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ในวัยเด็กตอนกลาง



นางสาว ปิยวรรณ ทองสุข

วิทยานิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาศิลปศาสตรมหาบัณฑิต


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A STUDY OF PEER RELATIONSHIPS AND PERCEPTION OF ATTACHMENT SECURITY
IN THE DAUGHTER-FATHER RELATIONSHIP AMONG GIRLS IN MIDDLE CHILDHOOD



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ปิยวรรณ ทองสุข: การศึกษาความสัมพันธ์ระหว่างเพื่อนและการรับรู้ความมั่นคงของความผูกพันที่ลูกสาวมีต่อพ่อในวัยเด็กตอนกลาง. (A STUDY OF PEER RELATIONSHIPS AND PERCEPTION OF ATTACHMENT SECURITY IN THE DAUGHTER-FATHER RELATIONSHIP AMONG GIRLS IN MIDDLE CHILDHOOD) อ.ที่ปรึกษา: ผู้ช่วยศาสตราจารย์. ดร.พรพรรณพี สุทธิวรรณ, อ.ที่ปรึกษาร่วม: Professor Dr. Per F. Gjerde, Ph.D. 105 หน้า. ISBN 974-03-0778-7

การวิจัยครั้งนี้มีวัตถุประสงค์เพื่อศึกษาความสัมพันธ์ระหว่างการรับรู้ความมั่นคงของความผูกพันที่เด็กหญิงมีต่อพ่อ และความสัมพันธ์ของเด็กหญิงกับเพื่อนในวัยเด็กตอนกลาง กลุ่มตัวอย่างคือ เด็กหญิงที่เป็นเพื่อนสนิทกัน 78 คู่ (secure-secure 35 คู่ secure-insecure 20 คู่ และ insecure-insecure 23 คู่) มีอายุ 8-15 ปี (อายุเฉลี่ย 9.63 ปี) เครื่องมือที่ใช้ในการวิจัยคือ แบบวัดความสัมพันธ์ระหว่างเด็กหญิงกับพ่อ (Kerns, Klepac & Cole, 1996) แบบสอบถามความเป็นเพื่อนสนิท และแบบวัดความสัมพันธ์ระหว่างเด็กกับเพื่อน การวิเคราะห์ข้อมูลใช้การวิเคราะห์ความแปรปรวนทางเดียว

ผลการวิจัยพบว่า (1). คู่ของเพื่อนที่เด็กทั้งคู่ต่างมีความสัมพันธ์แบบมั่นคงกับพ่อ (secure-secure peer dyads) มีการตอบสนองต่อเพื่อนมากกว่าคู่ของเพื่อนที่เด็กเพียงคนเดียวมีความสัมพันธ์ที่มั่นคงกับพ่อ (secure-insecure peer dyads) และคู่ของเพื่อนที่เด็กทั้งคู่ต่างมีความสัมพันธ์แบบไม่มั่นคงกับพ่อ (insecure-insecure peer dyads) ($p < .01$) (2). คู่ของเพื่อนที่เด็กทั้งคู่มีความสัมพันธ์แบบมั่นคงกับพ่อ (secure-secure peer dyads) และคู่ของเพื่อนที่เด็กเพียงคนเดียวมีความสัมพันธ์ที่มั่นคงกับพ่อ (secure-insecure peer dyads) มีความสนิทใกล้ชิดผูกพันกับเพื่อนมากกว่าคู่ของเพื่อนที่เด็กทั้งคู่มีความสัมพันธ์แบบไม่มั่นคงกับพ่อ (insecure-insecure peer dyads) ($p < .05$) (3). คู่ของเพื่อนที่เด็กทั้งคู่มีความสัมพันธ์แบบมั่นคงกับพ่อ (secure-secure peer dyads) มีการพูดวิจารณ์เพื่อนสนิทและคนทั่วไปน้อยกว่าคู่ของเพื่อนที่เด็กทั้งคู่มีความสัมพันธ์แบบไม่มั่นคงกับพ่อ (insecure-insecure peer dyads) ($p < .001$)

หลักสูตร จิตวิทยาพัฒนาการ

สาขาวิชา จิตวิทยาพัฒนาการ

ปีการศึกษา 2544

ลายมือชื่อนิสิต.....

ลายมือชื่ออาจารย์ที่ปรึกษา.....

ลายมือชื่ออาจารย์ที่ปรึกษาร่วม.....

4178124338: MAJOR DEVELOPMENTAL PSYCHOLOGY

KEY WORD: PEER RELATIONSHIPS / PERCEPTION OF ATTACHMENT SECURITY / DAUGHTER-FATHER RELATIONSHIP / MIDDLE CHILDHOOD

PIYAWAN TONGSUK: A STUDY OF PEER RELATIONSHIPS AND PERCEPTION OF ATTACHMENT SECURITY IN THE DAUGHTER-FATHER RELATONSHIP AMONG GIRLS IN MIDDLE CHILDHOOD. THESIS ADVISOR: ASSISTANT PROFESSOR Dr. PANRAPEE SUTTIWAN, Ph.D., THESIS CO-ADVIS OR: PROFESSOR Dr. PER F. GJERDE, Ph.D., 105pp. ISBN 974-03-0778-7

This study assessed relations between children's perception of attachment security in the daughter-father relationship and the quality of their peers relationship. The participants consisted of 78 peer dyads (35 secure-secure, 20 secure-insecure, and 23 insecure-insecure), all fourth grade girls from ten public elementary schools in Saraburi province, Thailand. Average age was 9.63 years old (range = 8 to 15 years old, S.D. = 0.59). The instruments used were the Security Scale (Kerns, Klepac & Cole, 1996), the Best Friend Nomination, and the Peer Relationship Instrument. A quota-sampling ex post facto research design was used to examine the differences between three attachment dyads on the latter two instruments which were developed by the author on three aspects of peer interaction: Responsiveness, Intimacy, and Criticism of Partner.

The results demonstrate that (1) secure-secure peer dyads were significantly more responsive than other groups. (2) secure-secure and secure-insecure peer dyads were significantly more intimate than insecure-insecure peer dyads. (3) secure-secure peer dyads were significantly less critical of their partner than insecure-insecure peer dyads.

Department Developmental Psychology	Student's signature.....
Field of study Developmental Psychology	Advisor's signature.....
Academic year 2001	C0-advisor's signature.....

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Piyawan Tongsuk



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Chapter 1

Introduction

Background of the Study

Children grow up in a world of relationships. In infancy, these are mostly with their immediate caregivers, particularly with their parents, but later in childhood they extend to include peers. Moreover, children's relationships increase in sophistication with age (e.g. increased cooperation, perspective-taking and communication skills) (Hartup, 1989). As they reach school age, children begin to participate more in group activities, activities which lead them to develop and deepen their peer relationships (Sroufe & Cooper, 1988). In middle childhood, roughly ages eight through twelve years, building and maintaining relationships with their peers play an increasingly important role (Feldman, 1998). Children spend a lot of time with their peers. For example, they listen to music, watch television, and participate in sports with their peers. At this age they also begin to take more responsibility for managing or regulating their own peer relationships (Bukatko & Daehler, 1995; Feldman, 1998; Papalia & Olds, 1987; Sroufe & Cooper, 1988).

Peer relationships also influence emotional and social development. Fordham and Stevenson-Hinde (1999) found that children who had positive peer relationships had less negative emotional development and developed more social competence compared with those who had negative peer relationships (Ladd, 1999). Fordham (1998) suggested that peer relationships provide emotional support and teach children how to manage and control their emotions (Feldman, 1998). In addition, peer relationships stimulate cognitive development, including perspective-taking ability (Piaget, 1962). Vygotsky (1978) maintains that peer contact stretches the child's intellectual and social capacities. This is probably because friendships allow children to practice their skill in forming close relationships with others (Hartup, 1996). In addition, relationships with peers also contribute to the child's developing sense of self, because peers provide feedback to the child, and this information may influence the child's self-

esteem (Franco & Levitt, 1998), and cognitive functioning (Jacobsen, Edelstein, & Hofmann, 1994). Ladd (1990) reported that children who had positive peer relationships were more successful academically and enjoyed school (Jacobsen & Hofmann, 1997). In contrast, those who had poor peer relationships appeared at risk for later adjustment problems (Parker & Asher, 1987).

In summary, good peer relationships are a significant factor in the lives of most children, mainly because such relationships have a positive influence on children's development in several domains.

This research area raises many interesting questions, perhaps the first question being which factors influence peer relationships most strongly. Previous studies found that peer relationships were associated with the child-parent relationships because they provide children with the opportunity to learn and practice interpersonal skills. One perspective on this issue is provided by Bowlby's (1969) attachment theory. He maintained that the quality of child-parent attachment influences peer relationships across childhood, even perhaps into adulthood. Recent research confirms that children who have a secure attachment to their mother during infancy tended to have more positive friendships with their peers at age five (Belsky, 1992). Another study, Waters, Merrick, Treboux, Crowell, and Albersheim (2000) found that children who experienced the fewest negative life events were most likely to be consistent in their attachments from infancy into early adulthood. Previous studies have found that the quality of infant-mother attachment relationships was related to the child's interpersonal competence with peers during preschool (Water, Wippman, & Sroufe, 1979). In addition, Ladd & Ladd (1998) found that the quality of parent-child relationships correlated with levels of peer victimization. Fuligni & Eccles (1993) also found that early adolescents who believed their parents asserted and did not relax their power and restrictiveness were likely to experience poor peer relationships. These findings suggest that parents may influence their children's peer relationships. For example, children have the opportunity to learn and practice a variety of social skills interacting with and observing their parents. Not surprisingly, the quality of the child-mother relationship has been found to

be clearly related to peer relationships. Mothers are often the primary and likely to be closer to and spend more time with their children than other persons (Fogel, 1991). Thus, many studies indicate that the quality of the child-mother relationship is important to their child's peer relationships. In contrast, child-father relationship has been the subject of fewer studies and its importance for the child's development is less well understood. Does the child-father relationship influence peer relationships in middle childhood?

In fact, fathers as well as mothers appear to be important attachment figures and influence their children's social and emotional development (Lefrancois, 1980). Although fathers spend less time overall with their child than mothers, the quality of the child-father relationship is still important (Hetherington & Parke, 1986). When children are given a choice of partners to play with, they choose their fathers more often than their mothers, perhaps because the father is a more exciting and unpredictable play partner (Clarke-Stewart, 1978). Thus, children seem to be able to learn social skills, such as rules, cooperation, perspective-taking and emotional development (empathy, positive affect, appropriate emotional responses and emotional expression) from their fathers as well as their mothers (Hetherington & Parke, 1986). These skills, in turn, are reported to influence children relationships with other persons, including peers (Bukatko & Daehler, 1995).

In Thailand, fathers are increasingly becoming important caregivers as the number of working mothers increases. When mothers are under stress and have difficulties integrating maternal and career roles, the role of the father is becoming increasingly important. Although they may not do as much as their spouses in terms of caregiving, they still appear able to function as competent caregivers, at least with some practice and encouragement.

Research indicates that children may be particularly attached to their father, especially in middle childhood, although the overall frequency and intensity of attachment behaviors decline across childhood (Hetherington & Parke, 1986; Papalia & Olds, 1987; Sourfe & Cooper, 1988). In addition, attachment behaviors also change as

the child develops; for example the younger child may seek physically contact as a source of security, whereas older child maintains contact through verbal communication (Papalia & Olds, 1987).

The purpose of the present study was to investigate the relation between peer relationships and the quality of daughter-father attachment. Bowlby's attachment theory includes the notion of "representational models". It suggests that children develop attachment representations during the first years of life, and these early established representations influence later development. For example, a child who has experienced supportive parents is likely to develop an attachment representation of others as helpful and responsive, a model of the self as worthy of respect and care, and of relationships as stable and positive. Thus, attachment theory predicts a correlation between the quality of the child-father relationship and other close relationships, including relationships with peers (Sroufe & Fleeson, 1986). In addition, attachment theory suggests that the child's secure attachment to the father may lead children to be more socially competent. Children who have a secure attachment, may learn ways to interact with peers from their fathers. In other word, both positive and negative parenting behaviors may serve as a "training ground" for future social interactions with peers (Belsky, 1992; Fagot, 1997). For example, it was found that children who were securely attached to their father may learn to interact more cooperatively and responsively with peers than those who were insecurely attached (Hetherington & Parke, 1986). In addition, peers may more readily accept children who have a secure attachment than those who have an insecure attachment because securely attached children may learn a set of expectations, attitudes, and behaviors that foster their relationship with peers (Belsky, 1992).

In sum, this study examined the association between the daughter-father relationship and the quality of the daughter's relationships to her close peers. Attachment theory provide the theoretical framework for the study (e.g., Bowlby, 1969, 1987). In middle childhood, children may change their attachment behaviors. Thus, attachment security may be assessed by self-report rather than by overt attachment

behaviors, such as the Strange Situation Procedure. However, it is important to recognize that self-report measures refer to children's perceptions of attachment security. Especially when used with participants in middle childhood that Kerns and her colleagues (Kerns, Klepac & Cole, 1996) have provided evidence for the validity of self-report in American samples of middle-childhood participants. This study seeks to replicate and extend these Kerns' findings using Thai participants.

Research Hypotheses

1. Children in peer dyads in which both children are securely attached to their fathers (secure-secure dyads) are more responsive to each other than children in peer dyads in which one child is securely and the other insecurely attached to their fathers (secure-insecure dyads), and children in peer dyads in which both children are insecurely attached to their fathers (insecure-insecure dyads), respectively.

2. Children in peer dyads in which both children are securely attached to their fathers (secure-secure dyads) are more intimate with each other than children in peer dyads in which one child is securely and the other insecurely attached to their fathers (secure-insecure dyads), and children in peer dyads in which both children are insecurely attached to their fathers (insecure-insecure dyads), respectively.

3. Children in peer dyads in which both children are securely attached to their fathers (secure-secure dyads) are less critical about other than children in peer dyads in which one child is securely and the other insecurely attached to their fathers (secure-insecure dyads), and children in peer dyads in which both children are insecurely attached to their fathers (insecure-insecure dyads), respectively.

Definitions of Terms

1. *Perceptions of attachment security in the daughter-father relationship* refer to the daughters' self-report about the relationship with their fathers as assessed by means of the Kerns Security Scale (Kerns et. al, 1996).

2. *Peer relationship* refers to a child's interaction with her best friend on the following three categories.

- *Responsiveness* refers to the degree to which the members of the peer dyad attend, acknowledge, and respond to each other.

- *Intimacy* refers to the level of disclosure of personal / private information about self or others.

- *Criticism of Partner* refers to the consistency of any negative evaluation of participants' best friend.

3. *Middle childhood* refers to fourth grade girls from ten public elementary schools in Saraburi province, Thailand.

Limitations of the Study

1. Participants in this study were forth-grade students from urban and rural areas of Saraburi province. There were some differences between the two groups (i.e. socioeconomic status, child's environment) that may influence the child's social skills. In addition, some variables could not be controlled for and may have influenced the participants' peer relationship in a manner, which is hard to estimate. These variables include the child's physical attractiveness, academic competence, personality, friendship quality and background, attachment with mother, and sibling relationships.

2. The unit of analysis in this study was "dyads", not individual children. The findings demonstrate the differences in peer relationships among three groups of best-peer dyads: secure-secure dyads, secure-insecure dyads, and insecure-insecure dyads. This emphasis on the dyad means that the findings may not generalize to all the specific children who constitute the dyads.

3. The child's attachment status was calculated from the normative data of the child security scores of 528 forth-grade girls in Saraburi. These data may not constitute the standard norm for the rest of the population. However, given the relatively large sample, the data are likely to be reasonably representative.

4. The Security Scale does not discriminate among different forms of insecurity (i.e., avoidant and ambivalent attachments) that may also be associated with different peer relationships. However, the basic differentiation made by attachment theory is between secure and insecure children. Attachment researchers disagree whether avoidant and ambivalent forms of insecurity represent true attachment categories or are merely different forms of coping with insecurity. Given that this study is the first of its kind in Thailand, it seemed therefore reasonable to focus on the basic distinction between “security” and “insecurity”.

5. Finally, the researcher participated in the coding of the peer dyads. She was not blind to the children’s attachment status. This is likely to have influenced the results in the direction of the hypotheses. However, the degree to which this may have occurred is difficult to estimate. As a research principal, all coders should be blind to the hypotheses. Unfortunately, this was not possible in this case. The results must be evaluated with this factor in mind.

Variables of the Study

1. The independent variable was “best-friend dyad” as defined by the attachment status of the girl and her partner to their fathers. Three groups were created:

1.1 Secure-Secure dyads or peer dyads in which both children were securely attached to their fathers.

1.2 Secure-Insecure dyads or peer dyads in which one child was securely attached and the other was insecurely attached to their fathers.

1.3 Insecure-Insecure dyads or peer dyads in which both children were insecurely attached to their fathers.

2. The dependent variable was “peer relationship” as defined by three aspects of behavior: responsiveness, intimacy, and criticism.

Benefits of the Study

The results of this study may provide information about the degree to which the father influence development and social skills of Thai children.

Procedure

1. Preparation for Data Collection

The researcher asked for written permission from school directors to conduct data collection.

2. Preparation for Participants Selection

Participants in this study were fourth grade girls from ten public elementary schools in Saraburi province, both urban and rural area, Thailand. The selection processes were as follows.

1. The researcher studied children's profiles from ten public elementary schools and preselected 528 girls who lived with their parents (see page 24).

2. Letters explaining the study and consent forms were sent to the parents of the preselected children. Only 437 children who had the written consent of their parents or guardian were selected for participation.

3. Attachment Dyad Establishment

Quota sampling selected according to the participants attachment style and reciprocal best peer nomination was used as follows.

1. Children completed the Security Scale (Kerns et al., 1996) and Best Peer Nomination.

2. Children's security scores were computed as percentile scores and classified as follows.

-One hundred and seventy-eight children who received a score of above or equal to 49 were classified as "secure"

-One hundred and four children who received a score of 45-48 were classified as "unidentified"

-One hundred and fifty-five children who received a score of less or equal to 44 were classified as “insecure”

3. The subjects were matched by the researcher into pairs who reciprocally had reported each other as best friend. These best friend dyads were labeled according to their security scores as being of secure-secure, secure-insecure and insecure-insecure attachment as follows.

- Group 1: 35 dyads in which both children were securely attached to their fathers (secure-secure attachment).

- Group 2: 20 dyads in which one child was securely attached and the other was insecurely attached to their fathers (secure-insecure attachment).

- Group 3: 23 dyads in which both children were insecurely attached to their fathers (insecure-insecure attachment).

4. Behavior Observations

4.1 Best friend dyads attended one behavior observation session at a school laboratory for videotaping and recording.

4.2 The dyads were videotaped when discussing “our friends” for 15 minutes. That topic was purposively general to allow for individual differences between the dyads. Participants were aware of being videotaped. They were told that the experimenter would remain in the next room and available if there were any questions. If there were no questions, the researcher would not go back into the room until 15 minutes had elapsed.

4.3 The researcher and her research assistants scored peer interaction independently by viewing individual sessions from videotape independently. The first 5 minutes of videotape was excluded. The researcher and her assistants scored just the rest 10 minutes. The research assistants were blind to information about the children's attachment status.

Chapter 2

Review of Literature and Related Research

Review of Literature

1. Attachment

1.1 Attachment Theory

Ethological theory holds that the reciprocal nature of responses between adult and child become a particular attachment. John Bowlby's attachment theory suggests that attachment is a result of a set of instinctual and reciprocal responses and attractions between parents and child that are important for the protection and survival of the species (Bowlby, 1969). The child behavior called "babyishness", such as crying, smiling, sucking, clinging, looking at the caregiver preferentially, and following the adult around, elicit necessary parental care and protection for the child and encourage contact between adult and child (Fogel, 1991). However, the child is predisposed to respond to the sights, sounds, and nurturance provided by adults. That is, both adult and child develop mutual attachment to each other as a result of a biological system (Hetherington & Parke, 1986). Moreover, Bowlby (1969, 1987) suggested that the child forms a particular attachment from reliance on innate responses to any adult to the identification and recognition of a particular adult.

1.2 Definition of Attachment

Attachment is a specific emotional bond that develops between a child and his or her caregiver (Lefrancois, 1980; Feldman, 1998; Sroufe, & Cooper, 1988). A variety of theories (i.e. psychoanalytic theory, learning theory, and ethological theory) have offered to explain the development of attachment. Each position makes different assumptions about attachment. By far the most common definition derives from Bowlby's theory and refers to a lasting emotional tie between the child and his or her caregiver and implies that the child strives to maintain closeness to the attachment object and acts to ensure that the relationship continues (Fogel, 1991). This emotional

tie is particularly evident when the attachment system is activated. Not all relationships are attachment relationships. For example, researchers are increasingly starting to differentiate between the attachment and the caregiving system.

Bowlby (1969) stated that attachment refers to the development of an affect-laden bond to certain people that can provide the best safety for the infant, such as the mother and the father. Bowlby also suggested that secure attachment is critical condition for developing the infant's ability and willingness to explore the world. Attachment is always a reciprocal process of social interaction, though researcher have mostly concentrate on the growing child and less on the parental practice that may give rise to different kinds of attachment, such as sensitivity, rejection, etc.

1.3 The Development of Attachment

Attachment emerges in a consistent series of steps in the first six months of life. In the first step, the infant is attracted to social objects and comes to prefer humans to inanimate objects (Fogel, 1991). Second, in the first few days after birth, infants continuously learn to discriminate between familiar and unfamiliar people (De Casper & Fifer, 1980). Finally, they develop special relationships, particularly with their parents, who respond quickly to their demands and who spontaneously initiate interaction with them (Schaffer & Emerson, 1964).

Attachment theory (Bowlby, 1979) states that a child's secure attachment to a particular caregiver means that the child is confident in the responsiveness and availability of that caregiver. Afterward, the general pattern of children-parent attachments may be stable if children do not encounter stressful changes in their family circumstances such as divorce, job loss or residence change (Thompson, Lamb, & Estes, 1982; Vaughn, Egeland, Sroufe, & Waters, 1979).

1.4 The Quality of Attachment

Using Bowlby's attachment theory as her theoretical base, Mary Ainsworth, a developmental psychologist, developed the Ainsworth Strange Situation

Procedure (SSP) to measure child-mother attachment. The SSP consists of a sequence of 8 staged episodes that illustrate the nature of attachment between a child and his or her mother. On the basis of observations in both the home and the laboratory, Ainsworth, Blehar, Waters, & Wall (1978) has identified three main patterns of attachment as follows:

Securely attached children use the mother as a kind of home base. They are able to separate readily from their mothers to explore their environment. When separated, they actively seek comfort in some way and then return to exploration. They are usually cooperative and relatively free from anger. Most children (about 70 percent) fall in to this category.

Avoidant children (about 20 percent) rarely cry when the mother leaves, but they avoid her upon her return. These children fail to reach out in time of need and tend to be very angry. They don't like being held, but they like being put down even less.

Ambivalent children (about 12 percent) become anxious even before the mother leaves. They are extremely upset when she does go out, and when she comes back, they show their ambivalence by seeking contact with her while at the same time resisting it by kicking or squirming.

In addition, recent work suggests the existence of a fourth category. *Disorganized-disoriented children* show inconsistent, often contradictory behavior, such as approaching the mother when she returns but not looking at her. Egeland and Farber (1984) suggested that they may be the least securely attached children of all.

The child's different attachments are thought to be important because of their implications for later development. For example, according to Bowlby's attachment theory, different attachment behavior may reflect the child's model or child's perception concerning self, other, and relationships.

1.5 Stability of Attachment

Bowlby (1969) stated that attachment is a life span concept, with children maintaining attachment bonds to their parents across childhood and perhaps into adulthood. Previous studies also suggested that the general pattern of infant-parent attachment may be stable, but the particular behaviors that are used to express this relationship may shift as the child develops. However, they show stability in attachment if they encounter little change in circumstances. For example, Waters (1978) demonstrated that individual differences in attachment relationships were highly stable from ages 12 to 18 months. Waters, Wippman & Soufe (1979) reported that the quality of infant-parent attachment relationships at age 15 months was related to the later quality of preschool peer attachment relationships. Waters, Merrick, Treboux, Crowell & Albersheim (2000) studied those same infants 20 years later. They found that 70% of the infants show stability of attachment into adulthood.

1.6 Mother and Child Attachment VS Father and Child Attachment

In general, people will think of attachment as child–mother attachment because the mother is typically viewed as primary caregiver. However, infants develop attachment not only to their mother or a single individual, but also to a variety of other persons, including their father. Many fathers form close attachments to their babies soon after birth because they communicate with each other by looking, grasping, the child moving in its father's arm, and the fathers using motherese to talk with their children (Papalia & Olds, 1987).

Generally, the mother has been thought of as a special person with whom children form special relationships. There are at least two reasons for this interpretation. First, Bowlby's attachment theory suggested that there was something unique about the child-mother relationship since the mother is uniquely equipped, biologically, to provide sustenance for the child. Second, traditionally society views the mother as the natural primary caregiver, while the father's role was to work outside the home to provide a living for his family. However, the father began to take a more active

role in childrearing activities. For example, one study found that some infants formed their primary relationships with their father, and about one third of children had strong attachment relationship with more than one individual (Goossens & van Ijzendoorn, 1990; Volling & Belsky, 1992). In addition, Lamb (1977) suggested that the children may form attachments almost as well with fathers as with mothers.

Fathers and mothers have different roles to play with their infants. Mothers appear to act as primary caretaker and spend more time with their child in this role (feeding, bathing), while fathers take the role of helper, baby-sitter and playmate. Moreover, fathers are more physical and play more rough and tumble game. In contrast, mothers are more likely to verbally stimulate their child and to play more conventional games such as peek-a-boo, singing, reading and games with more verbal elements (Power & Parke, 1986; Feldman, 1998). The mothers tend to be more gentle and rhythmic, while the fathers tend to provide short, intense bursts of stimulation. In families with a working mother, interestingly, fathers were forward to behave more like mothers did with their children (Papalia & Old, 1987). However, these differences between mother's and father's play contribute something special to their children. For example, children receive an experience, an excitement, a challenge, and a way to control their fear from the child-father relationship, while the mother could not provide this kind of play (Papalia & Olds, 1987).

However, fathers are not the preferred partners on all occasions (Hetherington & Parke, 1986). In a time of stress (an unfamiliar situation, an encounter with a stranger) and especially when they are upset, Lamb (1977) suggested that infants show clear preference for the mother over the father when both parents are present. In contrast, in times of play, the infant chooses the father more than the mother.

1.7 Consequences of Attachment

The relationships that the child has developed with both mother and father are the best basis for understanding and predicting child development (Main & Weston, 1981).

In cognitive development, Pettit, Dodge, & Brown (1988) reported that measures of security in child-mother relationships were associated with measures of children's social problem-solving skills that were in turn related to children's social competence with peers.

In social development, there are several studies that show the effect of attachment on the child's personal ability (Lefrancois, 1980). For example, Waters, Wippman, & Sroufe (1979) found that infants who are securely attached to their parents may be predisposed to have positive peer relations in toddlerhood. Moreover, Kerns, Klepac, and Cole (1996) reported in their study of fifth grade students that the child's perceptions of security in the child-mother relationship influenced the child's peer relationships. That is, children in peer dyads in which both children were securely attached to their mothers were more responsive, more cooperative and less critical than those children in peer dyads in which one was securely and the other insecurely attached to their mothers.

Several studies found that the early child-caregiver attachment relationships may be responsible for the later social behavioral skills of children. Moreover, family and child-parent relationships influence specific characteristics of children because sometime parents create opportunities for their children to have experiences with peers. As a result, children may benefit from the opportunity to practice their social skills (Hetherington & Parke, 1986; Lefrancois, 1995). In addition, Waters, Wippman, & Sroufe (1979) found that infants who are securely attached to their caregivers may have positive peer relationships in toddlerhood.

Fordham and Stevenson-Hinde (1999) found that children with positive peer relationships showed less negative emotional development and developed more social competence compared to those with negative peer relationships, since these children had the opportunity to learn and practice a variety of social skills such as perspective taking, effective communication and cooperation (Waters, Wippman, &

Sroufe, 1979). Moreover, attachment teaches children about emotional ties (Bukatko & Daehler, 1995).

2. Peer Relationships

Although parents are the most important persons in a child's social world, peers are important as well. Peers become important in preschool and increasingly important during school years (Sullivan, 1953) because children receive social information about the world and other persons as well as about themselves from peers. In other words, peers are the child's sources of information about the "do's and don't's" of the social world as agents of socialization (Bukatko & Daehler, 1995). Children try to build and maintain their friendships because peers provide emotional support that allows children to respond more effectively to stress, can teach children to manage and control their emotions, and help them interpret their own emotional experience. Peers also provide communication and interaction with others that improve the child's intellectual growth, and allow children to practice their skills for close relationships with others (Feldman, 1998).

2.1 Definition of Peers

The term peer refers to a companion or a group of equals of approximately the same age and developmental level (Bukatko & Daehler, 1995). Thus, peers are influential because of the unique learning experiences they provide. In contrast, adult-child relationships are inherently unequal so that relationships are limited in what they can teach about such things as reciprocity, cooperation, and aggression (Sroufe & Cooper, 1988). Through such efforts toward mutual understanding, children gain in social competence through the elementary school years.

2.2 Developmental Trends in Peer Interaction

Children show a direct interest in their peers from infancy. Peers increasingly take on a larger and more crucial part in the child's social and emotional life. The development of peer interaction can be reviewed as follows.

2.2.1 Early Peer Exchanges and Play

In the first few years of life, infants are responsive to their peers (Lefrancois, 1980). At six months, babies touch and look at each other and even cry in response to the other crying, smiles, squeals, touching, and learning in their direction (Hay, Pedersen, & Nash 1982). Between six and twelve months old, researchers found that peer interaction becomes more intentional and infants respond more to the signals (Fogel, 1991). However, most peer interaction during infancy is brief and usually does not involve reciprocal exchange of behavior (Vandell & Wilson, 1987).

Mildren Parten (1932) found that three forms of play characterize the peer relations of young children. In the first stage, solitary play, although children are interacting, they are usually directing most of their attention toward a toy or object rather than toward each other. In second stage, parallel play, children play independently while they are close to or side-by-side with other children. In the third stage, cooperative play, children share toys and follow one another, and reciprocal or complementary role relationships are seen. They are more likely to be accompanied by a smile or a laugh or other appropriately positive displays (Mueller & Brenner, 1977). Finally, in preschool years, children begin to display social pretend play. Imitation becomes more common (Eckerman & Stein, 1982). At this stage, children invoke "make-believe" to imagine situations and pretend roles (Rubin, Fein, & Vandenberg, 1983).

2.2.2 The School Years and Adolescence

Peer interaction increases continuously throughout the elementary school years, that is, peers assume greater importance for children

(Hetherington & Parke, 1986). At this age, the children show a clear preference for same-sex peers and as figure 1 shows (see Appendix A), across development, time with adults decreases while time with child companions increases.

In middle childhood (8-11 years old), children show a clear preference for same-sex peer and clearly show sex-stereotyped attitudes. These attitudes influence children's thought, willingness, and peer selection. Thus, children's groups, especially the best friend dyads, are all girls or all boys. Many reasons interpreted these attitudes that because of interests, an outgrowth of the group's function of teaching sex-appropriate behaviors, and the difference in maturity between girls and boys that influence on different activities. The lack of cross-gender interaction means that boys' and girls' friendship are restricted to members of their own gender. However, the nature of friendships within the two genders is quite different (Feldman, 1998).

In addition, girls tend to develop close friendships with just one or two other girls as best friend, while boys develop many more but less intimate friendship. In other word, boys try to seek out status differences, while girls tend to avoid differences in status, preferring to maintain friendships at equal-status level. Thus, girls use compromise to solve conflict in their relationship by ignoring, giving, and using soft and indirect language (Feldman, 1998). Moreover, too wide an age range brings problems with differences in size, interests, and level of ability. Therefore, children seek out peers who are like themselves with regard to sex, age, and socioeconomic status.

In one study, Gottman & Parker (1985) found that companionship with same-age peers increases with age and children are likely to choose same-sex play partners more than opposite-sex play partners at age 7. This pattern, however, decreases in adolescence. Although children do use abusive language when they have conflicts with their peers, quarrels and physical aggression with peers decrease (Hartup, 1986).

Preadolescents spend a lot of time talking with each other, participating in sports and listening to music or watching television together (Bukatko &

Daehler, 1995). During adolescence, the degree of peer relationships becomes more intense. They form close, intimate friendships with their peers and value their relationships (Bukatko & Daehler, 1995). Peer relationships during adolescence are different from those during the preadolescent period because of the additional interest in opposite sex peers (Damon, 1984).

2.3 The Functions of Peers

As stated in the introduction, peers are a source of information for children about the social world (Bukatko & Daehler, 1995). It is the perspective of equals with common problems, goals, status, and abilities (Lefrancois, 1980). Peers also reflect the values of the larger society. Children evaluate their own characteristics, values, emotions, and abilities by turning to other and measuring themselves (Hetherington & Parke, 1986). Previous studies on child-peer relationship suggested 3 basic functions of peers as follows.

2.3.1 Peers as Reinforcers

Throughout the preschool years, the frequency with which peers reinforce each other increases. Peers actively reinforce their friends' behaviors because they communicate clear signals about social behaviors. That information may either maintain or inhibit the child's behaviors. Moreover, children tend to reinforce the same peers who reinforce them (Leiter, 1977).

2.3.2 Peers as Models

Although children receive a wide range of knowledge and a variety of responses by observing the behavior of peers, they tend to imitate peer models who are warm and rewarding, who are powerful and older, and who are similar to themselves in background and interests (Bukatko & Daehler, 1995). The imitations that are followed by positive outcomes (reward, positive social interaction) may lead children to imitate more (Hetherington & Parke, 1986).

2.3.3 Peers as Transmitter of Cultural Values

Children spend more and more time in peer groups as they grow older. They play games in groups and take part in scouting, in performances, and in other constructive activities together. They also receive cultural values from their peers because the peer group can shape the attitudes, behaviors and self-concepts, rules standards, and values of its members. Therefore, peers must be considered a major agent of childhood socialization (Feldman, 1998; Sourfe & Cooper, 1988). Furthermore, children can form relationships with people who have similar problems, interests and skills. This kind of experience with peers can directly or indirectly convey strong messages about the general values and philosophies of their culture (Hetherington & Morris, 1978).

3. Best Friend Relationships

Friendships are important in the life of the child. Friendships communicate more information than peers do, they share more thoughts, experiences, intimacy, emotions and see each other more frequently (Bukatko & Daehler, 1995). Children often have a number of best friends rather than one best friend, and if one child chooses another child as a best friend, the second child will also have chosen the first as the best friend (Lefrancois, 1980). In the middle school years, most best friend dyads are of the same age and sex. The child's best friend dyads contain more involvement, more positive affect and fewer physical signs of stress (Field, Greenwald, Morrow, Healy, Foster, Guthertz, & Frost, 1992).

Best friend relationships in middle childhood can be described according to Selman's steps of friendships as follows (Selman, 1980)

Stage 0: Momentary playmateship. Children (3-7 years old) tend to think about what they want from a relationship rather than the others person's point of view. They define their friend in terms of how close they live and value them for their material or physical attributes.

Stage 1: *One-way assistance*. Children (4-9 years old) define a friend as someone who does something the child wants.

Stage 2: *Two-way fair-weather cooperation*. Children (6-12 years old) define a friend as someone who can give-and-take, but it still serves much separate self-interest, rather than the common, mutual interests of both parties to the friendship.

Stage 3: *Intimate, mutually shared relationships*. Children (9-15 years old) view a friendship as having a life of its own. It's an ongoing, systematic, committed relationship that is incorporated by the friends who become positive of their tie and often demand exclusivity.

Stage 4: *Autonomous interdependence*. Children (about 12 years old) respected their friends' needs for both dependency and autonomy.

From these stages, the deepening of peer relationships that occurs in middle childhood (8-12 years old) and is related to various advances in how children think. In other words, cognitive development and interactions with best friends work hand in hand to lead children to a new understanding of social relationships. At this age, however, gossip dominates communication (Parker & Gottman, 1989) because gossips, particularly negative evaluation of others, may foster a sense of closeness and solidarity between children (Parker & Gottman, 1989). Furman & Buhrmester (1992) suggested that girls cite the importance of sharing confidences and private feelings with friends far more frequently than boys do and find their same-sex friendships provide more support than those of boys. During the middle school years, for boys, friendship is oriented around shared activities, particularly sports or exercise, while girls' friendships involved intensive affective communication with more self-disclosure (Hetherington & Parke, 1986). In other words, girls are encouraged to play games that involve fewer group members.

In sum, the father-child relationship is likely to influence the children's relationship with their peers. Differences in the quality of the child-father relationship (secure versus insecure) may therefore influence the quality of children's relationship with peers.

Related Research

Related researches in this area are more focus on child-mother attachment that related to peer relationships in childhood. In Waters, Wippman, and Sroufe (1979) study, they examined the correlation between the positive affective and child-mother attachment security in infancy to assess the relation between secure attachment in infancy and competence in the peer group at age 3 years 6 months. Thirty-two white middle-class infants were observed in the Ainsworth and Witting Strange Situation at age 15 months and in follow-up at age 3 years 6 months. The results indicated that individual differences in quality of attachment in infancy are predictive of individual differences in both peer competence and ego strength in the peer group at age 3 years 6 months. That is, securely attached children displayed more patterns of positive affect during free play with friends than insecurely attached children.

Cassidy, Kirsh, Scolton, and Parke (1996) studied the connection between attachment and the same aspects of peer-related representations in kindergarten and first grade children. Thirty-three white middle-class kindergarten (age 3.5 years old) and first grade (age 6 years olds) children were videotaped in Ainsworth's Strange Situation and asked peer-related questions. The results indicated that children with higher attachment security scores were more positive in their peer-related representations (positive intent, feeling) than children with lower attachment security scores.

Heller, Vaughn, and Bost (1999) assessed the association between the child-mother attachment and peer social functioning. Participants were seventy-three preschool children (ages 42-72 months; 37 girls, 36 boys) and their mother. Secure base behavior was assessed using the observer complete Attachment Q-sort (AQS) (Waters, Vaughn, Posada, & Kondo-Ikemura, 1995). They found that security, maternal interaction, and peer social competence dimensions were all significantly related and

the two attachment security measures made unique contributions to the prediction of peer social competence.

Kerns et.al (1996) studied the association between peer relationships and preadolescents' perceptions of security in the child-mother relationship. Forty-four same-gender friend dyads were observed through videotaped conversations and friendship questionnaires. The finding was that in friend dyads where both children were securely attached to their mothers (secure-secure attachment), children were more responsive, more companionable, and were less critical than in friend dyads where one child was securely and the other insecurely attached to their mothers (secure-insecure attachment). This study clearly shows an association between peer relationships and child-mother relationships in middle childhood.



สถาบันวิทยบริการ
จุฬาลงกรณ์มหาวิทยาลัย

Chapter 3

Method

This study investigated the relation between peer relationships and middle childhood perceptions of security in the child-father relationship.

Participants

The participants in this study consisted of fourth grade girls from ten public elementary schools in Saraburi province, Thailand. They lived with both parents.

Preparation for Participant Selection and Participant recruitment

1. Preparation before Data Collection

The researcher asked for written permission from school directors in order to conduct data collection.

2. Preparation for Participant Selection

Participants in this study were 213 urban and 224 rural fourth grade girls from ten public elementary schools in Saraburi province, Thailand (see appendix E for details). The preparation processes were as follows.

1. The researcher studied children's profiles from ten public elementary schools. The children's profiles showed their age and family status such as whether they lived with both parents, one parent, or other person. The researcher selected 528 girls who lived with both parents as potential participants.

2. Letters explaining the study and consent forms were sent to the parents of the 528 preselected children. Only 437 children who received the written consent of parents or guardian were selected for further consideration.

3. Attachment Dyad Establishment

Participants were quota sampling selected according to their attachment style and best reciprocal peer nomination by the following method.

1. Children completed the Security Scale (Kerns et al., 1996) and Best Peer Nomination.

2. Children's security score were computed percentile and were classified as follows.

-One hundred and seventy-eight children who received a score of 49 or above or (above or equal percentile 67-100) were classified as "secure"

-One hundred and four children who received a score of 45-48 (percentile 35-66) were classified as "unidentified"

-One hundred and fifty-five children who received a score of 44 or below (below or equal to percentile 1-34) were classified as "insecure"

The "unidentified" group was excluded and the two remaining groups ("secure" and "insecure") were included in this study.

3. Then, 333 children in "secure" and "insecure" groups were matched by the researcher in pairs who reciprocally reported each other as best friend (see section of instrument for details). The best peer dyads were labeled according to their security scores as being of secure-secure, secure-insecure and insecure-insecure attachment as follows see table B in appendix A.

- Group 1: 35 dyads in which both children were securely attached to their fathers (secure-secure attachment).

- Group 2: 20 dyads in which one child was securely attached and the other was insecurely attached to their fathers (secure-insecure attachment).

- Group 3: 23 dyads in which both children were insecurely attached to their fathers (insecure-insecure attachment).

Further study found that the security score between securely attached children in group 1 and group 2 did not differ, nor did the security score between

insecurely attached children in group 2 and group 3 differ (see Table B and C in appendix A for details).

Research Design

A quota-sampling ex post facto research design was used in this study to examine the differences between three attachment dyads on 3 aspects of peer interaction.

Research design

	Attachment Dyads		
	Secure-Secure dyads	Secure-Insecure dyads	Insecure-Insecure dyads
-Responsiveness			
-Intimacy	(n=35)	(n=20)	(n=23)
-Criticism of partner			

Instruments

Three instruments were used in this study; the Security Scale, the Best Friend Nomination, and the Peers Relationship Instrument.

1. **The Security Scale** (Kerns et al., 1996) was originally constructed by Kerns and her colleagues to assess children's perceptions of security in child-parent relationships in middle childhood and early adolescence. The instrument used in this study used a Likert scale format (1-4) for each item instead the original Harter Scale format. Previous research had shown that many children misunderstand a question when it is presented in the Harter format (Wichstrom, 1995).

In Kerns' scale, each item of the Harter scale format contained a presentation of two groups of persons who are dissimilar on a characteristic on the left side and the right side of the questionnaire, respectively. The subject was first asked to decide which group she resembled the most, the persons on the left or on the right. After this decision

the subject is asked to indicate whether the description of these persons is “Really true for me” or “Sort of true for me.”

Example

Really true for me	Sort of true for me	Some kids find it easy to trust their father.	BUT	Other kids are not sure if they can trust their father.	Really true for me	Sort of true for me
<input type="checkbox"/>	<input type="checkbox"/>				<input type="checkbox"/>	<input type="checkbox"/>

In this study, the instrument was a Likert scale 1-4 that had two sides format where only the description on the left of each item in the original version was used. Each statement was presented as from a fictitious girl (Nut) who reveals her thoughts, feelings and perceptions about her father, for example, “Nut finds it easy to trust her father.” similar to the original version. The scale had four options: 1 (describes me very poorly), 2 (describes me quite poorly), 3 (describes me quite well), and 4 (describes me very well). The children were asked to decide whether they are like or unlike the fictitious girl in the statement on the left. Afterward, the children were asked to select the one box that they are most like.

Example

	Really true for me	Moderately true for me	Moderately not true for me	Not really true for me
Nut finds it easy to trust her father				

The measure was composed of 15 items. Those items tap the following content domains.

1. The degree in which children believe a particular attachment figure is responsive and available (e.g., Whether a child worries that the father will not be there when needed): 5 items.

2. The children's tendency to rely on the attachment figure in times of stress (e.g., whether a child goes to the father when upset): 5 items.

3. Children's reported ease and interest in communicating with the attachment figure (e.g., whether a child likes to tell her father what she is thinking and feeling): 5 items.

Validity of the Security Scale in American Samples

Kerns' Security Scale

Kerns et al. (1996) reported a concurrent validity of the Child-Rearing Practices Report (CRPR; Block, 1965), which was scored for maternal acceptance of and willingness to serve as a secure base for the target child. Internal consistency (Cronbach's alpha) for the scale was .73. Children's security scores significantly correlated with the maternal composite of CRPR, $r(45) = .45$, $p = .001$, indicating that the mothers who rated higher on maternal acceptance of and willingness to provide a secure base for their child had children who reported more security in the child-mother relationship as measured by Kerns' Security Scale. To examine both convergent and discriminant validity of the Security scale, Kerns conducted a preliminary study that analyzed associations between children's security scores and their self-perceptions in several domains. Scores on Kerns' Security Scale showed adequate range (1.6-4.0) and internal consistency (Cronbach's alpha = .93). Security scores were significantly correlated with self-esteem, $r(69) = .40$; peer acceptance, $r(69) = .30$; behavioral conduct, $r(69) = .36$; scholastic competence, $r(69) = .38$; and physical appearance, $r(69) = .32$ all $ps < .01$. Security scores were not significantly correlated with athletic competence, $r(69) = .19$, *ns*, or GPA, $r(68) = .12$, *ns*, providing some evidence of discriminant validity.

Kerns used the test-retest method to examine reliability on the Security Scale. Median length of the test-retest interval was 14 days (range = 8-28 days, $M = 16.28$ days). Cronbach's alphas for Time 1 scores = .81 and Time 2 scores = .87. The test-retest correlation was $r(30) = .75$, indicating acceptable stability in children's perceptions of security over a short time interval.

The Security Scale in This Study

For the Security Scale in this study, content validity of the instrument was examined by three Thai psychologists for format, language and culture appropriateness. When three Thai psychologists agreed, the instrument was used in a pilot study. One hundred and seventy-three fourth grade girls (mean age = 8.9 years) in ten elementary schools participated for the construction of the Security Scale, and 50 girls were randomly selected for reliability measure. They completed the Security Scale twice for reliability check. Median length of test-retest interval was 14 days (range 7-20 days). Cronbach's alphas for time 1 and time 2 scores were, respectively, .85 and .89. The test-retest correlation was $r(30) = .82$ (see table A in appendix A for correlation scores of each item of the Security Scale). These result are comparable to those obtained by Kerns.

The Security Scale Coding

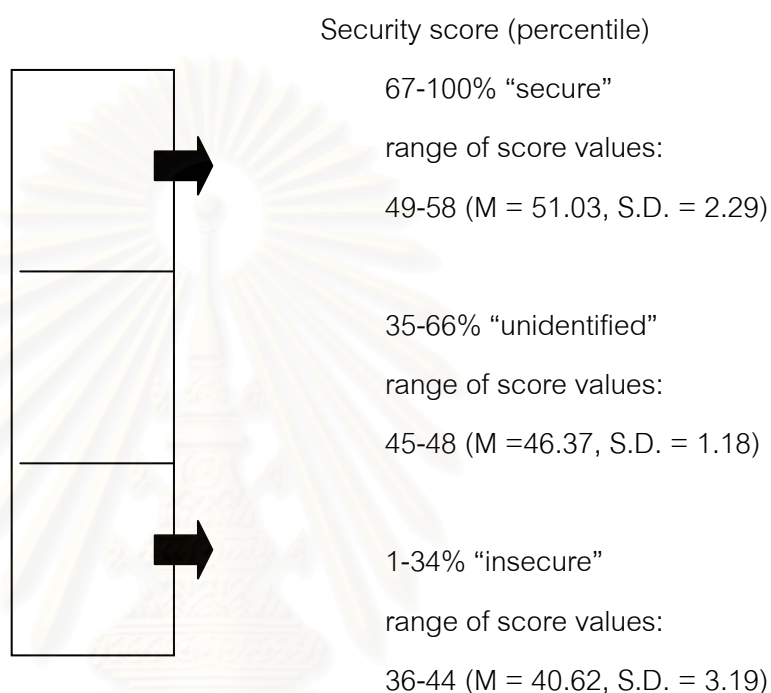
The Security Scale was rated on a 4-point scale for each item, the higher scores indicating a more secure attachment and the lower scores a less secure attachment (scores ranged from 15-60).

Children's Security Classifications

To assign children's security classifications, the following procedure was used.

1. The security scores were transformed to percentile.
2. Children whose security scores were in the top third of the distribution were classified as "secure"

3. Children whose security scores were in the bottom third were classified as “insecure”



2. The Best Friend Nomination

Children were asked to list their best friend in their class. They were allowed to nominate just 3 classmates. However, if the children had one or two best peers, they were asked to list only one or two that they have and the list had no ranking. Nominations were considered “best peer dyad” if the two children reciprocally listed each other as a close friend. For example, children A nominate children B, C, and D as her best peer. If children B nominate children A, E, and F as her best peer, then children A and B were matched into pair by the researcher. If children B, C, and D nominate children A as their best peer, they were matched randomly (A and B, A and C, or A and D). Once the dyads had been constituted, the security score of each participant was examined the dyad was assigned to one of the three dyads: secure-secure, secure-insecure, and insecure-insecure group.

3. The Peers Relationship Instrument.

The Peers Relationship Instrument was constructed under supervision of 2 psychologists and 1 behaviorist for criteria and appropriateness of Thai children and Thai culture based on the Kerns' Peers Interaction Scale (Kerns et al., 1996). (see appendix C for details)

Behavioral Coding of Peers Relationship

Each best peer dyad received a peer interaction score for each of the following categories: responsiveness, intimacy and criticism. Children were asked to discuss peers at school to provide an opportunity to code children's gossip about their peers. The conversations were videotaped and coded. A rating score were assigned for each category after watching an entire conversation segment. The researcher coded the first girl of each peer dyad on each item, and then the other girl was coded. Each category was scored as shown in appendix C.

Validity of the Peer Relationship Instrument in the Thai Sample

Kerns et. al (1996) used observer agreement to examine reliability on the peer interaction score. All coders were blind to information about children's attachment status. Coders viewed individual session tapes at least twice before scoring the dyad on each of the categories. The dyads were rated independently by two coders. Scores from the two observers were averaged, and the aggregated ratings were analyzed. Observer agreement was assessed by Pearson correlation as follows: responsiveness = .68, intimacy = .57, Criticism = .70. Cronbach's alphas were computed to assess the reliability of the coders' averaged ratings for each of the categories as follows: responsiveness = .81, intimacy = .73, criticism = .82. Intercorrelations among categories were low to moderate ($r = .01$ to $.53$), indicating some related qualities but general independence of constructs (Kerns et al., 1996).

The behavior coding of peer interaction was carefully studied by the researcher and assistant researchers during the practice period. Three coders (two coders were

blind to information about children's attachment status) viewed a tape once before coding peer interaction. 5 best peer dyads from the pilot study were used in the practice period. All coders scored independently. 10 best peer dyads from the pilot study were used for reliability. Observer agreement between coder 1 (researcher) and coder 2 was assessed as follows: responsiveness = .90, intimacy = .82, criticism = .86, and observer agreement between coder 1 (researcher) and coder 3 was assessed as follows: responsiveness = .90, intimacy = .80, criticism = .83. Cronbach's alphas were computed to assess the reliability of coders' averaged ratings for each of the categories as follows: responsiveness = .93, intimacy = .83, criticism = .85.

Procedure

1. Preparation for Participant Selection and Assignment to Attachment Group.

Preparation for participant selection and assignment to attachment group is discussed in the details of participants section on page 8.

2. Behavior Observations

2.1 Best friend dyads attended one behavior observation session at a school laboratory for videotaping and recording.

2.2 The dyads were videotaped when discussing "our friends" for 15 minutes. That topic was purposively general to allow for individual differences between the dyads. Participants were aware of being videotaped. They were told that the experimenter would remain in the next room and available if there were any questions. If there were no questions, the researcher would not go back into the room until 15 minutes had elapsed.

2.3 The researcher and a research assistant scored peer interaction independently by viewing individual sessions from videotape independently. The first 5 minutes of videotape was excluded. The researcher and her assistants scored just the rest 10 minutes. The research assistants were blind to information about the children's attachment status.

Data Analysis

The data analyses were done in three steps by SPSS 10.0 for Windows program as follows.

1. The three aspects of behavioral coding scores (responsiveness, intimacy, and criticism) of three groups of peer dyads (secure-secure, secure-insecure, and insecure-insecure peer dyads) were calculated for Means and Standard Deviations
2. One-way ANOVAs were used to examine the differences among three groups of peer dyads on each aspects of behavioral coding.
3. Post hoc analysis of behavioral coding on responsiveness, intimacy, and criticism were calculated by Schffe's multiple contrasts method.



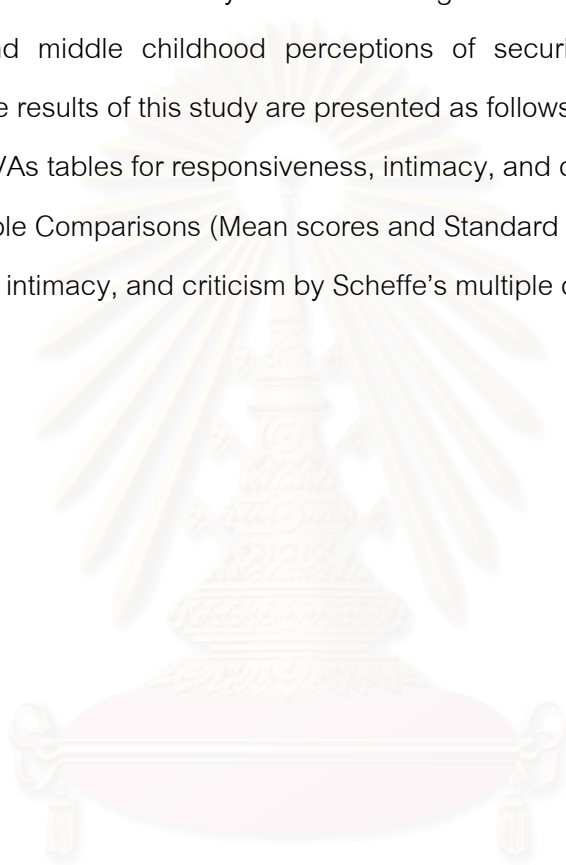
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Chapter 4

Results

The purpose of this study was to investigate the relationship between peer relationships and middle childhood perceptions of security in the daughter-father relationship. The results of this study are presented as follows.

1. ANOVAs tables for responsiveness, intimacy, and criticism.
2. Multiple Comparisons (Mean scores and Standard Deviation) of responsiveness, intimacy, and criticism by Scheffe's multiple contrasts method.



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1. ANOVAs Tables for Responsiveness, Intimacy, and Criticism.

The analysis of variances (ANOVAs) were computed on behavioral coding. The results revealed that there were significant differences among the three peer dyads on responsiveness, $F(2,75) = 4.93$, $p < .01$; Intimacy, $F(2,75) = 4.93$, $p < .01$; Criticism, $F(2,75) = 4.93$, $p < .01$. (see Table 1)

Table 1 Results of One Way ANOVAs.

Behavioral Coding	df	ss	ms	F
Responsiveness				
between groups	2	149.536	74.768	47.249
error	75	118.682	1.582	
Total	77	268.218		
Intimacy				
between groups	2	19.092	9.546	6.949
error	75	103.024	1.374	
Total	77	122.115		
Criticism of partner				
between groups	2	10.001	5.001	8.938
error	75	41.960	0.559	
Total	77	51.961		

$p < .01$

2. Multiple Comparisons (Mean scores and Standard Deviation) of Responsiveness, Intimacy, and Criticism of Partner by Scheffe's Multiple Contrasts Method.

Table 3 Mean Score and Standard Deviation of Responsiveness, Intimacy, and Criticism of partner for Each of the Attachment Group.

Interaction Variables	Attachment group					
	S-S		S-I		I-I	
	M	SD	M	SD	M	SD
Responsiveness	8.71 ^a	(1.02)	6.90 ^b	(1.27)	5.48 ^c	(1.27)
Intimacy	6.57 ^a	(0.95)	6.40 ^a	(1.19)	5.43 ^b	(1.44)
Criticism of Partner	0.51 ^a	(0.61)	1.00 ^{a,b}	(0.86)	1.35 ^b	(0.83)

Note S-S = Secure-Secure Group; S-I = Secure- Insecure Group; I-I = Insecure-Insecure Group. Mean scores with different notation (a, b, and c) are significantly different at $p < .05$.

According to Table3, for responsiveness, Sheffe's multiple contrasts method examined the mean differences among 3 groups of attachment peer dyads (secure-secure, secure-insecure and insecure-insecure peer dyads). The results revealed that the secure-secure peer dyads were significantly more responsive than secure-insecure peer dyads and insecure-insecure peer dyads respectively at $p < .05$.

For intimacy, the analysis revealed that the mean score of intimacy of secure-secure peer dyads and the secure-insecure peer dyads were significantly higher than insecure-insecure dyads at $p < .05$. However, there was no difference between secure-secure peer dyads and secure-insecure dyads on intimacy.

For criticism of partner, the analysis revealed that the secure-secure peer dyads expressed significantly less criticism of partner than insecure-insecure dyads at $p < .05$. No differences on criticism of partner were found between the groups of secure-

secure and secure-insecure dyads as well as the groups of secure-insecure and insecure-insecure dyads.



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Chapter 5

Conclusions, Discussion and Suggestions

Conclusions

Purpose of the Study

The purpose of this study was to assess the relation between children's interaction with peers and their perception of their attachment security in the daughter-father relationship.

Research Hypotheses

1. Children in peer dyads in which both children are securely attached to their fathers (secure-secure dyads) are more responsive to each other than children in peer dyads in which one child is securely and the other insecurely attached to their fathers (secure-insecure dyads), and children in peer dyads in which both children are insecurely attached to their fathers (insecure-insecure dyads), respectively.

2. Children in peer dyads in which both children are securely attached to their fathers (secure-secure dyads) are more intimate with each other than children in peer dyads in which one child is securely and the other insecurely attached to their fathers (secure-insecure dyads), and children in peer dyads in which both children are insecurely attached to their fathers (insecure-insecure dyads), respectively.

3. Children in peer dyads in which both children are securely attached to their fathers (secure-secure dyads) are less critical about other than children in peer dyads in which one child is securely and the other insecurely attached to their fathers (secure-insecure dyads), and children in peer dyads in which both children are insecurely attached to their fathers (insecure-insecure dyads), respectively.

Participants

Participants in this study consisted of 78 peer dyads. They were fourth grade girls from ten public elementary schools in Saraburi province, Thailand. Averaged age

was 9.63 years old (range = 8 to 15 years old, S.D. = 0.59). They lived with both parents. The peer dyads were grouped as follows.

- Group 1: 35 dyads in which both children were securely attached to their father (secure-secure attachment).

- Group 2: 20 dyads in which one child was securely attached and the other was insecurely attached to their father (secure-insecure attachment).

- Group 3: 23 dyads in which both children were insecurely attached to their father (insecure-insecure attachment).

Instruments

1. The Security Scale (Kerns et.al, 1996)
2. The Best Friend Nomination
3. The Peer Relationship Instrument

Procedure

1. Preparation for Data Collection

The researcher asked for written permission from school directors to conduct data collection.

2. Preparation for Participant Selection

Participants in this study were fourth grade girls from ten public elementary schools in Saraburi province, both urban and rural area, Thailand. The selection processes were as follows.

1. The researcher studied children's profiles from ten public elementary schools and preselected 528 girls who lived with their parents (see page 24).

2. Letters explaining the study and consent forms were sent to the parents of the preselected children. Only 437 children who had the written consent of their parents or guardian were selected for participation.

3. Attachment Dyad Establishment

Quota sampling selected according to the participants attachment style and reciprocal best peer nomination was used as follows.

1. Children completed the Security Scale (Kerns et al., 1996) and Best Peer Nomination.

2. Children's security scores were computed as percentile scores and classified as follows.

-One hundred and seventy-eight children who received a score of above or equal to 49 were classified as "secure"

-One hundred and four children who received a score of 45-48 were classified as "unidentified"

-One hundred and fifty-five children who received a score of less or equal to 44 were classified as "insecure"

3. The participants were matched by the researcher into pairs who reciprocally had reported each other as best friend. These best friend dyads were labeled according to their security scores as being of secure-secure, secure-insecure and insecure-insecure attachment as follows.

- Group 1: 35 dyads in which both children were securely attached to their fathers (secure-secure attachment).

- Group 2: 20 dyads in which one child was securely attached and the other was insecurely attached to their fathers (secure-insecure attachment).

- Group 3: 23 dyads in which both children were insecurely attached to their fathers (insecure-insecure attachment).

4. Behavior Observations

4.1 Best friend dyads attended one behavior observation session at a school laboratory for videotaping and recording.

4.2 The dyads were videotaped when discussing "our friends" for 15 minutes. That topic was purposively general to allow for individual differences

between the dyads. Participants were aware of being videotaped. They were told that the experimenter would remain in the next room and available if there were any questions. If there were no questions, the researcher would not go back into the room until 15 minutes had elapsed.

4.3 The researcher and her research assistants scored peer interaction independently by viewing individual sessions from videotape independently. The first 5 minutes of videotape was excluded. The researcher and her assistants scored just the rest 10 minutes. The research assistants were blind to information about the children's attachment status.

Data Analysis

The data analyses were done in three steps by SPSS 10.0 for Windows program as follows.

1. The three aspects of behavioral coding scores (responsiveness, intimacy, and criticism) of three groups of peer dyads (secure-secure, secure-insecure, and insecure-insecure peer dyads) were calculated for Means and Standard Deviations
2. One-way ANOVAs were used to examine the differences among the three groups of peer dyads on each aspects of behavioral coding.
3. Post hoc analysis of behavioral coding on responsiveness, intimacy, and criticism were calculated by Schffe's multiple contrasts method.

Results

1. Children in peer dyads in which both children were securely attached to their fathers (secure-secure attachment) were more responsive to each other than children in peer dyads in which one child was securely and the other was insecurely attached to their fathers (secure-insecure attachment) and than children in peer dyads in which both children were insecurely attached to their fathers (insecure-insecure attachment) respectively ($p < .05$).

2. Children in peer dyads in which both children were securely attached to their fathers (secure-secure attachment) were more intimate with each other than children in peer dyads in which both children were insecurely attached to their fathers (insecure-insecure attachment) ($p < .05$). In addition, this study found that children in peer dyads in which one child was securely and the other insecurely attached to their fathers (secure-insecure attachment) were more intimate with each other than children in peer dyads in which both children were insecurely to their fathers attached (insecure-insecure attachment) ($p < .05$).

3. Children in peer dyads in which both children were securely attached to their fathers (secure-secure attachment) were less critical about each other than children in peer dyads in which both children were insecurely attached to their fathers (insecure-insecure attachment) ($p < .05$).

Limitations of the Study

1. Participants in this study were fourth-grade students from urban and rural areas of Saraburi province. There were some differences between the two groups (i.e. socioeconomic status, child's environment) that may influence the child's social skills. In addition, some variables could not be controlled for and may have influenced the participants' peer relationship in a manner, which is hard to estimate. These variables include the child's physical attractiveness, academic competence, personality, friendship quality and background, attachment with mother, and sibling relationships.

2. The unit of analysis in this study was "dyads", not individual children. The findings demonstrate the differences in peer relationships among three groups of best-peer dyads: secure-secure dyads, secure-insecure dyads, and insecure-insecure dyads. This emphasis on the dyad means that the findings may not generalize to all the specific children who constitute the dyads.

3. The child's attachment status was calculated from the normative data of the child security scores of 528 fourth-grade girls in Saraburi. These data may not constitute

the standard norm for the rest of the population. However, given the relatively large sample, the data are likely to be reasonably representative.

4. The Security Scale does not discriminate among different forms of insecurity (i.e., avoidant and ambivalent attachments) that may also be associated with different peer relationships. However, the basic differentiation made by attachment theory is between secure and insecure children. Attachment researchers disagree whether avoidant and ambivalent forms of insecurity represent true attachment categories or are merely different forms of coping with insecurity. Given that this study is the first of its kind in Thailand, it seemed therefore reasonable to focus on the basic distinction between “security” and “insecurity”.

5. Finally, the researcher participated in the coding of the peer dyads. She was not blind to the children’s attachment status. This is likely to have influenced the results in the direction of the hypotheses. However, the degree to which this may have occurred is difficult to estimate. As a research principal, all coders should be blind to the hypotheses. Unfortunately, this was not possible in this case. The results must be evaluated with this factor in mind.

Discussion

The purpose of this study was to assess the relation between children’s perception of attachment security in the daughter-father relationship and children’s interaction with peers. The daughter-father relationship was interpreted through attachment theory (Bowlby, 1969,1987). Bowlby’s attachment theory suggested that children build attachment up of their caregiver during the first years of life are a principal means by which early experiences influence later development including social development.

A quota-sampling ex post facto research design was used in this study to examine the differences among three attachment dyads on 3 aspects of peer interaction (responsiveness, intimacy and criticism of partner).

The first hypothesis maintained that children in dyads in which both children were securely attached to their fathers (secure-secure dyads) would be more responsive to each other than children in dyads in which only one child was securely attached and the other child was insecurely attached to their fathers (secure-insecure dyads). Children in secure-secure dyads were also expected to be more responsive to each other than children in dyads in which both children were insecurely attached to their fathers (insecure-insecure dyads).

The findings largely supported this hypothesis that secure-secure peer dyads were more responsive than secure-insecure peer dyads and insecure-insecure peer dyads respectively. Thus, the findings suggested that the child's perceptions of security attachment in the daughter-father relationship were associated with responsiveness in dyadic friendship.

Both the child's family and peers together influence the child's social development (Papalia & Old, 1987). There were many interpretations of these findings. In the context of the child's family, the study focused through the child's perception of attachment security with their father.

First, according to *attachment theory* (Bowlby, 1969), securely attached children tended to receive positive emotional support from their parents because these parents were often more sensitive, responsive, and intimate than insecurely attached children's parents. Therefore, children had an opportunity to receive both directly and indirectly means or social skills to interact with others including peers. In direct ways the fathers, in this study, tend to teach their daughters about managing, controlling, and regarding their emotions appropriately. For example, children were told to think around and use soft ways or compromise to solve problems rather than aggressive ways (Fagot, 1997; Feldman, 1998). In indirect ways, the behaviors (i.e. eye contact, the rhythm of conversations, attending and responding to conversation partner) of the fathers interacting with their children were viewed as a child's mental model or a child's mental representations (Bowlby, 1969,1987). The child-father interaction behaviors were

transferred to the child's interaction with peers. Papalia & Olds (1987) suggested that children who are securely attached to their fathers often have sensitive, warm, and loving fathers. These fathers are very accepting of their children's behavior, thoughts, feelings, and let them explore and express themselves. Moreover, they use reasoning, relatively sophisticated language, and teaching them rules for play with another. In summary, the first reason focused on information about social relationships that children received from their fathers.

Second, *the father's performance and the child's perceptions* were considered because the child-father relationship was viewed as a reciprocal relationship. Although the fathers try to provide direct and indirect ways of interaction with others to their children, children may perceive only a part of that information or unclear information. On the other hand, the fathers may convey unclear information to their children. The fathers of insecurely attached children tended to convey behaviors and information to their children less clearly than those of securely attached children (Papalia & Olds, 1987). Therefore, securely attached children had a better opportunity to perceive behaviors and information correctly than insecurely attached children. This showed the importance of the influence of the child's cognitive development on their relationships.

Third, the context of the child's relationship with peers, *peer perception and response to the child's signal behaviors for interaction* was considered. The findings showed that secure-insecure peer dyads received lower peer interaction scores on responsiveness than secure-secure peer dyads. To interpret this finding, children with different attachment to their fathers may have different experiences that differently influence the perception and interpretation of their situations (Heller, Vaughn, & Bost, 1999).

In this study, however, many causes influencing the child's relationship with peers such as children personal character, child's transfer competence, the child's relationship with siblings, and the relationship between the child's parents and their peers were not included. Future research needs to examine these issues.

On the other hand, insecure-insecure peer dyads showed different patterns of behaviors to secure-secure peer dyads. Peer dyads in which both children were insecurely attached to their father had less opportunity to receive positive information from their father, perhaps because there was a negative bond in the child-father relationship (Fulgini & Eccles, 1993). Thus, insecurely attached children form a different mental model from securely attached children. In peer relationships, they are unlikely to respond to each other appropriately (i.e. no or little eye contact, and conversation breakdown).

Secure-insecure peer dyads received moderate responsiveness scores. In this relationship, of course, there were differences between the two children. The reason could be the securely attached children tried to interact with their partner, while the insecure children did not know how to respond appropriately. For example, insecurely attached children made less eye contact and often interrupted while the other partners were talking. Interestingly, however, these children with a different attachment base rated each other as best friends. Future research should seek to interpret this finding.

The second hypothesis maintained that children in dyads in which both children were securely attached to their fathers (secure-secure dyads) would be more intimate with each other than children in dyads in which only one child was securely and the other was insecurely attached to their fathers (secure-insecure dyads). Children in secure-secure dyads were also expected to be more intimate with each other than children in dyads in which both children were insecurely attached to their fathers (insecure-insecure dyads).

The finding supported the hypothesis that secure-secure and secure-insecure peer dyads were more intimate with each other than insecure-insecure dyads. However, the finding did not show differences between secure-secure peer dyad and secure-insecure peer dyads. Thus, the finding suggested that the child's perceptions of

security attachment in the daughter-father relationship associated moderately with intimacy in dyadic friendship.

There were two factors influencing this finding. The first factor was the child's perception of attachment security with their father. Securely attached children, generally, received more response, and intimacy from their father than insecurely attached children (Feldman, 1996; Lefrancois, 1980; Papalia & Olds, 1987; Sroufe, & Cooper, 1988). When the secure child's father responds to his child rapidly, children may form a sense of trust in their father because they believe that their father can help them solve all problems immediately (Fogel, 1991). In a social context, securely attached children viewed their environment positively and also generalized to trust others including their peers.

This study, not surprisingly, found that secure-secure peer dyads received significantly higher scores on intimacy with their peers than insecure-insecure peer dyads. Securely attached children tend to trust and believe in their relationship with peers. They shared information about the self or another of a personal and private nature including their secrets. This information exchange between peer dyads was a feedback to foster trust with their partners (Kerns et al, 1996).

In contrast, insecure-insecure peer dyads received lower intimacy scores. They could not tell their father about what they were thinking, feeling or they were worried that their father would not be there when they needed him. Thus, they could not form a sense of trust in their father and others (Feldman, 1996; Lefrancois, 1980; Papalia & Olds, 1987; Sroufe, & Cooper, 1988). This study found that insecurely attached peer dyads avoided talking or talked little about their own thoughts, feelings, and events of their personal nature to each other. However, they talked more about others, although in a critical manner.

As for secure-insecure peer dyads, this study found that they had significantly higher intimacy scores than insecure-insecure peer dyads, but that there was no difference when compared with secure-secure peer dyads. In fact, they received

slightly lower intimacy scores compared with secure-secure peer dyads. These results suggested that there was an influence between the two girls who had different attachment background in the dyad. As reviewed above, peers were viewed as reinforcers, models, and transmitters of cultural values. In this case, insecurely attached children got influences from their securely attached friends. Insecure children gained positive outcome by receiving emotional support from their best friends that were securely attached to their fathers. In general, best friends will share thoughts and feelings with each other continually (especially securely attached children) and this may help to form a sense of trust for insecurely attached children. After they trust and believe in their secure friends, the insecure children increasingly value their intimacy resulting in having higher intimacy scores for the group.

The second factor is the influence of best friend status on the child's relationship with peer. Although the best friend status was controlled in this study (all peer dyads were best friend), previous studies found that the quality of friendship in each best friend dyad was individually different between secure and insecure children (Cassidy et al., 1996; Kerns et al., 1996; Waters et al., 1979). This should be studied in future research.

The third hypothesis maintained that children in dyads in which both children were securely attached to their fathers (secure-secure dyads) would be less critical toward each other than children in dyads in which one child was securely and the other insecurely attached to their fathers (secure-insecure dyads). Children in secure-secure dyads were also expected to be less critical toward each other than children in dyads in which both children were insecurely attached to their fathers (insecure-insecure dyads).

The finding was consistent with the hypothesis that secure-secure peer dyads were less critical about each other (criticism of partner) than insecure-insecure peer dyads. However, there was no significant difference among secure-insecure peer dyads and other groups of peer dyads. Thus, the finding suggested that the child's

perceptions of security attachment in the daughter-father relationship associated moderately with mutual criticism in dyadic friendships.

In general, in best friend relationships, all peer dyads should be comparatively uncritical of their partner because the best friend was the person whom children had chosen for maximum reciprocal disclosure. However, there were two factors in interpreting this finding, namely the child's perception of attachment security with their fathers, and best friend status.

Children perceiving a secure attachment with their fathers hold positive views of self and others (Bowlby, 1969; Lefrancois, 1980; Sroufe, & Cooper, 1988) because these father often view their environment positively and use reasons rather than emotions to solve problems (Fuligni & Eccles, 1993). Accordingly, the findings revealed that secure-secure peer dyads received lower criticism scores than insecure-insecure peer dyads. Securely attached children tended to view their partner positively, so they tended to accept their partner's thoughts or feelings and there were no or few comments and little intense explicit criticism (Kerns et al., 1996). Moreover, secure-secure peer dyads are likely to try to build and maintain their friendship by compromise rather than argument, for example by using careful language to comment their partners (Papalia & Olds, 1987).

In contrast, insecure-insecure peer dyads received higher criticism scores than others since they often commented on their partners intensely or continually. These children may view their environment negatively because they generalize from their relationship with their fathers or they cannot respond appropriately to their peers.

Secure-insecure peer dyads, in fact, received a criticism score in between the lowest scores of secure-secure and the highest scores of insecure-insecure peer dyads. Similar to the intimacy results, securely attached children in these peer dyads tend to influence those insecurely attached friends and lower the scores of the secure-insecure group.

This study also extended to study the differences of the three attachment groups of peer dyads in terms of criticism of another person. Kerns et al., (1996) suggested that criticism of another person may facilitate the getting-acquainted process with peers but be less important for maintaining or enhancing established friendships

Although this finding goes beyond the scope of this study, it was important to note that secure-secure peer dyads were significantly less critical about another person than insecure-insecure peer dyads (see Table D-2 and D-3 in appendix D). The results were similar to “criticism of partner” in that there were only small differences among secure-insecure peer dyads and insecure-insecure peer dyads regarding criticism of others. This is because secure-secure peer dyads tended to hold positive views of self and others, so they received lowest criticism scores than the other two groups. Thus, the findings suggested that the child’s perceptions of security attachment in the daughter-father relationship was moderately associated with criticism of others in dyadic friendships.

General Discussion

This study found a connection between the perception of attachment security in the daughter-father relationship, measured by self-report and peer relationships, measured via behavior ratings. The results suggest the important function of the family in influencing social development and social skills of children, that is, secure-secure peer dyads were more responsive, more intimate, and less critical with their peers than other groups. However, following Kerns’ study, this was strongly supported in terms of responsiveness (secure-secure peer dyads received a higher score on responsiveness than secure-insecure and insecure-insecure peer dyads respectively). For intimacy and criticism, this study found clear differences only between secure-secure peer dyads and insecure-insecure peer dyads, but there were only small differences between secure-secure peer dyads and secure-insecure peer dyads. Some factors may contribute to these results. First, there are problems of measurement. Although the peer relationship scale was revised to be more objective than the original version, it is still subjective. For

example, “discussion about the self’s thoughts and feelings” or “negative evaluation of partner” had to rely on the coder’s judgement. Therefore, intimacy and criticism were more difficult to score than responsiveness, which used overt behaviors.

Second, the quality of friendship such as amount of time, the strength of bonding etc. may influence peer relationships, especially intimacy and criticism. This, however, could not be controlled in this study. Even though we knew that by the time data were collected, the best-friend dyads in this had shared the same class for 2 years, we could not measure the duration of friendship or other aspects of friendship quality for each dyad.

In secure-insecure peer dyads, the study suggested the influence of securely attached children to influencing their insecure friends in leading and supporting them for better social skills and development.

Fagot (1997) suggested that there is a clear link between positive child-parent relationships and positive child-peer relationships. In contrast, it has been more difficult to establish an unambiguous relation between negative parenting and negative peer relationships. This study indicates that there was a positive connection between the child’s attachment to father and the child’s relationship with peers. Thus it appears to provide support for Fagot’s position. However, its contribution to our understanding of negative parenting is less strong, especially because the children, on the average, perceived themselves to be mostly securely attached to their fathers.

Suggestions

1. As stated in attachment theory that children may form attachment not only to their mother or father, but also to other caregivers (i.e. aunt, uncle, grandfather, and grandmother). Thus, it is of interest to study children’s peer relationships if children have different attachment with their attachment figures (children may be insecurely attached to their father, but may be securely attached to their grandfather).

2. The Peer Interaction Instrument should be further developed to cover more aspects of behavior to allow for better scoring of peer interaction.



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Appendices

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Appendix A
Graphs and tables

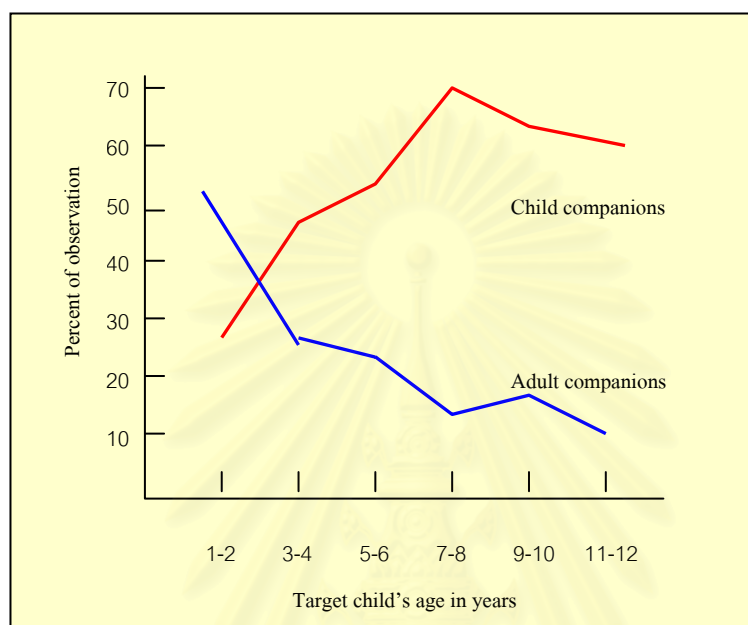


Figure1 Developmental changes in children's companionship with adults and other children. (From Hetherington & Parke, 1986)

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Table A Correlation Score of Each Item of the Security Scale

	item 1	item 2	item 3	item 4	item 5	item 6	item 7	item 8	item 9	item 10	item 11	item 12	item 13	item 14	item 15
item 1	1.00														
item 2	0.31	1.00													
item 3	0.36	0.17	1.00												
item 4	0.3	0.26	0.6	1.00											
item 5	0.02	0.37	-0.01	0.27	1.00										
item 6	0.18	0.2	0.12	0.2	0.55	1.00									
item 7	0.49	0.13	0.17	0	0	0.13	1.00								
item 8	0.28	0.36	0.07	0.26	0.42	0.33	0.24	1.00							
item 9	0.64	0.23	0.21	0.22	0.12	0.21	0.22	0.29	1.00						
item 10	0.67	0.2	0.35	0.44	-0.09	0.1	0.3	0.22	0.63	1.00					
item 11	-0.09	0.22	0.04	0.06	0.37	0.44	0.16	0.16	-0.06	-0.16	1.00				
item 12	-0.07	0.02	0.23	0.34	0.21	0.11	-0.09	0.16	-0.02	0.02	0.34	1.00			
item 13	0.68	0.33	0.35	0.39	0.02	-0.02	0.26	0.19	0.57	0.64	-0.12	-0.08	1.00		
item 14	0.39	0.03	0.09	0.05	0.13	-0.03	0.37	0.24	0.3	0.31	-0.09	0.03	0.24	1.00	
item 15	0.66	0.27	0.45	0.54	0.31	0.28	0.36	0.31	0.48	0.64	-0.02	0.05	0.57	0.38	1.00

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Table B Security Score of 6 Subgroup of Peer Relationship

order	Security Score					
	secure -	secure	secure -	insecure	insecure -	insecure
	children A	children B	children A	children B	children A	children B
1	51	50	50	36	43	41
2	50	51	57	44	41	41
3	52	51	53	42	43	39
4	50	52	49	40	42	38
5	54	54	52	39	44	42
6	50	49	51	42	43	41
7	53	51	50	42	41	39
8	49	49	49	42	44	42
9	51	49	49	44	44	37
10	50	49	50	43	43	43
11	53	49	49	43	41	37
12	51	51	49	43	42	38
13	51	48	52	43	39	33
14	52	54	50	44	43	40
15	53	49	52	42	43	37
16	55	49	54	37	40	38
17	52	50	50	35	33	30
18	51	49	51	40	43	43
19	49	49	52	44	44	36
20	52	51	49	44	44	43
21	50	49			40	29
22	52	49			41	41
23	55	50			41	39
24	51	51				
25	54	54				
26	50	49				
27	54	50				
28	57	50				
29	49	49				
30	51	49				
31	50	50				
order	Security Score (cont.)					

	secure - secure		secure - insecure		insecure - insecure	
	children A	children B	children A	children B	children A	children B
32	50	50				
33	54	50				
34	54	50				
35	51	50				

Table C Mean Score and Standard Deviation of Security Score of 4 Subgroups of Peer Dyads

Security score							
Group 1		Group 2		Group 3		Group 4	
M	SD	M	SD	M	SD	M	SD
50.94 ^a	(1.89)	50.60 ^a	(2.58)	41.75 ^b	(3.32)	40.20 ^b	(3.56)

Note From table B, Group 1 is children A (secure) and B (secure) in secure-secure group.

Group 2 is children A (secure) in secure-insecure group.

Group 3 is children B (insecure) in secure-insecure group.

Group 4 is children A (insecure) and B (insecure) in insecure-insecure group.

Mean scores with different notation (a and b) are significantly different at $p < .05$.

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Table D Individual Score of Responsiveness, Intimacy, and Criticism of Partner for 6 Subgroups

Interaction Variable	Attachment group					
	S-S		S-I		I-I	
	secure	secure	secure	insecure	insecure	insecure
Responsiveness	10	8	8	6	4	4
	10	10	7	7	6	6
	9	9	9	9	7	9
	9	7	8	8	5	5
	9	9	8	8	8	4
	8	10	9	5	5	7
	7	9	8	4	4	6
	8	10	8	4	2	8
	9	9	9	7	8	4
	10	10	7	3	7	7
	9	9	9	5	5	5
	10	10	7	5	6	6
	9	10	8	8	6	4
	10	8	9	3	5	1
	9	9	7	9	7	5
	8	10	8	8	6	6
	8	8	8	8	7	7
	9	9	4	4	6	4
	7	9	5	1	3	7
	8	10	10	8	6	2
	9	9			5	3
	9	7			4	4
	10	10			8	8
	10	10				
10	10					
10	10					
9	9					

	secure	secure	secure	insecure	insecure	insecure	
	6	6					
	8	6					
	9	7					
	9	10					
	10	10					
	9	7					
	8	6					
	7	7					
Intimacy	7	7	6	6	4	4	
	4	4	6	2	6	2	
	6	6	8	4	5	5	
	8	8	6	6	7	7	
	7	5	4	4	6	6	
	6	6	6	6	4	2	
	8	8	7	5	3	5	
	6	6	8	8	6	6	
	6	6	6	6	5	7	
	6	6	6	6	7	7	
	6	6	8	6	6	8	
	7	5	8	8	5	3	
	6	6	8	8	5	3	
	5	7	8	6	2	2	
	6	8	8	6	6	6	
	6	8	8	8	6	6	
	6	6	6	6	6	6	
	5	7	8	6	7	5	
	5	7	7	3	7	5	
	6	8	8	6	8	8	
	6	6			6	6	
	8	8			5	7	
Interaction Variable			Attachment group				
	S-S		S-I		I-I		

	secure	secure	secure	insecure	insecure	insecure
	7	7			6	6
	6	8				
	8	8				
	8	8				
	8	8				
	6	6				
	7	7				
	8	8				
	8	6				
	6	6				
	7	7				
	6	6				
	5	5				
Criticism of partner	1	1	1	1	2	0
	0	0	0	0	1	3
	1	1	1	1	1	1
	0	0	0	0	1	1
	0	0	0	0	2	4
	0	0	1	3	0	0
	0	2	1	1	1	1
	1	1	1	1	1	1
	0	0	2	2	3	1
	0	0	0	2	2	0
	1	1	0	2	2	2
	0	0	1	1	2	2
	1	1	1	1	1	1
	1	1	2	4	1	3
	0	0	1	1	0	0
	0	0	1	3	2	0
	0	0	0	0	3	1

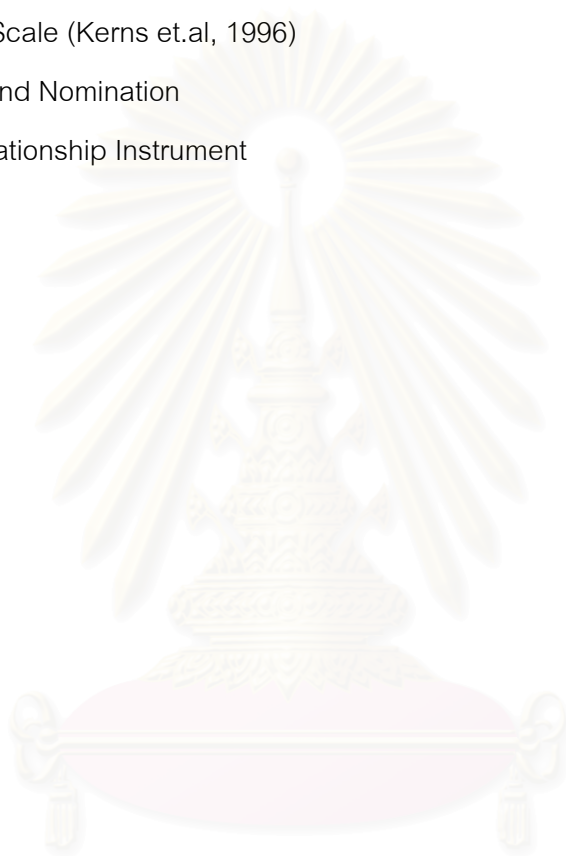
Interaction Variable	Attachment group					
	S-S		S-I		I-I	
	secure	secure	secure	insecure	insecure	insecure
	1	1	0	0	1	1
	1	1			1	1
	0	2			1	1
	1	1			0	0
	0	0				
	0	0				
	0	0				
	1	1				
	1	1				
	2	0				
	3	1				
	0	0				
	0	0				
	2	2				
	0	0				
	0	0				
	0	0				
	0	0				

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Appendix B Instruments

There were 3 instruments used in this study as follows.

1. The Security Scale (Kerns et.al, 1996)
2. The Best Friend Nomination
3. The Peer Relationship Instrument



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The Security Scale

เลขที่

ชื่อ ชั้น โรงเรียน

⑩ จันเป็นเด็กแบบไหน ⑩

“ครูมีคำถามที่จะถามเกี่ยวกับนักเรียนและคุณพ่อของนักเรียน ครูต้องการทราบว่านักเรียนเป็นเด็กแบบไหน ชั้นแรกครูจะอธิบายก่อนว่าจะทำแบบสอบถามอย่างไร คุณคำถามตัวอย่าง”

	เหมือนกับฉัน ที่สุด	มีส่วนเหมือน กับฉันบ้าง	ไม่ค่อยเหมือน กับฉัน	ไม่เหมือน กับฉันเลย
เด็กหญิงที่ชอบเล่นนอกบ้าน				

เมื่อนักเรียนอ่านข้อความด้านซ้ายมือแล้วให้นักเรียนตัดสินใจว่ามีลักษณะเหมือนกับนักเรียนหรือไม่ แล้วกากบาท ✕ ลงไปในช่องใดช่องหนึ่งทางด้านขวามือเพียงช่องเดียวในแต่ละข้อ



ตอนนี้ครูจะถามนักเรียนเกี่ยวกับนักเรียนและคุณพ่อของนักเรียน ถ้านักเรียนมีทั้งคุณพ่อและคุณพ่อบุญธรรม ให้นักเรียนเลือกตอบเพียงคนเดียวเฉพาะที่นักเรียนอยู่ด้วย

	เหมือนกับฉันที่สุด	มีส่วนเหมือนกับฉันบ้าง	ไม่ค่อยเหมือนกับฉัน	ไม่เหมือนกับฉันเลย
1.เด็กหญิงนั้นทบทว่าเป็นการง่ายที่จะเชื่อใจพ่อ				
2.เด็กหญิงนั้นรู้สึกว่พ่อเข้ามายุ่งวุ่นวายอย่างมากขณะที่เขากำลังพยายามทำบางสิ่งอยู่				
3.เด็กหญิงนั้นทบทว่าเป็นการง่ายที่จะขอความช่วยเหลือจากพ่อ				
4.เด็กหญิงนั้นคิดว่าพ่อให้เวลากับเขาอย่างเต็มที่				
5.เด็กหญิงนั้นไม่อยากบอกพ่อว่าเขาคิดหรือรู้สึกอย่างไร				
6.เด็กหญิงนั้นไม่จำเป็นต้องฟังพ่อมากนัก				
7.เด็กหญิงนั้นต้องการที่จะได้ใกล้ชิดพ่อมากขึ้น				
8.เด็กหญิงนั้นคิดว่าพ่อไม่ได้รักเขาจริงๆ				
9.เด็กหญิงนั้นรู้ว่าพ่อเข้าใจเขา				
10.เด็กหญิงนั้นแน่ใจอย่างยิ่งว่าพ่อจะไม่มีวันทอดทิ้งเขา				
11.เด็กหญิงนั้นคิดว่าพ่ออาจจะไม่อยู่กับเขาในเวลาที่เขาต้องการพ่อ				
12.เด็กหญิงนั้นคิดว่าพ่อไม่รับฟังความคิดของเขาเลย				

	เหมือนกับฉัน ที่สุด	มีส่วนเหมือน กับฉันบ้าง	ไม่ค่อยเหมือน กับฉัน	ไม่เหมือน กับฉันเลย
13.เด็กหญิงน่าจะหันไปหาพ่อ เมื่อเขาไม่สบายใจ				
14.เด็กหญิงน่าจะอยากที่จะให้พ่อ ช่วยเหลือเขามากกว่าที่เป็นอยู่เมื่อ มีปัญหาเกิดขึ้น				
15.เด็กหญิงน่าจะรู้สึกดีขึ้นเมื่อมีพ่อ อยู่ใกล้ๆ				

รวม.....

เฉลี่ย.....

⑩ ⑩ ⑩ ⑩ ⑩ ⑩ ⑩ ⑩ ⑩ ⑩ ⑩ ⑩ ⑩ ⑩ ⑩



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The Best Friend Nomination

เลขที่

⑩ ให้นักเรียนเขียนคำตอบลงในช่องว่าง

เกิดวันที่ เดือน..... พ.ศ.....อายุ..... ปี

มีพี่น้อง.....คน นักเรียนเป็นบุตรคนที่.....

บิดาอายุ ปี มารดาอายุปี

⑩ ให้นักเรียนกากบาท ☒ ลงในช่องที่ตรงกับนักเรียน

ปัจจุบันนักเรียนอาศัยอยู่กับ

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⑩ ให้นักเรียนเขียนชื่อเพื่อนที่นักเรียนสนิทที่สุด 3 ชื่อ และกากบาท ☒ เพศของเพื่อนลงในช่องว่าง

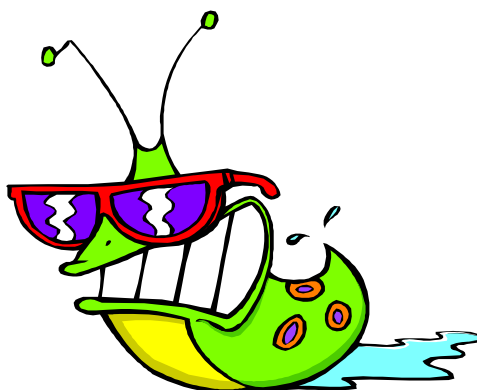
1.....

 เพศ หญิง ชาย

2.....

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3.....

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The Peer Relationship Instrument

Name..... School.....

Attachment status.....

Responsiveness	2	1	0
1. Eye contact			
2. Talking at the same time as the partner			
3. Interrupting while partner is talking			
4. Responding to and acknowledging partner's comments			
5. Partners' conversation consistently responsive			

R-score (Total)...

Intimacy	2	1	0
1. Discussion about the self's thoughts and/or feelings with partner			
2. Discussion about another's thoughts and/or feelings with partner			
3. Discussion about the self's character traits with partner			
4. Discussion about another's character traits with partner			

I-score (Total)...

Criticism of Partner

Negative evaluation of partner	2	1	0
1. Intense negative evaluation of partner			
2. Continual negative evaluation of partner			

C₁-score (Total)..

Appendix C

The Peer Relationship Instrument Construction

The Peer Relationship Instrument was constructed based on Kerns' definition of peers' interaction behavior because the Peer Relationship Instrument of Kerns was more subjective and it was difficult to score. The instrument was set up new criteria from data of two pilot studies (best peer dyads group and stranger dyads group). A behavioral observation specialist and two developmental psychologists were consulted for content validity and the agreement reliability of the 3 coders was used in this study. There were many processes as follows.

1. Kerns' definition of peers' interaction was studied. The researcher found that there were 3 components in peer interaction; responsiveness, intimacy, and criticism. Kerns defined them and set up the criteria for scoring as follows.

Responsiveness refers to the degree to which partners attend to, acknowledge, and respond to one another's social cues. Low level of responsiveness is indicated by ignoring or interrupting partner talks. High level of responsiveness is indicated by interest/attention to partner; responding to and acknowledging partner's comment; and good eye contact.

1 = Frequent unresponsiveness or inattention

2 = Conversation breakdowns occur because partners not consistently responsive. Talking at the same time or talking over each other

Intimacy refers to information about the self or another of a personal or private nature. Low intimacy disclosure involves exchange of factual information and/or superficial revelations about the self. Example: My mom is a nurse. He's a really good soccer player. Low intimacy is also indicated by avoidance of the topic. Score these as a 1 or 2.

Moderate intimacy disclosure involves some discussion of character traits of individuals. For example, dyad members may provide elaboration or explanation of trait labels.

High intimacy disclosure involves some discussion of thoughts, feelings, and events of a personal nature. Discussion of relationships is scored here if it is a discussion of how the relationship influences relationship participants. This includes talk of jealousy, envy, or embarrassment.

Scale intimacy levels topic from least to most intimate: mentioning topic, giving details/stories, sharing thoughts and feeling about it.

Note: If intimacy levels of partners are very discrepant consider intimacy levels of both partners when rating global intimacy (i.e. average ratings for individuals).

1 = Little or no disclosure; avoidance of topic

2 = Disclosure of factual info; may mention but no elaboration on trait labels; may have difficulty with topic

3 = Some elaboration or discussion of trait info or a mix of stories & factual information or mix of 2, 3, & 4

4 = Some elaboration of people supported by stories; or conversation focuses on relationships; or personal feelings are briefly mentioned but no discussion

5 = Discussion of info that could compromise individual if widely known; &/or discussion of personal feeling

Criticism refers to negative evaluation of another including friend but not self. In judging whether or not a statement is critical consider tone of voice.

1 = None or few comments of low intensity; very little explicit criticism

2 = Some criticism; moderate intensity

3 = Intense, hostile, or derogatory comments; or constant stream of complaints of lower intensity.

2. Observable behaviors were formed to be more objective from Kerns' definition of peers' interaction and other literatures (Bukatko & Daehler, 1995; Feldman, 1998; Papalia & Olds, 1987; Sourfe & Cooper, 1988). Each item was on a 3-point scale (range 0-2) as follows.

Responsiveness contained 5 items of behavior.

	2	1	0
1. Eye contact			
2. Talking at the same time as partner			
3. Interrupting while partner is talking			
4. Responding to and acknowledging partner's comment			
5. Consistently responsive to partners' conversation			

Intimacy contained 4 items of behaviors.

	2	1	0
1. Discussion about the self's thoughts and/or feelings with partner			
2. Discussion about another's thoughts and/or feelings with partner			
3. Discussion about the self's character trait to partner			
4. Discussion about another's character trait to partner			

Criticism of Partner contained 2 items of behaviors.

Negative evaluation of partner	2	1	0
1. Intense negative evaluation of partner			
2. Continual negative evaluation of partner			

3. The score criteria were set up from pilot study data. 15 best peer dyads (5 = secure-secure, 5 = secure-insecure, 5 = insecure-insecure) were scored from videotape (see table A-1, A-2, A-3).

Responsiveness

Item 1. *Eye contact* was scored on duration (minutes).

Item 2. *Talking at the same time as the partner* was scored on frequency (times).

Item 3. *Interrupting while partner is talking* was scored on frequency (times).

Item 4. *Responding to and acknowledging partner's comments* were scored on frequency (times).

Item 5. *Partners' conversation consistently responsive* was scored on duration (minutes).

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Table A-1 Peer Relationship Score of Best Peer Dyads on Responsiveness.

attachment base	item dyad	responsiveness scores				
		1 minutes(score)	2 times (score)	3 times (score)	4 times (score)	5 minutes(score)
secure-secure dyads	1	9.13 (2)	0 (2)	0 (2)	31 (2)	0.27 (2)
	2	8.67 (2)	1 (2)	0 (2)	22 (2)	1.18 (2)
	3	8.35 (2)	1 (2)	1 (2)	28 (2)	1.79 (2)
	4	6.62 (2)	2 (2)	2 (2)	30 (2)	2.33 (2)
	5	7.03 (2)	0 (2)	4 (1)	18 (1)	3.48 (1)
secure-insecure dyads	6	3.05 (1)	3 (1)	3 (1)	15 (1)	0.95 (2)
	7	4.01 (1)	0 (2)	0 (2)	11 (1)	2.66 (2)
	8	3.26 (1)	1 (2)	3 (1)	13 (1)	3.34 (1)
	9	2.87 (0)	5 (1)	5 (1)	23 (2)	4.68 (1)
	10	1.55 (0)	4 (1)	6 (1)	8 (0)	4.35 (1)
insecure-insecure dyads	11	3.32 (1)	8 (0)	2 (2)	16 (1)	3.63 (1)
	12	2.81 (0)	7 (0)	8 (0)	13 (1)	4.45 (1)
	13	1.77 (0)	1 (2)	7 (0)	5 (0)	4.72 (1)
	14	1.29 (0)	5 (1)	8 (0)	4 (0)	5.02 (0)
	15	1.33 (0)	9 (0)	21 (0)	1 (0)	5.45 (0)
	minimum	1.33	0	0	1	0.27
	maximum	9.13	9	21	31	5.45
	mean	4.3	3.13	4.67	15.87	3.22

The criteria were set from above data as follows.

Scoring criteria for each item.

1. Eye contact

0 = a girl has no eye contact or she has eye contact with her partner for less than 3 out of 10 minutes of conversation period.

1 = a girl has eye contact with her partner for between 3-5 out of 10 minutes of conversation period.

2 = a girl has eye contact with her partner for more than 5 out of 10 minutes of conversation period.

2. Talking at the same time as the partner begin to talk

0 = a girl talks at the same time as the partners talk over each other all the time or more than 5 times in 10 minutes of conversation period.

1 = a girl talks at the same time as the partners talk over each other between 3-5 times in 10 minutes of conversation period.

2 = a girl never talks at the same time as the partner, or she talks at the same time as her partner or the partners talk over each other less than 3 times in 10 minutes of conversation period.

3. Interrupting while partner is talking

0 = a girl interrupts while her partner is talking all the time or more than 5 times in 10 minutes of conversation period.

1 = a girl interrupts while her partner is talking between 3-5 times in 10 minutes of conversation period.

2 = a girl never interrupts while her partner is talking or less than 3 times in 10 minutes of conversation period.

4. *Responding to and acknowledging partner's comment.* For example, to give a nod and/or say "yes" "I accept" "I think so"

0 = a girl performs acceptance behavior and/or performs acceptance behavior with her partner less than 10 times in 10 minutes of conversation period.

1 = a girl performs acceptance behavior with her partner between 10-20 times in 10 minutes of conversation period.

2 = a girl performs acceptance behavior with her partner more than 20 times in 10 minutes of conversation period.

5. *Consistently responsive to partners' conversation*

0 = conversation breakdowns occur because the girl's partner is not consistently responsive for more than 5 out of 10 minutes of conversation period.

1 = conversation breakdowns occur because the girl's partner is not consistently responsive for between 3-5 out of 10 minutes of conversation period.

2 = conversation breakdowns occur because the girl's partner is not consistently responsive for less than 3 out of 10 minutes of conversation period.

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Intimacy

The criteria of each item were set from Kerns' definition of peers' interaction. All items were scored qualitatively.

Table A-2 Peer Relationship Score of Best Peer Dyads on Intimacy.

attachment base	item dyad	intimacy scores			
		1 score	2 score	3 score	4 score
secure-secure dyads	1	2	0	2	1
	2	2	1	2	1
	3	1	1	2	2
	4	1	0	2	1
	5	2	0	1	0
secure-insecure dyads	6	2	0	2	1
	7	2	1	2	1
	8	1	1	2	2
	9	1	1	1	2
	10	1	2	2	2
insecure-insecure dyads	11	1	2	1	2
	12	1	2	1	2
	13	1	1	2	2
	14	2	2	1	2
	15	1	1	1	1
	minimum	1	0	1	0
	maximum	2	2	2	2
	mean	1.4	1	1.6	1.47

The criteria were set from above data as follows.

Scoring criteria for each item.

1. Discussion about the self's thoughts and/or feelings with partner.

0 = a girl does not talk about or avoids talking the topic.

1 = a girl talks about her general thoughts and feelings other than exchange of factual information and/or superficial revelation about the self. Example, "I think so" "He is a good athlete"

2 = a girl gives details about her thoughts and feelings or secret events of a personal nature and/or compromising to the individual. Example, "I think he is a good man. I like him so much." "Don't tell anyone that I hate him." "I think you should be reconciled."

2. Discussion about another's thoughts and/or feelings with partner.

0 = a girl does not talk about or avoids talking about the topic.

1 = a girl talks about general thoughts and feelings about another person that do not effect another one. Example, "He told me that he was very glad because he passed the examination."

2 = a girl gives details about thoughts and feelings or secret events of a personal nature and/or compromising to the individual. Example, "He forbade me to tell anybody that he doesn't like his teacher."

3. Discussion about the self's character traits with partner.

0 = a girl does not talk about or avoids talking about the topic.

1 = a girl may mention her character traits but without elaboration about general thoughts and feelings about self that do not effect another one. Example, "I like to play guitar." "I watch television every day."

2 = a girl gives details about her character traits to her partner or elaborates her traits supported by stories. Example, "I am very jealous and I used to pinch my sister."

4. *Discussion about another's character traits with partner.*

0 = a girl does not talk about or avoid talking about the topic.

1 = a girl talks generally about another's character traits that do not effect another one. Example, "He likes to play football." "She likes blue."

2 = a girl gives details about another's character traits or elaborates the character traits of another supported by stories. Example, "She is a bad person because she always hits our friend on the head."

Criticism of Partner

Item 1. *Intense negative evaluation of partner* was scored qualitatively.

Item 2. *Continual negative evaluation of partner* was scored on duration (minutes).



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Table A-3 Peer Relationship Score of Best Peer Dyads on Criticism of Partner.

attachment base	item dyad	Criticism of Partner scores	
		1 score(qualitative)	2 minutes (score)
secure-secure dyads	1	0	0.23 (0)
	2	0	0.08 (0)
	3	0	0.57 (0)
	4	0	0.28 (0)
	5	0	0.66 (0)
secure-insecure dyads	6	1	0.13 (0)
	7	0	2.29 (0)
	8	0	0.98 (0)
	9	2	0.23 (0)
	10	0	0.88 (0)
insecure-insecure dyads	11	0	0.15 (0)
	12	0	0.87 (0)
	13	2	0.52 (0)
	14	2	1.02 (0)
	15	1	0.56 (0)
	minimum	0	0.08
	maximum	2	2.29
	mean	0.53	0.63

The criteria were set from above data as follows.

Scoring criteria for each item.

1. Intense negative evaluation of partner

0 = a girl has no or few comments of low intensity and very little explicit criticism

1 = a girl talks with negative evaluation of partner using language of low intensity. Example, "You should not say that." "I don't like your hair today."

2 = a girl talks with negative evaluation of partner using language of high intensity or vulgar language. Example, "You are worse than her; I can not stand your behavior." "How ugly you are."

2. Continual negative evaluation of partner

0 = a girl does not talk or talks with negative evaluation of another for less than 3 out of in 10 minutes of conversation period.

1 = negative evaluation of partner between 3-5 out of in 10 minutes of conversation period.

2 = negative evaluation of partner all the time or for more than 5 out of 10 minutes of conversation period.

4. A behavioral observer specialist and two developmental psychologists were consulted about the criteria. They suggested that the researcher should try these criteria out with stranger dyads. Five stranger dyads were scored from videotape (see table B-1, B-2, B-3).

Responsiveness

Table B-1 Peer Relationship Score of Stranger Dyads on Responsiveness.

item dyad	responsiveness scores				
	1 minutes(score)	2 times (score)	3 times (score)	4 times (score)	5 minutes(score)
1	1.03 (0)	1 (2)	0 (2)	0 (0)	8.11 (0)
2	0.56 (0)	2 (2)	1 (2)	1 (0)	8.08 (0)
3	2.11 (0)	2 (2)	1 (2)	5 (0)	5.41 (0)
4	3.67 (1)	3 (1)	2 (2)	3 (0)	3.38 (1)
5	2.23 (0)	2 (2)	0 (2)	1 (0)	5.32 (0)
minimum	0.56	1	0	0	3.38
maximum	3.67	3	2	5	8.11
mean	1.92	2	0.8	2	6.06

Intimacy

Table B-2 Peer Relationship Score of Stranger Dyads on Intimacy.

item dyad	intimacy scores			
	1 score	2 score	3 score	4 score
1	0	0	0	0
2	1	0	1	0
3	0	0	1	0
4	1	0	1	1
5	0	0	0	0
minimum	0	0	0	0
maximum	1	0	1	1
mean	0.4	0	0.6	0.2

Criticism of Partner

Table B-3 Peer Relationship Score of Stranger Dyads on Criticism of partner.

item dyad	criticism scores	
	1 score (qualitative)	2 minutes(score)
1	1	0.89 (0)
2	0	0.17 (0)
3	0	0.63 (0)
4	1	0.22 (0)
5	0	0.25 (0)
minimum	0	0.17
maximum	1	0.89
mean	0.4	0.432

Generally, the data revealed that the stranger dyads scored 0. However, item 2 (talking at the same time as partner and item 3 (interrupting while partner is talking) on responsiveness were scored to be 2 because the children often did not talk or their conversation was inconsistent.

5. A behavioral observer specialist and two developmental psychologists were consulted again and they agreed with these criteria.

For reliability, the behavior coding of peer interaction was carefully studied by the researcher and assistant researchers during the practice period. Three coders (two coders were blind to information about children's attachment status) viewed the tape once before coding peer interaction. 5 best peer dyads from the pilot study were used in the practice period. All coders scored independently. 10 best peer dyads from the pilot study were used for reliability. Observer agreement between coder 1 (researcher) and coder 2 was assessed as follows: responsiveness = .90, intimacy = .82, Criticism =

.86, and observer agreement between coder 1 (researcher) and coder 3 was assessed as follows: responsiveness = .90, intimacy = .80, Criticism = .83. Cronbach's alphas were computed to assess the reliability of coders' averaged ratings for each of the categories as follows: responsiveness = .93, intimacy = .83, criticism = .85.

Behavioral Coding of Peer Relationship

Each best peer dyad received a peer interaction score for each of the following categories: responsiveness, intimacy, and criticism. Each category was scored as follows.

Responsiveness refers to the degree to which partners attended to, acknowledged, and responded to one another's social cues. This category contained 5 items of behavior. The score for each item ranged from 0-2.

Scoring criteria for each item.

1. *Eye contact*

0 = a girl has no eye contact or she has eye contact with her partner for less than 3 out of 10 minutes of conversation period.

1 = a girl has eye contact with her partner for between 3-5 out of 10 minutes of conversation period.

2 = a girl has eye contact with her partner for more than 5 out of 10 minutes of conversation period.

2. *Talking at the same time as the partner begin to talk*

0 = a girl talks at the same time as the partners talk over each other all the time or more than 5 times in 10 minutes of conversation period.

1 = a girl talks at the same time as the partners talk over each other between 3-5 times in 10 minutes of conversation period.

2 = a girl never talks at the same time as the partner, or she talks at the same time as her partner or the partners talk over each other less than 3 times in 10 minutes of conversation period.

3. *Interrupting while partner is talking*

0 = a girl interrupts while her partner is talking all the time or more than 5 times in 10 minutes of conversation period.

1 = a girl interrupts while her partner is talking between 3-5 times in 10 minutes of conversation period.

2 = a girl never interrupts while her partner is talking or less than 3 times in 10 minutes of conversation period.

4. *Responding to and acknowledging partner's comment.* For example, to give a nod and/or say "yes" "I accept" "I think so"

0 = a girl performs acceptance behavior and/or performs acceptance behavior with her partner less than 10 times in 10 minutes of conversation period.

1 = a girl performs acceptance behavior with her partner between 10-20 times in 10 minutes of conversation period.

2 = a girl performs acceptance behavior with her partner more than 20 times in 10 minutes of conversation period.

5. *Partners' conversation consistently responsive*

0 = conversation breakdowns occur because the girl's partner is not consistently responsive for more than 5 out of 10 minutes of conversation period.

1 = conversation breakdowns occur because the girl's partner is not consistently responsive for between 3-5 out of 10 minutes of conversation period.

2 = conversation breakdowns occur because the girl's partner is not consistently responsive for less than 3 out of 10 minutes of conversation period.

Responsiveness Score (R-score)

The score for each item for each individual girl was added up as a score for responsiveness (R-score). The individual child's R-score ranged from 0-10. The R-score was interpreted according to Kerns' definition as follows.

0-3 = Low responsiveness refers to children ignoring and/or interrupting when their partner talks. They are not responsive or attend to their partner. Moreover, they often talk at the same time or talking over each other. Therefore, conversation breakdowns occur.

4-6 = Moderate responsiveness refers to children who are generally affective and responsive. Conversation breakdowns may occur because partners are sometimes not responsive, but there is little or no impact on conversation and partners still talk continually.

7-10 = High responsiveness refers to children who are extremely responsive and attentive without ignoring their partner. Partners perform acceptance behavior to each other; respond to and acknowledge their partner's comments; and keep good eye contact. Moreover, they can encourage smooth and continuous conversation.

The R-score of each girl in each peer dyad was added and averaged as an R-score of the peer dyad.

Intimacy refers to information sharing about the self or another topic of a personal or private nature. This category contained 4 items of behavior. The score for each item ranged from 0-2.

Scoring criteria for each item.

1. *Discussion about the self's thoughts and/or feelings with partner.*

0 = a girl does not talk about or avoids talking the topic.

1 = a girl talks about her general thoughts and feelings other than exchange of factual information and/or superficial revelation about the self. Example, "I think so" "He is a good athlete"

2 = a girl gives details about her thoughts and feelings or secret events of a personal nature and/or compromising to the individual. Example, "I think he is a good man. I like him so much." "Don't tell anyone that I hate him." "I think you should be reconciled."

2. Discussion about another's thoughts and/or feelings with partner.

0 = a girl does not talk about or avoids talking about the topic.

1 = a girl talks about general thoughts and feelings about another person that do not effect another one. Example, "He told me that he was very glad because he passed the examination."

2 = a girl gives details about thoughts and feelings or secret events of a personal nature and/or compromising to the individual. Example, "He forbade me to tell anybody that he doesn't like his teacher."

3. Discussion about the self's character traits with partner.

0 = a girl does not talk about or avoids talking about the topic.

1 = a girl may mention her character traits but without elaboration about general thoughts and feelings about self that do not effect another one. Example, "I like to play guitar." "I watch television every day."

2 = a girl gives details about her character traits to her partner or elaborates her traits supported by stories. Example, "I am very jealous and I used to pinch my sister."

4. *Discussion about another's character traits with partner.*

0 = a girl does not talk about or avoid talking about the topic.

1 = a girl talks generally about another's character traits that do not effect another one. Example, "He likes to play football." "She likes blue."

2 = a girl gives details about another's character traits or elaborates the character traits of another supported by stories. Example, "She is a bad person because she always hits our friend on the head."

Intimacy Score (I-score)

The score of each item for each individual girl was added up as a score for intimacy (I-score). The individual I-score ranged from 0-8. The I-score was interpreted according to Kerns' definition as follows.

0-2 = Low intimacy refers to little or no disclosure because children don't talk about their thoughts, feelings, events of a personal nature or avoidance of the topic. Moreover, they only talk about factual information.

3-5 = Moderate intimacy refers to children who sometimes talk about their thoughts, feelings, events of a personal nature, character traits of individuals but don't give more details or talk about an explicit secret.

6-8 = High intimacy refers to children who discuss thoughts, feelings, events of a personal nature, character traits of individuals, or implicit secrets. This includes talk of jealousy, envy, or embarrassment as well as discussion of information that could compromise the individual.

The I-score of each girl in each peer dyad was added up and averaged as the I-score of the peer dyad.

Criticism of Partner referred to negative evaluation of the partner but not self. This category contained 4 items of behavior. The score for each item ranged from 0-2.

Scoring criteria for each item.

Negative evaluation of partner

1. *Intense negative evaluation of partner*

0 = a girl has no or few comments of low intensity and very little explicit criticism

1 = a girl talks with negative evaluation of partner using language of low intensity. Example, "You should not say that." "I don't like your hair today."

2 = a girl talks with negative evaluation of partner using language of high intensity or vulgar language. Example, "You are worse than her; I can not stand your behavior." "How ugly you are."

2. *Continual negative evaluation of partner*

0 = a girl does not talk or talks with negative evaluation of another for less than 3 out of in 10 minutes of conversation period.

1 = negative evaluation of partner between 3-5 out of in 10 minutes of conversation period.

2 = negative evaluation of partner all the time or for more than 5 out of 10 minutes of conversation period.

Criticism of Partner Score (C-score)

The score of each item of individual girl was added up as a score for criticism of partner (C-score). The individual C-score ranged from 0-4. The C-score was interpreted according to Kerns' definition as follows.

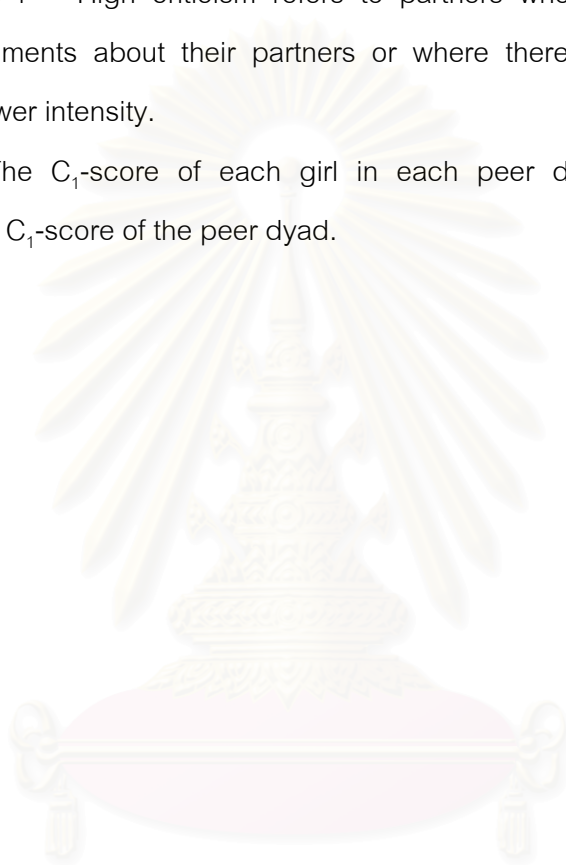
Negative evaluation of partners (C₁-score)

0-1 = Low criticism refers to no or few comments of low intensity and very little explicit criticism of their partner.

2 = Moderate criticism refers to partners who utter some criticism of each other. Sometimes they comment on their partners intensely but not continually or sometimes they comment on their partners not intensely but continually.

3-4 = High criticism refers to partners who utter intense, hostile, or derogatory comments about their partners or where there is a constant stream of complaints of lower intensity.

The C_1 -score of each girl in each peer dyad was added up and averaged as the C_1 -score of the peer dyad.



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Appendix D
Criticism of Another Person

The Criticism of Another Person Instrument

Negative evaluation of another person	2	1	0
1.Intense negative evaluation of another			
2.Continual negative evaluation of another			

C₂-score (Total)...

Table D-1 Results of One Way ANOVAs

Behavioral Coding	df	ss	ms	F
Criticism of another person				
Between groups	2	10.369	5.184	5.847 
Error	75	66.503	0.887	
Total	77	76.872		

* $p < .01$

The results revealed that there were significant differences among the three peer dyads on criticism of another children, $F(2,75) = 4.93$, $p < .01$.

Table D-2 Mean Score and Standard Deviation of Criticism of Another Person for Each of the Attachment Group

Interaction Variables	Attachment group					
	S-S		S-I		I-I	
	M	SD	M	SD	M	SD
Criticism of another person	1.86 ^a	(0.85)	2.50 ^{a,b}	(1.00)	2.65 ^b	(1.03)

Note S-S = Secure-Secure Group; S-I = Secure- Insecure Group; I-I = Insecure-Insecure Group. Mean scores with different notation (a, b, and c) are significantly different at $p < .05$.

Table D-3 Individual Score of Criticism of Another Person for 6 Subgroups

Interaction Variable	Attachment group					
	S-S		S-I		I-I	
	secure	secure	secure	insecure	insecure	insecure
Criticism of another person	3	3	0	4	2	4
	2	2	2	4	1	3
	3	3	3	3	4	4
	1	1	2	2	3	1
	2	0	4	4	3	3
	2	0	1	3	2	4
	1	3	0	4	4	0
	3	1	2	4	4	4
	2	4	3	3	2	0
	1	1	2	0	3	3
	4	4	3	3	0	4
	2	2	3	3	3	3
	3	3	2	2	2	2
	1	3	1	1	2	4
	2	2	1	1	1	1
	2	0	1	1	1	3
	2	0	3	3	4	4
	4	0	4	4	2	0
	3	1	2	4	1	3
	2	2	4	4	4	0
	1	1			4	4
	1	3			4	4
	1	1			4	4
	2	2				
	0	2				
	0	2				
	1	1				
	2	2				
1	1					

Interaction Variable	Attachment group					
	S-S		S-I		I-I	
	secure	secure	secure	insecure	insecure	insecure
Criticism of another person	3	1				
	1	1				
	3	1				
	4	4				
	1	3				
	2	2				

The Criticism of Another Person Instrument Construct

The Criticism of another person Instrument was set up new criteria from data of two pilot studies (best peer dyads group and stranger dyads group). A behavioral observation specialist and two developmental psychologists were consulted for content validity and the agreement reliability of the 3 coders was used in this study.

The score criteria were set up from pilot study data 15 best peer dyads (5 = secure-secure, 5 = secure-insecure, 5 = insecure-insecure) were scored from videotape (see table D-4).

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Table D-4 Peer Relationship Score of Best Peer Dyads on Criticism of Another Person

attachment base	item dyad	criticism of another person scores	
		1 score (qualitative)	2 minutes(score)
secure-secure dyads	1	0	1.42 (0)
	2	0	1.34 (0)
	3	1	2.55 (0)
	4	0	1.88 (0)
	5	0	2.04 (0)
secure-insecure dyads	6	0	2.95 (0)
	7	1	3.08 (1)
	8	2	4.42 (1)
	9	1	5.67 (2)
	10	0	0.07 (0)
insecure-insecure dyads	11	0	2.84 (0)
	12	1	6.52 (2)
	13	1	7.76 (2)
	14	2	7.89 (2)
	15	0	8.01 (2)
	minimum	0	0.07
	maximum	2	8.01
	mean	0.63	3.9

A behavioral observer specialist and two developmental psychologists were consulted about the criteria. They suggested that the researcher should try these criteria out with stranger dyads. 5 stranger dyads were scored from videotape (see table D-5).

Table D-5 Peer Relationship Score of Stranger Dyads on Criticism of Another Person.

item dyad	criticism of another person scores	
	1 score	2 minutes(score)
1	0	1.02 (0)
2	0	0.68 (0)
3	0	1.75 (0)
4	1	5.53 (1)
5	0	4.89 (1)
minimum	0	0.68
maximum	1	5.53
mean	0.2	2.77

A behavioral observer specialist and two developmental psychologists were consulted again and they agreed with these criteria (see appendix C for reliability).

The criteria were set from above data as follows.

Behavioral coding of criticism of another person

Criticism of Another Person referred to negative evaluation of another person but not self. This category contained 4 items of behavior. The score for each item ranged from 0-2.

Scoring criteria for each item

1. Intense negative evaluation of another

0 = a girl has no or few comments of low intensity and very little explicit criticism.

1 = a girl talks with negative evaluation of another using language of low intensity. Example, "I think he is a bad boy." "She is selfish."

2 = a girl talks with negative evaluation of another in language of high intensity or vulgar language. Example, "I hate her

because she often annoys me. I would like to slap her face.” “She is a bitch.”

2. Continual negative evaluation of another

0 = a girl does not negatively evaluate or negatively evaluates another for less than 3 out of 10 minutes of conversation period.

1 = a girl talks with negative evaluation of another between 3-5 out of 10 minutes of conversation period.

2 = a girl talks with negative evaluation of another all the time or for more than 5 out of 10 minutes of conversation period.

Criticism of Another Person Score (C₂-score)

0-1 = Low criticism refers to no or few comments of low intensity and very little explicit criticism of another person.

2 = Moderate criticism refers to children who have some criticism. Sometimes they comment on another person intensely but not continually or sometimes they comment on another person not intensely but continually.

3-4 = High criticism refers to children who utter intense, hostile, or derogatory comments about another person or where there is a constant stream of complaints of lower intensity.

The C₂-score of each girl in each peer dyad was added up and averaged as the C₂-score of the peer dyad.

Appendix E

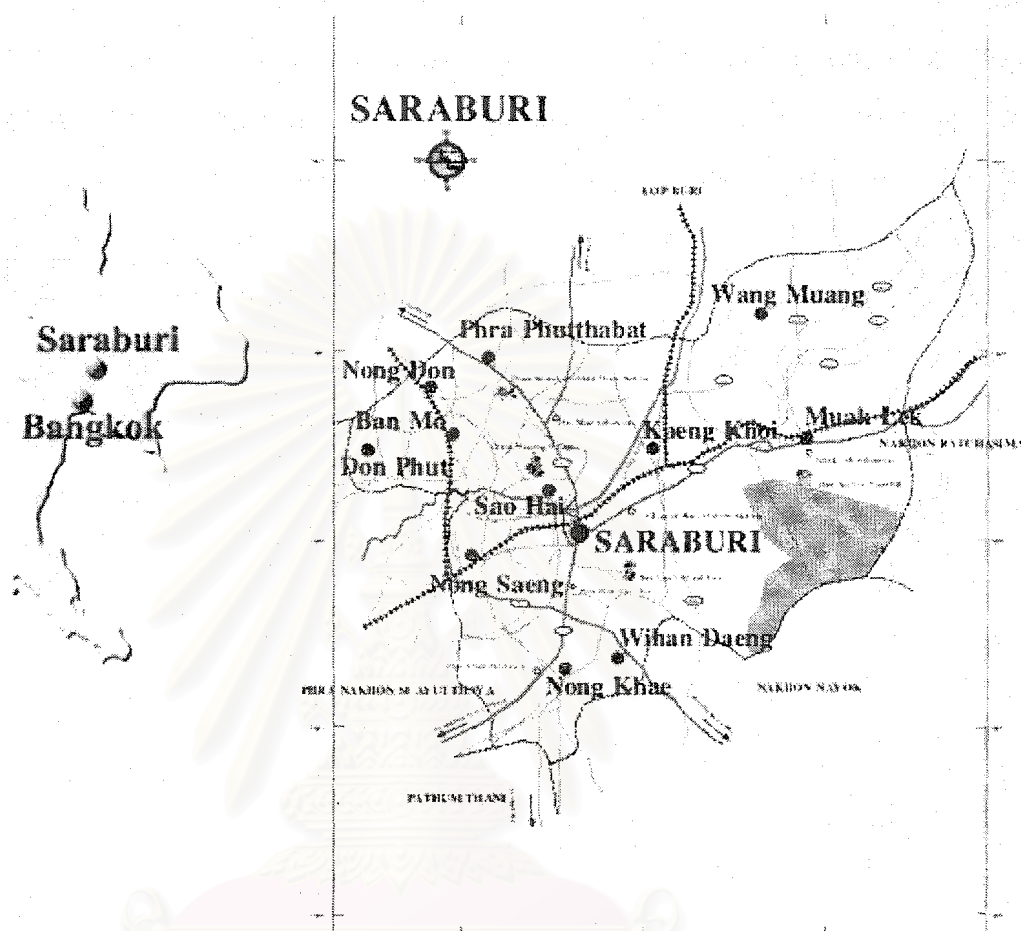
History of Saraburi province, Thailand

Saraburi is a province in the upper central region of Thailand. From Bangkok, take Highway No.1 (Phahonyothin Road) to Saraburi. The total distance is 108 kilometers and 65 kilometers from Ayuthaya by car. The trip takes approximately 2 hours.

Topographically the southern and western parts of Saraburi are plateaus 2 meters above sea level. Ranging from plains to plateaus of 8 to 10 meters high above sea level broken by mounds and hills, the land gradually rises to the north and the northeast. Saraburi is on the one very important river: the Pasak River which flows through Amphoe Muak-lek, Kaengkoi, Muang Saraburi, and Saohai and meets the Chao Phraya River at Ayuthaya. Its length is 105 kilometers. Saraburi extends over an area of 3,576.48 square kilometers and is administratively divided into 11 districts (Amphoe): Muang Saraburi, Kaengkoi, /nongkhae, Nongsaeng, Banmo, Saohai, Phra Phutthabat, Wihandaeng, Muak-lek, Nongdon, Donphut and Chalearm Prakaerd.

The occupations of the most people are agriculture (i.e. plaining rice, corn, mango, and groundnut), breeding animals (i.e. cows, pig), industry (i.e. semen works, iron works, stone crushing mill, lime work, and marble factory). However, in municipal limits, there are a lot of people works in the government official, the state enterprise official and have a personal business.

Map of Saraburi



Participants in this study came from both schools in urban and (municipal limits) and rural areas (out of municipal limits) in Saraburi province as follows.

Urban schools: - Anuban Saraburi

- Anuban Saladaeng

- Rasseuksa

Rural schools: - Anuban Saohai

- Anuban Wat Praputtabath

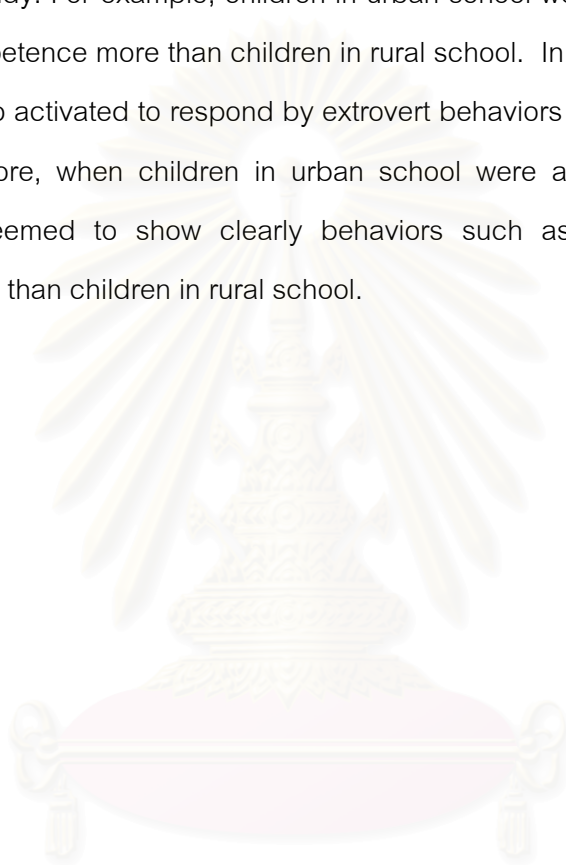
- Anuban Tub Kwang

- Anuban Muak-lek

- Naphralan

- Hinkong
- Ban Park Kawsarn

There were some differences between urban and rural children that may influence the study. For example, children in urban school were received opportunity to show their competence more than children in rural school. In addition, children in urban school were also activated to respond by extrovert behaviors more than children in rural school. Therefore, when children in urban school were asked to discuss peers at school, they seemed to show clearly behaviors such as they spoke louder and continually more than children in rural school.



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Biography

Miss Piyawan Tongasuk was born on May 23, 1975 in Saraburi province, Thailand. She graduated primary level from Anuban Saraburi school in 1986 and graduated lower and upper secondary level from Saraburi Witthayakhom school in 1993. Afterward, She graduated with a bachelor's Degree of Education from Department of Secondary-Science Education, Faculty of Education at Chulalongkorn University in 1997.



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