentiation</th>
<th>Interpersonal construct system abstractness</th>
<th>Perspective taking skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imperative</td>
<td>-.07</td>
<td>.09</td>
<td>.11</td>
<td>.02</td>
</tr>
<tr>
<td>Interrogative</td>
<td>.03</td>
<td>.20**</td>
<td>.21**</td>
<td>.12</td>
</tr>
<tr>
<td>Descriptive</td>
<td>.10</td>
<td>.10</td>
<td>.11</td>
<td>.24***</td>
</tr>
</tbody>
</table>

*Note.* Cases with missing values were excluded listwise. *N* = 247.

**p < .01. ***p < .001, two-tailed tests.

Table 5.6 *Pearson Correlations Between Frequency of Children Hearing Three Modes of Maternal Linguistic Expressions with Children’s Perceptions of Their Emotional Regulation Capacity, Interpersonal Construct Systems, and Perspective Taking Skill*
between interpersonal construct system properties and the modes of maternal linguistic expression, the relationship between children’s perspective taking skill and the modes of maternal linguistic expressions was tested. Table 5.6 shows that only the descriptive mode of maternal linguistic expression had a significantly positive and moderate association with children’s perspective taking skill. The relationship between the interrogative mode of maternal linguistic expression and perspective taking skill was statistically very close to being a significant relationship ($p = .06$) while the relationship between the imperative mode of maternal linguistic expression and perspective taking skill was not significant. Thus H12 was partially confirmed; the frequency of children hearing the imperative mode of maternal linguistic expression was not significantly associated with children’s perspective taking skill while the frequency of children hearing the interrogative and descriptive modes of maternal linguistic expressions was significantly associated with children’s perspective taking skill.

I also examined the relationships of the modes of maternal linguistic expressions for each school period with interpersonal construct system properties and perspective taking skill.
<table>
<thead>
<tr>
<th>Modes of maternal linguistic expression</th>
<th>Emotional regulation capacity</th>
<th>Interpersonal construct system differentiation</th>
<th>Interpersonal construct system abstractness</th>
<th>Perspective taking skill</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Elementary school</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imperative</td>
<td>.06</td>
<td>.06</td>
<td>.06</td>
<td>.07</td>
</tr>
<tr>
<td>Interrogative</td>
<td>.04</td>
<td>.17**</td>
<td>.17**</td>
<td>.08</td>
</tr>
<tr>
<td>Descriptive</td>
<td>.06</td>
<td>.12</td>
<td>.14*</td>
<td>.18**</td>
</tr>
<tr>
<td><strong>Middle school</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imperative</td>
<td>-.14*</td>
<td>.14*</td>
<td>.14*</td>
<td>.02</td>
</tr>
<tr>
<td>Interrogative</td>
<td>.02</td>
<td>.07</td>
<td>.10</td>
<td>.05</td>
</tr>
<tr>
<td>Descriptive</td>
<td>.12*</td>
<td>.05</td>
<td>.08</td>
<td>.23***</td>
</tr>
<tr>
<td><strong>High school</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imperative</td>
<td>-.10</td>
<td>.03</td>
<td>.08</td>
<td>-.06</td>
</tr>
<tr>
<td>Interrogative</td>
<td>.03</td>
<td>.24***</td>
<td>.23***</td>
<td>.16*</td>
</tr>
<tr>
<td>Descriptive</td>
<td>.07</td>
<td>.05</td>
<td>.03</td>
<td>.16*</td>
</tr>
</tbody>
</table>

*Note.* Cases with missing values were excluded listwise. $N = 247$.

*p < .05. **p < .01. ***p < .001, two-tailed tests.

Table 5.7 Pearson Correlations of Frequency of Children Hearing Three Modes of Maternal Linguistic Expressions during Each School Period with Children’s Perceptions of Their Emotional Regulation Capacity, Interpersonal Construct System Properties, and Perspective Taking Skill
When children were in the elementary and high schools, only the interrogative mode of maternal linguistic expression was significantly related to the two interpersonal construct system properties. The relationship was positive and moderate. However, when they were middle school students, the interrogative mode was not significantly associated with interpersonal construct system properties. The imperative mode of maternal linguistic expression was positively related to both interpersonal construct systems at a weak level of magnitude. The descriptive mode of maternal linguistic expression was not significantly associated with any interpersonal construct systems during the school periods, but was associated with perspective taking skill for each school period at weak to moderate levels of magnitude. There was only a significant relationship between the interrogative mode of maternal linguistic expression and perspective taking skill when children were high school students at a weak level of magnitude.

Given that perceived problem-solving of mother-child communication and the modes of the mothers’ linguistic expressions were significantly correlated with children’s social-cognitive development, a series of hierarchical multiple regressions were conducted to assess the relative effects of these variables on children’s social-cognitive system properties and perspective taking skill.
In order to check the potential problems with multicollinearity among the independent variables, collinearity diagnostics were conducted. The results showed that tolerance coefficients of all the four variables were above .85, which were much higher than a cutoff value of .20 and variance-inflation factor (VIF) coefficients were below 1.04, which were much lower than a cutoff value of 4 (Allison, 1999). These coefficients indicated that the assumption of multicollinearity was not violated.

Given that the zero-order correlation analyses with cross-sectional data were not able to technically detect the causal influence of mother-child communication practices on children’s social-cognitive development, a series of hierarchical multiple regression analyses were conducted to understand how perceived problem-solving of mother-child communication and the frequency of three modes of maternal linguistic expressions combined to predict children’s social-cognitive development. To investigate the effect of the basic demographic data on children’s social-cognitive developments, age and gender (0 = males and 1 = females) were entered on the first step to control for the potentially confounding effects of these variables. Particularly, considering that gender was significantly correlated with both the other predictors ($r_s > .12$, $p_s < .05$, except an imperative mode of maternal linguistic expression) and outcome variables ($r_s > .20$, $p_s < .001$ except for perspective taking skill), entering gender into the first step is useful to examine how the other predictors account for the unique variance of the outcome variables beyond the effect of gender. Perceived problem-solving of mother-child communication was entered into the second step. Three modes of maternal linguistic expression were entered at the third and final step. The modes of maternal linguistic expressions were entered last given that one of the central interests was the proportion of
variability of each social-cognitive development respectively explained by the modes of maternal linguistic expressions when controlling for age, gender, and perceived problem-solving of mother-child communication. The same sequence of the variables entered for each step was applied to all three dependent variables: (1) children’s interpersonal construct system differentiation, (2) their interpersonal construct system abstractness, and (3) their perspective taking skill. The results of a series of hierarchical multiple regression analyses are presented in Table 5.8.
### Table 5.8 Summary of Hierarchical Multiple Regression Analyses for Children’s Interpersonal Construct System Properties and Perspective taking skill by Perceived Problem-Solving of Mother-Child Communication and Modes of Mothers’ Linguistic Expressions

| Step | Variable entered | Interpersonal construct system differentiation | | | Interpersonal construct system abstractness | | | Perspective taking skill | | |
|------|------------------|-----------------------------------------------|---|---|-----------------------------------------------|---|---|-----------------------------------------------|---|
|      |                  | $\beta$ | $R^2$ | $R^2_{\text{change}}$ | $\beta$ | $R^2$ | $R^2_{\text{change}}$ | $\beta$ | $R^2$ | $R^2_{\text{change}}$ |
| 1    | Age              | .04    | .04   | .04                     | -.01  | .04   | .04                     | .08    | .01   | .01                     |
|      | Gen              | .20**  |       |                         | .21***|       |                         | -.01   |       |                         |
| 2    | Age              | .03    | .04   | .00                     | -.01  | .04   | .00                     | .07    | .01   | .01                     |
|      | Gen              | .19**  |       |                         | .20** |       |                         | -.04   |       |                         |
|      | PPS              | .04    |       |                         | .03   |       |                         | .09    |       |                         |
| 3    | Age              | .06    | .11   | .06                     | .02   | .12   | .07                     | .08    | .09   | .08                     |
|      | Gen              | .17**  |       |                         | .18** |       |                         | -.06   |       |                         |
|      | PPS              | .01    |       |                         | -.00  |       |                         | .04    |       |                         |
|      | IMM              | .18**  |       |                         | .19** |       |                         | .12    |       |                         |
|      | INM              | .22*** |       |                         | .23***|       |                         | .13*   |       |                         |
|      | DEM              | .09    |       |                         | .11   |       |                         | .25*** |       |                         |

Note. Coefficients are standardized regression coefficients. The variables are: Gen = Gender; PPS = Perceived problem-solving of mother-child communication; IMM = Imperative mode, INM = Interrogative mode; and DEM = Descriptive mode.

Interpersonal construct system properties: $N = 282$, Perspective taking skill: $N = 247$.

*p < .05, **p < .01, ***p < .001.
In the first regression, four percent of the variance of children’s interpersonal construct system differentiation was accounted for by age and gender at Step 1 ($R^2 = .04$, \textit{adjusted }$R^2 = .40$, $F (2, 279) = 6.07, p < .01$). As expected, gender was a significant predictor. At Step 2, 4% of the variance was accounted for by age, gender, and perceived problem-solving of mother-child communication ($R^2 = .04$, \textit{adjusted }$R^2 = .30$, $F (3, 278) = 4.19, p < .01$). Except gender, none of the variables was a significant predictor. Perceived problem-solving of mother-child communication explained 0% of the variance of the children’s interpersonal construct system differentiation after controlling for age and gender ($R^2 \text{ change} = .00$, $F \text{ change} (1, 278) = .45, p > .05$).

Finally, at Step 3, 11% of the variance of children’s interpersonal construct system differentiation was explained by all the variables ($R^2 = .11$, \textit{adjusted }$R^2 = .09$, $F (6, 275) = 5.50, p < .001$). Age was not a significant predictor but gender was a significant predictor, as expected ($\beta = .17, p < .01$). Unexpectedly, perceived problem-solving of mother-child communication was not a significant predictor. The imperative and interrogative modes of mothers’ linguistic expression were significant predictors (imperative mode: $\beta = .18, p < .01$; interrogative mode: $\beta = .22, p < .001$) in this analysis. There was significant change in the variance accounted for in the children’s interpersonal construct system differentiation by modes of mothers’ linguistic expression to their children beyond the effects of age, gender, and perceived problem-solving of mother-child communication ($R^2 \text{ change} = .06$, $F \text{ change} (3, 275) = 6.57, p < .001$).

The second regression had similar results to the first. Four percent of the variance of children’s interpersonal construct system abstractness was accounted for by age and gender at Step 1 ($R^2 = .04$, \textit{adjusted }$R^2 = .40$, $F (2, 279) = 6.34, p < .01$).
expected, gender was a significant predictor. At Step 2, four percent of the variance was accounted for by age, gender, and perceived problem-solving of mother-child communication ($R^2 = .04$, adjusted $R^2 = .30$, $F (3, 278) = 4.29$, $p < .01$). Except gender, none of the variables was a significant predictor. No variance in children’s interpersonal construct system abstractness was accounted for by perceived problem-solving of mother-child communication beyond the effect of age and gender ($R^2_{\text{change}} = .00$, $F_{\text{change}} (1, 278) = .24$, $p > .05$). At Step 3, all four variables accounted for 12% of the variance in children’s interpersonal construct system abstractness ($R^2 = .12$, adjusted $R^2 = .10$, $F (6, 275) = 5.94$, $p < .001$). Age was not a significant predictor while gender was a significant predictor. Perceived problem-solving of mother-child communication was not a significant predictor while imperative and interrogative modes of the mothers’ linguistic expression were significant predictors in this analysis. There was a significant change in the variance accounted for in children’s interpersonal construct system abstractness by modes of the mothers’ linguistic expression after controlling for the effects of age, gender, and perceived problem-solving of mother-child communication ($R^2_{\text{change}} = .07$, $F_{\text{change}} (3, 275) = 7.29$, $p < .001$).

In the third regression, one percent of the variance of children’s perspective taking skill was accounted for by age and gender at Step 1 ($R^2 = .01$, adjusted $R^2 = -.00$, $F (2, 244) = .76$, $p > .05$). Neither gender nor age was a significant predictor. At Step 2, one percent of the variance was accounted for by age, gender, and perceived problem-solving of mother-child communication ($R^2 = .01$, adjusted $R^2 = .00$, $F (3, 243) = 1.08$, $p > .05$). None of the variables was a significant predictor. After controlling for age and gender, one percent of variance in children’s perspective taking skill was accounted for...
by perceived problem-solving of mother-child communication ($R^2_{change} = .01, F_{change} (1, 243) = 1.70, p > .05$). Finally, at Step 3, nine percent of the variance in children’s perspective taking skill was explained by the variables ($R^2 = .09, \text{adjusted } R^2 = .07, F (6, 240) = 3.84, p < .01$). Neither age nor gender predicted significantly children’s perceptive taking skill. Perceived problem-solving of mother-child communication did not significantly predict children’s perspective taking skill, either. However, the descriptive mode of mothers’ linguistic expression was the strongest predictor ($\beta = .25, p < .001$). The interrogative mode of mothers’ linguistic expression also contributed significantly to the prediction of the children’s perspective taking skill in this analysis. The result shows that there was significant change in the variance accounted for in children’s perspective taking skill by modes of mothers’ linguistic expression after controlling for the other variables ($R^2_{change} = .08, F_{change} (3, 240) = 6.54, p < .001$). That is, the inclusion of modes of mothers’ linguistic expression accounted for a significant increment in the variance of children’s perspective taking skill.

This section is summarized as follows. First, children’s perceptions of their mothers’ emotion coaching were significantly associated with their emotional regulation capacity only when children were in elementary school period. Second, perceived problem-solving of mother-child communication were moderately associated with children’s interpersonal construct system properties but not with children’s emotional regulation capacity. However, it was not a strong predictor of interpersonal construct properties. The amount of mother-child communication was not a strong predictor of emotional regulation capacity and interpersonal construct system properties, either. Finally, as expected, children’s recalled interrogative mode of their mothers’ linguistic
expression was significantly associated with interpersonal construct properties, while the descriptive mode of mothers’ linguistic expression was significantly associated with perspective taking skill and emotional regulation capacity. Unexpectedly, the imperative mode of mothers’ linguistic expression was moderately associated with interpersonal construct system properties.

5.1.2 Relationships Between Perceived Maternal Communication Practices and Children’s Perceptions of Their Mothers’ Emotion Coaching

To understand the relationships between three different types of maternal communication practices and children’s perceptions of their mothers’ emotion coaching, simple zero-order correlation analyses were conducted. Three different types of maternal communication practices are (1) perceived problem-solving of mother-child communication, (2) amount (i.e., frequency and duration) of mother-child communication, and (2) three modes (i.e., imperative, interrogative, and descriptive modes) of maternal linguistic expressions.

5.1.2.1 Perceived problem-solving of mother-child communication. In order to investigate the relationship between perceived problem-solving of mother-child communication and children’s perceptions of their mothers’ emotion coaching, simple zero-order correlation analyses were conducted. These are presented in Table 5.9.
<table>
<thead>
<tr>
<th>Children’s Perceptions of Their Mothers’ Emotion Coaching</th>
<th>PPS</th>
<th>Communication with mothers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Frequency</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Elementary school</td>
</tr>
<tr>
<td>Elementary school</td>
<td>.37***</td>
<td>.09</td>
</tr>
<tr>
<td>Middle school</td>
<td>.43***</td>
<td>.05</td>
</tr>
<tr>
<td>High school</td>
<td>.45***</td>
<td>.15*</td>
</tr>
</tbody>
</table>

Note. PPS represents Problem-solving of mother-child communication. N = 329. *p < .05. **p < .01. ***p < .001, two-tailed.

Table 5.9 Pearson Correlations of Children’s Perceived Problem-Solving of Mother-Child Communication, Amount of Mother-Child Communication, and Children’s Perceptions of Their Mothers’ Emotion Coaching at Three Time Periods
Children’s perceptions of their mothers’ emotion coaching during each school period were averaged to develop an index of overall children’s perceptions of their mothers’ emotion coaching. The result showed that children’s perceived problem-solving of mother-child communication had a significantly positive and strong relationship with children’s perceptions of their mothers’ emotion coaching. Thus H13 was supported.

5.1.2.2 Perceived amount of mother-child communication. Zero-order correlation analyses also were conducted to examine whether the amount of children’s communication with their mothers was associated with their perceptions of their mothers’ emotion coaching. These results are also presented in Table 5.9.

As can be seen, the frequency of children’s communication with their mothers was positively associated with children’s perceptions of their mothers’ emotion coaching only when they were high school students at a week level of magnitude. However, the duration of communication with their mothers had statistically significant relationships with perceptions of their mothers’ emotion coaching during each school period at weak to moderate levels of magnitude. Thus H14 was partially supported.

5.1.2.3 Modes of maternal linguistic expressions. Simple zero-order correlation analyses were used to investigate the relationship between the modes of mothers’ linguistic expressions and children’s perceptions of mothers’ emotion coaching during each school period. Then another correlation analyses were conducted to investigate the overall relationship between the two constructs across all the school periods. In order to test the overall relationship between the two constructs, I summed up respectively each mode of maternal linguistic expression that children heard during all the school years in
order to develop an overall index of each mode of maternal linguistic expression. Also, children’s perceptions of mothers’ emotion coaching during recalled each school period was summed up to develop an overall index of mothers’ emotion coaching. The results are summarized in Table 5.10.
<table>
<thead>
<tr>
<th>Modes of maternal linguistic expression</th>
<th>Children’s perceptions of their mothers’ emotion coaching</th>
<th>Elementary school</th>
<th>Middle school</th>
<th>High school</th>
<th>Overall schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary school</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imperative</td>
<td>.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interrogative</td>
<td>.07</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Descriptive</td>
<td>.10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle school</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imperative</td>
<td>-.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interrogative</td>
<td>.08</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Descriptive</td>
<td>.14*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imperative</td>
<td>.09</td>
<td></td>
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<td></td>
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<tr>
<td>Interrogative</td>
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<tr>
<td>Descriptive</td>
<td>.16**</td>
<td></td>
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<tr>
<td>Total</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imperative</td>
<td>-.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interrogative</td>
<td>.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Descriptive</td>
<td>.15**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. N = 282, *p < .05. **p < .01.*

Table 5.10 *Pearson Correlations Between Children’s Perceptions of Their Mothers’ Emotion Coaching and Children’s Recalled Modes of Their Mothers’ Linguistic Expressions*
The results showed that the frequency of children’s hearing only the descriptive mode of maternal linguistic expression had a statistically significant positive relationship with children’s perceptions of their mothers’ emotion coaching when children were middle and high school students at a weak level of magnitude. However, neither imperative nor interrogative mode of maternal linguistic expression was associated with mothers’ emotion coaching across all the school periods. Thus H15 was partially supported.

Given that perceived problem-solving of mother-child communication, the duration of children’s communication with their mothers per week, and the modes of mothers’ linguistic expressions were significantly correlated with children’s perceptions of their mothers’ emotion coaching, a hierarchical multiple regression was conducted to assess the relative contributions of these variables to children’s perceptions of their mothers’ emotion coaching.

In order to check the potential problems with multicollinearity among independent variables, collinearity diagnostics were conducted. The results show that tolerance coefficients of all the five independent variables were above .83 which is much higher than a cutoff value of .20 and variance-inflation factor (VIF) coefficients were above 1.04, which were much lower than a cutoff value of 4. These coefficients indicated that the assumption of multicollinearity was not violated. That is, each communication practice between mothers and children was not highly correlated with all the other maternal communication practices.

Age and gender (0 = males and 1 = females) as the basic demographic data were entered on the first step to control for the potentially confounding effects of these
variables. To understand whether overall mother-child communication predicts children’s perceptions of their mothers’ emotion coaching, perceived problem-solving of mother-child communication and duration of children’s communication with their mother per week were entered on the second step. Finally, to investigate whether all three modes of maternal linguistic expressions predict children’s perceptions of mothers’ emotion coaching, all three modes of maternal linguistic expressions were entered on the last step.
<table>
<thead>
<tr>
<th>Step</th>
<th>Variable entered</th>
<th>$\beta$</th>
<th>$R^2$ Change</th>
<th>$R^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Age</td>
<td>-.04</td>
<td>.00</td>
<td>.00</td>
</tr>
<tr>
<td></td>
<td>Gen</td>
<td>.05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Age</td>
<td>-.10</td>
<td>.29</td>
<td>.29</td>
</tr>
<tr>
<td></td>
<td>Gen</td>
<td>-.25***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PSS</td>
<td>.57***</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Dur</td>
<td>.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Age</td>
<td>-.11*</td>
<td>.31</td>
<td>.02</td>
</tr>
<tr>
<td></td>
<td>Gen</td>
<td>-.25***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PSS</td>
<td>.55***</td>
<td></td>
<td></td>
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<td></td>
<td>Dur</td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>IMM</td>
<td>.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>INM</td>
<td>.01</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DEM</td>
<td>.13*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Coefficients are standardized regression coefficients. The variables are: Gen = Gender; PPS = Perceived problem-solving of mother-child communication; Dur = Duration of mother-child communication; IMM = Imperative mode, INM = Interrogative mode; and DEM = Descriptive mode. $N = 282$. *$p < .05$. ***$p < .001$.

Table 5.11 Summary of Hierarchical Multiple Regression Analyses for Children’s Perceptions of Their Mothers’ Emotion Coaching by Perceived Problem-Solving of Mother-Child Communication, Duration of Mother-Child Communication, and Modes of Mothers’ Linguistic Expressions
No variance of children’s perceptions of their mothers’ emotion coaching was accounted for by age and gender at Step 1 ($R^2 = .00$, adjusted $R^2 = .00$, $F (2, 279) = .62, p > .05$). Neither age nor gender was a significant predictor. At Step 2, twenty nine percent of the variance was accounted for by age, gender, perceived problem-solving of mother-child communication, and duration of mother-child communication per week ($R^2 = .29$, adjusted $R^2 = .28$, $F (4, 277) = 23.94, p < .001$). Perceived problem-solving of and duration of mother-child communication explained 29% of the variance of children’s perceptions of their mothers’ emotion coaching after controlling for age and gender ($R^2$ change $= .29$, $F$ change $(2, 277) = 56.63, p < .001$). Perceived problem-solving of mother-child communication was the strongest predictor ($\beta = 10.34, p < .001$). Interestingly, gender was a significant predictor ($\beta = -4.56, p < .001$) but duration of mother-child communication per week did not significantly predict mothers’ emotion coaching.

At Step 3, all the variables accounted for 31% of the variance in the children’s perceptions of their mothers’ emotion coaching ($R^2 = .31$, adjusted $R^2 = .29$, $F (7, 274) = 17.41, p < .001$). Both age and gender were significant predictors. The standardized regression coefficient of age ($\beta = -.11, p < .05$) demonstrated that older children were less likely to perceive their mothers’ emotion coaching. The standardized regression coefficient of gender ($\beta = -.25, p < .001$) also indicated that daughters were significantly less likely to perceive their mothers’ emotion coaching than sons. Perceived problem-solving of mother-child communication was the strongest predictor ($\beta = .55, p < .001$) while the duration of communication between mothers and children was not a significant
predictor. Among the three modes of mothers’ linguistic expressions, only the
descriptive mode of mothers’ linguistic expression was a significant predictor in this
analysis ($\beta = .13, p < .05$). There was not a significant change in the variance accounted
for in children’s perceptions of their mothers’ emotion coaching beyond the effects of the
other variables ($R^2_{\text{change}} = .02, F_{\text{change}} (3, 274) = 1.98, p > .05$).

This section can be summarized as follows: First, perceived problem-solving of
mother-child communication was significantly associated with children’s perceptions of
their mothers’ emotion coaching, followed by the duration of mother-child
communication and the descriptive mode of maternal linguistic expression. Consistent
with the correlation analyses, perceived problem-solving of mother-child communication
was the strongest predictor of children’s perceptions of their mothers’ emotion coaching.
Unexpectedly, duration of mother-child communication was not a strong predictor of
mothers’ emotion coaching. As expected, the descriptive mode of maternal linguistic
expression was a moderate predictor.

5.1.3 Interrelationships among Mother-Child Communication Practices

Simple zero-order correlation analyses were conducted to examine the
relationship between the frequency and duration of children’s communication with their
mothers and perceived problem-solving of mother-child communication. The results of
correlation analyses are presented in Table 5.12.
<table>
<thead>
<tr>
<th></th>
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</tr>
<tr>
<td>Elementary school</td>
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<td></td>
<td></td>
</tr>
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<td></td>
</tr>
<tr>
<td>High school</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Dur</td>
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</tr>
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<tr>
<td>Middle school</td>
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<td></td>
</tr>
<tr>
<td>High school</td>
<td>.25***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
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<tr>
<td>IMM</td>
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<td>Elementary school</td>
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<td>-.03</td>
</tr>
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<td>-.06</td>
<td>-.06</td>
</tr>
<tr>
<td>High school</td>
<td>.06</td>
<td>-.01</td>
<td>.00</td>
</tr>
<tr>
<td>Total</td>
<td>.01</td>
<td>-.07</td>
<td>-.09</td>
</tr>
<tr>
<td>INM</td>
<td></td>
<td></td>
<td></td>
</tr>
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<td>Elementary school</td>
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<td>.01</td>
</tr>
<tr>
<td>Middle school</td>
<td>.13*</td>
<td>.03</td>
<td>.02</td>
</tr>
<tr>
<td>High school</td>
<td>.13*</td>
<td>.04</td>
<td>.04</td>
</tr>
<tr>
<td>Total</td>
<td>.10</td>
<td>.08</td>
<td>.03</td>
</tr>
<tr>
<td>DEM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary school</td>
<td>-.04</td>
<td>.10</td>
<td>.06</td>
</tr>
<tr>
<td>Middle school</td>
<td>.07</td>
<td>-.03</td>
<td>.03</td>
</tr>
<tr>
<td>High school</td>
<td>.14*</td>
<td>.03</td>
<td>-.04</td>
</tr>
<tr>
<td>Total</td>
<td>.14*</td>
<td>.01</td>
<td>.05</td>
</tr>
</tbody>
</table>

*Note.* The variables are: PPS = Perceived problem-solving of mother-child communication; Fre = Frequency of communication with mothers; Dur = Duration of communication with mothers; IMM = Imperative mode; INM = Interrogative mode; DEM = Descriptive mode. *N* = 282. *p < .05. **p < .01, ***p < .001, two-tailed tests.

Table 5.12 Interrelationships among Perceived Mother-Child Communication Practices at Three Time Periods
Table 5.12 shows that there was no significant relationship between the frequency of children’s communication with their mothers per week and perceived problem-solving of mother-child communication. However, duration of children’s communication with their mothers per week had a positive and weak association with perceived problem-solving of mother-child communication. Thus H16a was not confirmed, while H16b was confirmed. Table 5.12 also shows that only the descriptive mode of maternal linguistic expression with their children was positively associated with perceived problem-solving of mother-child communication. Thus H17 was partially supported. Finally, the results showed that there were no statistically significant relationships between the frequency and duration of communication between mothers and their children and the three modes of mothers’ linguistic expressions. Thus H18 was not confirmed.

Additional analyses were conducted to investigate how the frequency and duration of children’s communication with their mothers during each school period might be differentially related to perceived problem-solving of mother-child communication (see Table 5.12). The results showed that only duration of children’s communication with their mothers had significant relationships with perceived problem-solving of mother-child communication when children were middle and high school students. Another analysis was conducted to examine how modes of mothers’ linguistic expression with their children during each school period were differentially associated with perceived problem-solving of mother-child communication (see Table 5.12). The descriptive mode of mothers’ linguistic expression was the most significantly associated with perceived problem-solving of mother-child communication when they were high school students (descriptive mode: $r = .14 > r = .06, r = .13$: respectively imperative and
interrogative mode). An interrogative mode of mothers’ linguistic expression was significantly associated with perceived problem-solving of mother-child communication when children were middle and high school students (positive and week relationships, respectively).

In sum, the interrelationships among variables of maternal communication practices were not as strong as expected. Only perceived problem-solving of mother-child communication was significantly associated with duration of mother-child communication and the descriptive mode of maternal linguistic expression. Students’ self-reporting data based on perceptions and recall might have the potential to be biased (see Koerner & Fitzpatrick, 2002b). Thus the same six hypotheses that were tested with students’ data were also tested with their mothers’ self-reporting data to accurately assess the hypotheses. The results are presented in the following section.

5.2 Results of Supplemental Hypothesis Tests: Mothers’ Self-Reporting Data

Two types of data were collected from mothers’ paper and pencil questionnaires: (1) mothers’ perceptions of their children’s emotional regulation capacity and (2) mothers’ perceptions of their emotion coaching. Six hypotheses (i.e., H1, H2, H4, H5, H13, and H14) were tested with these two types of mothers’ response data.

Means and standard deviations for mothers’ perceptions of their children’s emotional regulation capacity are presented in Table 5.13.
Mothers’ perceptions of their children’s emotional regulation capacity

<table>
<thead>
<tr>
<th></th>
<th>Interpersonal construct system</th>
<th>Interpersonal construct system</th>
<th>Perspective taking skill</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$M$</td>
<td>$SD$</td>
<td>differentiation</td>
</tr>
<tr>
<td>Elementary school</td>
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<td>2.72</td>
<td>.23</td>
</tr>
<tr>
<td>Middle school</td>
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<td>.22</td>
</tr>
<tr>
<td>High school</td>
<td>14.35</td>
<td>2.94</td>
<td>.24</td>
</tr>
<tr>
<td>Overall school</td>
<td>13.89</td>
<td>2.65</td>
<td>.23</td>
</tr>
</tbody>
</table>

Table 5.13 Means, Standard Deviations, and Pearson Correlations Between Mothers’ Perceptions of Their Children’s Emotional Regulation Capacity with Interpersonal Construct System Properties and Perspective Taking Skill

Note. All correlations, $N = 52$, except for those with their children’s perspective taking skill: $N = 43$. *$p < .05$. 

$158$
A one-factor within-subjects repeated measures ANOVA was used to test the effects of school periods on mothers’ perceptions of their children’s emotional regulation capacity. Mauchly’s test of sphericity did not reveal the violation of the assumption of sphericity (Mauchly’s $W = .91, \chi^2 (df = 2) = 4.93, p > .05$). The result showed that mothers’ perceptions of their children’s emotional regulation capacity was significantly affected by the school periods ($F (2, 102) = 5.26, p < .01$). Thus it was concluded that overall mothers’ perceptions of their children’s emotional regulation capacity differed across all three school periods. The estimated partial eta-squared is .09.

In order to investigate which specific school period was higher than the other school periods in mothers’ perceptions of their children’s emotional regulation capacity, a Bonferroni test for post hoc pairwise comparison was conducted. The result showed that a high school period was significantly higher than elementary school ($MD = .79, SE = .27, p < .05$) and middle school periods ($MD = .58, SE = .27, p > .05$) in mothers’ perceptions of their children’s emotional regulation capacity. The perceptions of children’s emotional regulation capacity in the middle school period was higher than those in the elementary school period, but not significantly ($MD = .21, SE = .21, p > .05$). It was concluded that mothers’ perceptions of their children’s emotional regulation capacity was the highest when children were in a high school period.

Simple zero-order correlation analyses were conducted to test the relationship between mothers’ perceptions of their children’s emotional regulation capacity and children’s social-cognitive developments (see Table 5.13). Table 5.13 shows that mothers’ perceptions of their children’s emotion regulation capacity had no significant relationship with children’s interpersonal construct system differentiation, but did have a
significantly positive and moderate relationship with interpersonal construct system
abstractness. Table 5.13 also shows that mothers’ perceptions of their children’s emotion
regulation capacity had no significant relationship with children’s perspective taking skill.
Thus H1 was partially confirmed, while H2 was not confirmed.

I also tested whether mothers’ perceptions of their emotion coaching would be
related to the perceptions of their children’s emotional regulation capacity. Means and
standard deviations for mothers’ perceptions of their emotion coaching during each time
period are presented in Table 5.14.
Mothers’ perceptions of their emotion coaching

<table>
<thead>
<tr>
<th></th>
<th>Elementary school</th>
<th>Middle school</th>
<th>High school</th>
</tr>
</thead>
<tbody>
<tr>
<td>M</td>
<td>4.88</td>
<td>4.61</td>
<td>4.54</td>
</tr>
<tr>
<td>SD</td>
<td>1.07</td>
<td>0.85</td>
<td>1.24</td>
</tr>
</tbody>
</table>

Note. N = 52. ps < .001 two-tailed.

Table 5.14 Means, Standard Deviations, and Pearson Correlations of Mothers’ Perceptions of Their Emotion Coaching

Simple zero-order correlation analyses were conducted to examine interrelationships of mothers’ perceptions of their emotion coaching when their children were elementary, middle, and high school students (see Table 5.14). All correlations were highly intercorrelated. A one-factor within-subjects repeated measures ANOVA was also used to test the effects of the school periods on mothers’ perceptions of their emotion coaching. Mauchly’s test of sphericity revealed the violation of the assumption of sphericity (Mauchly’s $W = .78$, $\chi^2 (df = 2) = 12.24, p < .01$). However, Huynh-Feldt’s epsilon coefficient indicated that the assumption of sphericity was not seriously violated, on the ground that Huynh-Feldt’s $\epsilon$ is .85, which is greater than .75. The result by
Huynh-Feldt $F$-test shows that mothers’ perceptions of their emotion coaching was significantly affected by the school periods ($F(1.69, 86.23) = 4.42, p < .05$). Thus it was concluded that overall mothers’ perceptions of their emotion coaching differed across all three school periods. The estimated partial eta-squared is .08.

In order to investigate which specific school period was higher than the other school periods in mothers’ perceptions of their emotion coaching, a Bonferroni test for post hoc pairwise comparison was conducted. The result showed that an elementary school period was significantly higher than the middle school ($MD = .27, SE = .10, p < .05$) and high school periods ($MD = .34, SE = .15, p > .05$) in mothers’ perceptions of their emotion coaching. Mothers’ perceptions of their emotion coaching in the middle school period were higher than that in the high school period, but not significantly ($MD = .07, SE = .11, p > .05$).
### Emotional Regulation Capacity and Interpersonal Construct System Differentiation

<table>
<thead>
<tr>
<th></th>
<th>Emotional Regulation Capacity</th>
<th>Interpersonal Construct System Differentiation</th>
<th>Interpersonal Construct System Abstractness</th>
<th>Perspective Taking Skill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mothers’ perceptions of their emotion coaching Elementary school</td>
<td>-0.08</td>
<td>-0.08</td>
<td>-0.10</td>
<td>-0.04</td>
</tr>
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<td>Middle school</td>
<td>-0.02</td>
<td>0.04</td>
<td>0.03</td>
<td>0.11</td>
</tr>
<tr>
<td>High school</td>
<td>0.10</td>
<td>-0.05</td>
<td>-0.09</td>
<td>-0.03</td>
</tr>
</tbody>
</table>

*Note.* All correlations, $N = 52$, except for those with their children’s perspective taking skill: $N = 43$.

Table 5.15 *Pearson Correlations of Mothers’ Perceptions of Their Emotion Coaching, Mothers’ Perceptions of Their Children’s Emotional Regulation Capacity, Children’s Perceptions of Their Emotional Regulation Capacity, Children’s Interpersonal Construct Systems, and Perspective Taking Skill*
With regards to H4, the results showed that there were no significant relationships between mothers’ perceptions of their emotion coaching and their perceptions of their children’s emotional regulation capacity during all the school periods (see Table 5.15). The results showed that mothers’ perceptions of their emotion coaching with their children were not significantly associated with children’s perceptions of their emotional regulation capacity. Thus H4 was not confirmed. The results also showed that there were no significant relationships between mothers’ perceptions of their emotion coaching and children’s social-cognitive development. Thus H5 was not supported, either.
Another simple zero-order correlation analyses were conducted to test whether children’s perceived problem-solving of mother-child communication was significantly associated with mothers’ perceptions of their emotion coaching (see Table 5.16). The results demonstrated that children’s perceived problem-solving of mother-child communication was significantly associated with mothers’ perceptions of their emotion coaching while their children were middle and high school students. In order to generate a global index of mothers’ perceptions of their emotion coaching, mothers’ perceptions of their emotion coaching from elementary to high school periods were averaged. The result showed that there was a significant relationship between children’s

<table>
<thead>
<tr>
<th>Mothets’ perceptions of their emotion coaching</th>
<th>Elementary school</th>
<th>Middle school</th>
<th>High school</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem-solving comm.</td>
<td>.17</td>
<td>.30*</td>
<td>.38**</td>
</tr>
<tr>
<td>Frequency of communication</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary school</td>
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<td></td>
<td></td>
</tr>
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<td>-.27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school</td>
<td>.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duration of communication</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary school</td>
<td>.19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle school</td>
<td>.22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High school</td>
<td>.02</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. N = 52. *p < .05. **p < .01, two-tailed tests.*

Table 5.16 Pearson Correlations among Mother-Child Communication Practices
perceived problem-solving of mother-child communication and mothers’ perceptions of their emotion coaching. Thus H13 was almost confirmed.

Finally, in order to examine the relationship between the frequency and duration of mother-child communication and mothers’ perceptions of their emotion coaching, simple zero-order correlation analyses were conducted (see Table 5.16). The result showed that the frequency of mother-child communication had a negatively significant relationship with mothers’ perceptions of their emotion coaching only when children were elementary school students. Thus H14 was not confirmed.

Due to the small sample size, the seven hypotheses related to the modes of mothers’ linguistic expression were not tested. Only 31 mothers answered questions relating to the modes of maternal linguistic expressions.

Since the results of students’ self-reporting data were different from those of mothers’ self-reporting data in the H2, H4, and H14 tests, paired-samples t-tests were conducted to figure out how much mothers’ perceptions of their emotion coaching differed from their children’s perceptions of their mothers’ emotion coaching.
<table>
<thead>
<tr>
<th>MPEC – SPEC</th>
<th>MD</th>
<th>SE</th>
<th>t-score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary school</td>
<td>-.07</td>
<td>.18</td>
<td>-.37</td>
</tr>
<tr>
<td>Middle school</td>
<td>.43</td>
<td>.16</td>
<td>2.63*</td>
</tr>
<tr>
<td>High school</td>
<td>.39</td>
<td>.20</td>
<td>1.95</td>
</tr>
<tr>
<td>Overall school</td>
<td>.25</td>
<td>.15</td>
<td>1.64</td>
</tr>
</tbody>
</table>

Note. The variables are: MPEC = Mothers’ perceptions of their emotion coaching; SPEC = Children’s perceptions of their mothers’ emotion coaching. \( N = 52. \text{df} = 51. * p < .05. \)

Table 5.17 Results of Paired Sample T-Tests for Mothers’ Perceptions of Their Emotion Coaching and Children’s’ Perceptions of Their Mothers’ Emotion Coaching

The results showed that overall mothers’ perceptions of their emotion coaching were considerably similar to children’s perceptions of their mothers’ emotion coaching. However, when children were middle and high school students, mothers’ perceptions of their emotion coaching were somewhat different from children’s perceptions of their mothers’ emotion coaching. When children were middle school students, the level of mothers’ perceptions of their emotion coaching was higher than the level of their children’s perceptions of receiving emotion coaching from their mothers. When children were high school students, the difference between mothers’ perceptions of giving emotion coaching and their children’s perceptions of receiving emotion coaching was not statistically significant (\( t (51) = 1.95, p = .06 \)). However, given that the \( p \)-value was very close to .05 and 95% confidence interval of the mean difference was from -.01 to .80, the mean difference should not be ignored. These results indicated that children perceived
mothers’ emotion coaching less than mothers thought, when they were middle and high school students. Given that listeners’ perceptions are important in terms of communication education and skill development, researchers may need to figure out whether children appreciate emotion coaching as much as their mothers expect.

An independent sample $t$-test was also conducted to examine whether there was any gender difference in terms of the modes of maternal linguistic expressions. The results of the independent sample $t$-test are summarized in Table 5.18.
<table>
<thead>
<tr>
<th>Modes of mothers’ linguistic expression</th>
<th>Male students – female students</th>
<th>MD</th>
<th>SE</th>
<th>t-score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Elementary school</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imperative mode</td>
<td></td>
<td>.35</td>
<td>.16</td>
<td>2.19*</td>
</tr>
<tr>
<td>Interrogative mode</td>
<td></td>
<td>-.28</td>
<td>.11</td>
<td>-2.64*</td>
</tr>
<tr>
<td>Descriptive mode</td>
<td></td>
<td>-.23</td>
<td>.12</td>
<td>-1.89</td>
</tr>
<tr>
<td><strong>Middle school</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imperative mode</td>
<td></td>
<td>.12</td>
<td>.14</td>
<td>.85</td>
</tr>
<tr>
<td>Interrogative mode</td>
<td></td>
<td>-.12</td>
<td>.08</td>
<td>-1.45</td>
</tr>
<tr>
<td>Descriptive mode</td>
<td></td>
<td>-.06</td>
<td>.09</td>
<td>-.72</td>
</tr>
<tr>
<td><strong>High school</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imperative mode</td>
<td></td>
<td>.08</td>
<td>.15</td>
<td>.56</td>
</tr>
<tr>
<td>Interrogative mode</td>
<td></td>
<td>-.19</td>
<td>.10</td>
<td>-1.90</td>
</tr>
<tr>
<td>Descriptive mode</td>
<td></td>
<td>-.23</td>
<td>.11</td>
<td>-1.97*</td>
</tr>
</tbody>
</table>

*Note. N = 282, df = 180. *p < .05.

Table 5.18 Results of Independent Sample T-Tests for Gender Differences in Modes of Mothers’ Linguistic Expressions Based on Students’ Recall
I found that mothers used more imperative mode of linguistic expression with sons than daughters, while mothers used more interrogative and descriptive modes of linguistic expressions with daughters than sons. Table 5.17 shows that mothers used a significantly more imperative mode of linguistic expression with sons than daughters while children were elementary school students. They used significantly more descriptive modes of linguistic expression with their daughters than sons during the elementary and high school period. There was no statistically significant gender difference in all the three modes of mothers’ linguistic expressions while children were middle school students. Mothers were inclined to have more cautious, exploratory, and interactive communication with daughters than sons during all the school periods.

In sum, 18 hypotheses were tested by simple zero-order correlations, one-factor within-subjects repeated measures ANOVAs, and hierarchical multiple-regression analyses. The results were more or less complicated than expected. Some types of mother-child communication practices were significantly associated with children’s emotional regulation capacity and social-cognitive development, but others were not associated. In contrast with my expectations, children’s emotional regulation capacity, however, was not significantly associated with their social-cognitive abilities and was either weakly or not associated with mothers’ emotion coaching. More detailed discussion will be presented in the next and final chapter.
CHAPTER 6

DISCUSSION

The purpose of this study was to examine whether mothers’ communication practices, particularly emotion coaching practices with their children, play a significant role in the development of children’s emotional regulation capacity and social-cognitive development which are viewed as the essential properties to foster deliberation-relevant communication capabilities. Under the umbrella of this purpose, the first and second objectives were to discover (1) whether mother-child communication practices are significantly associated with children’s emotional regulation capacity and social-cognitive development and (2) which maternal communication practices were more closely associated than others with either children’s emotional regulation capacity or social-cognitive development, or both. The third objective was to investigate (1) whether modes of maternal linguistic expressions are significantly associated with children’s emotional regulation capacity and social-cognitive development and (2) what modes of maternal linguistic expressions are more significantly associated than others with children’s emotional regulation capacity and social-cognitive development.
Additionally, I examined (1) how maternal communication practices were interrelated among one another and (2) how children’s emotional regulation capacity are significantly associated with social-cognitive development.

This chapter consists of two parts: (1) discussion and implications and (2) limitations and suggestions for future research. First, after probing into the results of the hypothesis tests, I will discuss their implications. Second, I will present limitations with the features of this study and suggestions for future research based on examination of the results of the hypotheses.

6.1 Discussion and Implications

6.1.1 Interrelationships Between Emotional Regulation Capacity and Social-Cognitive Development

Assuming that emotion and social cognition were not fundamentally isolated from each other, I argued that emotion regulation and social cognition should be interdependently developed. The first two hypotheses tested whether children’s emotional regulation capacity and social-cognitive development were interrelated or not. Both students’ and mothers’ self-reporting data were respectively used in both hypothesis tests. With the students’ self-reporting data, the result showed that students with higher emotional regulation capacity were not likely to have more social-cognitive development than those with lower emotional regulation capacity and vice versa. Thus, neither H1a nor H2a was confirmed. Mothers’ data also showed that students’ emotional regulation capacity was not associated with social-cognitive development except their interpersonal construct system abstractness. Thus, H1b was partially confirmed while H2b was not confirmed.
These results imply that emotional regulation capacity might be independently developed from social-cognitive systems. However, given that a substantial amount of previous emotional support research has demonstrated that emotional support skill was positively associated with social-cognitive abilities at moderate to strong levels of magnitude (Applegate, 1985; Applegate et al., 1985, 1992; Burleson, 1982a, 1982b, 1994; Burleson & Samter, 1985, 1996), I still hesitate to give weighty credit to these outcomes. I suspect that a low reliability (Cronbach $\alpha = .66$) of preserved 3 items of children’s emotion regulation capacity might not accurately represent relationships between emotional regulation capacity and social-cognitive development.

However, consistent with Hale and Delia’s (1976) suggestion and Burleson’s (1982) finding, H3 was confirmed: students with highly abstract interpersonal construct system were better able to take others’ perspectives than those with less abstract interpersonal construct system.

6.1.2 Relationships Between Mother-Child Communication Practices and Children’s Emotional Regulation Capacity, and Social-Cognitive Development

The results of the H4a tests showed that children’s perceptions of their mother’s emotion coaching were not significantly associated with children’s emotional regulation capacity across all the school periods. However, when their children were elementary school students, this relationship was almost significant ($p = .06$). In addition, according to the results from the repeated measures ANOVA, mothers’ emotion coaching significantly differed across all three school periods. Post hoc pairwise comparison analyses also showed that mothers’ emotion coaching was the highest when children were in the elementary school period. Thus these results imply that children would be
more likely to perceive their mothers’ emotion coaching when children were elementary school students than middle or high school students. With regards to the results of the H4a test, given that elementary school students might be more immature than middle and high school students, it stands to reason that mothers are inclined to pay greater attention to their children’s emotional states and coach emotional actions when their children were elementary school students. However, in contrast with Denham et al.’s (1997), Melnick and Hinshow’s (2000), and Eisenberg, Losoya, et al. ’s (2001) findings, the results of the H4b, and H4c tests demonstrated that mothers’ emotion coaching was not significantly related to children’s emotional regulation capacity across all the school periods. I suspect that possibly biased data from a small sample size of mothers might not accurately represent relationships between mothers’ emotion coaching and children’s emotion coaching.

The results of the next four hypotheses demonstrated that mothers’ emotion coaching and the frequency and duration of mother-child communication practices were not associated with interpersonal construct system properties (H5, H6, and H7), but perceived problem-solving of mother-child communication was associated (H8). Thus none of H5, H6, and H7 was confirmed, while H8 was confirmed. However, the result of a hierarchical multiple regression analysis showed that perceived problem-solving of mother-child communication was not a significant predictor of children’s interpersonal construct development after controlling for age and gender. Thus it was inferred that increase in the amount of communication practices with mothers itself did not uniquely increase children’s social-cognitive development. Rather, mothers need to use reflection-enhancing and person-centered communication that encourage child to learn a variety of
knowledge and experience and stimulate children to reflectively perceive and understand people, objects, and situations.

Importantly, gender was a strong predictor of children’s interpersonal construct system properties. Additional simple zero-order correlations demonstrated that gender (0 = males and 1 = females) was positively associated with both perceived problem-solving of mother-child communication with a moderate level of magnitude ($r = .36, p < .001$) and interpersonal construct system properties (interpersonal construct system differentiation and abstractness: $rs > .20, ps < .001$). These results suggest that mothers need to develop diverse routes to frequently communicate with their sons for promotion of their sons’ social-cognitive development.

Modes of maternal linguistic expressions were somewhat intricately associated with children’s emotional regulation capacity and social-cognitive development. Neither H9 nor H10 was confirmed, while H11, and H12 were partially confirmed when I used a global index of modes of maternal linguistic expressions. However, when I used modes of maternal linguistic expression during each school period, all four hypotheses were partially confirmed. The results of H9, H10, H11, and H12 tests showed that each mode of maternal linguistic expression was distinctively associated with children’s emotional regulation and social-cognitive development. The imperative mode of maternal linguistic expression was not significantly associated with any of children’s emotional regulation capacity and social-cognitive development. As predicted, however, the relationship between the imperative mode and emotional regulation had the negative direction. The interrogative mode of maternal linguistic expression was positively associated with interpersonal construct systems properties. The interrogative mode of
maternal linguistic expression also had an almost significantly positive relationship with perspective taking skill \( (p = .06) \). Consistent with Applegate and Delia’s (1980) and Applegate et al.’s (1985, 1992), findings that person-centeredness of maternal regulative communication was positively associated with the child’s construct differentiation, this study found that the frequency of children’s hearing their mothers’ person-centered mode of linguistic expression, particularly, the interrogative mode of maternal linguistic expression, was a strong predictor of their interpersonal construct system properties. The imperative mode of maternal linguistic expression would be unlikely to allow children to freely and autonomously respond to their mothers’ questions, which dampens children’s reflective thinking and communication practices. Consequently, children who hear frequently the imperative mode of maternal linguistic expression are less likely to increase their social-cognitive development. However, the interrogative mode of maternal linguistic expression encourages children to reflectively think about appropriate answers to mothers’ questions, which stimulates children to augment their interpersonal construct systems.

Interestingly, the results showed that the descriptive mode of maternal linguistic expression functioned differently from the interrogative mode of maternal linguistic expression in terms of children’s social-cognitive development. The descriptive mode of maternal linguistic expression was only positively associated with children’s perspective taking skill. However, the descriptive mode of maternal linguistic expression may allow children to learn the way of understanding others’ feelings and beliefs and giving accommodative expression to others. Given that recognizing and understanding accurately others’ views, feelings, and a given context in which these views and feelings
occurred facilitate people into taking others’ perspectives (Burleson, 1982b), the
descriptive mode of maternal linguistic expression may contribute to development of
children’s perspective taking skill.

More importantly, the repeated measure ANOVA demonstrated that mothers in
Korea used the imperative mode of linguistic expression (59.74%) far more frequently
than the interrogative mode (17.41%) and descriptive mode (22.84%) of linguistic
expression across all three school periods. As can be seen above, the imperative modes
did not help children promote their emotional regulation capacity and social-cognitive
development. However, the interrogative mode of linguistic expression did help children
to augment their interpersonal construct system development, while the descriptive mode
of linguistic expression facilitated children to develop their perspective taking skill.
These results strike a note of warning against the modes of communication practices
Korean mothers use with their children. Today’s Korean mothers need to be aware of the
fact that they use too much imperative mode of linguistic expression with their children.
They also need to learn the positive functions of interrogative and descriptive modes of
linguistic expressions on their children’s social-cognitive development. As a result,
mothers need to frequently use both interrogative and descriptive modes of linguistic
expression to promote both children’s interpersonal construct system properties and
perspective taking skill simultaneously.

6.1.3 Relationships Between Mother-Child Communication Practices and Mothers’
Emotion Coaching

Consistent with Koerner and Fitzpatrick’s (2002a, 2000b) emphasis on the
positive effect of the amount and openness of mother-child communication on children’s
socialization, the results showed that the frequency of perceived problem-solving of mother-child communication was positively associated with children’s perceptions of mothers’ emotion coaching. Thus H13 was confirmed. I claim that children’s frequent disclosure of their emotional states and mothers’ perceptions of their children’s emotional states play an underlying role in the positive relationship between these two constructs. If children attempted to request their mothers frequently to provide solutions to their problems and concerns, they might be likely to reveal their emotional states either with or without intentions. Frequent exposure to children’s distressed emotional states might allow mothers to accurately perceive and understand children’s emotional states and causal factors about them, which should facilitate mothers to provide strategies of effective emotional management to children. Finally, children who were inclined to frequently disclose their emotional states to their mothers might have more opportunities to perceive their mothers’ emotion coaching.

With regards to the relationship between the frequency and amount of mother-child communication and mothers’ emotion coaching, interestingly, results with students’ self-reporting data were considerably different from those with mothers’ self-reporting data. Students’ self-reporting data showed that the frequency of mother-child communication was positively associated with children’s perceptions of their mothers’ emotion coaching only when children were in the high school period, while the duration of mother-child communication was positively associated with children’s perceptions of their mothers’ emotion coaching across all the school periods. Thus H14a was partially confirmed. It is reasonable that the duration of mother-child communication was significantly associated with mothers’ emotion coaching, on the ground that mothers need
to spend a certain amount of time to take three systematic steps of emotion coaching: (1) awareness of children’s emotional states, (2) acceptance of children’s emotional states, and (3) instruction-providing for management of children’s emotional states. In other words, I suspect that counting the frequency of mother-child communication itself may not guarantee that mothers have a sufficient time to completely go through these three processes of emotion coaching.

However, a hierarchical multiple regression analysis showed that the duration of mother-child communication was not a significant predictor of mothers’ emotion coaching after controlling for age, gender, and perceived problem-solving of mother-child communication. In addition, mothers’ self-reporting data showed that the duration of mother-child communication was not significantly related to mothers’ perceptions of their emotion coaching. H14b was not supported. Thus the duration of mother-child communication was not counted on as the predictor of mothers’ emotion coaching. These results imply that the general amount of mother-child communication could not be a strong predictor of mothers’ emotion coaching. Rather, perceived problem-solving of mother-child communication is a strong predictor of mothers’ emotion coaching, reasoning that (1) it generates an underlying mechanism in which children may frequently disclose their emotional states to their mothers through their willingness to open-mindedly communicate with their mothers to request for mothers’ advice and (2) mothers may be stimulated to provide strategies of emotion management based on accurate perceptions of their children’s emotional states. According to Bandura’s (1977) social learning theory, associational patterns and attractiveness play a significant role in promoting individuals’ inclinations for learning the modeled activities and characteristics.
To encourage children to open their self-concepts with their parents for open-minded mother-child communication, it should be fundamentally necessary for both parents and children to make considerable efforts to develop close and familiar relationships with repeated contacts. Through building up these positive and close relationships between mothers and children, children are more likely to expose themselves to their mothers and attend to and follow their mothers’ instructions for emotional regulation.

Finally, with respect to modes of maternal linguistic expressions, only the descriptive mode of mothers’ linguistic expression was positively associated with children’s perceptions of their mothers’ emotion coaching. Thus H15 was partially confirmed. This result is more or less reasonable, for the descriptive mode of mothers’ linguistic expression was frequently used when mothers delivered affective expression (e.g., comforting, inspiring, and cheering expressions) about children’s attitudes and behaviors. Children might perceive emotion coaching from their mothers when mothers frequently use linguistic expression in the descriptive mode.

In accordance with an assertion that familiarity in interpersonal relationships affects people’s motivation to produce appropriate messages (see B. J. O’Keefe & Lambert, 1995; Waldron & Applegate, 1994), these results suggest that mothers need to establish open and close relationships with their children and encourage them to talk about their personal problems or concerns. Mothers need to learn that supportive mother-child relationships in the home environment will help children reveal emotional states and causal factors of their emotional states to their mothers, which leads mothers to give emotion coaching based on an accurate perception of their children’s emotional states.
Mothers also need to use more descriptive and interrogative modes of linguistic expression with affective contents if they want to help children appreciate their emotion coaching.

6.1.4 Interrelationships among Mother-Child Communication Practices

The results showed that the frequency of perceived problem-solving of mother-child communication was significantly associated with the duration of mother-child communication and the descriptive mode of mothers’ linguistic expression with their children. The rest of the relationships were not confirmed. Thus H16 and H17 were partially confirmed, while H18 was not confirmed. These results imply that mother-child communicative interactions grounded on mother-child relationships are closely associated with affective communication which needs a certain amount of time for mothers and children to be able to disclose, perceive, and understand emotional states.

To understand differences in (1) mothers’ and children’s perceptions of mothers’ emotion coaching, (2) the frequency of the modes of mothers’ linguistic expressions to their sons and daughters, and (3) interrelationships among modes of maternal linguistic expressions, additional analyses were conducted. First, the results showed that there were differences in mothers’ and children’s perceptions of mother’s emotion coaching. Paired sample t-tests demonstrated that mothers’ perceptions of their emotion coaching were significantly higher than children’s perceptions when children were middle school students. Mothers’ perceptions of their emotion coaching were also higher than children’s perceptions when children were high school students, although the mean difference was not statistically significant. These results were consistent with previous research (Noller & Bagi, 1985; Ritchie & Fitzpatrick, 1990). For example, Noller and
Bagi (1985) found that adolescent perceptions of communication were low-to-moderately associated with parental perceptions. These results suggest that mothers need to develop communicative checking systems or strategies to monitor whether their children fully perceive and understand mothers’ communication practices with them.

Second, independent sample $t$-tests showed that mothers used significantly more imperative and less interrogative modes of linguistic expressions to sons than daughters when children were elementary school students. Mothers used significantly more descriptive mode of linguistic expression to daughters than sons when children were high school students. Additionally, mean differences showed that mothers were more likely to use the imperative mode of linguistic expression to sons than daughters, while they were more likely to use the interrogative and descriptive modes of linguistic expressions to daughters than to sons across all three school periods. I suspect that these gender differences in the modes of mothers’ linguistic expression might be grounded upon mothers’ different role expectation or stereotypical expectation to their children. Given that the interrogative and descriptive modes of mothers’ linguistic expressions had the positive impact on children’s emotional regulation and social-cognitive abilities, mothers need to use more person-centered and reflection-enhancing communication with their sons.

Finally, additional analyses indicated that the imperative mode of maternal linguistic expression with their children was negatively related to both interrogative ($r = -.20, p < .001$) and descriptive modes ($r = -.32, p < .001$) of maternal linguistic expressions. These results demonstrated that mothers who were more likely to use the imperative modes of linguistic expressions to their children were less likely to use both
interrogative and descriptive modes of maternal linguistic expressions. These findings warn today’s Korean mothers of malicious patterns and effects of maternal linguistic expression on their children’s emotional, social-cognitive, and communicative abilities. If mothers have a strong tendency to use only the imperative mode of linguistic expression, their children might have the critical potential to lose opportunities to develop emotion-regulative and social-cognitive abilities.

In sum, this study presented a few important findings and implications which might contribute to improvements in educational functions of Korean mothers’ communication with their children on development of children’s emotion-regulative and social-cognitive abilities through revealing critical problems of today’s Korean mothers’ communication with their children. I still believe, however, that there is a substantial amount of room to improve the features of this study. Thus, I will discuss limitations of this study and suggest important directions for future research.

6.2 Limitations and Suggestions for Future Research

Evidently, this study had two limitations: (1) inability to accurately revealing the direction of causal influence between maternal communication practices and children’s emotional regulation capacity and social-cognitive development (see Hoffman’s (1975) arguments on causal inferences of the effects of parenting on the child’s moral internalization) and (2) a lack of power to generalize the findings of this study.

One of the features of this study was to collect a cross-sectional data with a paper and pencil questionnaire due to temporal and financial limitations. However, it is difficult to test the direction of causality between predictors and outcome variables with these types of cross-sectional data. Longitudinal research such as panel studies could
provide clear pictures of emotional and communicative interaction between mothers and children during each school period.

With respect to a lack of power to generalize the findings of this study, five limitations were considered. First, this study obtained cross-sectional data relying on participants’ recall in measuring emotional and communicative interaction between mothers and children during three school periods. However, I suspect that some participants might be cognitively lazy when they were completing the one and half hour paper and pencil questionnaires. Therefore, participants’ recalled data in this study might be unreliable and even invalid due to participants’ inability to retrieve relevant information from long-term memory, and recollecting separate memories (Tourangeau, Rips, & Rasinski, 2000). To overcome this problem, future research needs to collect data from different aged samples. For example, after the same number of samples from respectively elementary, middle, and high schools is collected simultaneously, future researchers can compare and contrast data from each different aged group.

Second, a considerable number of participants did not complete the last half of questions, which were open-ended questions. I suspect that a lengthy time (i.e., one and half hour) to complete the questionnaires would critically dampen participants’ concentration on the last half of questions. Although follow-up questioning by way of calling and email were conducted, participants’ responses were extremely low. To encourage students to participate in this study, I originally expected to grant an extra credit, which is one of the most attractive incentives to especially college students.
However, the system of granting an extra credit to research participants is not stabilized in Korean higher education institutes, which means that I could not utilize the system of granting extra credit in this study.

Third, Korean college freshmen in the first semester might be the toughest sample to be expected to participate in any works related to their academics. Considering that most freshmen must have been completely exhausted from a university entrance test, their major interests are expected to be in enjoying their freedom rather than being engaged in any academic work. In this respect, it is extremely difficult to encourage them to complete lengthy research works.

Fourth, I collected data from samples attending three different colleges, which might more or less contribute to improvement in external validity. Strictly speaking, this study, however, did not use probability sampling or random sampling when selecting participants. Future research needs to use random sampling to improve external validity.

Finally, in this study, I measured mothers’ emotion coaching and children’s emotional regulation capacity by both mothers and students’ self-reporting tasks to produce an unbiased data. Responses from self-reporting tasks, however, could be still biased, reasoning that their responses are based on their own perceptions. As an alternative, future research needs to analyze mother-child’s communication practices in real contexts through natural observation, narrative analysis, and discourse analysis to objectively measure mother-child communication practices.

Beyond two limitations grounded on methodological aspects, several additional limitations were detected based on both theoretical and empirical aspects.
The next paragraphs deal with the ways of future research improving limitations of this study along with theoretical grounds.

This study found that there was no significant relationship between emotional regulation capacity and social-cognitive development. Although emotional regulation capacity and social-cognitive development seemed to develop interdependently, it remains still questionable whether emotional regulation capacity plays a complementary role in helping people implicitly activate their social-cognitive systems, which leads them to practically use diverse strategies of deliberative message production in real communication contexts. The reason is because little research has empirically tested how people use deliberative discussion skills in an emotionally aroused but intensively social cognition use requested circumstance. In order to investigate the direction of the causal effects of discussants’ emotional regulation capacity on the operation of social-cognitive development and even deliberation-relevant communication strategies use, an experiment needs to be conducted. For example, discussants that are divided into three groups by the level of their emotional regulation capacity could be asked to discuss with other discussants that are in the same group in emotionally aroused circumstances. After the discussion, discussants’ deliberation-relevant communication strategies such as strategies of argumentative, persuasive, comforting, and politeness-oriented messages could be measured by analyzing transcripts of their discussions. Given that social-cognitive development was highly correlated with reflection-enhancing and person-centered strategies (Applegate et al., 1985, 1992; Applegate & Delia, 1980; Burleson, 1982a; Burleson et al, 1995; Burleson & Samter, 1985, 1996), the direction of the causal influence of emotional regulation capacity on facilitation of social-cognitive system
development could be inferred from relationships between social-cognitive development
and their strategies of reflection-enhancing message production.

Holstein (1972) and Shure and Spivack (1978) demonstrated that the level of
parents’ social-cognitive abilities played a crucial role in developing their children’s
social-cognitive abilities. Burleson and Kunkel (2002) also found that mothers’
comforting skill was positively associated with children’s comforting skill. However, the
levels of parents’ social-cognitive and comforting skills were not examined in this study.
Given that the purpose of this study is to examine whether mothers’ communication
practices with their children play an important role in promoting children’s emotion-
regulative and social-cognitive development, which have the potential to develop
deliberative communication capabilities, mothers’ emotion-regulative, social-cognitive
and communicative abilities also need to be examined to more comprehensively
investigate the effects of mothers’ emotional, social-cognitive, and communication
abilities on development of their children’s deliberation-relevant communication skills.

This study assumes that increases in individuals’ emotion-regulative, social-
cognitive, and communication skill should be underlying forces for them to be able to
deliberatively discuss social and political problems. However, I also suspect that these
deliberation-relevant communication skills might not appropriately generate the most
universally defensible accommodation unless individuals use moral reasoning and
judgments in their deliberative communication practices. It may be possible for some
individuals to (mis)use their superior deliberation-relevant communication skills to
skillfully hurt other discussants’ emotions rather than generate desirable deliberative
decision-making. According Bandura’s (1977) social learning theory, individuals need
expose themselves to divergent modeling and have reciprocal symbolic interactions with models to expand the scope of their moral reasoning. In this respect, all social interactants such as parents, other adults, peers, and symbolic models should be important for individuals to develop justifiable moral reasoning that is applicable to diverse social contexts. However, given that young children and even adolescents might have a substantial number of opportunities to contact with their mothers, mothers should be a significantly important model to provide vicarious experience and knowledge relating to moral reasoning. Bandura (1977) also argues that modeling has influence on instructing, inhibiting, facilitating, stimulating, and arousing individuals’ emotional states. Thus it may be worthwhile to investigate how parenting modeling relating to the development of children’s moral reasoning and emotion-relevant ability is closely associated with the ways of children using their deliberation-relevant communication skills in real deliberative discussion contexts.

This study did not measure how they communicatively interacted with their peers while they were in elementary, middle, and high school. However, claiming that children are more likely to interact with peers for social and emotional supports with advancing age, Burleson and Kunkel (2002) found that comforting skills of mothers and peers independently contribute to the child’s comforting skills. They argue that there is independent mechanism for peers’ behaviors to influence the child’s social communication skills. Considering that the amount of the child' conversing with mothers decreased with advancing age, it should be worthwhile to investigate how the child has interacted with their peers to develop emotion-regulative and social-cognitive abilities.

Constructivists such as Applegate, Burleson, Clark, Delia, S. L. Kline, B. J. O’Keefe and D. J. O’Keefe have argued that social cognition systems such as interpersonal construct systems play a key role in a perceiver’s perspective taking and understanding a listener’s point of view and developing informative, regulative, comforting, and persuasive listener-adapted messages. However, constructivist and other communication researchers have also recognized that message production and strategy would not be dependent solely on relatively global dimensions such as “receiver-focus” or “listener-adaptation,” in persuasive communication practices (see B. J. O’Keefe &
Rather, they have argued that a number of factors might dampen the motivation to construct a sophisticated message such as highly listener adapted person-centered messages: “dispositional factors (e.g., level of communication apprehension, level of emotional empathy, locus of control orientation) and situation factors, including organismic states of the speaker (e.g., moods, exhaustion), characteristics of the listener and his or her relationship with the speaker (e.g., degree of intimacy, degree of power), and properties of the setting (e.g., perceived benefits of communicating, constraints, established by relevant norms)” (Burleson, 1989, p. 39).

Applegate (1980) has maintained that social-cognitive ability might be a necessary but not sufficient condition to have an impact on communicative performance. B. J. O’Keefe and Shepherd (1987) found that construct differentiation was found to have a small effect on integrative behavior in a distressed and argumentative context. Burleson et al. (1995) also has claimed that certain social-cognitive developments should be considered as necessary but insufficient causes to produce functional messages for certain contexts. Namely, it is necessary to investigate the relationship between social-cognitive development and deliberation-relevant communication performance such as argumentation (Meyers, 1989; Meyers & Brashers, 1998) and politeness in language use (Brown & Levinson, 1987; Holtgraves, 1997).

Additionally, since “communication tasks move from perception based (analyzing a scenario and constructing a hypothetical response) to behavior based (performing conversational actions, responding to the actions of others)” (Waldron & Applegate, 1994, p. 7, also see Street, 1993), Waldron and Applegate have asserted that the quantity and quality of the action plans should be important predictors of subsequent behavior.
Waldron and Applegate (1994) understand that on-line construction of argument sequences, or on-line planning plays a significant role in accommodating and integrating previously voiced partner concerns. That is, perceivers’ planning, multiple goals, discourse practices, and relational and situational factors, and perceiver’s personality attributes should all be considered as important factors to influence message production and message design. For instance, from an analysis of a dyad’s conversational planning, Waldron and Applegate (1994) found that plan specificity, complexity, sophistication and plan editing were all significantly associated with subjects’ tactic integrativeness in verbal disagreements, while interpersonal construct system differentiation was not. With respect to the insignificant association of interpersonal construct system differentiation on conversational behaviors, Waldron and Applegate (1994) reasoned that the effect of interpersonal construct differentiation on communicative practices have often been examined within the context of written communication. Waldron and Applegate demonstrated that the quality of communicator plans was an important indicator to communicants’ competent verbal disagreement tactics. However, little communication research has investigated directly how social-cognitive systems such as construct systems, perspective taking, discourse practices, multiple goal-pursuit, relational and situational factors, and a perceiver’s personality attributes relate to people’s communication skills, particularly, deliberative communication skills such as reason-giving and listening.

More specifically, according to a tradition of constructivist research, communication interactants’ goals should be considered to interpret a process of message generation. Several constructivists have argued that goals as a mediator should be considered between social-cognitive knowledge structures and message production. As
the first step to initiate new direction of research, B. J. O’Keefe and Delia (1982) have recognized that the early constructivists’ research had two conceptual limitations: (1) an oversimplification of persuasive message production and (2) a lack of explanation of the role of situational factors on message production. First, B. J. O’Keefe and Delia (1982) self-reflectively criticized their research orientation that has focused solely on listener adapted person-centered communication by contending that it oversimplified the process of the production of messages. More specifically, they have contended that people generate certain types of messages based not solely on the listener’s points of view but on their specific purposes or goals. In addition to the effect of social perception skills on the messages adapted to listeners’ wants or needs, B. J. O’Keefe and Delia (1982) also claimed that social-cognitive knowledge structures such as construct differentiation and abstractness should influence the perceiver’s purposes or goals such as influence and/or interpersonal goals that motivate him or her to generate persuasive messages. Second, B. J. O’Keefe and Delia (1982) argued that the listener-adaptation perspective fails to account for why people vary their persuasive messages across situations. In other words, the listener-adaptation account did not explain how situational factors themselves such as familiarity and intimacy in interpersonal relationships influence people’s capacity and/or motivation to generate relevant and important messages (also see B. J. O’Keefe & Lambert, 1995; Waldron & Applegate, 1994; Wilson, 2002).

In this respect, if identifying what specific goals mothers set up and change before, during, and after conversation with their children, future researchers may be able to reveal how mothers’ goals and plans other than emotion-regulative and social-cognitive abilities encourage them to use a certain mode of linguistic expression with their children.
Future researchers may also be able to disclose how discussants’ goals and plans affect their deliberative communication performances if future researchers can identify what specific goals discussants form before, during, and after deliberative discussion.

To investigate differences in the cultural context relevant to social-cognitive development claimed by Bernstein (1971/1974), constructivists have investigated whether socioeconomic status (SES) is related to developments of children’s social-cognitive system and sophisticated, person-centered forms of communication when parents discipline and nurture their children (Applegate et al., 1985; Applegate & Delia, 1980; Burleson et al., 1995). They have found that SES was significantly associated with parental use of person-centered forms of communication and SES was significantly associated with development of children’s interpersonal construct system properties and communication skills and mothers’ interpersonal construct system properties (Bernstein, 1971/1974; Burleson et al., 1995; Hart, Ladd, & Burleson, 1990). In this respect, I conducted additional simple zero-order correlation analyses to investigate relationships among parents’ educational level and family income as an alternative to SES, social-cognitive development, and the modes of maternal linguistic expression. The results showed that both fathers and mothers’ educational levels were significantly associated with children’s interpersonal construct system differentiation and abstractness (fathers’ educational level: \( r_s > .12, p_s < .05 \), mothers’ educational level: \( r_s > .13, p_s < .05 \)). However, neither fathers’ nor mothers’ educational levels were significantly associated with children’s perspective taking skill, emotional regulation capacity, and any mode of maternal linguistic expression. On the other hand, the results showed that the family income was not significantly related with children’s interpersonal construct systems and
emotional regulation capacity, while it was significantly associated with children’s perspective taking skill \((r = .21, p < .05)\) and a descriptive mode of maternal linguistic expression \((r = .36, p < .001)\).

However, it remains questionable why parents’ educational levels and family income are differently associated with social-cognitive structures and modes of maternal linguistic expression. Considering that today’s Korean society has been moving fast toward class bipolarization, it should be worthwhile to investigate how SES affects children’s emotion-regulative and social-cognitive abilities.

Sillars et al. (2005) found that families in the U.S. had moderate understanding of other family members’ self-concepts. However, families had little understanding of what immediate thoughts other family members think about when they had conversations. Based on their baseline assumption that “patterns of frequent, open, and direct communication should have greater understanding than families who communication is circumspect or censured,” their finding implies that families in the U.S. are also lacking in the amount of parent-child communication. If a lack of the amount of parent-child communication is considerably universal all over the world, future research needs to reveal what kind of malicious factors drive parent-child communication to become inclined to decrease all over the world. Future research also needs to examine the extent to which the effects of parental communication on children’s emotion-regulative and social-cognitive abilities are moderated by cultural differences in countries.

Under the assumption that a home environment should be one of the most crucially important environments to foster children’s emotional and social-cognitive abilities that are conceived to be essential properties to foster children’s deliberation-
relevant communication skills, this study was to investigate the effect of maternal
communication practices with their children on development of children’s emotion-
regulative and social-cognitive abilities. In line with this study, the next step that future
research needs to take is to investigate how children’s emotional and social-cognitive
abilities influence their deliberation-relevant communication skills such as politeness and
argumentation capabilities and their deliberative communication performances.

I will briefly explain why politeness and argumentation abilities are significantly
important to promote deliberation. Drawing on Goffman’s (1967) ideas on facework,
Brown and Levinson’s (1987) politeness theory assumes that people who are rational
agents equipped with a natural language perform communicative acts to gratify
communicative and face-oriented ends. Brown and Levinson (1987) have contended that
all competent adult members of a society have face that composed of two related aspects:
“(a) negative face: the basic claim to territories, personal preserves, rights to no-
distraction, (b) positive face: the positive consistent self-image or ‘personality’ (crucially
including the desire that this self-image be appreciated and approved of) claimed by
interactants” (p. 66). Corresponding to two diverse types of faces, politeness theory also
distinguishes acts that threaten negative face from those that threaten positive face. A
hearer’s negative face is threatened by certain communicative acts such as imposing on
autonomy, while positive face is threatened by acts that disregard the hearers’ feelings or
wants such as expressing disapproval, or giving insults.

In the context of the mutual vulnerability of face, any rational agent will be likely
to avoid the face-threatening acts (FTAs) by employing relevant politeness based on the
consideration of the relative weightings of three wants: “(1) the want to communicate the
content of the FTA, (2) the want to be efficient or urgent, and (3) the want to maintain hearer’s face to any degree” (Brown & Levinson, 1987, p. 73). Depending on agents’ specific wants, they will use following two politeness either-or or both: (1) positive politeness that involves communicating liking, affection, understanding, and expectations of reciprocity and (2) negative politeness that are mainly connected to the speaker’s clear recognition and respect for the addressee’s negative-face wants such as self-effacement, deference, and restraint. Because the core components of deliberation are almost similar to the attributes of both positive- and negative-face wants, I claim that deliberative discussants need both positive and negative politeness.

Second, given that argumentative practices on controversial issues are the kernel of deliberation, it should be important to investigate how discussants’ argumentative communication skills are associated with discussants’ deliberation. The argumentative communication skills involve the use of cooperative, coordinative, and rational speech acts to produce consensual agreements (Meyers, 1989).

After D. J. O’Keefe (1977) as a leading argumentation scholar provided two different senses of arguments: Argument is the act of communication in which an argument is made, or “something one person makes” while argument is the ongoing communication process in which two or more people participate, or “something two or more persons have” (p. 129, also see D. J. O’Keefe, 1982), some prominent argumentation scholars such as Brockriede (1977), Wenzel (1978, 1979), and van Eemeren and Grootendorst (1984) have continued to develop the concepts of argumentation.
According to pragma-dialectical approach, people use arguments to achieve communicative goals (e.g., van Eemeren, Grootendorst, Jackson, & Jacobs, 1993; van Eemeren & Grootendorst, 1992). These argumentative performances should be based on argumentative speech acts in which discussants verbally attack against opposite viewpoints or defense for their own viewpoints and to critically accommodate the relevant reactions of a critical antagonist for the purpose of resolving conflictual points through the collaborative work of interlocking argumentative roles (van Eemeren et al., 1996). From the pragma-dialectical approach, Weger and Aakhus (2003) term argumentative dialogue as “persuasion dialogue”. The critically important point of everyday argumentative dialogue the pragma-dialectical approach emphasizes is that resolution comes out from both parties’ recognition based on the virtues of rationalization, justification, and correctness (van Eemeren et al., 1993). In order to guarantee the correct, justified, and rational resolution, van Eemeren et al. (1993) emphasizes four points for conducting ideally rational dialogue. First, discussants should not prohibit each other from attacking or defending standpoints. The first point is grounded on non-coercion, which fundamentally enhances discussants’ willingness to advance and defend their autonomous opinions. Second, the discussants should be responsible for defending standpoints when they encounter an opponent. Third, discussants must use logically cogent reasoning and correctly applied evidence. Finally, discussants must not misrepresent either their own, their opponents, evidence or reasoning. Since the pragma-dialectical approach does not request discussants to consistently match their goals with different goals or opinions of opponents, some communication researchers have contended that pragma-dialectical analysis would provide an effective framework to

Given that everyday dialogue embodying rationalization, non-coercion, accommodation, and resolution of conflicting points are considerably identical with the staple components of deliberation, I claim that argumentative communication abilities should play an important role in promoting deliberation. Therefore, future research needs to examine the effects of politeness and argumentation abilities as deliberative communication capabilities on discussants’ deliberation. In addition, future research needs to investigate the extent to which the effects of mother-child communication practices on politeness and argumentation are mediated by children’s emotion-regulative and social-cognitive abilities.

Last but not least suggestion for future research is to examine the extent to which the effects of mother-child communication practices on children’s deliberation-relevant communication abilities play a decisive role in children’s deliberation in the online discussion. This suggestion derives from my initial argument about the relationship between solutions to online deliberation marred by uninhibited communication and children’s inability to manage distressed emotions in the online discussion due to a lack of mother-child communication practices. To assist future research to investigate the final suggestion here, I will briefly explicate the implications and problems of today’s public deliberation in the online discussion spaces in the next paragraphs.

Public deliberation frequently occurs in the localized face-to-face (FtF) agorae, (e.g., town halls, coffeehouses, salons, etc) (Habermas, 1989). Citizens could be engaged in community events through public discourse. However, a few researchers have argued
that traditional mass media such as TV and radio have weakened citizens’ engagement in public deliberation and even magnified their social isolation (Putnam, 2000; Weger & Aakhus, 2003). Contrary to the concerns for the negative effect of mass media on public deliberation, some communication researchers have found that the Internet use positively consolidates users’ social networks and facilitates their civic participation (Katz & Rice, 2002; Katz, Rice, & Aspden, 2001). Wellman and Gulia (1999), for example, have asserted that online users who have similar values and interests should be willing to provide friendship, emotional support, and advice despite challenging disagreements. To expand, political science and communication scholars optimistically view online discussion settings to be a superior public sphere to the traditional face-to-face public sphere due to the positive attributes of the online discussion spaces: conquest for temporal, spatial, and financial obstacles and equality and freedom of expression (Etzioni & Etzioni, 1999; H. K. Kline, 1999; Putnam, 1995, 2000).

Despite the positive attributes of the online contexts to revitalize people’s communicative practices, a substantial amount of research, however, has shown that negative socio-emotional communication (e.g., insulting, name-calling, swearing, etc) in the online contexts is inclined to transform disagreeable argumentations into emotional fighting (Kaynay, 1998; Siegel et al., 1986; Smolensky, Carmody, & Halcomb,1990; Kiesler, Siegel, & McGuire, 1984; Sproull & Kiesler, 1986; Wallace, 1999; Weger & Aakhus, 2003). Kiesler et al. (1984) found that reduced social cues instigated online users to use hostile communication based on a process of depersonalization. Brett (2001) has maintained that an angry disputant would be more likely to use inflammable communication so-called “flaming” in an email message due to a lack of social inhibition.
Thus I contend that it should be substantially important to control flaming if public deliberative discussion is expected to be effectively performed in the online spaces. Gastil (2004) has argued that certain kinds of educative systems should be developed to reduce uninhibited discourse for public deliberation. Gastil (2004) found that participants in deliberation education program of the National Issues Forums (NIF) were less likely to be dominant during subsequent political conversations. In a similar line with Gastil’s (2004) finding, I argue that parental communication as a primary socializing tool should play an educative role in developing children’s deliberation-relevant communication abilities such as emotion-regulative and social-cognitive abilities to manage uninhibited communication for public deliberation.

To test relationships between parent-child communication practices, children’s deliberation-relevant communication abilities, children’s online deliberation, future researchers need to collect these data from two tasks: (1) parent-child communication practices and children’s deliberation-relevant communication abilities from a task of paper and pencil questionnaires and (2) deliberation from transcripts of their discussions. With respect to the online deliberative discussion setting, I propose asynchronous communication settings such as electronic bulletin boards (EBB) rather than synchronous communication settings such as chat rooms due to sufficient temporal rooms for deliberation. Participants in the EBB, for instance, were not required to have access to the discussion at a fixed time. Additionally, they might have more time to deliberatively reflect on other discussants’ ideas as well as their own ideas, for they did not need to provide instant responses to other discussants’ ideas. The crucial point is that future researchers need to construct either intensively emotion-arousal contexts or topics, or
both to test how participants’ emotional regulation capacity has an impact on their deliberation.

In sum, I provided several directions for future research here. I hope that the presented directions will become a compass to guide future research to safely navigate a sea of “deliberation”. I wish that this study will contribute to building up healthier family communication patterns in the near future.
“Choding” literally indicates “an elementary school student who uses the Internet”. However, “Choding” is also used to call “an online user with a low maturity who uses childish and uninhibited linguistic expression in a bad manner” (Hankooki.comnews, 2005, June, 17).

(1) appropriate understanding of the problematic situation, (2) appropriate understanding of the requirements for an effective choice, (3) appropriate assessment of the positive qualities of alternative choices, and (4) appropriate assessment of the negative qualities of alternative choices (Hirokawa, 1988, pp. 489-490).

“Flaming” is defined as a compelling image of communication as hand-to-hand combat with flamethrowers (Putnam, 2000, p. 176).

“Delinguistified media of communication such as money and power connect up interactions in space and time into more and more complex networks that no one has to comprehend or be responsible for” (Habermas, 1984b, p. 184).

“Etymologically, “deliberation” means to weigh in the balance” (Perace & Perace, 2001, p. 119). Deliberation is referred to as “a discussion and consideration by a group of persons of the reasons for and against a measure” (Webster Dictionary).

For Habermas, discourse is “the name of a special form of communication in which the constraints of action are suspended and theses in doubt are tested by the force of the better argument” (Wenzel, 1978, p.

Dialogic-constitutive universals of intersubjective communication are a general structure through which people can generate mutual understanding reflecting the shared social reality (Burleson & S. L. Kline, 1979).

“Intelligibility (a claim that an utterance is mutually understandable), truth (a claim that the propositional content of the speech act is transparent in its assertion and is agreed upon by the listener), truthfulness (or sincerity, a claim that the speaker seriously and exactly intends what is expressed), and appropriateness (a claim that the speaker is acting in accordance that the speaker is acting in accord with socially shared norms and rules)” (Burleson & S. L. Kline, 1979, p. 417).

Communicative focus on the relationship between a speaker and the linguistic medium of the utterance; constatives focus on the relationship between a speaker and the referent of utterance; representatives pertain to the relation between a speaker’s utterance and the speaker’s internal subjectivity; and regulatives pertain to the relationship between a speaker and hearer (Burleson & S. L. Kline, 1979, p. 416).

Commitment sets is sets of propositions that each participant has (Walton, 1998)
“Cognitive complexity” and “construct differentiation” are used synonymously (B. J. O’Keefe, & Sypher, 1981, p. 73).

All social perception processes include “making causal attributions, inferring dispositional qualities from behavior, identifying affective states, forming overall impressions of others, organizing and integration information about others, evaluating aspects of others’ conduct and traits, inferring the perspective or taking the role of others, etc” (Burleson & Waltman, 1988, p. 4).

Communicative activities include “message production, message interpretation, structuring conversational interactions” (Burleson & Waltman, 1988, p. 4).

The authoritarian parent tries “to shape, control, and evaluate the behavior and attitudes of the child in accordance with a set standard of conduct, usually an absolute standard, theologically motivated and formulated by a higher authority. She values obedience as a virtue and favors punitive, forceful measures to curb self-will at points where the child’s actions or beliefs conflict with what she thinks is right conduct. She believes in inculcating such instrumental values as respect for authority, respect for work and respect for the preservation of order and traditional structure. She does not encourage verbal give and take, believing that the child should accept her word for what is right” (Baumrind, 1968, p. 261).

The authoritative parent tries “to direct the child’s activities but in a rational, issue-oriented manner. She encourages verbal give and take, and shares with the child the reasoning behind her policy. She values both expressive and instrumental attributes, both autonomous self-will and disciplined conformity. Therefore, she exerts firm control at points of parent-child divergence, but does not hem the child in with restrictions. She recognizes her own special rights as an adult, but also the child’s individual interest and special ways. The authoritative parent affirms the child’s present qualities, but also sets standards for future conduct. She uses reason as well as power to achieve her objectives. She does not base her decisions on group consensus or the individual child’s desires; but also, does not regard herself as infallible or divinely inspired” (Baumrind, 1968, p. 261).
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APPENDIX A

PAPER AND PENCIL QUESTIONNAIRE FOR STUDENTS
QUESTIONNAIRE: STUDENTS

This questionnaire is designed to investigate “The effects of Korean mothers’ communication practices with their children on deliberation-relevant communication abilities: Emotional regulation capacity and social cognitive development”. Your participation in this research is completely voluntary. We do not believe that you will consider any of the questions that we will ask you to be of a controversial nature, but if you choose not to respond to a given question this is your right. Your responses to the questionnaire will be held strictly confidential. If you have any questions or concerns, please contact me at ryufaith72@gmail.com.

Q1: Emotional regulation capacity

Instruction: Please circle the most appropriate one.

<table>
<thead>
<tr>
<th>Item</th>
<th>Rarely/Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Almost/always</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) I can recover from stress.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>(2) I can admit negative feelings.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>(3) I am warm/responsive.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>(4) I am empathic.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>(5) I have genuine/close relationships.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>(6) My emotional reactions are appropriate.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>(7) I tend to go to pieces under stress.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>(8) I am rigid when I am stressed.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>(9) I am repetitive when I am stressed.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>(10) I am easily irritated.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Q2: Perceived problem-solving of mother-child communication

Instruction: The followings are typical home situations. Please indicate the most appropriate response.

I would be likely to talk with my mother.

(1) If you are having problems with your homework

<table>
<thead>
<tr>
<th>Response</th>
<th>Almost never</th>
<th>Not often</th>
<th>Sometimes</th>
<th>Often</th>
<th>Almost always</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

(2) If you are trying to find a good book to read or a movie to watch

<table>
<thead>
<tr>
<th>Response</th>
<th>Almost never</th>
<th>Not often</th>
<th>Sometimes</th>
<th>Often</th>
<th>Almost always</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>
(3) If you are thinking about your plans for the future
Almost never  Not often  Sometimes  Often  Almost always
1       2       3       4       5

(4) If you have had a quarrel with your best friend
Almost never  Not often  Sometimes  Often  Almost always
1       2       3       4       5

(5) If you want to know something about alcohol or smoking.
Almost never  Not often  Sometimes  Often  Almost always
1       2       3       4       5

(6) If you are really angry or upset about something
Almost never  Not often  Sometimes  Often  Almost always
1       2       3       4       5

(7) If you feel bad or guilty about something that you have done.
Almost never  Not often  Sometimes  Often  Almost always
1       2       3       4       5

Q3: Frequency and duration of mother-child communication

Instruction: Recall conversations with your mother when you were in the elementary, middle, and high school. Please provide a specific number for each question.

3-A. When you were an elementary school student,
   (1) How many times and hour(s) **on average** did you communicate with your mother **per day**?
      __________________time(s):            __________________hour(s)
   (2) How many times and hour(s) **on average** did you communicate with your mother **per week**?
      __________________time(s):            __________________hour(s)

3-B. When you were a middle school student,
   (3) How many times and hour(s) **on average** did you communicate with your mother **per day**?
      __________________time(s):            __________________hour(s)
   (4) How many times and hour(s) **on average** did you communicate with your mother **per week**?
      __________________time(s):            __________________hour(s)
3-C. When you were a high school student,
(5) How many times and hour(s) on average did you communicate with your mother per day?
__________________ time(s):            __________________ hour(s)
(6) How many times and hour(s) on average did you communicate with your mother per week?
__________________ time(s):            __________________ hour(s)

Q4: Maternal emotion coaching

Instruction: Please recall and indicate the most appropriate one.

4-A. When I was an elementary school student, I believe that my mother
(1) noticed my emotional states.
   Strongly disagree   1  2  3  4  5   Strongly agree  6  7
(2) knew the cause of my emotions.
   Strongly disagree   1  2  3  4  5   Strongly agree  6  7
(3) seemed comfortable with my emotional expressions.
   Strongly disagree   1  2  3  4  5   Strongly agree  6  7
(4) empathized with my emotions.
   Strongly disagree   1  2  3  4  5   Strongly agree  6  7
(5) talked with me about the nature of my emotions.
   Strongly disagree   1  2  3  4  5   Strongly agree  6  7
(6) taught rules for appropriate expressiveness to me.
   Strongly disagree   1  2  3  4  5   Strongly agree  6  7

4-B. When I was an middle school student, I believe that my mother
(1) noticed my emotional states.
   Strongly disagree   1  2  3  4  5   Strongly agree  6  7
(2) knew the cause of my emotions.
   Strongly disagree   1  2  3  4  5   Strongly agree  6  7
(3) seemed comfortable with my emotional expression.
   Strongly disagree   1  2  3  4  5   Strongly agree  6  7
(4) empathized with my emotions.  
Strongly disagree          Strongly agree
1             2              3               4             5            6          7

(5) talked with me about the nature of my emotions.  
Strongly disagree          Strongly agree
1             2              3               4             5            6          7

(6) taught rules for appropriate expressiveness to me.  
Strongly disagree          Strongly agree
1             2              3               4             5            6          7

4-C. When I was an high school student, I believe that my mother
(1) noticed my emotional states.  
Strongly disagree          Strongly agree
1             2              3               4             5            6          7

(2) knew the cause of my emotions.  
Strongly disagree          Strongly agree
1             2              3               4             5            6          7

(3) seemed comfortable with my emotional expression.  
Strongly disagree          Strongly agree
1             2              3               4             5            6          7

(4) empathized with my emotions.  
Strongly disagree          Strongly agree
1             2              3               4             5            6          7

(5) talked with me about the nature of my emotions.  
Strongly disagree          Strongly agree
1             2              3               4             5            6          7

(6) taught rules for appropriate expressiveness to me.  
Strongly disagree          Strongly agree
1             2              3               4             5            6          7
Q5: Interpersonal construct system properties

A. Instruction: Our interest in this questionnaire is to learn how people describe others whom they know. Our concern here is with the habits, mannerisms – in general, with the personal characteristics, rather than the physical traits – which characterize a number of different people.

In order to make sure that you are describing real people, we have set down a list of two different categories of people. In the blank space beside each category below, please write the initials, nicknames, or some other identifying symbol for a person of your acquaintance who fits into that category. Be sure to use a different person for each category.

Category 1. A person your own age whom you like: ____________________________
Category 2. A person your own age whom you dislike: ____________________________

Spend a few moments looking over this list, mentally comparing and contrasting the people you have in mind for each category. Think of their habits, their beliefs, their mannerisms, their relations to others, and characteristics they have which you might use to describe them to other people.
If you have any questions about the kinds of characteristics we are interested in, please ask.
Please look back to the first sheet and place the symbol you have used to designate the person in category 1 here __________________________________________________

Now describe this person as fully as you can. Write down as many defining characteristics as you can. Do not simply put down those characteristics that distinguish him/her from others on your list, but include any characteristics that he/she shares with others as well as characteristic that are unique to him/her. Pay particular attention to his/her habits, beliefs, ways of treating others, mannerisms, and similar attributes. Remember, describe him/her as completely as you can, so that a stranger might be able to determine the kind of person he/she is from your description. Use the back of this page if necessary. Please spend only about five (5) minutes describing him/her.

This person is:
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
Please look back to the first sheet and place the symbol you have used to designate the person in **category 2** here __________________________________________________

Now describe this person as fully as you can. Write down as many defining characteristics as you can. Do not simply put down those characteristics that distinguish him/her from others on your list, but include any characteristics that he/she shares with others as well as characteristic that are unique to him/her. Pay particular attention to his/her habits, beliefs, ways of treating others, mannerisms, and similar attributes. Remember, describe him/her as completely as you can, so that a stranger might be able to determine the kind of person he/she is from your description. Use the back of this page if necessary. Please spend only about five (5) minutes describing him/her.

*Note.* If you can not think of the disliked, you can describe a peer who was not a “good” friend.

This person is:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
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________________________________________________________________________
Q6: Social perspective-taking

Instructions. Please identify a situation in which you had been involved during the past year: (1) “a social situation … in which someone you like hurt or disappointed you”. After briefly describing each situation, please answer the following questions in as much detail as possible

(1) A description of “a social situation … in which someone you like hurt or disappointed you”

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

(1-a) how the other person in the situation was feeling?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

(1-b) what he/she was thinking in this situation?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
(1-c) what was going through his/her mind?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

(1-d) how did the situation appear from his/her point of view?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

(1-e) what was he/she thinking regarding you and the situation?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
Please identify a situation in which you had been involved during the past year: (2) “in which some you dislike did something which pleased or helped you.”. After briefly describing the situation, please answer the questions in as much detail as possible.

(2) A description of “in which some you dislike did something which pleased or helped you.”

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

(2-a) how the other person in the situation was feeling?
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

(2-b) what he/she was thinking in this situation?
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
(2-c) what was going through his/her mind?

________________________________________________________________________
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(2-d) how did the situation appear from his/her point of view?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

(2-e) what was he/she thinking regarding you and the situation?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
Q7. Modes of maternal linguistic expression

Instruction: Please recall and answer the following question. What kind of words or phrases or sentences did you hear from your child the most frequently?

When you were *an elementary school student,*
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

When you were *a middle school student,*
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

When you were *a high school student,*
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
Q8. Demographic information

If you participate in the electronic bulletin board for this research, please write down what ID you want to use.
ID: __________________________

Demographic questions:
Please provide the following information:

Please provide the following information about you and your parent.

1. Home telephone number: _____________________________
2. Mobile telephone number: _____________________________
3. Gender: Male    Female   (Circle one)
4. Age: __________
5. Hometown: ______________
6. College you attend: ______________________
7. Major: _________________________________________
8. Family Income: __________________________________
9. Personal Income: ________________________________
10. Your name: _________________________________
11. Your father’s final education:
   (1) Below elementary school graduation
   (2) Middle school graduation
   (3) High school graduation
   (4) College graduation
   (5) Above graduate school graduation
12. Your mother’s final education:
   (1) Below elementary school graduation
   (2) Middle school graduation
   (3) High school graduation
   (4) College graduation
   (5) Above graduate school graduation
13. Size of your family: ______________
14. Your parent’s marital status:
   (1) Married
   (2) Divorced
   (3) Separate
   (4) Other ______________________
APPENDIX B

PAPER AND PENCIL QUESTIONNAIRE FOR MOTHERS
QUESTIONNAIRE: MOTHERS

This questionnaire is designed to investigate “The effects of Korean mothers’ communication practices with their children on deliberation-relevant communication abilities: Emotional regulation capacity and social cognitive development”. Your participation in this research is completely voluntary. We do not believe that you will consider any of the questions that we will ask you to be of a controversial nature, but if you choose not to respond to a given question this is your right. Your responses to the questionnaire will be held strictly confidential. If you have any questions or concerns, please contact me by ryufaith72@gmail.com or 010-4732-9556.

Q1. Maternal emotion coaching

Instruction: Please recall and indicate the most appropriate one.

1. When your child was an elementary school student,
   (1-a) I noticed my child’s emotional states.
   Strongly disagree Strongly agree
   1 2 3 4 5 6 7
   (1-b) I knew the cause of my child’s emotions.
   Strongly disagree Strongly agree
   1 2 3 4 5 6 7
   (1-c) I seemed comfortable with my child’s emotional expressions.
   Strongly disagree Strongly agree
   1 2 3 4 5 6 7
   (1-d) I empathized with my child’s emotions.
   Strongly disagree Strongly agree
   1 2 3 4 5 6 7
   (1-e) I talked with my child about the nature of emotions.
   Strongly disagree Strongly agree
   1 2 3 4 5 6 7
   (1-f) I taught rules for appropriate expressiveness to my child.
   Strongly disagree Strongly agree
   1 2 3 4 5 6 7

2. When your child was a middle school student,
   (2-a) I noticed my child’s emotional states.
   Strongly disagree Strongly agree
   1 2 3 4 5 6 7
   (2-b) I knew the cause of my child’s emotions.
   Strongly disagree Strongly agree
   1 2 3 4 5 6 7
   (2-c) I seemed comfortable with my child’s emotional expressions.
   Strongly disagree Strongly agree
   1 2 3 4 5 6 7

242
(2-d) I emphasized with my child’s emotions.
   Strongly disagree          Strongly agree
   1  2  3  4  5  6  7
(2-e) I talked with my child about the nature of emotions.
   Strongly disagree          Strongly agree
   1  2  3  4  5  6  7
(2-f) I taught rules for appropriate expressiveness to my child.
   Strongly disagree          Strongly agree
   1  2  3  4  5  6  7

3. When your child was a high school student,
   (3-a) I noticed my child’s emotional states.
   Strongly disagree          Strongly agree
   1  2  3  4  5  6  7
   (3-b) I knew the cause of my child’s emotions.
   Strongly disagree          Strongly agree
   1  2  3  4  5  6  7
   (3-c) I seemed comfortable with my child’s emotional expressions.
   Strongly disagree          Strongly agree
   1  2  3  4  5  6  7
   (3-d) I emphasized with my child’s emotions.
   Strongly disagree          Strongly agree
   1  2  3  4  5  6  7
   (3-e) I talked with my child about the nature of emotions.
   Strongly disagree          Strongly agree
   1  2  3  4  5  6  7
   (3-f) I taught rules for appropriate expressiveness to my child.
   Strongly disagree          Strongly agree
   1  2  3  4  5  6  7
Q2: Emotional regulation capacity

Instruction: Please recall and circle the most appropriate one.

4. When your child was *an elementary school student*,

<table>
<thead>
<tr>
<th>(4-a) Can your child recover from stress?</th>
<th>Rarely/Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Almost/always</th>
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<tr>
<th>(4-b) Can your child admit to negative feelings?</th>
<th>Rarely/Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Almost/always</th>
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<tr>
<th>(4-c) Is your child warm/responsive?</th>
<th>Rarely/Never</th>
<th>Sometimes</th>
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<th>Almost/always</th>
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<tr>
<th>(4-d) Is your child empathic?</th>
<th>Rarely/Never</th>
<th>Sometimes</th>
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<th>Almost/always</th>
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<tr>
<th>(4-e) Does your child have genuine/close relationships?</th>
<th>Rarely/Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Almost/always</th>
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<th>(4-f) Are your child’s emotional reactions inappropriate?</th>
<th>Rarely/Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Almost/always</th>
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<th>(4-g) Is your child rigid when (s)he is stressed?</th>
<th>Rarely/Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Almost/always</th>
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<th>(4-h) Is your child repetitive when (s)he is stressed?</th>
<th>Rarely/Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Almost/always</th>
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<th>(4-i) Does your child tend to go to pieces under stress?</th>
<th>Rarely/Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Almost/always</th>
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<tr>
<th>(4-j) Is your child easily irritated?</th>
<th>Rarely/Never</th>
<th>Sometimes</th>
<th>Often</th>
<th>Almost/always</th>
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5. When your child was a middle school student,

(5-a) Can your child recover from stress?
Rarely/Never         Sometimes          Often          Almost/always
1                       2               3               4

(5-b) Can your child admit to negative feelings?
Rarely/Never         Sometimes          Often          Almost/always
1                       2               3               4

(5-c) Is your child warm/responsive?
Rarely/Never         Sometimes          Often          Almost/always
1                       2               3               4

(5-d) Is your child empathic?
Rarely/Never         Sometimes          Often          Almost/always
1                       2               3               4

(5-e) Does your child have genuine/close relationships?
Rarely/Never         Sometimes          Often          Almost/always
1                       2               3               4

(5-f) Your child’s emotional reactions are inappropriate?
Rarely/Never         Sometimes          Often          Almost/always
1                       2               3               4

(5-g) Is your child rigid when (s)he is stressed?
Rarely/Never         Sometimes          Often          Almost/always
1                       2               3               4

(5-h) Is your child repetitive when (s)he is stressed?
Rarely/Never         Sometimes          Often          Almost/always
1                       2               3               4

(5-i) Does your child tend to go to pieces under stress?
Rarely/Never         Sometimes          Often          Almost/always
1                       2               3               4

(5-j) Is your child easily irritated?
Rarely/Never         Sometimes          Often          Almost/always
1                       2               3               4
6. When your child was *a high school student*,

(6-a) Can your child recover from stress?

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<th>Rarely/Never</th>
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(6-b) Can your child admit to negative feelings?

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(6-c) Is your child warm/responsive?

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(6-d) Is your child empathic?

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(6-e) Does your child have genuine/close relationships?

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(6-f) Your child’s emotional reactions are inappropriate?

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(6-g) Is your child rigid when (s)he is stressed?

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(6-h) Is your child repetitive when (s)he is stressed?

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Q3: Modes of maternal linguistic expression

Instruction: Please recall and answer the following question.

What kind of words or phrases or sentences did you use to your child the most frequently?
When your child was an elementary school student,
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

When your child was a middle school student,
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

When your child was a high school student,
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Finally, please provide your child’s name and the name of the university which your child attend.
1. Your child’s Name __________________________
2. Name of the university which your child attends ___________________________