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ATTACHMENT SECURITY AND MENTAL STATE TALK AMONG MOTHER-
FATHER-CHILD TRIADS

Nehir CANTAŞ

114639006

Sibel HALFON, PhD Faculty Member

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FATHER-CHILD TRIADS

ANNE-BABA VE ÇOCUKLAR ARASINDAKİ BAĞLANMA GÜVENLİĞİ VE
ZİHİN DURUM KONUŞMALARI

Nehir Cantaş
114639006

Tez Danışmanı:

Dr. Öğr. Üyesi Sibel Halfon
İstanbul Bilgi Üniversitesi

: 

Jüri Üyeleri:

Dr. Öğr. Üyesi Elif Akdağ Göçek
İstanbul Bilgi Üniversitesi

: 

Dr. Öğr. Üyesi Hale Ögel Balaban
Işık Üniversitesi

: 

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TABLE OF CONTENTS

Title Page	i
Approval	ii
Acknowledgements.....	iii
List of Tables	vii
Abstract.....	viii
Özet.....	x
Introduction.....	1
1.1 Attachment Theory	2
1.2 Infant Attachment Patterns	3
1.3 Adult Attachment Patterns.....	5
1.4 Intergenerational Transmission of Attachment	7
1.5 The Development of Mentalizing Capacity.....	9
1.6 Failures in Affect Mirroring and Psychopathology	12
1.7 Empirical Literature on Mentalization	12
1.7.1 Reflective Function Scale	13
1.7.2 Mind-Mindedness	16
1.7.3 Parental Insightfulness.....	19
1.7.4 Mental State Talk in Narratives.....	20
1.7.5 Fathers in Attachment and Mentalization Literature	26
1.8 Turkish Language and Culture	30
1.9 Purpose of The Study	31
Method	33
2.1 Participants	33
2.2 Measures	33
2.2.1 Attachment Doll Story Completion Task (ASCT)	33
2.2.2 The Coding System for Mental State Talk in Narratives (CS-MST) ...	36
2.2.3 Turkish Expressive and Receptive Language Test (TİFALDİ).....	38
2.3 Procedure	39
Results	41

3.1 Data Analysis	41
3.2 Descriptive Analysis	42
3.3 Hypothesis Testing	51
Discussion	53
4.1 Associations Between Child Attachment Security and Mental State Talk .	54
4.2 Associations Between Child Attachment Security and Mothers' Mental State Talk.....	56
4.3 Associations Between Child Attachment Security and Fathers' Mental State Talk.....	58
4.4 Associations Between Children's Mental State Talk and Mothers' Mental State Talk.....	61
4.5 Associations Between Children's Mental State Talk and Fathers' Mental State Talk.....	67
4.6 Clinical Implications.....	70
4.7 Limitations and Future Research	72
4.8 Conclusions	74
REFERENCES	75
APPENDIX.....	88

List of Tables

1. Coding Structure of The Coding System for Mental State Talk in Narratives (CS-MST).....	41
2. Descriptive Statistics for Children’s Secure Rating of Attachment Story Completion Task and Mental State Talk Variables.....	46
3. Descriptive Statistics for Mother’s Mental State Talk Variables.....	47
4. Descriptive Statistics for Father’s Mental State Talk Variables.....	48
5. Percentage of Mental State Talk Sub-Categories Among Three Main Mental State Clusters for Mothers.....	49
6. Percentage of Mental State Talk Sub-Categories Among Three Main Mental State Clusters for Fathers.....	49
7. Percentage of Mental State Talk Sub-Categories Among Three Main Mental State Clusters for Children.....	50
8. Five Most Frequently Used Words Within Self-Related and Other-Related Mental State Talk Clusters for Mothers and Fathers.....	51
9. Five Most Frequently Used Words Within Story-Related Mental State Talk Cluster for Children.....	52
10. Pearson Correlation Between Demographic Variables and Measures.....	53

ABSTRACT

Mentalization refers to the capacity to understand one's own and other's mind in terms of mental states (Slade, 2005) and this capacity develops within the context of secure attachment relationship (Fonagy, Gergely, Jurist, & Target, 2002). The aims of the study were to explore the relationship between (1) child attachment security and child mental state talk, (2) child attachment security and parental mental state talk and (3) child mental state talk and parental mental state talk. Mental state talk in this study was used to assess mentalization capacity and was defined as utterances of five categories of mental state words (i.e. emotion, cognition, perception, physiological and action-based) and was assessed depending on their direction (play, self and other-related) and their opacity referring to the ambiguous nature of mental states. Participants were a clinical sample of 60 motherfather-child triads, 22 mother-child and 3 father-child dyads. The children were aged between 3 to 10. The attachment security was assessed with Attachment Doll Story Completion Task (ASCT; Granot & Mayseless, 2001) and the mental state talk was assessed with The Coding System for Mental State Talk in Narratives (CSMST; Bekar, Steele & Steele, 2014). Regarding the link between attachment security and mental state talk, a significant positive relationship was found between child attachment security and child mental state talk; child attachment security and mothers' references to themselves in general and fathers' references to action-based mental state words in general. Regarding the link between child mental state talk and parental mental state talk, a significant positive relationship was found between children's mental state talk and mothers' references to themselves in general and particularly the use of cognitive words and children's references to cognitive states and mothers' *opacity* of mental state talk, while a significant negative relationship was found between children's mental state talk and mothers' references to children's mind in general. With fathers a significant positive relationship was found between children's *opacity* of mental state talk and fathers' emotion words in reference to themselves, while a significant negative relationship was found between children's mental state talk and fathers' emotion words in reference to their children. The findings suggest that, mother and father-infant relationships might

involve different quality of experiences that result in different influences on children's attachment security and mentalization capacity. Also, for both mothers and fathers, self-mentalization capacity might be suggested as being more important for children's mentalization development.

ÖZET

Zihinselleştirme, kişinin kendinin ve karşısındakinin zihnini, zihinsel durumlar açısından anlayabilme kapasitesini ifade eder (Slade, 2005) ve bu kapasite, güvenli bağlanma ilişkisi bağlamında gelişir (Fonagy, Gergely, Jurist & Target, 2002). Bu çalışma, çocukların bağlanma güvenliği ile zihinselleştirme kapasitesi; çocukların bağlanma güvenliği ile ebeveynlerinin zihinselleştirme kapasitesi ve çocuklar ve ebeveynlerinin zihinselleştirme kapasitesi arasındaki ilişkiyi araştırmayı hedeflemiştir. Zihinselleştirme kapasitesi bu çalışmada zihin durum sözcüklerinin sayısı, çeşidi (örn. duygu, biliş, algı, fizyolojik, eylem-temelli), yönü (hikayeye, kendine ve diğer kişiye-yönelik) ve opaklığı (zihin durumları ile ilgili alan yaratan kelimeler) üzerinden araştırılmıştır. Katılımcılar 60 anne-babaçocuk üçlüsü, 22 anne-çocuk ve 3 baba-çocuk ikilisinden oluşan klinik bir gruptur. Çocuklar 3 ile 10 yaş aralığındadır. Güvenli bağlanma Çocuklarda

Güvenli Yer Senaryolarının Değerlendirilmesi (ASCT; Granot & Mayseless, 2001) ile; zihinselleştirme kapasitesi ise Anlatılardaki Zihin Durumlarını Kodlama Sistemi (CS-MST; Bekar, Steele & Steele, 2014) ile değerlendirilmiştir.

Bağlanma güvenliği ile zihinselleştirme kapasitesi arasındaki bağlantıya ilişkin olarak; çocukların bağlanma güvenliği ile çocukların zihin durum sözcükleri, çocukların bağlanma güvenliği ile annelerin kendilerine yönelik zihin durum sözcükleri ve babaların toplam eylem temelli zihinsel durum sözcükleri arasında anlamlı pozitif bir ilişki bulunmuştur. Çocuklar ve ebeveynlerinin zihinselleştirme kapasitesi arasındaki bağlantıya ilişkin olarak, çocukların zihin durum sözcükleri ile annelerin kendilerine-yönelik genel, özellikle de bilişsel zihinsel durum konuşması arasında, aynı zamanda çocukların bilişsel zihin durum konuşması ve annelerin zihin durum konuşma konusundaki opaklığı arasında anlamlı pozitif bir ilişki; çocukların zihin durum sözcükleri ile annelerin diğer kişilere-yönelik zihin durum sözcükleri arasında ise anlamlı negatif bir ilişki bulunmuştur. Çocuklar ile babalarının zihinselleştirme kapasitesi arasındaki ilişkiye bakıldığında ise çocukların zihin durum konuşma konusundaki opaklığı ile babaların kendilerineyönelik zihin durum sözcükleri arasında anlamlı pozitif bir ilişki bulunurken, çocukların zihin durum sözcükleri ile babaların diğer kişilere-yönelik

zihin durum sözcükleri arasında ise anlamlı negatif bir ilişki bulunmuştur. Bulgular, anneçocuk ve baba-çocuk ilişkilerinin, çocukların bağlanma güvenliği ve zihinselleştirme kapasitesi üzerinde farklı etkilere yol açan farklı deneyimler içerebileceğini göstermektedir. Ayrıca, hem annelerim hem de babaların, kendilerine yönelik zihinselleştirme kapasitelerinin, çocukların zihinselleştirme kapasitesinin gelişiminde daha önemli olduğu düşünülebilir.

Chapter 1

Introduction

"Attachment refers to an affectional tie that one person forms to another specific individual" (Ainsworth, 1969, p.971). Attachment theory explains, how the relationship between the caregiver and the infant develops and how this specific relationship effects the later development. Through the experiences of this early attachment relationship, one forms internal working models, which are the representations of the self and the other. These internal working models, provide a base for the infant on current and future thoughts, decisions and a prototype for future relationships. Many studies on the attachment field have indicated a relationship between caregiver attachment security and infant attachment security. The intergenerational transmission of attachment theory (Main, Kaplan & Cassidy, 1985) proposes that a caregiver's attachment security has an impact on the infant's attachment to the caregiver.

Fonagy and his colleagues (1995) suggested that formation and transmission of a secure attachment relationship should include the concept of mentalization, which is the ability to understand one's self and others in terms of mental processes such as needs, desires, feelings and beliefs. Infants are not born with the capacity to mentalize and this capacity is acquired through the attachment relationship with the caregiver. The development of the mentalizing capacity begins with the caregiver's capacity to see her child as a separate mind and hold in her mind the representations of her child's feelings, desires etc. The understanding of self-states is then acquired by the help of reflections the caregivers make on infant affective states such as parental affect mirroring (Gergely & Watson, 1996). This "capacity is a key determinant of a psychological sense of self" (Fonagy, Gergely, et al., 2002). Mentalization is an important factor in the transmission of attachment security because caregiver's mentalizing capacity helps him/her to function as a secure base for the infant.

The aim of this study is to observe and to analyze the relationship between child attachment, mentalization and parental mentalization in mother-father-child

triads. There are many studies revealing a strong relationship between attachment security and mentalization capacity in the parent-infant relationship (Fonagy, Redfern, & Charman, 1997; Meins, 1997; Oppenheim & Koren-Karie, 2002; Cicchetti & Barnett, 1991). However, many of these researches in the field studied the transmission of attachment and mentalization with infancy age children and with mothers. The aim of this study is to provide an assessment of this relationship, between mother-father-child triads with a sample of latency age children.

In the literature review section first, the attachment theory and infant attachment types, the concept of internal working models of attachment, adult attachment types and intergenerational transmission of attachment will be explained. Then, the concept of mentalization, its development in infancy and psychopathologies that can be formed in the absence of mentalizing capacity will be explained. Then the relationship between child attachment and mentalization and mother's mentalization capacity will be discussed by different measures of mentalization such as parental reflective functioning, maternal mind-mindedness, parental insightfulness and mental state talk. Lastly, the different perspectives and studies between child attachment, mentalization and paternal mentalizing capacity will be discussed briefly.

1.1 Attachment Theory

Attachment is the life-sustaining emotional bond between an infant and its primary caregiver. The ideal attachment relationship is formed when the caregiver functions as a stress regulation for the infant, is protective and responsive for the infant for them to form a trusting relationship where the infant feels secure, loved and confident. Through the experiences of this relationship, the infant forms representations of the self and the other, which provides a basis for future experiences and relationships. British psychologist John Bowlby, who originated the attachment theory, describes attachment as:

“A young child's experience of an encouraging, supportive, and cooperative mother, and a little later father, gives him a sense of worth, a belief in the helpfulness of others, and a favorable model on which to build future relationships ... By enabling him to explore his environment with

confidence, and to deal with it effectively, such experience also promotes his sense of competence” (as cited in Bretherton, 2010, p. 13).

To understand the theory of attachment, it is important to overview the progression of this theory from its origins. Before Bowlby’s attachment theory, it was theorized that infants form a close tie to their mother because the mother satisfies the infant’s physiological needs, such as food, and the infant associates this gratification experienced with the mother’s presence. John Bowlby (1944) worked with maladjusted children and concluded that disrupted early childhood experiences could indicate later psychological problems.

1.2 Infant Attachment Patterns

Following the studies of Bowlby, Ainsworth conceptualized the infant attachment patterns and the notion of attachment figure functioning as a secure base for the infant. Ainsworth (1969) developed a laboratory session known as the Strange Situation, which was conducted to study the individual differences in infant-parent attachments during the infants’ 51st week and which is a 20-minute procedure made out of eight episodes where mothers and infants are systematically separated and reunited and the behaviors of the infants are observed.

Majority of the infants, 70%, participated in the research were securely attached. During the procedure, these infants were able to explore the room with interest in presence of their mother. They experienced separation anxiety while the mother left the room. They were friendly towards the stranger in presence of their mother, but showed avoidant behaviors towards the stranger while they were alone in the room. In the reunion part of the procedure, when the mother returned to the room they were happy and seeking proximity with her and they were able to return to exploring their surroundings. These infants seemed more confident that their primary caregiver will be available, they were able to explore novel surroundings and they were easily soothed by their mother in times of distress.

15% of the infants participated in the research had insecure-resistant attachment style. During the procedure, these infants were anxious in the room with their mother and they explored the room a little. They experienced intense separation anxiety while the mother left the room. They avoided or feared the

stranger while they were alone. In the reunion part, they approached the mother, but rejected them when they were engaging and they failed to return to exploration. These infants were unable to form feelings of security towards their mother, they had difficulty exploring novel surroundings and they were difficult to soothe by their mother.

15% of the infants participated in the research had insecure-avoidant attachment style. During the procedure, these children were not oriented toward their mother and they mostly focused on the toys in the room. They showed no sign of separation anxiety when the mother left the room. They showed no sign of stranger anxiety when they were alone in the room and were able to continue to their play in the presence of the stranger. In the reunion part, they didn't show interest to their mother, had little or no proximity seeking and continued focusing on the environment. These children seemed independent from their mother emotionally, they didn't seek any contact with the mother and showed no sign of distress and anger.

Combining the observations in the home and the laboratory setting, Ainsworth concluded that highly sensitive mothers, who can read infant signs and response to them correctly are more likely to have securely attached children. In contrast, mothers who were less sensitive and less responsive to infant signs were likely to have insecurely attached children. The insecure-resistant attached infants are associated with inconsistency in mother's responsiveness while the insecureavoidant attached infants are associated with unresponsiveness in mothers.

Later, Main and Solomon (1990) discovered a fourth disorganized attachment style. These infants showed a mixture of avoidant or resistant organization behaviors or disoriented and contradictory behaviors when they are around their parents such as freezing, helpless withdrawing, dissociation and misdirected movements. Among these infants with disorganized attachment style, 48% of infants were assessed by social services for experiencing abuse or neglect (van IJzendoorn, Schuengel, & Bakermans-Kranenburg, 1999 as cited in Duschinsky, 2015). For the 50-80% of the cases (Lyons-Ruth & Jacobvitz, 1999, as cited in Steele & Steele, 2008) the disorganized attachment in infants is associated with the mothers' history of mental health, drug addiction and unresolved abuse, trauma.

During this period, in his *Separation (1980)* paper, John Bowlby expanded his ideas on internal working models, which are mental representations of interaction patterns that are constructed from the experiences with the attachment figures. Internal working models “serve to regulate, interpret, and predict both the attachment figure’s and the self’s attachment-related behavior, thoughts, and feelings” (Bretherton & Munholland, 1999, p.2).

If the primary caregiver is available for the infant’s needs, the infant develops the internal working model of self as valued and forms an internal working model of a secure attachment relationship. If the primary caregiver is not available or is inconsistent with the availability for the infant’s needs, the infant develops the internal working model of the self as unworthy and forms an internal working model of an insecure attachment relationship.

1.3 Adult Attachment Patterns

While Mary Ainsworth examined attachment on infancy, Mary Main attempted to examine the adult representations of attachment. Mary Main used Adult Attachment Interview (AAI) to assess the attachment representation patterns in adult narratives. The first report of Adult Attachment Interview was “Security in Infancy, Childhood and Adulthood: A Move to the Level of Representation by Main, Kaplan and Cassidy (1985). In this report, they pointed out that prevalent assessment of attachment patterns rely on infant’s nonverbal behaviors toward their caregiver. In contrast, they presented a new representational approach that use representations and language as a tool to assess adult attachment. The Adult Attachment Interview is a 20 question semistructured interview, which includes questions to assess narratives about childhood attachment experiences.

“The Adult Attachment Interview was developed to derive an adult’s overall state of mind with respect to attachment from the coherence of his or her narrative about attachment experiences in the past” (Beijersbergen, 2007, p.11). The coherence of these narratives is important as much as the narrations itself and to assess the coherence in these narrations, Mary Main and R. Goldwyn developed a scale that mainly focuses on discourse. “It was discovered that Main and Goldwyn’s new focus fitted well with the work of the linguistic philosopher Grice (Hesse, 1999)” (Beijersbergen, 2007, p.14). Grice defines discourse as coherent when it

conforms four maxims; quality, quantity, relevance and manner. Quality is to be believable and to have evidence for what you say. Quantity is to give brief yet, complete information. Relevance is to answer the question that is asked and manner is to use a clear language and to give information in an orderly way.

In their first study of AAI, Main, Kaplan and Cassidy (1985) focused on the correlation between parents' attachment representations and infants' Strange Situation classifications. Main and Goldwyn developed a formal coding system for AAI and they revised and adjusted this system by using the SSP classifications of the infants in the study. According to this coding system, individuals were judged as having a secure, insecure-dismissing or insecure-preoccupied attachment representation (Main et al., 2003, as cited in Beijersbergen, 2007).

Secure individuals are able to narrate their experiences objectively. They describe their attachment related experiences in a consistent way whether their experiences are positive or negative. Secure individuals are able to support their experiences with specific examples and they are also characterized by a coherent discourse. Dismissing individuals devalue the importance of their attachment related experiences and relationships. They usually minimize the negative effects of their experiences and they tend to emphasize their strength. Dismissing individuals tend to generalize their experiences and they are unable to support their experiences with examples, in fact they can describe experiences with contradictory evidence. They are characterized by a non-coherent discourse and their interviews are usually brief. Preoccupied individuals are still concerned with their past attachment experiences and they do not describe their experiences objectively. Preoccupied individuals are also characterized by a non-coherent discourse and they have sentences grammatically complicated and vague. Their interviews are usually extremely long. Unresolved-disorganized individuals show lapses in the reasoning of discourse while discussing traumatic events. They don't have a coherent speech and they might lapse into prolonged silences.

1.4 Intergenerational Transmission of Attachment

As mentioned before, while working on The Baltimore Project, by combining the observations made in the home settings and during Strange Situation procedure, Ainsworth et al. (1978) concluded that infants who were classified as securely attached had mothers who were more sensitive to their infant's feeding signals than the mothers of the infants who were classified as insecurely attached. This sensitive responsiveness in mothers during feeding in the first three months tended to develop a secure attachment relationship between infant and mother by the end of the first year. Ainsworth et al. (1978) also mentioned that mothers who are responsive to infant signals during feeding tend to be responsive to other infant signals such as crying, vocalization, smiling, facial expressions and physical contact.

In her first study on adult attachment, "Main had initially expected that the events of parents' lives would be linked to their capacity to respond sensitively to their infants, and would thus predict infant attachment; it was, however the degree to which parents had integrated and made sense of their own early childhood experiences that determined their child's security" (Main, Kaplan & Cassidy, 1985, as cited in Slade, Grienemberger, Bernbach, Levy & Locker 2005). Main et al. (1985) showed that adult narratives on their attachment experiences are associated by their attachment relationship with their children. In their study, Main et al. (1985) discovered that parents with secure attachment often had secure attachment relationship with their children, while parents with dismissing attachment often had avoidant attachment relationship with their children, whereas parents with preoccupied attachment often had anxious attachment relationship with their children (as cited in, Verhage et al., 2015). After the discovery of the disorganized attachment pattern, Main and Solomon (1990) discovered that parents with disorganized attachment representations caused by abuse, loss, trauma; often had disorganized attachment relationship with their children.

Depending on these researches on the link between the adult attachment and infant attachment, caregivers' sensitivity towards their children was theorized to be the mechanism behind the transmission of attachment. During a decade, the

association between adult attachment and infant attachment, which is named as the intergenerational transmission of attachment, has been replicated in many studies in the psychology field. To understand the mechanism behind the intergenerational transmission of attachment, Van IJzendoorn (1995) has published a meta-analysis of 14 studies (18 samples) on the association between AAI and Strange Situation and 8 studies (10 samples) on the association between the AAI classifications and parental responsiveness. It was expected for autonomous parents to form a secure attachment relationship with their children, dismissing parents to form an insecureavoidant attachment relationship with their children and the preoccupied parents to form an insecure-ambivalent attachment relationship with their children.

Sensitive responsiveness was thought to be the mechanism behind the intergenerational transmission of attachment, but in his paper, Van IJzendoorn (1995) analyzed the variables of parent state of mind in respect to attachment, parental responsiveness on children's attachment security and transmission mechanisms other than parental responsiveness and found that "the largest part of the influence would operate through transmission mechanisms other than responsiveness" (Van IJzendoorn, 1995, p. 398). This failure in explanation of the transmission of attachment by sensitive responsiveness was referred as the "transmission gap".

Fonagy and his colleagues suggested that process of security and transmission of attachment should include mentalization, which is understanding one's self and others in terms of mental processes such as beliefs, desires and feelings.

"Fonagy and his colleagues (1995) suggest that the mother's capacity to "hold" complex mental states in mind is what will allow her to hold her child's internal affective experience in mind; even more important, it will allow her to understand her child's behavior in light of mental states such as feelings and intentions. By giving meaning to his affective experience, and 're-presenting' this experience to him in a regulated fashion, the mother sets the stage for the development of a sense of security, authenticity and safety in the child" (Slade & Grienberger, 2005, p.

So, mentalization was suggested to be critical in explaining adult and infant attachment security and the transmission gap between.

1.5 The Development of Mentalizing Capacity

Mentalization is an individual's capacity to understand their own and other's behavior in terms of their needs, desires, feeling, and beliefs. Mentalization is determinative in the formation of self-organization and affect regulation and while all individuals are born with the capacity to mentalize, early social relationships create the space for the infant to learn about mental states (Fonagy, Gergely, Jurist & Target, 2002).

From a developmental perspective, this capacity is referred as the theory of mind capacity (Fonagy & Target, 1998), which is the ability to understand people as mental beings with their own thoughts, desires and beliefs. Around ages four to five, children start to understand that people can believe things that can turn out to be not true- the false beliefs. Most studies concerning theory of mind development (ToM) focus on 3 to 5 years old and their performance on false-belief tasks where children are told a story in which a character hides a desired object and without the character's knowledge the object is transferred to another location and the child is asked to predict where the character will search for the object (Schneider, Schumann-Hengsteler & Sodian, 2005). The later stage of building first-order theory of mind capacity is building second-order belief understanding. Second order belief understanding happens when we not only take the perspective of another person (first-order ToM), but also use this capacity to take perspective of a person who is taking the perspective of another person (Arslan, Taatgen & Verbrugge, 2017). It was found that children acquire this higher order of false-belief understanding around ages 7 and 8 (Perner & Wimmer, 1985; as cited in Schneider, Schumann-Hengsteler & Sodian, 2014).

Carpendale and Chandler (1996) argued that false-belief understanding has to be seen distinct from theory of mind development since false-belief tasks doesn't demonstrate an understanding that two person could differently interpret one and the same thing (p. 1688). False-belief tasks only focus on cognitive components and

since only cognitive components are not enough to assess mentalization capacity, affective mentalization skills were also assessed by tasks such as emotion understanding.

The emergence and development of the mentalizing capacity depends on the mother's capacity to hold in her mind the representations of her child's feelings, desires; which enables the child to explore his own internal world by the help of the mother's representations of it. These representations of the child's inner world happen in different ways depending on the developmental stage of the child; in early infancy by moment-to-moment observations of the child's mental states and representing them in gestures, actions and later by the help of play and words (Slade, 2005). Winnicott formulated that the psychological self develops through the perception of oneself in another person's mind as thinking and feeling, so the mother's capacity to observe the moment-to-moment changes in the child's mental state is essential in the development of mentalizing capacity. This capacity to perceive mental states in oneself and others also depends on the infant's observations of the mental world of his caregiver where he perceives mental states, to the extent that his caregiver's behaviors implies her mental states (Fonagy et al., 2002).

The infant is not born with the capacity to recognize affect states in a meaningful way, the understanding of the mental states of the self is approached by the parental affect mirroring (Gergely & Watson, 1996, as cited in Slade, 2005). Gergely (1996) refers this as "marking" of the affects, which happens when the mother produces the exaggerated version of the child's realistic emotions and expressions. This is also similar to displaying the emotions in the "as if" manner of the pretend play. By these modes of affect mirroring, the infant first observes the representations of his mental states in the caregiver and then he is able to recognize his own mental states. For the mentalizing capacity to develop, it is also important for the child to learn that every individual has their own subjectivity, that is one's own ideas, feelings and subjective reality are not the same as those of others. "The child's mental state must be represented sufficiently clearly and accurately for the child to recognize it, yet sufficiently playfully for the child not to be overwhelmed by its realness. In this way he can ultimately use the parent's representation of his internal reality as the seed for his own symbolic thought, his representation of his

own representation” (Fonagy et al., 2002, p. 267).

Gergely and Watson (1996) also propose a social-biofeedback model of development in terms of explaining the emotional self-awareness and control, which is mediated by the contingency detection. Infants are sensitive to the contingencies between their behavior and environmental events and infants are sensitive to situations in which their behavior is followed by a stimulus event. During these situations, infants quickly display change in their pattern of rate of their behavior, which ensures the experience of a causal control on external events (Gergely & Watson, 1999). Infants initially have no awareness of their emotion states and affect-reflective parental mirroring plays an important role in the development of sensitivity to the infant’s internal affect states mediated by the mechanism of contingency detection and maximizing (Gergely & Watson, 1999).

According to Gergely and Watson (1996), the caregiver’s contingent reflections of the infant’s emotion displays play an important and causal role in the development of emotional self-awareness and self-control. The repeated exposure to externalized representations of their internal states results in the control over the internal states and works as a natural biofeedback training for the infant.

Fonagy and Target (1996) discuss changes in an infant’s perception of psychic reality during the normal development of an infant’s understanding of minds. Infants should integrate three modes of experience for their mentalizing capacity to develop: the psychic equivalence mode, the pretend mode and the teleological mode. Psychic equivalence mode refers the inability to differentiate the internal and external reality where infants perceive their external world as the mirror of their internal world. The pretend mode refers to the perception of internal reality as a separate entity than external reality without any connection between the external and internal experiences. Teleological mode refers to an action-oriented mode in which internal experiences are expressed only in actions, but not in words. By integration of these three modes the infant understands that self and other’s behaviors make sense in terms of mental states and these states can be recognized as representations that are based on possible perspectives (Fonagy et al., 2002).

1.6 Failures in Affect Mirroring and Psychopathology

While the mother's capacity to mentalize the child's experience is crucial for the child to understand his own mind and experience, the mother's inability to mentalize child's experience is influential in the formation of certain psychopathology.

“Indeed,...what attachment theorists refer to as insecurity or disorganization, is to consider them as manifestations of the failure to develop a rudimentary capacity to enter fully into one's own or another's subjective experience without reliance upon primitive defenses and distortions” (Slade, 2005, p.272).

Affect mirroring can become pathological when the caregiver's mirrorings are the same emotion expression as the infant's, but in an unmarked and realistic manner. At this point, the infant will attribute his mirrored affect to the parent which will increase the emotional arousal and distract the boundary between self and the other. Another deviance in affect mirroring happens when the affects are marked properly by the caregiver, but in a non-causal way, misinterpreting the child's emotions. Since the child's primary emotional state is mislabeled, the secondary representation that the child creates will be distorted and there will be a feeling of an empty self since the secondary representations of affects will not be corresponding to the primary emotional states. Winnicott (1967) refers this feeling of emptiness and alienation as the false self, where the “infant failing to find himself in the mother's mind, finds the mother instead. The infant is forced to internalize the representation of the object's state of mind as a core part of himself” (Fonagy et al, 2002, p. 11).

1.7 Empirical Literature on Mentalization

The mentalization capacity is assessed by many different approaches. The Reflective Function Scale (Fonagy, Target, Steele & Steele, 1998) is one of the prominent approaches to assess the adult capacity to mentalize. Reflective function refers to the complex understanding of how the mind and the mental states work

(Fonagy et al., 1995 as cited in Slade, 2005) and is assessed by adult narrations on their relationships. Maternal mind-mindedness (Meins, 1997) is another approach assessing the mentalization capacity primarily of mothers. Meins defined maternal mind-mindedness as a caregiver's "proclivity to treat one's child as an individual with a mind from an early age" (Meins & Fernyhough, 1999) and argued that children's capacity to understand other minds is related to their caregiver's mind-mindedness capacity. Oppenheim's (2002)

Parental Insightfulness is another approach in explaining the parental mentalizing capacity which is assessed by parent's perceptions of their children's and their own minds. Assessment of the mental state language in narrations is another important approach in understanding mentalizing capacity of individuals where references on emotions, cognitions and beliefs in narrations are taken into account. The methods and the empirical evidence on these constructs will be explained separately in the next section.

1.7.1 Reflective Function Scale

Research with parental reflective functioning mainly covers the relationship between, parental attachment security and mentalization capacity and child attachment security and mentalization capacity. In these researches parental attachment is usually assessed by Adult Attachment Interview while parental mentalization capacity is assessed either by the application of the RF scale to the Adult Attachment Interview or to the Parent Development Interview.

1.7.1.1 Infancy Age

With infancy age children, attachment security is assessed by Ainsworth's (1978) Strange Situation Procedure. To understand the relationship between parental attachment security and mentalization and child attachment security, Slade et al. (2005) assessed parent attachment security and parental RF during pregnancy and child attachment security at 14 months and found that parental reflective functioning was associated both with parent attachment security and infant attachment security. To understand the mechanism under these associations, in another study Grienberger, Kelly and Slade (2005) assessed mother-infant

affective communication during the SSP (Ainsworth, 1978) and found that mothers' atypical behaviors were associated with attachment insecurity in infants.

With a clinical sample of abused and neglected mothers, Berthelot et al. (2015) investigated the intergenerational transmission of attachment and the contribution of reflective functioning regarding trauma and found that 83% of infants of mothers with traumatic experience had insecure attachments and 44% of these infants were classified as having disorganized attachments. Moreover, what seems to be a more important revelation was that, mentalization regarding trauma was the strongest predictor of the variance in infant attachment disorganization.

1.7.1.2 Latency Age

With latency age children, attachment security is usually assessed by attachment story completion tasks or Child Attachment Interview (CAI; Target, Fonagy, Shmueli-Goetz, 2003). The assessment of mentalization capacity in latency age children is either done by the Theory of Mind (ToM) tasks or by the application of the RF scale to the Child Attachment Interview. As mentioned before, Theory of Mind capacity is a developmental milestone of understanding people in terms of their mental states, which is why mentalization capacity of children is often assessed by theory of mind tasks. Theory of mind development is usually assessed by using structured tasks that involve scenarios presented with pictures or characters in which children are expected to answer questions about what the character will think, know or feel and are asked to report what a character will think when that belief differs from reality (Slaughter & Peterson, 2012; as cited in Tompkins, Beningo, Lee & Wright, 2017).

While ToM refers to general mentalizing ability, reflective function refers to a relationship specific mentalizing capacity (Fonagy et al., 2002). To understand the relationship between parental and child relationship specific mentalizing capacities, Ensink, Target and Oandasan (2013) applied Child Reflective Function Scale (CRFS) to CAI to assess child reflective functioning for children between ages 7-12.

The studies in the field used many different variables to understand the intergenerational transmission of attachment and mentalization. Some studies assessed the relationship between parental reflective functioning and child

attachment security while others focused on parental reflective functioning and child mentalization capacity (either ToM or RF) and some of the studies focused on the relationship between child attachment security and mentalizing capacity.

In analyzing the relationship between parental RF and child attachment security, Ensink (2016) reported that reflective functioning capacity of the mothers assessed during pregnancy was associated with infant attachment security (as cited in Rosso & Airaldi, 2016). While in a clinical sample, Borelli, St.John, Cho and Suchman (2016) reported that child-focused parental RF alone was significantly associated with child attachment security.

As mentioned before, such as the studies assessing the associations between parental RF and child attachment security, the relationship between parental and child mentalizing capacities were also of interest since a caregiver's capacity to treat his/her infant as a separate mind is the most important factor in the development of child mentalization. For example, Steele, Fonagy, Yabsley, Woolgar and Croft (1995, as cited in Fonagy & Target, 1998) found that parental reflective functioning assessed before the birth of the child predicts the child's mentalizing capacity assessed by theory of mind (ToM) performance at five years. Also, with a sample of sexually abused and non-abused children and their mothers Ensink et al. (2015) revealed that maternal RF was associated with child RF.

The relationship between child attachment and mentalization capacity was also an important area of focus. Meins, Fernyhough, Russel and Clark-Carter (1998) reported that 83% of the infants classified as securely attached passed a false-belief task at the age of 4 while 33% of the infants classified as insecurely attached failed. In Villachan-Lyra, Almeida, Hazin & Maranhao's (2015) study, a positive relationship between attachment security and good performance on the false-belief tasks was also reported. Fonagy, Redfern and Charman (1997), studied infant attachment security to mother and to father and performance on three tests of theory of mind at 5 years and found that 82% of the children with secure attachment relationship with their mother and 77% of the children with secure attachment relationship with their father passed the belief-desire reasoning task. 46% of children with insecure attachment relationship with their mother and 55% of the

children with insecure attachment relationship with their fathers failed the test. In a similar manner, with the child RF scale Ensink, Target and Oandasan (2013) also assessed the relationship between child attachment security and mentalization capacity and reported a significant positive relationship between child attachment security and reflective functioning (as cited in Rosso & Airaldi, 2016). With a combination of the different studies mentioned above, Rosso and Airaldi (2016) assessed the relationship between parent's and infant's both attachment security and mentalization capacity. Results revealed that mothers with secure attachment showed higher levels of RF and a significant association was also found between child attachment security and RF. There was also a significant association between child RF and maternal RF, while only the maternal RF, but not the maternal attachment security predicted the child RF. These studies with reflective functioning build on the suggestion that parental reflective function is important in the transmission of attachment security and the formation of child reflective and mentalizing capacities.

1.7.2 Mind-Mindedness

While Fonagy et al. (1991) used reflective function scale to understand mentalization; Meins (1997) formulated the term maternal mind-mindedness, which is a mother's tendency to treat her child as an individual mind. Meins (1997) also suggested that some correlates of ToM development might also be related to and be explained by the parental mind-mindedness, which is why child mentalization capacity is also usually assessed with theory of mind tasks in understanding its relationship with maternal mind-mindedness.

1.7.2.1 Infancy Age

For very young infants, it is preferred to code mind-mindedness from face to face interactions between mothers and the children. Meins, Fernyhough, Fradley and Tuckey (2001) assessed mothers and infants in a free play context, which was then assessed for maternal mind-mindedness with a coding system developed considering the "maternal responsiveness to change in infant's direction of gaze, maternal responsiveness to infant's object-directed actions, imitation,

encouragement of autonomy and appropriate mind-related comments” (Meins et al., 2001, p.640). Also, infant-mother security of attachment was assessed at 12 months of age. As a result, of the five mind-mindedness variables, mothers’ appropriate mind-related comments were the only significant predictor of attachment security at 12 months.

For children aged 6 months and above, mind-mindedness is assessed by the 20-minute free play sessions of mothers and infants where mothers are asked to *play with their baby, as they would do if they had some free time together at home*. These interactions are recorded and then transcribed verbatim which are then coded for maternal mind-mindedness comments in terms of mother’s references to infant’s desires and preferences, cognitions, emotions and epistemic states. All of these mind-mindedness codes are also evaluated as appropriate or non-attuned by viewing the recorded infant-mother interactions. The assessment of attachment security with infancy age children was made by the Strange Situation Procedure.

In understanding the impact of maternal mind-mindedness on infant mentalization capacity (ToM), Meins et al. (2002) found that only the mothers’ appropriate use of mental state language reflecting infant mental states predicted their ToM performance at a later age. In a similar study, Meins, Fernyhough, Arnott, Leekam and Rosnay (2012) reported the same finding that; mothers’ tendency to comment appropriately on their infant mental states at 8 months was associated with children’s ToM performance at 51 months. Meins et al. (2012) also reported that, secure group mothers had higher scores for appropriate mindrelated comments when compared to avoidant group mothers and lower scores for nonattuned mind-related comments compared with both avoidant and resistant group mothers.

Using a sample with both mothers and fathers, Arnott and Meins (2007) found a significant positive association between autonomous parent attachment, high parental RF, greater mind-mindedness capacity and infant attachment security, which was reported as stronger for fathers than mothers.

In terms of the relationship between the infant attachment security and mentalization capacity; Laranjo, Meins, Carlson and Bernier (2010), reported a

significant association between infant attachment security and theory of mind development.

1.7.2.2 Latency Age

While interactional measures of mind-mindedness is used with infants, when assessing mind-mindedness in relation to latency age children, representational measures of mind-mindedness have been used with an open ended interview on the mothers' descriptions of their children (Meins, Fernyhough, Russell, & Clark-Carter, 1998). Mothers are simply given an openended invitation to describe their children: *Can you describe [child's name] for me?* These interviews are then transcribed verbatim which are then coded for mind-mindedness in relation to children's mental, behavioral and physical attributions (Meins & Fernyhough, 2015). Also, since these interviews are not interactional, the codes of appropriateness and non-attunement of mental states were not applicable.

In understanding the impact of maternal mind-mindedness on infant mentalization capacity (ToM) with latency age children, Meins and Fernyhough (1999) reported that maternal mind-mindedness was positively related with the children's performance on the false belief emotion task at age 5. In another study, Meins et al. (2003) also reported that early mind-mindedness measures of mothers' appropriate mind related comments was a positive predictor of children's ToM performance at later ages. McMahon and Meins (2012) also reported that mothers who used more mental state words in descriptions of their children reported lower parenting stress.

In understanding the relationship between mind-mindedness and child attachment and mentalization, Meins, Fernyhough, Russell and Clark-Carter; in their 1998 study revealed that mothers of securely attached children were more likely to describe their children in terms of their mental states rather than their behaviors and physical appearances and children who were securely attached performed better on the unexpected transfer task at age 4 and picture identification task at age 5. Meins et al. (1998) concluded that securely attached children are better at recognizing alternative perspective of other people.

Furthermore, Meins, Centifanti, Fernyhough and Fishburn (2013) and Centifanti, Meins and Fernyhough (2016) studies show that high levels of maternal mind-mindedness are also related to fewer behavioral problems in children. The studies mentioned above also supported the relationship between parental mentalization and child attachment and mentalization.

1.7.3 Parental Insightfulness

1.7.3.1 Infancy Age

Alternatively, Oppenheim coined the concept of parental insightfulness to explain the parental mentalizing capacity. The parental insightfulness was used as a “systematic, direct way to assess the capacity to ‘see things from the child’s point of view’ and the thought processes that can impede or derail this capacity” (Oppenheim & Koren-Karie, 2013, p. 551). Since there was growing evidence on the association between mothers’ capacity to see things from their children’s perspective and secure child-mother attachment relationship, Parental Insightfulness was conducted to assess this relationship.

The Insightfulness Assessment (IA, Oppenheim & Koren-Karie, 2002) involves two steps; first mothers and children are observed in several contexts and these are videotaped, then mothers watch these interactions and are interviewed regarding their perceptions of their children’s and their own thoughts and feelings. There are three factors taken into consideration while coding for insightfulness: insightfulness regarding the motives for the child’s behaviors, an emotionally complex view of the child, and openness to new and sometimes unexpected information regarding the child. Depending on these factors interviews are classified in one of the four categories: positively insightful, one-sided, disengaged or mixed (Oppenheim & Koren-Karie, 2002).

In their study, Oppenheim and Koren-Karie (2002) assessed the associations between mothers’ insightfulness and infant security of attachment (SSP, Ainsworth et al., 1978) among 129 mother-infant dyads. Mothers classified as positively insightful were more likely to have secure children whereas mothers classified as one-sided were most likely to have ambivalent children and mothers classified as mixed were more likely to have disorganized children.

Positive insightful mothers were more likely to have securely attached children because their insightfulness would promote appropriate interpretations of the infants' signals and empathic responses toward their infants. Mothers with onesided insightfulness classification were more likely to have children with anxious attachment because the appropriateness of their interpretations towards their infants' signals would be inconsistent depending on the congruency between infant behaviors and the mother's expectations. Mothers with disengaged insightfulness classification were more likely to have children with avoidant attachment because mothers' would minimize or ignore the infant signals. Mothers with mixed insightfulness classifications were more likely to have children with disorganized attachment because their lack of coherent strategy would cause contradictory caregiving behaviors (Oppenheim & Koren-Karie, 2013)

In other studies, similar results on the link between parental insightfulness and child attachment (SSP, Ainsworth et al., 1978) was also obtained among a sample of children with Autistic Spectrum Disorder (Oppenheim, Koren-Karie, Dolev, & Yirmiya, 2009) and children with Intellectual Disability (Feniger-Shaal & Oppenheim, 2012). Since the samples of these studies were smaller, mothers were assessed regarding only the insightful and non-insightful categories and results showed that insightful mothers were more likely to have secure attachment relationship with their children and non-insightful mothers were more likely to have insecure attachment relationship with their children.

In a treatment program it was found that mothers who shifted from noninsightfulness to insightfulness had children whose behavior problems decreased whereas mothers who did not shifted had children whose behavior problems increased (Oppenheim, Goldsmith & Koren-Karie, 2004).

1.7.4 Mental State Talk in Narratives

The interactions between the caregiver and the infant are the key element for the infant to construct an understanding of his inner world and the outer world. The repeated experiences with the mental states in the mother-child relationship create the opportunity for the development of the children's mental state language. "Mental state talk is the set of terms used by people to attribute physiological (e.g., being hungry), perceptual (e.g., see), willing (e.g., desire), emotional (e.g., anger),

cognitive (e.g., knowing), moral (e.g., judge), and sociorelational (e.g., helping) state to others” (Bretherton & Beeghly, 1982; Symons, 20014; as cited in Pinto, Primi, Tarchi & Bigozzi, 2017, p.1). As cited in Razuri, Howard, Purvis and Cross (2017) by the second year of their life, children begin to show interest in their own and others feeling in terms of desires. Around second and third years, children start to use mental state language more frequently and with complexity (Bartsch & Wellman, 1995; as cited in Razuri et al. 2017). In their third year of life, children start to understand that other people can have beliefs and intentions different from the child (Repacholi & Gopnik, 1997; as cited in Razuri et al. 2017). These also play an important role in the development of the theory of mind (ToM). This connection between the use of mental state language and ToM is the reason why researchers either use ToM to assess child mentalization capacity or use both the ToM and the mental state talk assessment together with children.

1.7.4.1 Infancy Age

With infancy age children, mental state talk of parents are usually assessed with its relation to infant attachment security, since the assessment of mental state talk is not applicable to infancy age children because of their verbal abilities. The assessments of attachment in infancy age children are done with the Strange Situation Procedure and mental state talks of parents are usually assessed depending on Bartsch and Wellman’s (1995; as cited in Razuri et al. 2017) mental state talk assessment in reference to desire, emotion and cognition terms.

McElwain, Booth-LaForce and Wu (2011) investigated the associations among infant-mother attachment security and maternal mental state talk in terms of desire, emotion and cognition terms and the appropriate/inappropriateness of mental state talks. Results showed that maternal cognitive mental state talk, combined with the appropriateness of the mental state talk was more prominent among children with secure attachment than children with avoidant or disorganized attachment security. Mothers’ talk about desires or emotions however, was not related to infant-mother attachment relationship. In a similar study, Razuri, Howard and Cross (2017) assessed infant attachment security and maternal mental state talk (utterances of the words *want*, *think* and *know*) and reported that mothers in both

secure and insecure group talked about desires at the highest rates, but mothers in the secure group talked significantly more about thoughts and knowledge while mothers in the insecure group did not use *think* and *know* words in a significantly different rate. The actual difference between secure and insecure group mothers was specific to the types of words they used rather than the overall mental state talk.

In a different study structure, Göcek, Cohen and Greenbaum (2008) have assessed clinical and non-clinical group of mothers' mental state talk with their 1230 month old infants during three different contexts; a free play, a snack situation and the Strange Situation. Results indicated that mothers in the nonclinical group used more self-related mental state talk than mothers in the clinical group and also the quality of mothers' mental state talk differed depending on the three different contexts.

1.7.4.2 Latency Age

The studies with mental state talk in latency age children include different variables to understand its relation to attachment security, theory of mind capacity and parental mental state talk. While some studies assessed the relationship between children's mental state talk and theory of mind capacity, others focused on the relationship between parental and child mental state talk and some of the studies focused on the child attachment security, child mental state talk and its relation to parental mental state talk.

In analyzing the relationship between child theory of mind capacity and mental state talk, in a longitudinal study Hughes and Dunn (1998) found that children's performance on both theory of mind and the emotion understanding tasks were correlated with the frequency of their mental state talk with their friends. The quality of children's mental state talk increased over time and although there were no gender differences in ToM and emotion understanding tasks, girls' mental state talk was more frequent and more developed than boys.

Many research in the field also found strong association between attachment security and mental state talk. As cited in Fonagy and Target (1998) maltreated children show insecure attachment (Cicchetti & Barnett, 1991) and difficulty acquiring mental state words (Beeghley & Cicchetti, 1994). In a similar manner, McQuaid, Bigelow, McLaughlin and MacLean (2007) assessed the effects of

maternal mental state language and children's attachment security on children's mental state language and their expressions of emotion understanding. Results showed that mothers of securely attached children used more mental state language and had children who used more mental state language than mothers of insecurely attached children. In a clinical sample, Raikes and Thompson (2006) assessed the associations between attachment security and maternal depression and their effects on children's references to emotions in language and children's emotion understanding. Results demonstrated that maternal depression was negatively associated with children's emotion understanding. Also, securely attached motherchild dyads used more references to emotions in language, which fostered children's emotion understanding.

Focusing on maternal mental state talk and its relation to child theory of mind capacity Dunn, Brown, Slomkowski, Tesla and Youngblade (1991, as cited in Tompkins, Benigno, Lee & Wright, 2017) found that parental tendency to talk about feelings and causality when children are 33 months, predicted children's false belief understanding 7 months later. In a three-time point longitudinal study Ruffman, Slade and Crowe (2002) assessed the theory of mind development and mental state talk of children in relation to the mental state talk of the mothers.

Mothers' mental state utterances were found to be correlated with children's mental state utterances and their theory of mind development. In a similar study, Turnbull, Carpendale and Racine (2008), assessed the associations between mental state language and theory of mind development among mothers and their children.

Results demonstrated that consistent with previous researches, mothers' overall use of mental state terms predicted their children's performance on falsebelief tasks.

Pearson and Pillow (2016) investigated the associations among motherchild mental state language and children's social understanding among thirtyeight dyads, including a younger group (5-7 years old) and an older group (8-10 years old). Children completed two different social understanding tasks; a secondorder false belief task and a social dilemma task whereas mother-child conversation was elicited by four stories with dilemmas which were coded for the factors; mother and child basic mental talk, mother and child advanced mental talk, belief-desire mental state questions and emotion questions. Results demonstrated that mothers'

advanced mental state talk predicted both children's advanced mental state talk and their social understanding. Also, children in the older group performed better on the social understanding measures and produced more basic and advance mental state talk.

Examining the relationship between parental and child mental state talk, Jenkins, Turrel, Kogushi, Lollis and Ross (2003) assessed three types of mental state talk (desire, feeling and cognitive) among the interactions in families with their 2 and 4 year old children at two different times. Results indicated that children with older sibling used more cognitive mental state talk at 4 years old than children without an older sibling since children with older sibling are exposed to more cognitive mental state talk. Jenkins et al. (2003) also reported that as children got older, their cognitive mental state talk increased and their emotion talk decreased. Jenkins et al. (2003) concluded that increase in younger children's cognitive mental state talk was predicted by the exposure to cognitive mental state talk from their mothers, fathers and siblings. Taumoepeau and Ruffman (2006) also assessed children and their mothers for the use of mental state talk and emotion understanding. The results demonstrated that mothers' use of desire based mental state words was predictive of the child mental state talk and emotion understanding at later age. Also, children's use of the words *think* and *know* increased over time. These studies supported the relationship between parental and child mental state talk and pointed out the importance of cognitive words on the total mental state talk language.

Child mental state talk was also used to assess its associations with other concepts such as behavioral problems and play quality. Bekar (2014) investigated the association between maternal mental state talk and children's socialbehavioral functioning. Maternal mental state talk data was collected while mothers narrated a wordless picture book and was coded with the Coding System for Mental State Talk in Narratives (CS-MST, Bekar, Steele, & Steele, 2014) considering the type, direction and causality dimensions. Results demonstrated that mothers' talk about children's cognitions and their own mental states, diversity and causality of their mental state talk and acknowledgement of characters' negative emotions were associated with children's socially adaptive behaviors.

Children use play to learn about others' minds and to represent them. Halfon, Bekar, Ababay and Dorlach (2017) assessed the relationship between mother-father-child mental state talk (CS-MST, Bekar, Steele, & Steele, 2014), children's play characteristics (CPTI; Kernberg, Chazan, & Normandin, 1998) and behavioral problems (CBCL 4-18, TRF 4-18; Achenbach, 1991) and found that in mother-child dyads, mothers' and children's play-related mental state talk were found to be associated with children's capacity to bring multiple interrelated social representations during play. In the father-child dyads, children's mental state talk was found to be associated with children's role-play capacity. Motherchild dyads' mental state talk during play was associated with lower levels of internalizing behavior problems, whereas in father-child dyads, fathers' references to their own mental states and children's references to their fathers' mental states out of play was associated with lower levels of internalizing behavior problems.

Another important finding of the study is that, mother's mental state talk directed to children's mind was associated with less interactive role-playing which was thought to create disruptions in the child's play flow (Halfon et al., 2017)

In their meta-analysis, Tompkins et al. (2017) investigated the relationship between parental mental state talk and the two aspects of social understanding; false-belief and emotion understanding. As doing this, Tompkins et al. (2017) also focused on the moderators of this relationship: parental mental state talk content (desire, emotion, cognitive states), quality (appropriate, inappropriate, causal) and context (book, story, reminiscing). Results of the meta-analysis indicated that parental mental state talk was significantly associated to children's false-belief and emotion understanding meaning that parental mental state talk plays an important role in children's understanding of others' minds and emotions. In terms of the content of the parental mental state talk, parents' cognitive talk was a better predictor of children's false-belief and emotion understanding than parents' talk about desire and emotion. Tompkins et al. (2017) suggest that thoughts require more interpretation in contrast to desire and emotion mental states, which are usually reflected in expression. In terms of the quality of the parental mental state talk, results indicated that parental mental state talk which are attuned to children were better predictors of children's false-belief understanding than parents' inappropriate mental state talk. It is important to note that, Tompkins et al. (2017) only included

studies of mentalization that assessed parents' mental state talk *to* children, not *about* children. Finally, in terms of context, parental mental state talk in contexts such as self-report, free-play and picture/story telling were a better predictor of false-belief understanding than reminiscing contexts.

Zeegers, Colonnese, Stams and Meins (2017) summarized the mentalization concepts discussed above- reflective function, mind-mindedness, and parental insightfulness- by investigating the relationship between parental mentalization, parental sensitivity and infant-parent attachment. Parental mentalization in this study was represented by different construct such as mindmindedness (Meins, 1997), parental insightfulness (Oppenheim et al., 2002) and parental reflective functioning (Slade et al., 2005). The overall findings suggest that infants that are securely attached are more likely to have parents that have greater appropriate mindmindedness, parental insightfulness and parental reflective functioning capacity and have lower non-attuned mind-mindedness capacity. Also, non-attuned mind-related comments was a better predictor of attachment insecurity than appropriate mindrelated comments.

Prevalent studies in the field have usually focused to the assessment of the relationship between attachment security and mentalization capacity using motherchild dyads. The studies assessing the qualities between father-child dyads are less and limited. In the following section, the studies with fathers assessing attachment security and mentalization capacity will be discussed briefly.

1.7.5 Fathers in Attachment and Mentalization Literature

In his initial theory of attachment, Bowlby (1958, as cited in Bretherton, 2010) did not mention fathers as attachment figures and developed a monotropy model meaning that only the principal attachment figure has an effect on child development. In her Uganda study, Ainsworth (1967) observed that infants who become attached to their mother also become attached to other figures such as fathers, siblings and grandparents. As cited in Bretherton (2010), Ainsworth observed that even infants who don't see their fathers often become attached to them, still in some situations such as sleep and hunger, infants prefer their mothers.

Schaffer and Emerson (1964, as cited in Bretherton, 2010) found that mothers were the principal attachment figure of 80% of the infants at the time the separation-protest behaviors begin, but at 18 months, half of the mothers were not the principal attachment figure anymore, but they shared this place with fathers. There were also families where the fathers were the only principal attachment figure for the infants. Kotelchuk (1972 as cited in Bernier & Miljkovitch, 2009) found that at 12,15,18 and 21 months infants protest departure of their father as much as their mother whereas Lamb (1976,a, 1976b as cited in Bernier & Miljkovitch, 2009) found that 12 and 18 month olds seek their mothers more than their fathers in times of distress.

In his study Lamb (1976, as cited in Bretherton, 2010) observed motherfather-infant triads on laboratory setting and found that infants seek mothers and fathers equally, but while fathers receive mostly the affiliative behaviors such as smiling and playing, mothers receive mostly the attachment behaviors; until a stranger joins them where mothers become the receiver of both affiliative and attachment behaviors. Hewlett (1992, as cited in Bernier & Miljkovitch, 2009) emphasized that mothers are usually involved in caregiving and emotional security while fathers are usually involved in play and exploratory activities.

In his other study with 15-24 month olds, Lamb (1977b, as cited in Bretherton 2010) found that infants show more affiliative and attachment behaviors towards their fathers than their mothers. He also found a gender difference where boys seek their fathers more than girls and girls seek their mothers more than boys. Depending on his findings Lamb concluded that mothers and fathers create different attachment experiences for the infants. Grossmann et al. (2002) also mentioned that fathers support secure exploration while mothers support secure attachment.

In his 1978 study Lamb, replicated Strange Situation procedure with fatherinfant pairs and found no difference than studies with mothers (as cited in Bretherton, 2010) He also found that most of the infants who were insecurely attached with one parental figure were securely attached with the other one. Main and Weston (1981) replicated Lamb's study and found concordant results (as cited in Bretherton, 2010).

In their meta-analysis, Van IJzendoorn and De Wolff (1977) found that of 950 children, 45% percent were secure with both of their parents, 17% of them were

insecure with both of their parents and 38% of them were secure with one parent and insecure with the other parent. Besides these findings Main et al. (1985, as cited in Bretherton, 2010) have found that during the Separation Anxiety Test of six year olds, the mother attachment, but not the father attachment was the predictor of child responses.

In their longitudinal study Fonagy, Steele and Steele (1996) assessed 100 pregnant woman and their husbands for attachment security with the AAI and their children for attachment with SSP at 1 age with mothers and at 1^{1/2} years with fathers. They found a strong positive association between mother-infant attachment and significant, but still weaker association between father-infant attachment transmission.

Sroufe and Rutter (1984, as cited in Bernier & Miljkovitch, 2009) argue that while forming an attachment relationship is the task of infancy, competent exploration is the task at the ages 2-3 so, since the fathers' role become more prominent in older ages, the fathers' effect on the child attachment may be observed in older ages (Tamis-Lemonda & Cabrera, 2002 as cited in Bernier & Miljkovitch, 2009)

Benbassat and Priel (2012) assessed parental RF with PDI, parenting behavior with Parenting Behavior Instrument (PBI), parental involvement with Child Caregiving Involvement Scale (CCIS), adolescent RF by Child Attachment Interview (CAI), adolescent internalizing and externalizing problems and social competence with Youth Self-Report (YSR) and adolescent self-perception with Profile for Adolescents (SSPA) among 105 adolescents. They found that maternal and paternal RF were both associated with adolescent RF while paternal RF was also associated with adolescent social competence. Also, low paternal RF was associated with higher levels of externalizing problems among adolescents.

Fonagy, Redfern and Charman (1997), studied attachment security to mothers at 12 months and to fathers at 18 months and performance on three tests of theory of mind at 5 years with 92 children. 82% of the children with secure attachment relationship with their mother and 77% of the children with secure attachment relationship with their father passed the belief-desire reasoning task.

To explore the effects of mothers' and fathers' reflective function for the adjustment of their children during early adulthood, Benbassat and Schulman

(2016) assessed the fathers' and mothers' reflective function with Parent Development Interview (PDI; Aber et al. 1985, Slade et al. 2001) and their 14-18 years aged children's reports on parental behaviors with Parental Bonding Instrument (PBI; Parker et al. 1979). Children also completed Youth Self-Report (YSR; Achenbach and Rescorla 2001) for internalizing and externalizing problems and Self-Perception Profile for Adolescents (SPPA; Harter 1988). Three to five years later, when the children were aged 18-22 years, they completed Brief Symptom Inventory (BSI; Derogatis and Spencer 1982), Self-Perception Profile for Adolescents (SPPA; Harter 1988) and their self-description was assessed by asking them to describe themselves (Blatt & Blass, 1996; Blatt, 2008). Results revealed that only the parental reflective function predicted the children's adjustment during their early adulthood and was associated with both the desirable such as higher levels of self-description, better romantic relationship and undesirable outcomes such as more internalizing problems and less positive selfperception.

Esbjørn et al. (2013) examined the association between child anxiety and parental attachment security, reflective functioning and psychopathology among clinically anxious children and their parents. Results demonstrated that; in comparison of mothers and fathers, there were no differences in overall anxiety and psychopathology, whereas fathers' reflective function capacity was markedly lower than mothers in the sample. Furthermore, paternal, but not maternal level of anxiety and psychopathology was associated with child anxiety; also attachment anxiety in mothers and both attachment anxiety and avoidance in fathers were associated with child anxiety. It was also observed that, levels of anxiety of psychopathology were not significantly associated with child anxiety when analyzed together with RF and attachment.

Arnott and Meins (2007) analyzed the relationship between parent attachment and reflective functioning, parental mind-mindedness and infant attachment security with mothers and fathers. They reported a significant positive association between autonomous parent attachment, high parental RF, greater mindmindedness capacity and infant attachment security, which was reported as stronger for fathers than for mothers.

To examine whether insightfulness would similarly be associated with mother-father-child interactions, Oppenheim et al. (2016) assessed parental insightfulness (IA, Oppenheim et al.'s, 2002) and family cooperation using the Lausanne Trilogue Play (LTP) procedure which includes four parts where first one parent play with the child while the other parent is only present, then the parents switch the roles, then parents play together with the child and finally parents interact with each other without the child's contribution. The results showed that families with both parents classified as insightful had higher family cooperation and coparenting scores than the families with only one insightful parent and families where both parents are non-insightful.

Baptista et al. (2017) examined the relationship between parents' mental state talk (desire, emotion and cognition terms) and preschoolers' executive function among 4.5-year-old children and their parents. Results demonstrated that maternal, but not paternal mental state talk was a significant predictor of children's executive function. In terms of attachment, reflective function, mind-mindedness, parental insightfulness and mental state language it was observed that father-child dyads also had significant associations, but the way mothers and fathers effect these constructs seems to be different.

1.8 Turkish Language and Culture

In this study, mentalization capacity was operationalized as mental state talk and it is important to underline some important aspects of Turkish language to understand the findings of this study. In Turkish language, evidentiality, which is the linguistic indication for the source of information, is expressed through different verbal suffixes. Direct experience is marked with –DI, which indicated that the speaker has direct access to a knowledge. The suffix –mİş indicated that the speaker has gathered the knowledge about a situation through inference form physical evidence. Another suffix –(I) mİş indicate that the speaker has the knowledge about a situation through the linguistic report of another person. The suffix –DİR indicates an inference about one's existing knowledge without having any evidence (AksuKoç, Ögel-Balaban & Alp; 2009). These evidentials in Turkish language enable the speakers to present the source of their information as being gathered directly or indirectly. The ability to understand that knowledge arises from different

sources is a pre-requisite in understanding the mental representations (O'Neill & Gopnik, 1991) and these source markers in Turkish language enables people to create mental representations arising from different sources, which is why Turkish language speaking children might acquire falsebelief understanding earlier (as cited in AksuKoç, Ögel-Balaban & Alp; 2009). It was also found that when the false-belief understanding tasks were formed with the word *suppose* (*sanmak*) instead of *think* (*düşünmek*), the Turkish-speaking children showed better performance than English-speaking children (Kaysılı & Acarlar, 2011).

It is also important to underline some qualities of culture. It was found that emotions in collectivist cultures tend to have an objective reality for the individual whereas individualist cultures lacked this quality. Individuals in collectivist cultures indicated that other people experiencing a similar event with them would be affected by the event in a similar way as they did (Mesquita, 2001). Also, it was found that emotions in collectivist cultures tend to signify the connectedness between individuals while in individualistic cultures it tend emphasized the distinction of self and others (Mesquita, 2001) which is why collectivist cultures might be less able to understand the distinction between the minds of the self and the others. In Turkish culture, it was also found that higher levels of maternal education were associated with more encouragement of emotion expression (AltanAytun, Yagmurlu & Yavuz; 2013) and more cognitively stimulating childrearing methods (Baydar & Akçınar, 2005).

1.9 Purpose of The Study

Research in the field revealed a strong relationship between attachment security and mentalization capacity, and that children's mentalizing ability is predicted by attachment security and mentalizing capacity in the parent-infant relationship (Fonagy, Redfern, & Charman, 1997; Meins, 1997; Oppenheim & Koren-Karie, 2002; Cicchetti & Barnett, 1991) which can either be measured as reflective functioning, mind-mindedness, insightfulness, mental state talk in narrations or theory of mind development. Many of these researches assessed the transmission of attachment and mentalization with infancy age children and with mothers, while there were only few studies with latency age children and with fathers. The aim of this study is to observe the relationship between attachment

security and mentalization capacity between mother-father-child triads with a sample of children between ages 3 to 10 in intention to expand the father and latency age gap in the field. In this study, mentalization capacity was operationalized as mental state talk and it was aimed to assess the mental state talk language of motherfather-child triads in reference to their attachment representations. The expected hypotheses of the study are presented below.

H1: There will be a significant positive correlation between children's attachment security and mentalization level.

H2: There will be a significant positive correlation between children's attachment security and mother's mentalization level.

H3: There will be a significant positive correlation between children's mentalization level and mother's mentalization level.

H4: There will be a significant positive correlation between children's attachment security and father's mentalization level.

H5: There will be a significant positive correlation between children's mentalization level and father's mentalization level.

Chapter 2

Method

2.1 Participants

Participants were 60 mother-father-child (40% female) triads, 22 motherchild (40% female) and 3 father-child (40% female) dyads; all of who applied to Istanbul Bilgi University Psychological Counseling Center for psychotherapy. The exclusion criteria for the sample were to be younger than 3 years old and older than 10 years old, and also the cases with an adoption history. Children were aged between 3 to 10 ($M=6.98$, $SD=2.11$). Children were either going to the preschool (20%), elementary school (72.9%) or the middle school (3.5%). Also,

28.2% ($n=24$) of the children didn't have any siblings; while 57.6% ($n=49$) have 1, 12.9% ($n=11$) have 2 and 1.2% ($n=1.2$) have 3 siblings. Mothers were aged between 24-53 ($M=36.46$, $SD=5.15$) and fathers were aged between 25-59 ($M=40$, $SD=5.23$). 76 (89.4%) of the parents were married and 9 (10.6%) of them were divorced. The income levels of the participants were low (16.5%), lowmiddle (28.2%), middle (36.5%), middle-high (15.3%) and high (3.5%).

The referral reasons for children were behavioral problems (40%), anxiety problems (22.4%), school and learning problems (16.5%), somatic problems (8.2%), separation anxiety problems (4.7%), relationship problems (3.5%), loss (2.4%) and adjustment problems (1.2%). Also, 4.7% of the children were diagnosed with ADHD and 4.7% of the children were previously referred to psychiatric or psychological help.

2.2 Measures

2.2.1 Attachment Doll Story Completion Task (ASCT)

Attachment Doll Story Completion Task (Granot & Mayseless, 2001) assesses the quality of the internal attachment representations to the caregiver and was used to assess children's attachment security in this study. The Doll Story Completion task was first developed by Bretherton, Ridgeway & Cassidy (1990) to grasp the perception of attachment representations of 3 year olds and Granot &

Mayselless (2001) adapted the task for children up to 12 years old. The task includes one neutral and five attachment related stories that an administrator introduces and expects the children to tell what happens next in the story which then are coded for security and attachment prototype. Children use props such as family figure dolls, table, bed and car while completing the stories. In the beginning of the procedure the child is introduced to the family figure dolls (mother, father, grandmother and child) and is asked to give a name to the child figure and then complete the neutral warm-up story, which is not included in the overall coding and then the child is introduced to the five attachment stories. The coding procedure takes place by first coding each of the stories as either secure or insecure and also coding the last two stories in three additional scales. Depending on these an overall secure or insecure classification is assigned. Moreover, based on the narratives in each story, each attachment prototype strategy is scored and a final attachment prototype is assigned. The first *spilled juice* story, takes place in a family dinner setting where the child accidentally spills juice on the floor. For this story to be coded as secure it is expected for the parents not to act harsh and to clean the juice and provide a new juice for the child. The story is also expected to have a positive resolution where the family returns back to their dinner routine. In the second *hurt knee* story, the child falls from a high rock and hurts his/her knee. For this story to be coded as secure the parent figure(s) are expected to react to child's hurt by giving emotional and instrumental help and it is expected for this help to have a soothing effect on the child. In the third *monster in the bedroom* story, the child is first sent to bed to sleep and then cries out to his/her parents that there is a monster in his/her bedroom. For this story to be coded as secure, it is expected for the parents to deal with child's fear in a comforting and soothing manner, without rejecting child's feeling and it is expected for the child to fall to sleep alone in his/her bed. In the fourth, *departure story* mother and father leave for a one-week vacation and the child stays with his/her grandmother. For this story to be coded as secure the child is expected to react in a coping manner towards parent's absence, to perform his daily routines properly and to have a positive relationship with the grandmother. In the fifth, *reunion story* the mother and father return from their one-week vacation. For this last story to be coded as secure it is expected for the child and the parents to approach to each other in a positive manner and to engage in joint activities. As

mentioned before, the *departure* and *reunion* stories are also coded in three other scales. The first scale is coded for the departure story depending on the quality of child's coping and functioning while the parents are away on a 5-point Likert scale ranging from insecure coping to extremely secure coping. The second scale is also coded for the *departure* story depending on the quality and uniqueness of child's relationship with the alternative figure-the grandmother on a 5-point Likert scale ranging from disturbed relationship to well distinguished relationship. The third scale is coded for the *reunion* story depending on the positive attitudes displayed by the child and parents during their reunion on a 5-point Likert scale ranging from extremely insecure coping to extremely secure coping. The overall security was assigned by the quantity of the secure/insecure stories. Children with five stories with secure coding were assigned as secure, children with two stories out of five with insecure coding were assigned as fairly secure and children with three stories out of five with insecure coding were assigned insecure. As mentioned before, the attachment security was also coded for the resemblance to the four attachment prototypes and to do this each story was assessed in four aspects; the use of emotional expression, the protagonist's relationship with the parents, description of events giving rise to attachment behavior and the story's narrative structure. If all four aspects of a prototype appear in all stories at least once, it is coded as 5-*very high resemblance to the prototype* or 4-*resemblance to the prototype* respectively. If all four aspects of a prototype appear only in some stories it is coded 3-*little resemblance to the prototype*. If one or two aspects appear at least once or twice, it is coded 2-*elements of resemblance to the prototype* and if none of the aspects appear in the stories, it is coded 1-*no resemblance to the prototype*. Depending on the prototype coded as the highest is also assigned as the overall attachment prototype. Stories prototypical of secure attachment strategy are characterized with expressions of both positive and negative feelings, the accessibility and sensitivity of the attachment figures, positive resolution of the anxiety evoking situations and a logical, coherent story narration. Stories prototypical of avoidant attachment strategy is characterized by minimal or non-existing emotion display, the absence and insignificance of the attachment figures, belittlement of the anxiety evoking situations and a minimalistic and a neutral story narrative. Stories prototypical of ambivalent attachment strategy is characterized by exaggerated and inappropriate

display of positive and negative emotions, instability in the relationship with the attachment figures, heightened and intensified behaviors in order to get parental attention and a story narrative that is logical, but loaded with irrelevant details. Stories prototypical of disorganized attachment strategy is characterized by inconsistent display of positive and negative emotions, parental figures that are either weak or abusive who are also either controlled or nurtured by the children, dangerous and unpredictable events where the child is hurt and neither him/her or a parental figure can solve the chaotic situation and finally an illogical story narrative filled with bizarre events. In their reliability study Granot & Mayseless (2001) reported an inter-rater reliability of .78 - .85 for the security classifications in stories and an inter-rater reliability of .91 for the overall attachment prototype classifications. The adaptation of the Attachment Doll Completion Task to the Turkish population was conducted by Uluç (2005) and the inter-rater reliability of security classifications in stories was reported as .81 whereas the inter-rater reliability of the overall attachment prototype classifications was reported as .83. In the current study, the coders were two trained clinical psychology master students, one coding the entire sample while the other one coding only the %69 of the sample. The inter-rater reliability of the two coders was found to be .87.

2.2.2 The Coding System for Mental State Talk in Narratives (CS-MST)

The Coding System for Mental State Talk in Narratives (CS-MST; Bekar, Steele & Steele, 2014) was developed to assess the mentalization capacity of preschool children and their parents through mental state talk in their narrations while reading a wordless picture book; “Frog, Where are You?” by Mercer Mayer (1969). The coding system is composed of five major categories of mental state words; emotions (*e.g. happy, angry*), cognitions (*e.g. think, know*), perceptions (*e.g. see, hear*), physiological (*e.g. tired, thirsty*) and action based (*e.g. laugh, search*); and also a sixth category for story resolution that assess the type of resolution provided for the story. The five main categories of mental state words can be coded in three clusters in reference to whose mental states are mentioned; the story characters, the self and the other (listener). The coding system also has total count of words, count of the unique mental state words and count of mental state related causal connections for each of the three directions mentioned above. Lastly, the

resolution part of system is coded regarding if the storyteller mentions the separation themes and provides a meaningful ending for the story.

Later, in a revision, two other new codes were added to the system; opacity of mental states and inappropriateness of mental states. One of the basic assumptions of mentalization is that others' mental states can be predicted but not fully known, so the mentalizing viewpoint requires a certain amount of uncertainty regarding others' mental states. The opacity of mental state talk code refers to the number of words used by the narrator that creates space to the listener for experiencing a variety of mental states and which indicates the opaqueness of minds (e.g. *perhaps, maybe, I guess*). The inappropriateness of mental state talk code refers to the mental state talk where the narrator takes a pseudo-mentalizing state and makes inaccurate attributions to the other's mental states. When the narrator takes this pseudo-mentalizing stance, the mental state related comment is not accurately linked with reality or violates the opaqueness principle of mentalization and takes an all-knowing stance. (e.g. talking about the Frog Story: *the dear wants to kill the child*). The coding of these factors mentioned above are done by using verbatim transcripts of the stories. In the following Table 1, examples are provided for the coding structure of The Coding System for Mental State Talk in Narratives (CS-MST).

Coding Structure of The Coding System for Mental State Talk in Narratives (CS-MST)		
Story Related	Emotion	"The kid is happy at the end"
	Cognition	"The kid thought he can play with his family at the park"
	Perception	"The boy looked under his bed"
	Physiological	"Then the boy went to sleep "
	Action-based	"The girl cried when her parents left for vacation"
Self Related	Emotion	" I like this story"
	Cognition	" I think the boy will feel sad"
	Perception	" I see that kid is going"
	Physiological	" I am thirsty "
	Action-based	" I can't find the mother doll"
	Emotion	"Did you liked my story?"

Other Related	Cognition	"Did you get bored?"
	Perception	"The child hugged his mother, did you see?"
	Physiological	"Are you thirsty too?"
	Action-based	"Can you find the mother doll?"
	Opacity	" I guess the child felt happy"
	Inappropriateness	"The child wants to kill his parents"

Bekar and Çorapçioğlu (2016) adapted the coding system to Turkish language by using the narrations of Turkish mother-child dyads. The coding system then was adapted for the use for other stories and interviews with parents for this study. During this procedure the resolution category was excluded from the coding system and since the diversity of the words increased, new words were added to the coding manual by consensus with Özlem Bekar, PhD.

In this study, to assess mentalization capacity of children, the stories they told on Attachment Story Doll Completion Task were coded in terms of their mental state language. Since with adults the assessment of mentalization capacity in reference to their children are assessed by interview, this capacity with parents were assessed by coding their mental state language in an interview that include following questions: "Can you choose three adjectives that describe your child and provide incidents with respect to each adjective?", "Can you choose three adjectives that reflect the relationship between you and your child and also provide incidents with respect to each adjective?", "Can you describe yourself as a parent?". These questions were chosen to assess the mental state language of parents on their representations of their child, their relationship and themselves as a parent.

In the study, coders were three master level clinical psychology students who had 9 hours of training and reliability study with Özlem Bekar, PhD. One student coded all of the mental state language data while two other students coded the % 50 of the data. The single-measure inter-rater reliability of the coders was found to be 0.96.

2.2.3 Turkish Expressive and Receptive Language Test (TİFALDİ)

TİFALDİ (Berument & Güven, 2010) assesses the language abilities of the 2-12 year old Turkish-speaking children, with two subtests measuring the expressive and the receptive language abilities. Each subscale test starts with the age appropriate item determined depending on the children's chronological age and the items get harder as the test progresses. Expressive language subscale consists 95 black and white pictures that is shown to the children one by one where the children is expected to name what is on the picture. At the end of the test a standardized score ($M=100$, $SD= 15$) is given to the children depending on their raw score and the chronological age. Berument and Güven (2010) reported that expressive language test showed adequate internal consistency in general (Cronbach's $\alpha = .98$) and across age groups (Cronbach's $\alpha = .96$ to $.86$). Berument and Güven (2010) in terms of validity also reported that standardized scores of expressive language subtest were significantly associated with WISC-R Verbal Scale ($r= .521$; $p< .000$). The receptive language subscale consists 159 cards with four black and white pictures on it where the administrator tells a word and expects the child to show the picture of the word in the card. As in the previous subtest, at the end of the test a standardized score ($M=100$, $SD= 15$) is given to the children depending on their raw score and the chronological age. Berument and Güven (2010) reported that receptive language test showed adequate internal consistency in general (Cronbach's $\alpha = .99$) and across age groups (Cronbach's $\alpha = .88$ to $.96$). They also reported a significant relationship between receptive language subtest and WISC-R Verbal Scale ($r= .447$; $p< .000$).

2.3 Procedure

Data collection took place in Istanbul Bilgi University Psychological Counseling Center that provides psychotherapy and where master level clinical psychology students complete their clinical practicum as therapists. During their intake session parents are informed about the ongoing psychotherapy research in the center and asked if they want to volunteer to participate in the study. A written consent from the parents and an oral consent from the child was taken restating that they approve to participate in the study. Also, a written consent was taken stating if the parents approve recording of the procedure and if they do, the type of the recording (audio,

video). The research was approved by the Istanbul Bilgi University Ethics committee and funded by Scientific and Technological Research Council of Turkey (TÜBİTAK) with Project Number 215K180.

During their intake session, parents are interviewed on their perceptions of their children, the relationship between them and themselves as parents. Before the treatment procedure begin, children were assigned to research assistants who were master level clinical psychology students and were trained to administer the testing materials. The administration took place in a private room and the whole procedure was recorded depending on the type of recording the parents approved. The sequence of the administration was; Attachment Story Completion Task, Tifaldi Turkish Expressive and Receptive Language Test. The administration of the procedure took around one and a half hours.

Chapter 3

Results

In this section of the study, descriptive analysis and hypothesis testing of the data will be presented. Preliminary tests to control child verbal abilities revealed that TIFALDI Expressive Language ($M=112.33$, $SD=22.1$) and TIFALDI Receptive Language ($M=111.48$, $SD=20$) scores were in the normal range.

3.1 Data Analysis

In order to control the difference in the type of narrations used for mental state assessment with parents and children and to eliminate the difference in word count emerging from the variations in verbosity, each mental state talk variable for mothers, fathers and children were divided by their total word count. All of the mental state talk variables; emotion-based (E), cognition-based (C), perceptualbased (P), physiological-based (PHY), action-based (A) and total mental state words ($E+C+P+PHY+A$) were included in the analysis under four directions in reference to whose mental states are mentioned: *story-related*, *selfrelated*, *otherrelated* and *outer reality-related*. The opacity of mental states variable was coded independent of the four directions so it was included in the analysis as a separate variable. The further analysis was done by using both the mental state talk subcategories (e.g. *story related emotion words*, *self-related emotion words*, *otherrelated emotion words*) and total mental state word summations (e.g. *story-related total mental state words*, *self-related total mental state words*, *other-related*

total mental state words) in reference to the directions mentioned above; also by the opacity of mental state language. It is important to note that, since mothers and fathers' mental state talk was assessed during an interview, their mental state references regarding their children were coded under the cluster *other-related mental state talk*.

The relationship of age, gender and verbal abilities with children's mentalization level was explored in order to observe if they need to be controlled in further analysis. Finally, partial correlation was applied to analyze the relationship between child attachment security, mental state talk and parental mental state talk.

3.2 Descriptive Analysis

The inappropriateness of mental state talk variable (C10) was excluded from the analysis because the parental mental state language was assessed by interview and the code was inapplicable to the interviews since the interaction between the parents and children were not observed. Similarly the causal and unique categories of mental state words were excluded from the analysis since they did not show any variance.

Descriptive statistics for children's secure rating of Attachment Story Completion Task and mental state talk in reference to three clusters are presented in the Table 1. Also, descriptive statistics for maternal mental state talk and paternal mental state talk in reference to three clusters are presented on Tables 2 and 3 respectively. Descriptive statistics include minimum values, maximum values, means, standard deviations and the percentage of the words used in the mental state talk clusters and categories.

Table 2. Descriptive Statistics for Children's Secure Rating of Attachment Story Completion Task and Mental State Talk Variables

			Min.	Max.	Mean	SD
ASCT Secure Rating			1	5	2.48	1.23
Story	Related	MST				
			.01	.12	.07	.03
(E+C+P+PHY+A)						
Self	Related	MST				
			0	.05	.01	.01
(E+C+P+PHY+A)						
Other	Related	MST				
			0	.04	0	.01
(E+C+P+PHY+A)						
Opacity of MST			0	.03	0	0

Note: Story= The frequency of mental state words referring to characters in storytelling, Self= the mental state words referring to self, Other= The mental state words referring to other, (E+C+P+PHY+A)= Cluster scores that are obtained from summation of emotion, cognition, perception, physiological and action based mental state words.

Table 3. Descriptive Statistics for Mother's Mental State Talk Variables

			Minimum	Maximum	Mean	SD
Story	Related	MST				
		(E+C+P+PHY+A)	0	0	0	0
Self	Related	MST				
		(E+C+P+PHY+A)	.01	.07	.03	.01
Other	Related	MST				
		(E+C+P+PHY+A)	.01	.09	.04	.02
Opacity of MST			0	.03	0	0

Note: Story= The frequency of mental state words referring to characters in storytelling, Self= the mental state words referring to self, Other= The mental state words referring to children, (E+C+P+PHY+A)= Cluster scores that are obtained from summation of emotion, cognition, perception, physiological and action based mental state words.

Table 4. Descriptive Statistics for Father's Mental State Talk Variables

			Minimum	Maximum	Mean	SD
Story	Related	MST				
		(E+C+P+PHY+A)	0	0	0	0
Self Related MST			.01	.06	.03	.01
(E+C+P+PHY+A)						
Other	Related	MST				
		(E+C+P+PHY+A)	0	.08	.04	.02
Opacity of MST			0	.02	0	0

Note: Story= The frequency of mental state words referring to characters in storytelling, Self= the mental state words referring to self, Other= The mental state words referring to children, (E+C+P+PHY+A)= Cluster scores that are obtained from summation of emotion, cognition, perception, physiological and action based mental state words.

Since mother and father mental state language was assessed by interview, and included only few story-related mental state words, their story-related mental state cluster was not included in the further analysis. Moreover, since child mental state language was assessed by their storytelling's, and include only few selfrelated and other-related mental state words, self-related and other-related mental state talks of children were not included in the further analysis. The percentage of the five sub-categories; emotion, cognition, perception, physiological and actionbased mental state talk clusters for mothers, fathers and children are presented on Tables 4, 5 and 6 respectively.

Table 5. Percentage of Mental State Talk Sub-Categories Among SelfRelated and Other-Related Mental State Clusters for Mothers

	Self Related MST (E+C+P+PHY+A)	Other Related MST (E+C+P+PHY+A)
	Percentage	Percentage
<i>Emotion based</i>	23.43%	25.10%
<i>Cognitive based</i>	47%	36.4%
<i>Perception based</i>	6.02%	7.01%
<i>Physiological based</i>	3.54%	3.8%
<i>Action based</i>	20.03%	28%

Note: Self= The mental state words referring to self, Other= The mental state words referring to children, (E+C+P+PHY+A)= Cluster scores that are obtained from summation of emotion, cognition, perception, physiological and action based mental state words.

Table 6. Percentage of Mental State Talk Sub-Categories Among SelfRelated and Other-Related Mental State Clusters for Fathers

	Self Related MST (E+C+P+PHY+A)	Other Related MST (E+C+P+PHY+A)
	Percentage	Percentage
<i>Emotion based</i>	20%	23.5%
<i>Cognitive based</i>	46%	37%
<i>Perception based</i>	8%	10%
<i>Physiological based</i>	3.40%	4.1%
<i>Action based</i>	23%	26.1%

Note: Self= The mental state words referring to self, Other= The mental state words referring to children, (E+C+P+PHY+A)= Cluster scores that are obtained from

summation of emotion, cognition, perception, physiological and action based mental state words.

Table 7. Percentage of Mental State Talk Sub-Categories Among StoryRelated Mental State Cluster for Children

	Story (E+C+P+PHY+A)	Related	MST
	Percentage		
<i>Emotion based</i>	26%		
<i>Cognitive based</i>	17.30%		
<i>Perception based</i>	11.42%		
<i>Physiological based</i>	11.42%		
<i>Action based</i>	24%		

Note: Story= The frequency of mental state words referring to characters in storytelling, (E+C+P+PHY+A)= Cluster scores that are obtained from summation of emotion, cognition, perception, physiological and action based mental state words.

The five most frequently used mental state words were also detected for mothers, fathers and children. The five most frequently used mental state words for mothers and fathers within self-related and other-related clusters are presented on Table 7.

Table 8. Five Most Frequently Used Words Within Self-Related and OtherRelated Mental State Talk Clusters for Mothers and Fathers

Self Related MST (E+C+P+PHY+A)			Other Related MST (E+C+P+PHY+A)	
Word Percentage			Word	Percentage
Mother	<i>think</i>	9.00%	<i>want</i>	12.00%
	<i>want</i>	8.40%	<i>love</i>	8.00%
	<i>know</i>	6.00%	<i>cry</i>	3.73%
	<i>love</i>	5.10%	<i>know</i>	3.32%
	<i>try</i>	4.00%	<i>see</i>	3.00%
Father	<i>know</i>	7.00%	<i>want</i>	14.00%
	<i>think</i>	7.00%	<i>love</i>	7.30%
	<i>love</i>	7.00%	<i>know</i>	4.00%
	<i>want</i>	7.00%	<i>see</i>	3.43%
	<i>try</i>	6.44%	<i>cry</i>	3.00%

Note: Self= the mental state words referring to self, Other= The mental state words referring to children, (E+C+P+PHY+A)= Cluster scores that are obtained from summation of emotion, cognition, perception, physiological and action based mental state words.

The five most frequently used mental state words of children within storyrelated cluster is presented on Table 8.

Table 9. Five Most Frequently Used Words Within Story-Related Mental State Talk Cluster for Children

Story Related MST (E+C+P+PHY+A)		
	Word	Percentage
Children	<i>sleep</i>	7.36%
	<i>look sad</i>	6.27%
		5.29%
	<i>scared</i>	4.90%
	<i>want</i>	4.36%

Note: Story= The frequency of mental state words referring to characters in story-telling, (E+C+P+PHY+A)= Cluster scores that are obtained from summation of emotion, cognition, perception, physiological and action based mental state words.

Preliminarily a correlational analysis was conducted to reveal the possible correlations between demographic variables and measures, which are presented in Table 9.

Table 10. Pearson Correlation Between Demographic Variables and Measures

	Age	Gender	Sibling	Maternal Education	Paternal Education
ASCT Secure Rating	.446 **	-.285 **	-.059	-.039	.009
Child Story-Related MST	.460 **	-.110	.054	.021	.043
Mother Self-Related MST	-.152	-.118	.115	-.180	-.157
Mother Other- Related MST	-.010	-.006	-.108	.134	.193
Father Self-Related MST	-.351 **	.131	-.021	-.031	-.001
Father Other- Related MST	.006	-.262 *	-.023	.189	.159
Tifaldi Expressive Language Test	.090	.000	-.094	.234	.193

Note: * $p < .05$

** $p < .01$

According to Pearson Correlations, the demographic variable of child's age was positively associated with child attachment security, child story-related mental state talk and negatively associated with father other-related mental state talk. Another demographic variable gender was negatively associated with child attachment security and father other-related mental state talk.

An independent t-test was conducted for comparing the means of child, mother and father measures for child gender. The t-test indicated that mean scores were significantly differed only for child attachment security and father otherrelated mental state talk. According to the t-test, females ($M=2.90$, $SD=1.11$) scored significantly higher than males ($M=2.22$, $SD= .30$) on ASCT secure rating; $t(81) =$

2.50, $p < .01$ also father's other-related mental state talk, $t(61) = 2.12$, $p < .05$ was higher for females ($M = .04$, $SD = .02$) than males ($M = .03$, $SD = .01$). Depending on the Pearson correlations and t-test results, child age, gender and Tifaldi Expressive Language Test were used as controlling variables in the hypothesis testing.

The partial correlation analysis was conducted between all of the mental state talk categories and subcategories for mothers, fathers and children. Only the partial correlations that had given significant results will be shared below in the hypothesis testing section.

3.3 Hypothesis Testing

Hypothesis 1: *There will be a significant positive correlation between children's attachment security and mentalization level.*

As mentioned before, children's only story-related mental state language cluster was used in the correlation. Partial correlation between child attachment security and mental state language revealed a significant positive relationship with $r = .315$, $p = .01$ when child age, gender and Tifaldi Expressive Language Test were entered as control variables.

Hypothesis 2: *There will be a significant positive correlation between children's attachment security and mother's mentalization level.*

As mentioned before, mothers' story-related mental state language cluster was not included in the correlation, so the relationship was observed between children's attachment security and mothers' total self and other-related mental state talk. Partial correlation revealed a significant positive correlation between children's attachment security and mothers' self-related mental state talk with $r = .283$, $p = .05$ while no relationship was observed between children's attachment security and mothers' other-related mental state talk when child age, gender and Tifaldi Expressive Language Test were entered as control variables.

Hypothesis 3: *There will be a significant positive correlation between children's mentalization level and mother's mentalization level.*

Child age, gender and Tifaldi Expressive Language Test were entered as control variables. Partial correlation revealed a significant positive correlation between children's story-related total mental state talk and mothers' self-related total and self-related cognitive mental state talk with $r = .304$, $p = .01$ and $r = .325$, $p = .01$. While a significant negative correlation was observed between children's story related and mothers' other-related mental state talk with $r = -.274$, $p = .05$. Also, a significant positive correlation was observed between children's storyrelated cognitive mental state talk and mother's opacity of mental state talk with $r = .229$, $p = .05$.

Hypothesis 4: *There will be a significant positive correlation between children's attachment security and father's mentalization level.*

As mentioned before, fathers' story-related mental state language cluster was not included in the correlation, so the relationship was observed between children's attachment security and fathers' total self and other-related mental state talk. Child age, gender and Tifaldi Expressive Language Test were entered as control variables. Partial correlation revealed no relationship between children's attachment security and fathers' self-related and other-related mental state talk, while a significant positive correlation was observed between children's attachment security and fathers' self-related and other-related combined actionbased mental state talk with $r = .281$, $p = .05$.

Hypothesis 5: *There will be a significant positive correlation between children's mentalization level and father's mentalization level.*

Child age, gender and Tifaldi Expressive Language Test were entered as control variables. Partial correlation revealed only a positive correlation between children's opacity of mental state talk and fathers' self-related emotion based mental state talk with $r = .280$, $p = .05$. Also, a significant negative correlation was observed between children's story-related mental state talk and fathers' otherrelated mental state talk with $r = -.298$, $p = .05$.

Chapter 4

Discussion

The aim of the study was to explore the relationships between child attachment security and mental state talk; and also the relationship between maternal and paternal mental state talk with children's attachment security and mental state talk. As mentioned before, maternal and paternal mental state talks were analyzed under two clusters; the *self-related* and the *other-related*; while child mental state talk was analyzed under one cluster, the *story-related*. Otherrelated mental state talk in this study was specified as the mental state talk of mothers and fathers in reference to their children's mind.

According to the analysis, a significant positive relationship was observed between child attachment security and mental state talk. Moving on to the relationship between mothers and children, a significant positive association was observed between mothers' *self-related* mental state talk and children's attachment security, while no significant association was observed between mothers' *other-related* mental state talk and children's attachment security.

Furthermore, a significant positive relationship was also observed between mothers' *self-related* mental state talk and children's mental state talk. Likewise, a significant positive relationship was observed between mothers' *self-related cognitive* mental state talk and children's mental state talk. Moreover, a significant positive relationship was observed between mothers' *opacity* of mental state talk and children's *cognitive* mental state talk. In contrast to these positive associations, a significant negative relationship was observed between mothers' *other-related* mental state talk and children's mental state talk.

Along with these findings, different than the mothers, the only positive association between children's attachment security and father variables was the total of the *self* and *other-related action-based* mental state talk. Moreover, in the

analysis between the children's and fathers' mental state talk, a significant positive relationship was observed between fathers' *self-related emotion* mental state talk and children's *opacity* of mental state talk; while a significant negative relationship was observed between fathers' *other-related emotion* mental state talk and children's mental state talk. The findings of the study will be discussed starting with the ones concerning the relationship between attachment security and mental state talks and will be followed by the ones concerning the relationship between child and parental mental state talk.

4.1 Associations Between Child Attachment Security and Mental State Talk

One of the aims of this study was to explore the relationship between children's attachment security and mentalization capacity, which was operationalized as mental state talk in this study. According to the results, a significant positive relationship was found between children's secure rating of ASCT and mental state talk. Meins et al. (1998) suggested that the difference in attachment security and mentalization capacity in children occur because mothers of securely attached children are more likely to treat their children as mental agents from an early age. From a different perspective, Main (1991) suggested that secure children were more likely to pay more attention to exploration since less "attentional monitoring" was required to be directed to the caregiver. As a result these children would have more attentional space to review their own actions and thinking processes. It was also stated that since secure children experience an inner sense of security, they do not activate their attachment system and therefore are able to maintain an active mentalization system (Fonagy, 2006; Fonagy & Target, 2008; as cited in Rosso & Airaldi, 2016). According to Ontai and Thompson (2008) a secure attachment relationship provides the child a stable and organized mental representations of the caregiver which can be generalized to understand other people's mental states (Laranjo et al., 2010)

The relational context where mentalization occurs seems to be important too. Talking with the caregiver was proposed to be a factor effecting the development of mentalizing capacity. It was found that children who grew up in families where emotions are discussed perform better on mentalizing tasks (Dunn et al., 1991) and children who have secure attachment relationship with their

caregivers discuss emotions more frequently and in turn acquire a better understanding of emotions than other children (Thompson, 1997; as cited in Raikes & Thompson, 2006). Secure attachment relationship with the caregiver may then enhance more verbal interaction between the children and the caregiver, which in turn promotes the child's capacity to think about feelings and motives (Fonagy & Target, 1997). It was also found that there is a strong relationship between secure attachment and peer competence and the interactions with the peers might create a rich source for children to understand how the mind works (Fonagy & Target, 1997).

Prior studies investigating the link between child attachment security and mentalization capacity, operationalized mentalization in different constructs such as the theory of mind capacity, reflective functioning and mental state talk. In many of these studies, child attachment security was usually assessed during infancy with SSP, such as Meins et al.'s (1998) and Fonagy et al.'s (1997) studies where child attachment security assessed during infancy was predictive of theory of mind development in latency ages. With latency age children by using Child Attachment Interview (Target, Fonagy & Shmueli-Goetz, 2003) and its RF scale, it was also found that children's attachment security was associated with their reflective functioning capacity (Ensink et al., 2013; Ross & Airaldi, 2016). With studies using mental state talk in the assessment of mentalization capacity, it was found that insecure children have difficulty acquiring mental state talk (Beeghley & Cicchetti, 1994) and securely attached children use more mental state talk (McQuaid et al., 2007; Raikes & Thompson, 2006). The attachment assessment of this study was done with ASCT and mentalization was assessed with mental state talk in narrations, so this study contributes to the literature by using latency age children as a sample and attachment based mental state talk assessments. It can be suggested that even though the attachment security and mentalization capacity assessments were done during latency age and with different measurements, the finding of this study supports previous studies' findings that securely attached children might be better at mentalizing since the sense of security they experience helps them to create a more mental space to explore their own and others' minds and a secure relationship with their caregivers creates more opportunities to develop the capacity to mentalize.

4.2 Associations Between Child Attachment Security and Mothers' Mental State Talk

One of the other aims of this study was to explore the relationship between child attachment security and maternal mentalization capacity. According to the results, a significant positive relationship was found between children's attachment security and mothers' *self-related* mental state talk. Studies in the field prominently assess maternal mental state talk in reference to their children's mind while there are limited studies assessing the maternal mental state talk in reference to their own mind, so with this finding this study might be filling a gap. Prior studies investigating the link between child attachment security and mothers' mentalization capacity, operationalized mentalization in different constructs such as mind-mindedness and mental state talk, however they have not assessed the direction of mental state talk. In maternal mind-mindedness studies, it was reported that greater mind-mindedness capacity was associated with child attachment security (Arnott & Meins, 2007) and also mothers with securely attached children were more likely to describe their children in reference to their mental states (Meins et al., 1998). In research that use mental state talk for the assessment of mentalization, it was found that mothers who have securely attached children use more mental state talk

(McQuaid et al., 2007; Razuri, Howard & Cross, 2017) and also mothers' mental state talk in combination with the appropriateness of mental state talk predicted child attachment security better (McElwain, Booth-LaForce & Wu, 2011).

The use of self-related mental state talk of mothers might indicate that they are more able to understand their mental processes and narrate these to their children. Knowing how and why their mothers act the way they do, these children might be feeling more secure since they have a more predictable relationship with their parents. The following dialogue might be an example of this:

“T: Can you describe yourself as a parent?”

M: I'm an impatient mother, I get angry (*self-related MST*) so fast and then I regret it (*self-related MST*). I want (*self-related MST*) to spend time with him and I want to do the best for him, but when things get out of their way I got very angry (*self-related MST*) to him. I try (*self-related MST*) not to, but I get very angry (*self-related MST*). When I get that angry (*self-related MST*), I lose my capacity to deal with my emotions”.

In this example, even the mother is talking about a negative experience such as her anger that she is not able to manage, her awareness of the way she feels and acts might help her children to understand her mind. By narrating and explaining her internal processes, she might be providing a predictability about the way she feels and acts, which might create a more secure environment for the child.

In Gocek, Cohen & Greenbaum's (2008) study, it was found that nonclinical group mothers used more self-related mental state words compared to the mothers in the clinical group. Gocek et al. (2008) suggested that securely attached individuals might be differentiated from insecurely attached individuals by their capacity to self-reflect on their own mental states (Main et al., 1985; Main, 1991). Therefore, the use of self-related mental state talk in mothers might signal an openness and readiness to create a shared mental world in which the mother and child's minds are both welcomed (Gocek et al., 2008).

Halfon et al. (2017) assessed the play quality and mental state talk of mother-child and father-child dyads and its relation with behavioral problems in a clinical group of latency age children. The children were observed separately with their mothers and fathers during their play interactions. These interactions were then coded for play variables with Children's Play Therapy Instrument (CPTI; Kernberg, Chazan, & Normandin, 1998) and mental state talk with CS-MST (Bekar et al., 2014). As in this study, the mental state talk was coded in three directions, in reference to play, self and other. Halfon et al. (2017) found that mothers' self-related mental state talk was associated with children's affect modulation also suggesting that mothers who have the capacity to reflect on their own internal states are more sensitive to their infant's internal world. It was also suggested that a mother's capacity to regulate her own internal states is connected

to her capacity to regulate and respond to her child's needs (Slade et al., 2005) and that understanding self is an important step in understanding others (Davidson, 1983; as cited in Fonagy et al., 1991). Also, enhanced self-reflection fosters the judgments about the other's mental states and that knowing oneself can be the starting point in understanding other minds (Dimaggio, Lysaker, Carcione, Nicolo & Semerari, 2008).

One of the most frequently used self-related words of mothers was *know*. As cited in Gocek et al. (2008), mental state words such as *know* may play an important role in emotion regulation by conveying the message that the mother understands the child and can contain child's emotions. The findings of this study support the suggestion that maternal mentalization, more specifically maternal *selfrelated* mental state talk fosters the security of the attachment relationship with children since a mother who is able to refer to her own mind is perhaps better able to mentalize her child (Gocek et al., 2008).

4.3 Associations Between Child Attachment Security and Fathers' Mental State Talk

The other aim of this study was to explore the relationship between child attachment security and paternal mentalization capacity. According to the results, no significant correlations were observed between fathers' *self-related* and *otherrelated* mental state talk and children's attachment security, but a significant positive correlation was observed between children's attachment security and fathers' *self-related* and *other-related* combined *action-based* mental state talk.

The studies investigating the link between children's attachment security and fathers' mentalization capacity are limited, but still there are studies that have found significant associations between fathers and children. Based on monthly home interviews of 60 mothers and observations of their infants, Schaeffer and Emerson (1964) found that fathers can either share the role of being the principal attachment figure with mothers or be the sole principal attachment figure for the children (as cited in Bretherton, 2010). In Arnott and Meins' (2007) study with 1215 months old infancy age children, attachment security (SSP) was found to be associated with higher parental reflective functioning capacity (AAI; Fonagy et al.,

1998) and greater mind-mindedness. With infants, during a series of laboratory episodes where either one or both of the parents are present, Lamb (1976) found that infants seek mothers and fathers equally, but while fathers receive mostly the affiliative behaviors such as smiling and playing, mothers receive mostly the attachment behaviors (as cited in Bretherton, 2010). Lamb (1977a) conducted home observations with 7-12 month olds and found that infants seek physical contact equally with both parents, but while mothers held infants more for caregiving, fathers held them more for play (as cited in Bretherton, 2010). Play has also been found as the most important interactional context between fathers and children in contrast to caregiving activities shared between mothers and children (Hewlett, 1992; Lamb, 1997; as cited in Grossman et al., 2002). In Halfon et al.'s (2017) previously mentioned study, with latency age children, it was also found that fathers' mental state talk was associated with children's role-playing capacity. Moreover, only in father-child dyads, but not mother-child dyads; fathers' mental state talk in reference to their own mind and children's mental state talk in reference to their fathers' mind during interactive play was found to be associated with fewer internalizing problems, since fathers' perform a unique role in children's play (Halfon et al., 2017).

Depending on his findings, Lamb (1977b) suggested that mother-infant and father-infant relationships might involve different quality of experiences that result in different influences on children's personality development (as cited in Bretherton, 2010). Le Camus (2000) defined fathers' act as an attachment figure that connects the child to the outside world through playful interactions (as cited in Dumont & Paquette, 2013). Lamb (1975) also represented fathers as the link between the child and the outside world (as cited in Grossman et al., 2002). It was proposed that fathers' stimulation of children create the opportunity to experience novel and exciting challenges, which help children to regulate arousal in a socially acceptable manner (Paquette, 2004; as cited in Dumont & Paquette, 2013). Grossman et al. (2002) suggested that fathers play a salient role supporting the exploration side of a child's attachment and argued that fathers foster secure exploration while mothers foster secure attachment, fulfilling different but equally influential roles.

The distinction mentioned above, between father and mother attachment behaviors might be the reason that in this sample fathers' total *action-based* mental state talk was the only father variable that correlated with children's attachment security since fathers foster a more action based, exploratory and instrumental support in attachment relationships. Many of the studies with mental state talk, mostly assess mental state language in mother-child dyads and in reference to desire, emotion and belief words so, the outcome of fathers' mental state talk in reference to actions might be overlooked.

The five most frequently used action-based mental state talk of fathers were *try*, *cry*, *kiss*, *hug* and *share* consecutively. Murphy (1997) states that, fathers' challenging behavior towards their children should be bounded with sensitivity in order to create a sense of security while exploring new experiences (as cited in Grossman et al., 2002). Bowlby (1979) also states that, fathers' play sensitivity seems to be as much as important part of child attachment system as maternal caregiving sensitivity is (as cited in Grossman et al., 2002). Looking from this perspective, the five most frequently used *action-based* mental state words of fathers both include words that foster challenge and openness to the outside world such as *try* and *share* and also include a touch of sensitivity with the words such as *cry*, *kiss* and *hug*.

The following dialogue might be an example of how fathers create a secure environment differently than mothers:

"F: I try (*self-related action MST*) to spend as much as time with him when we're together. While we spend time together, I try (*self-related action MST*) to help (*self-related action MST*) him by teaching things he might need. I try (*self-related action MST*) to be a good father. I try (*self-related action MST*) to do everything for him to not feel sad".

In this dialogue, by using mostly action-based mental state words, the father shows how he tries to create a secure and a caring environment for his child, by both trying to teach him new experiences and showing affection.

4.4 Associations Between Children's Mental State Talk and Mothers' Mental State Talk

Another aim of this study was to explore the relationship between children and mothers' mentalization capacity. According to the results, several different associations were found between mothers and children's mental state talk variables, which will be discussed respectively depending on their consistency with the previous findings and the meaning they might be indicating. First of all, a significant positive relationship was found between children's *story-related* mental state talk and mothers' *self-related* mental state talk.

Mothers' self-reflection capacity might be internalized by their children since during their interactions mothers usually try to teach their children the social norms, the way they can act during certain situations and how to deal with certain problems. The following dialogue can be given as an example to this:

"T: Can you give an example of why you described your child as compassionate?

M: She has the same qualities that I have. She says 'let's give it to someone in need'. I think (*self-related MST*) the same thing. She thinks (*other-related MST*) my thought. For example she loves (*other-related*

MST) old people. I love (*self-related MST*) old people too".

In this mother's words, we can see how her child's internal processes are similar and reflective of her own internal processes. Crittenden (1994) also suggests that the infant internalizes the caregiver's attitude and this attitude becomes the content of the experience of the self (as cited in Fonagy & Target, 1997). In a similar manner, Fonagy and Target (1998) propose that the infant's perception of the other is internalized as a representation that will eventually become the reflective part of the self.

Prior studies assessing the link between children and mothers' mentalization capacity operationalized mentalization in different constructs such as reflective

functioning, mind-mindedness, theory of mind capacity and mental state talk. According to these studies in latency ages maternal reflective functioning was associated with child reflective functioning (Ensink et al., 2015; M. Ross & Airoldi, 2016). In mind-mindedness studies, it was found that maternal mind-mindedness was positively related with children's theory of mind capacity (Meins & Fernyhough, 1999), more specifically it was also found that mothers' tendency to comment appropriately on their child's mental states was the best predictor of children's theory of mind capacity in later ages (Meins et al., 2002; Meins et al., 2003; Meins et al., 2012). In a similar manner, with mental state talk assessments it was found that maternal mental state talk predicted children's theory of mind capacity (Dunn et al., 1991; as cited in Tompkins et al., 2017; Turnbull, Carpendale & Racine, 2008; Tompkins et al., 2017) and mental state talk (Ruffman, Slade & Crowe, 2002; Taumoepeau & Ruffman, 2006) and their social understanding (Pearson & Pillow, 2016). Moving on to later ages, according to Pearson and Pillow (2006) children's understanding of mental states has been found to be related to parenting style (Hughes, Deater-Deckard & Cutting, 1999) quality of parent-child relationship (Meins et al., 1998) and references to mental states during parent-child conversations (Dunn et al., 1991).

According to Fonagy & Target (1997) the caregiver facilitates the formation of mentalization capacity through complex linguistic and quasilinguistic processes.

Some in the field suggested that children's understanding of mind is implicit and language enables the explicit understanding of the mind (Ruffman, 2000; as cited in Taumoepeau & Ruffman, 2006). Taumoepeau and Ruffman (2006) also suggest that mothers' talk about mental states not only facilitate children's mental state talk, but it also facilitates children's social understanding generally.

Children's level of social understanding in return, influences the conversations children have with others and these conversations also influence the further development of children's social understanding (Pearson & Pillow, 2006).

The most frequently used self-related word of mothers was *think*. As cited in Gocek et al. (2008), the usage of the word *think* might function as a communication of a different point of view, which creates opportunities for the child to learn about others' minds (Fivush & Nelson, 2006). *Want* is one of the five

most frequently used *self-related* mental state words of mothers and one of the five most frequently used *story-related* mental state words of children. This might also support the suggestion that mothers' capacity to self-reflect on their mental world functions as a model for the children to internalize and create their own reflective capacity.

The other finding on the relationship between mothers and children's mentalization capacity was the significant positive relationship between children's *story-related* and mothers' *self-related cognitive* mental state talk. There are prior studies in the field, which found that mothers' cognitive mental state talk was associated with children's mental state talk and security of attachment (Jenkins et al., 2003; McElwain et al., 2011; Razuri et al., 2017). According to Tompkins et al.'s (2017) meta-analysis, parents' cognitive talk was a better predictor of children's false belief and emotion understanding. As cited in Ruffman, Slade and Crowe (2002) philosophers (Churchland, 1988) and psychologists (Wellman, 1990) have suggested that desires and beliefs are the two mental states that are central in understanding others' emotions and behaviors. Cognitive talk was also considered as the most advanced mental state talk since it is truly representational (Bartsch & Wellman, 1995; as cited in Jenkins et al., 2003). Bartsch & Wellman (1995) suggested that cognitive words such as *think* help children to identify concepts that they cannot see in comparison to emotion words, which usually have observable cues (as cited in Tompkins et al., 2017). In a similar manner, McElwain et al. (2011) proposed that cognitive mental state talk require inquiry since unlike emotions cognitions do not have behavioral cues and talk about cognitions provide a mentalistic perspective. Ensor and Hughes (2008) proposed that cognitive states bring more attention to the fact that thoughts are subjective (Tompkins et al., 2017). In a similar manner Harris (2005) proposed that cognitive words such as *think* may be more involved in conversations where parents emphasize different perspectives (Tompkins et al., 2017). In Gocek et al.'s (2008) study, it was found that nonclinical mothers used more self-related cognitive mental state talk than clinical mothers. Gocek et al. (2008) suggests that selfreferential cognition terms can be used for introducing contradictory ideas and communicate a different point of view.

Among the *self-related* cluster, mothers' most commonly used mental state talk category was *cognitive* mental state talk and the five most frequently used *self-related cognitive* mental state words of mothers were *think*, *want*, *know*, *understand* and *come to mind*, respectively. By using mostly *cognitive* mental state talk and specifically these five words, mothers describe and share their own mind and thinking processes, which might function as a way to introduce contradictory point of views in a sensitive way. These findings suggest that maternal cognitive mental

state talk may also be scaffolding children's own mentalizing capacity.

Another finding of this study is the significant negative relationship between children's *self-related* and mothers' *other-related* mental state talk. As mentioned before, mothers' *other-related* mental state talk in this study indicated mental state talk of mothers in reference to their children's mind. It might be that, since in this study, the children were a clinical group who were referred to psychological counseling, mothers' mental state talk in reference to children's mind might be experienced as being punitive; showing negative associations with children's mental state talk capacity, since these mothers encounter many problems with their children.

In Halfon et al.'s (2017) previously mentioned study it was found that during play interactions, mothers' *child-related* mental state talk was associated with less interactive role-playing since direct reference to children's mind might be dysregulating and experienced as a low level of intrusiveness to their internal world (Target et al., 2005). An example to this might be the following dialogue in a mother's interview:

“ T: Can you describe your child in three adjectives?

M: Three adjectives describing her.... she is very whiny, very selfish and a comfortable child.

T: Can you give an example of why you described her as selfish?

M: She is selfish because sometimes I take her out when I have stuff to do and she *tries (other-related MST)* to make me do the things she *wants (otherrelated MST)*. She is selfish because before even leaving the house, she *makes plans (other-related MST)* that will meet her own needs”.

In this example, the mother fails to differentiate between her own and her child's mind and refers the way her child shows her needs as selfish and sneaky planning behind her back. In pseudo-mentalization, family members believe that they know what other person is thinking and feeling without respecting the fact that the others have a separate mind (Asen & Fonagy, 2012). Also, intrusive parenting was expected to have negative effects on latency age children, since over controlling parents might tend to inhibit latency age children's autonomy to verbalize (Cabrera, D.Shannon & Tamis-LeMonda, 2007). Moreover, it was suggested that most people will temporarily lose their capacity to think about the thoughts and feelings of others when functioning in a fight-flight mode and failures of mentalization can occur in families with emotionally intense interactions (Luyten et al., 2009; as cited in Asen & Fonagy, 2012).

Prior studies have also found that during infancy, mothers' mental state talk or mind-mindedness in reference to their infant's mind was associated with infant's later theory of mind development (Meins et al., 2002; Meins et al., 2012), since the development of mentalizing capacity depends on the mother's capacity to hold her child's mental world in her mind and help him to explore it with representations of it. The reason of this difference might be explained as; with infancy age children, mothers' mental state talk in reference to infant mind is important in the development of mentalization capacity, whereas with latency age children, mothers' mental state talk in reference to children's mind might be intrusive and inhibiting children's autonomy. Combining with the previous findings, it might be suggested that with latency age children, mothers' selfrelated mental state talk would work as a model for reflective capacities rather than mothers' mental state talk in reference to children's mind. Also, as mentioned before, mothers' mind-mindedness and mental state talk with combination of appropriateness of it was a better predictor of children's mentalization capacity (Meins et al., 2002; Meins et al., 2003; Meins et al., 2012). In this study, the inappropriateness of mental state

talk code was inapplicable to the mothers' interview, so it might be that mothers' mental state talk in reference to children's mind might be inappropriate and since this inappropriateness was not coded, it might be overlooked. Even though it was not coded, an example for the inappropriateness of mental state talk might be the following dialogue:

“ M: She *loves (other-related MST)* to hang out with me. She loves *(otherrelated MST)* to get out and have fun *(other-related MST)* with me and to hug *(other-related MST)* me, but sometimes I push her away. She hugs *(other-related MST)* me and asks me if I love her. I tell her that I do, but sometimes I tell her that I don't. She is very emotional, she gets very touchy and I don't understand why”.

The last finding between mothers and children's mental state talk is the significant positive relationship between mothers' *opacity* of mental state talk and children's *story-related cognitive* mental state talk. The opacity of mental states is a sub-category in PDI's reflective function coding, but there is not any other measurement that assess specifically the opacity of mental state talk as a variable as in this study. Opacity of mental states indicate that the mother can not be sure of the child's mental states and she might have to guess or speculate what the child might be thinking (Slade, Bernbach, Grienberger, Levy & Locker, 2005). The opacity of mental states (Leslie, 1987) implies that one can never know, but can only guess what others are thinking and reactions are predictable at least to some extent (Asen & Fonagy, 2012). The opacity of mental states demonstrates a willingness to find out about other's mind and see things from the other's perspective (Bateman & Fonagy, 2016). As mentioned before, depending on their meta-analysis findings, Tompkins et al. (2017) suggested that cognition words also bring attention to the fact that thoughts are subjective and might emphasize different perspectives. It might be that mothers' capacity to understand and reflect upon the *opacity* of mental states create the chance for the child to observe and understand that other people's mental states are not hundred percent predictable and there are

always other perspectives and subjectivity that should be accounted for, which might be in turn foster children's *cognitive* mental state talk. Even though the frequency of opacity of mental state talk category is low, the most frequently used opacity word of mothers is *suppose*, which is also a cognition word, so it might be suggested that mothers' capacity to see the *opaqueness* of mental states scaffolds children's *cognitive* mental state talk.

4.5 Associations Between Children's Mental State Talk and Fathers' Mental State Talk

In this study, two different associations were found between fathers and children's mental state talk variables and since the studies with fathers are limited, the findings will be discussed depending on the assumptions on the meaning the findings might be indicating. First of all, a significant positive relationship was found between fathers' *self-related emotion* mental state talk and children's *opacity* of mental state talk. The importance of fathers' emotion talk might be that supportive fathering has positive effects on children's emotional and cognitive development while supportive mothering only affects cognitive development (Cabrera, D.Shannon & Tamis-LeMonda, 2007), which might indicate that fathers' emotion talk is an important factor in children's development. It has also been found that parents who discuss emotions have children who show a better understanding of their own and others' minds (Laible & Thompson, 2002; as cited in Benbassat & Priel, 2015) and involved fathers tended to have sons who expressed more vulnerability and warmth (Brody, 1997; as cited in Benbassat & Priel, 2015). Moreover, fathers' reflective functioning was suggested to be important for coping with children's feelings, including negative emotions and conflicts (Benbassat & Priel, 2015). Since the acknowledgement of negative emotions were found to be associated with children's socially adaptive behaviors (Bekar, 2014) and since fathers were found to be more likely than mothers to employ an authoritarian parenting style (McKinney & Renk, 2008; as cited in Benbassat & Priel, 2015); it might be suggested that because of their authoritarian role in the family environment, fathers might be acknowledging negative emotions more which in turn might be enhancing children's mental state talk capacity. The following dialogue might be given as an example for this:

“F: I see that sometimes he feels anxious that I might get angry (*self-related emotion MST*) to him. He fears that I will get angry (*self-related emotion MST*) with him. I tell him that I won't feel angry (*self-related emotion MST*) and he should do the right thing because it is right, but not because I might get angry (*self-related emotion MST*) with him”.

The acknowledgment and discussion of negative emotions might be creating the capacity to acknowledge new perspectives in children, which might be the reason that fathers' *self-related emotion* talk is associated with children's *opacity* of mental state talk. The way fathers play with their children might also be another explanation of this association. Rough and tumble play is a common type of play between fathers and their children and during these type of play children encounter negative emotions more. By this kind of play, fathers might be creating a space for their children that they can express negative emotions.

As mentioned before, the studies assessing the link between paternal mentalization capacity and child mentalization capacity are limited, but there are studies that have found associations between paternal and child variables. With children aged between 14-18 and their parents, Benbassat and Priel (2012) during home interviews assessed parental reflective functioning (PDI; Aber, Slade, Berger, Bresgi, & Kaplan, 1985), parenting behavior, parental involvement, adolescent reflective functioning (CAI; Target, Fonagy & Shmueli-Goetz, 2003), behavior problems and self-perception. Three two five years later, when the same participants are 18-22 years old, Benbassat and Shulman (2016) assessed the same measures again. Depending on their results they reported that paternal reflective functioning was associated with adolescent competence and fewer externalizing problems (Benbassat & Priel, 2012), higher levels of self-description and positive self-perception (Benbassat & Schulman, 2016). As mentioned before, in Halfon et al.'s (2017) study, during play interactions it was found that fathers' mental state talk was associated with children's role-playing capacity. It might be suggested that since there are limited studies that use fathers and their self-related mental state talk cluster and since the limited studies are different in context this result might be a finding that is overlooked and filling a gap in the field.

The other finding on the relationship between fathers and children's mentalization capacity was the significant negative relationship between fathers' *other-related emotion* mental state talk and children's *story-related* mental state talk. In their study Arnott and Meins (2007) have found that fathers produced proportionally more inappropriate mind-related comments than mothers. It was also mentioned before that direct reference to children's mind might be dysregulating and possibly experienced as a low level of intrusiveness (Target et al., 2005; as cited in Halfon et al., 2017). According to these, it might be suggested that fathers' are encountered in more emotion talk, but since fathers proportionally use more inappropriate mind-related comments and since with latency age children the direct reference to children's minds might be dysregulating and intrusive, fathers' mental state talk directed to children might be weakening children's mentalization capacity. The following dialogue can be given as an example of how a father refers to his child's feelings in a full-knowing stance:

T: Can you give three adjectives that describe your relationship with your child?

F: She is *afraid (other-related MST)* of me, doesn't *love (other-related MST)* me, naturally. If you ask her if she *loves (other-related MST)* her mother or father more, she will definitely answer as mother".

Also, as mentioned before, since the sample of this study is a clinical group who were referred to psychological counseling and since during in times of emotionally intense interactions and problems within family, the capacity to think about mental states can be lost (Luyten et al., 2009; as cited in Asen & Fonagy, 2012), in this study, the inappropriate mental state talk of fathers might be more than expected.

Furthermore, as mentioned before, parental mental state talk with combination of appropriateness of it was a better predictor of children's mentalization capacity (Meins et al., 2002; Meins et al., 2003; Meins et al., 2012). In this study, the inappropriateness of mental state talk code was inapplicable to the fathers' interviews, so it might be that fathers' *emotion* mental state talk in reference

to children's mind might be inappropriate and since this inappropriateness was not coded, it might be overlooked. Even though it wasn't coded, the following description of a father of his son's behaviors can be given as an example:

“F: For example, when his mother takes out his clothes and tells him to wear them and he doesn't do it. He *chooses (other-related MST)* his own clothes, *loves (other-related MST)* to wear himself. I don't know what to call this, but it can be attributed as being stubborn”.

4.6 Clinical Implications

Results of this study could help understanding new factors in relation to attachment security and mentalization capacity. First of all it is important to acquire an understanding of how much the family interactions are important for children to develop mentalizing capacity. For instance a joint pretend play activity between the child and the caregiver, where the caregiver adopts child's mental states and represents them to the child, promotes the understanding of the mental states (Fonagy

& Target, 1997) and functions as a “zone of proximal development” (Vygotsky, 1978; as cited in Meins et al., 1998) for the capacity to mentalize. Also, the capacity to talk about emotions and mental states is an important factor for the development of mentalizing capacities (Dunn et al., 1991). It is important to keep in mind these factors and create opportunities within family interactions to play and talk with children about emotions, thoughts and different perspectives. Also, during psychotherapy processes it is also important to keep in mind that creating a play environment where children can adopt different perspectives where the therapist represents these perspectives and emotions back to children is very important.

Both with mothers and fathers it was found that mental state talk in reference to self had positive associations with children's mental state talk. It was proposed that the child's perception of the other is internalized as a representation that will eventually become the reflective part of the self (Fonagy & Target, 1998) and self-related mental state talk in mothers might signal an openness and readiness to create a shared mental world in which the mother and child's minds are both welcomed (Gocek et al., 2008). This finding is specifically important for clinicians

who work with children and their families. Since the parental capacity to understand the self is an important step in understanding their children, while working with families, besides psycho-educating parents in seeing and understanding children's minds, it is also important to psycho-educate them in understanding and reflecting upon their own minds.

Both with mothers and fathers it was found that mental state talk in reference to the child's mind had negative associations with children's mental state talk. This negative relationship was assumed to be because of the intrusiveness of mothers and fathers. Since this was a clinical sample, during intense emotional situations within families, it might be that mothers and fathers fails to mentalize and take a pseudo-mentalization stance where they think they know what the child is thinking and feeling for sure (Asen & Fonagy, 2012). This kind of pseudo-mentalization in reference to children's mind might be experienced as intrusiveness. It should be kept in mind that the sample of this study included latency age children, so it might be that with infancy age children, mothers' mental state talk in reference to infant mind is important in the development of mentalization capacity, whereas with latency age children, mothers' mental state talk in reference to children's mind might be intrusive and inhibiting children's autonomy. While working with families it might be important to work with parents for the replacement of the prominent style of using mental state talk in reference to children, by less intrusive styles. It should be also kept in mind that the inappropriateness or intrusiveness of mothers and fathers' mental state talk was not assessed in this study.

Finally, it was found that both in reference to child attachment security and mental state talk, mothers' and fathers' mental state talk had different associations in terms of quality. References to the self and references to the cognitions were the most important variables in understanding mothers' mental state talk, while references to emotions and references to action-based mental state talk were the most important variables in understanding fathers' mental state talk and their relation to child attachment security and mental state talk. This study supports the suggestion that in terms of attachment security and mentalization capacity, fathers and mothers fulfill different but equally influential roles (Grossman et al., 2002). So, during the assessments and psychotherapy processes, these different influences of mothers and fathers should be kept in mind. In conclusion, the assessment of

mothers' and fathers' mental state talk in reference to child's attachment security and mental state talk can provide important information for clinicians and for further research.

4.7 Limitations and Future Research

This study has several limitations. First of all, the sample size of the study was small, which caused the problem of small variance in some of the mentalization subcategories that needed to be removed. Especially, the sample size of fathers was smaller than mothers and children. Future studies with a larger sample size and equal number of people among triads could provide a better understanding on the relationship between attachment and mentalization, especially for fathers.

Another limitation of the study is the characteristics of the sample. This study included only children with clinical problems. In the future studies the inclusion of a non-clinical group in the study might be useful in understanding the difference between clinical and non-clinical groups in terms of the links between attachment security and mentalization. Also, with the clinical sample the assessment of the same variables after the psychotherapy process might also be important in understanding the links between attachment mentalization among families.

The other limitation of the study is about the measurement of mentalization. The measurement of mentalization was done with The Coding System for Mental State Talk in Narratives (CS-MST; Bekar et al., 2014). This coding system was originally developed to measure mental state talk during reading a wordless picture book. The coding system was then adapted to the attachment story stems and mothers' and fathers' interviews. Adaptation of this coding system to the interview might have failed measuring some aspects of mentalization. A mentalization coding system specifically developed for the interviews might be more accurate for the assessment of mental state talk. Also, the assessment of mental state talk for children and for parents were done using different contexts, one during a storytelling the others during an interview, which caused different variance of use between *story-related*, *self-related* and *otherrelated* clusters. While child variables were analyzed depending on their storyrelated mental state talk cluster, parental variables were analyzed depending on their *self-related* and *other-related* mental

state talk cluster. In their study Gocek et al. (2008) have found that the quality of mothers' mental state talk assessed during different contexts such as free play or eating snacks differed. So, in future studies a common context of measurement among mothers, fathers and children would give more accurate results and a better understanding of the links between mentalization among families.

Moreover, the coding system had a subcategory to code *inappropriateness* of mental state talk, but since the parental assessment of mentalization was done via interviews, this code was inapplicable. Since it was found that mental state talk in combination with the appropriateness of it is the best predictor of child attachment and mentalization (Arnott & Meins, 2007), the future studies would give a better understanding of the links between attachment security and mentalization if the appropriateness and inappropriateness of mental state talk category was adapted to the interviews. Also, in the future studies, the qualitative assessment of parental mental state talk would provide information on if the parents' attributions to their children's mind are mostly negative or inappropriate.

Moreover, the next limitation is that The Coding System for Mental State Talk in Narratives (CS-MST; Bekar et al., 2014) was developed with an Englishspeaking sample. It was found that when the false-belief understanding tasks were formed with the word *suppose* (*sanmak*) instead of *think* (*düşünmek*), the Turkishspeaking children showed better performance than English-speaking children (Kaysılı & Acarlar, 2011). The adaptation of a coding system that was developed depending on English language to Turkish might have failed to cover some aspects of mental state talk. In the future, a mental state talk measurement that is developed for Turkish language might provide a better understanding of mentalization capacity.

Also, the assessment of reflective functioning of mothers and fathers with the Parent Development Interview (PDI; Aber, Slade, Berger, Bresgi, & Kaplan, 1985) and also the assessment of attachment and reflective functioning of children with the Child Attachment Interview (Target, Fonagy & Shmueli-Goetz, 2003) might also provide another perspective for the links between attachment security and mentalization capacity among mother-father-child triads.

In this study, the mother-child and father-child dyads were assessed separately. In the future, the assessment of mothers, fathers and children as triads

would provide better results. Also, the relationship between psychopathology and mental state talk of fathers and mothers separately and interactively can be assessed in the future. Lastly, to understand if there are mediating variables that affect the links between attachment security and mentalization capacity, in the future rather than the partial correlation analysis, a more complex research design such as Structural Equation Modeling (SEM) would provide a better understanding.

4.8 Conclusions

This study aimed to explore the relationships between child attachment security and mental state talk; and also the relationship between maternal and paternal mental state talk in relation to children's attachment security and mental state talk. As mentioned before, maternal and paternal mental state talks were analyzed under two clusters; the *self-related* and the *other-related*; while child mental state talk was analyzed under one cluster, the *story-related*. Mothers' and fathers' *other-related* mental state talk in this study indicated mental state talk of parents in reference to their children's mind. The findings of the study revealed unique links between children's attachment security, mental state talk and parental mental state talk.

In summary, regarding the link between attachment security and mental state talk a significant positive relationship was found between child attachment security and (1) children's *story-related* mental state talk, (2) mothers' *self-related* mental state talk and (3) fathers' *self* and *other-related* total *action-based* mental state talk. Regarding the link between child mental state talk and parental mental state talk, with mothers (4) a significant positive relationship was found between children's *story-related* mental state talk and mothers' *self-related*, *self-related cognitive* mental state talk; children's *cognitive* mental state talk and mothers' *opacity* of mental state talk, while a significant negative relationship was found between children's *story-related* mental state talk and mothers' *other-related* mental state talk. With fathers (5) a significant positive relationship was found between children's *opacity* of mental state talk and fathers' *self-related emotion* mental state talk, while a significant negative relationship was found between children's *story-related* mental state talk and fathers' *other-related emotion* mental

state talk. In understanding the findings of this study, it should be kept in mind that these findings are obtained through a clinical sample.

REFERENCES

- Aber, J. L., Slade, A., Berger, B., Bresgi, I., & Kaplan, M. (1985). *The Parent Development Interview*. Unpublished manuscript.
- Ainsworth, M. (1969). Object Relations, Dependency, and Attachment: A Theoretical Review of the Infant-Mother Relationship. *Child Development*, 40(4), p.969.
- Ainsworth, M. D. S. (1967). *Infancy in Uganda: Infant care and the growth of love*. Baltimore: Johns Hopkins University Press.
- Ainsworth, M. D. S., Bell, S. M., & Stayton, D. J. (1971). Individual differences in Strange Situation behavior of one year olds. In H. R. Schaffer (Ed.), *The origins of human social relations*. New York: Academic Press.
- Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. (1978), *Patterns of Attachment: A Psychological Study of the Strange Situation*. Hillsdale, NJ: Erlbaum.
- Aksu-Koç, A., Ögel-Balaban, H. and Alp, I. (2009). Evidentials and source knowledge in Turkish. *New Directions for Child and Adolescent Development*, 2009(125), pp.13-28.
- Altan-Aytun, Ö., Yagmurlu, B. and Yavuz, H. (2012). Turkish Mothers' Coping with Children's Negative Emotions: A Brief Report. *Journal of Child and Family Studies*, 22(3), pp.437-443.

- Arnott, B., & Meins, E. (2007). Links among antenatal attachment representations, postnatal mind-mindedness, and infant attachment security: A preliminary study of mothers and fathers. *Bulletin of the Menninger Clinic*, 71(2), 132.
- Arslan, B., Taatgen, N. and Verbrugge, R. (2017). Five-Year-Olds' Systematic Errors in Second-Order False Belief Tasks Are Due to First-Order Theory of Mind Strategy Selection: A Computational Modeling Study. *Frontiers in Psychology*, 8.
- Asen, E., & Fonagy, P. (2012). Mentalization-based therapeutic interventions for families. *Journal of Family Therapy*, 34(4), 347- 370.
- Baptista, J., Osório, A., Martins, E., Castiajo, P., Barreto, A., Mateus, V., Soares, I. and Martins, C. (2017). Maternal and Paternal Mental-state Talk and Executive Function in Preschool Children. *Social Development*, 26(1), pp.129-145.
- Bateman, A. & Fonagy, P. (2016). *Mentalization-based treatment for personality disorders: a practical guide* Oxford: University Press
- Baydar, N. and Akcinar, B. (2015). Ramifications of socioeconomic differences for three year old children and their families in Turkey. *Early Childhood Research Quarterly*, 33, pp.33-48.
- Becker Razuri, E., Hiles Howard, A., Purvis, K. and Cross, D. (2017). Mental state language development: the longitudinal roles of attachment and maternal language. *Infant Mental Health Journal*, 38(3), pp.329-342.
- Beijerbergsen, M. (2007). *The adult attachment interview coherence and validation in adolescents*. Veenendaal: Universal Press
- Bekar, O., Steele, H., & Steele, M. (2014). *Coding Manual for Mental State Talk in Narratives*. Unpublished manuscript, Department of Clinical Psychology, The New School, New York, United States.

- Bekar, O. (2014). Mental state talk in mothers' and preschool children's narratives: relation to children's social-emotional functioning and maternal stress. *ProQuest Information & Learning*, AAI3625722.
- Benbassat, N. and Priel, B. (2012). Parenting and adolescent adjustment: The role of parental reflective function. *Journal of Adolescence*, 35(1), pp.163-174.
- Benbassat, N. and Shulman, S. (2016). The Significance of Parental Reflective Function in the Adjustment of Young Adults. *Journal of Child and Family Studies*, 25(9), pp.2843-2852.
- Bernier, A. and Miljkovitch, R. (2009). Intergenerational Transmission of Attachment in Father-Child Dyads: The Case of Single Parenthood. *The Journal of Genetic Psychology*, 170(1), pp.31-52.
- Berthelot, N., Ensink, K., Bernazzani, O., Normandin, L., Luyten, P., & Fonagy, P. (2015). Intergenerational transmission of attachment in abused and neglected mothers: The role of trauma-specific reflective functioning. *Infant Mental Health Journal*, 36(2), 200-212.
- Berument, S. K. ve Güven, A. G. (2013). Türkçe İfade Edici ve Alıcı Dil (TİFALDİ) Testi: I. Alıcı Dil Kelime Alt Testi Standardizasyon ve Güvenilirlik Geçerlik Çalışması. *Türk Psikiyatri Dergisi*, 24(3),192-201.
- Borelli, J., St. John, H., Cho, E. and Suchman, N. (2016). Reflective functioning in parents of school-aged children. *American Journal of Orthopsychiatry*, 86(1), pp.24-36.

- Bowlby, J. (1944). Forty-four juvenile thieves: Their characters and home-life. *The International Journal of Psycho-Analysis*, 25, 19.
- Bowlby, J. (1980a). *Attachment and loss, Vol.3: Loss, sadness sand depression*. New York: Basic Books.
- Bretherton, I. (2010). Fathers in attachment theory and research: a review. *Early Child Development and Care*, 180(1-2), pp.9-23.
- Bretherton, I., & Munholland, K.A. (1999). Internal working models in attachment relationships: A construct revisited. In J. Cassidy and P. Shaver (Eds.), *Handbook of Attachment Theory and Research*. New York: Guilford Press
- Bretherton, I., Ridgeway, D. & Cassidy, J. (1990), Assessing internal working models of the attachment relationship: An attachment story completion task for 3-yearolds. In: *Attachment In the Preschool Years*, (Ed.) M. T. Greenberg, D. Cicchetti & E. M. Cummings. Chicago: University of Chicago Press, pp. 273-308.
- Cabrera, N. J., Shannon, J. D., & Tamis-LeMonda, C. (2007). Fathers' influence on their children's cognitive and emotional development: From toddlers to pre-K. *Applied Development Science*, 11(4), 208- 213.
- Carpendale, J. I., & Chandler, M. J. (1996). On the distinction between false belief understanding and subscribing to an interpretive theory of mind. *Child Development*, 67(4), 1686-1706.
- Centifanti, L., Meins, E. and Fernyhough, C. (2016). Callous-unemotional traits and impulsivity: distinct longitudinal relations with mind-mindedness and understanding of others. *Journal of Child Psychology and Psychiatry*, 57(1), pp.84-92.

- Cicchetti, D. and Barnett, D. (1991). Attachment organization in maltreated preschoolers. *Development and Psychopathology*, 3(04), p.397.
- De Wolff, M. and van Ijzendoorn, M. (1997). Sensitivity and Attachment: A MetaAnalysis on Parental Antecedents of Infant Attachment. *Child Development*, 68(4), pp.571-591.
- Dimaggio, G., Lysaker, P. H., Carcione, A., Nicol, G., & Semerari, A. (2008). Know yourself and you shall know the other... to a certain extent: multiple paths of influence of self-reflection on mindreading. *Consciousness and cognition*, 17(3), 778-789.
- Dumont, C., & Paquette, D. (2013). What about the child's tie to the father? A new insight into fathering, father-child attachment, children's socio-emotional development and the activation relationship theory. *Early Child Development and Care*, 183(3-4), 430-446.
- Duschinsky, R. (2015). The emergence of the disorganized/disoriented (D) attachment classification, 1979–1982. *History of Psychology*, 18(1), pp.32-46.
- Ensink, K., Normandin, L., Target, M., Fonagy, P., Sabourin, S. and Berthelot, N. (2015). Mentalization in children and mothers in the context of trauma: An initial study of the validity of the Child Reflective Functioning Scale. *British Journal of Developmental Psychology*, 33(2), pp.203-217.
- Ensink, K., Target, M., & Oandasan, C. (2013). Child Reflective Functioning Scale scoring manual: For application to the Child Attachment Interview. Unpublished manuscript, Anna Freud Centre–University College London, London, UK.
- Esbjörn, B. H., Pedersen, S. H., Daniel, S. I., Hald, H. H., Holm, J. M., & Steele, H. (2013). Anxiety levels in clinically referred children and their parents: Examining

the unique influence of self-reported attachment styles and interview-based reflective functioning in mothers and fathers. *British Journal of Clinical Psychology*, 52(4), 394-407.

Fonagy, P. and Target, M. (1998). Mentalization and the changing aims of child psychoanalysis. *Psychoanalytic Dialogues*, 8(1), pp.87-114.

Fonagy, P. and Target, M. (2005). Bridging the transmission gap: An end to an important mystery of attachment research?. *Attachment & Human Development*, 7(3), pp.333-43.

Fonagy, P., & Target, M. (1996). Playing with reality, I: Theory of mind and the normal development of psychic reality. *International Journal of Psychoanalysis*, 77, 217–233.

Fonagy, P., & Target, M. (1997). Attachment and reflective function: Their role in self-organization. *Development and Psychopathology*, 9(4), 679–700.

Fonagy, P., Gergely, G., Jurist, E., & Target, M. (2002). *Affect regulation, mentalization, and the development of the self*. New York: Other Press.

Fonagy, P., Redfern, S. and Charman, T. (1997). The relationship between belief-desire reasoning and a projective measure of attachment security (SAT). *British Journal of Developmental Psychology*, 15(1), pp.51-61.

Fonagy, P., Steele, M., Steele, H., Leigh, T., Kennedy, R., Mattoon, G., et al. (1995). Attachment, the reflective self, and borderline states: The predictive specificity of the Adult Attachment Interview and pathological emotional development. In S. Goldberg, R. Muir, & J. Kerr (Eds.), *Attachment theory: Social, developmental and clinical perspectives*. (pp. 223 – 279). Hillsdale, NJ: Analytic Press.

- Fonagy, P., Steele, M., Steele, H., Moran, G. S., & Higgitt, A. C. (1991). The capacity for understanding mental states: The reflective self in parent and child and its significance for security of attachment. *Infant mental health journal*, 12(3), 201-218.
- Fonagy, P., Target, M., Steele, H., & Steele, M. (1998). *Reflective-functioning manual, version 5.0, for application to adult attachment interviews*. London: University College London, 161-62.
- Gergeley, G., & Watson, J. (1999). Early social development: Contingency perception and the social bio-feedback model. In P. Rochat (Ed.), *Early social cognition : Understanding others in the first months of life* (pp. 101–136). Mahwah, NJ: Lawrence Erlbaum.
- Gergely, G., & Watson, J. (1996). The social biofeedback model of parental affect mirroring. *International Journal of Psychoanalysis*, 77, 1181–1212.
- Gocek, E., Cohen, N., & Greenbaum, R. (2008). *Mothers' Mental State Language and Emotional Availability in Clinical Vs. Nonclinical Populations*. VDM Verlag.
- Granot, D., & Mayseless, O. (2001). Attachment security and adjustment to school in middle childhood. *International Journal of Behavioral Development*, 25(6), 530-541.
- Grossmann, K., Grossmann, K., Fremmer-Bombik, E., Kindler, H., Scheuerer, H., and Zimmermann, A. (2002). The Uniqueness of the Child-Father Attachment Relationship: Fathers' Sensitive and Challenging Play as a Pivotal Variable in a 16-year Longitudinal Study. *Social Development*, 11(3), pp.301-337.
- Halfon, S., Bekar, Ö., Ababay, S. and Dorlach, G. (2017). Dyadic Mental State Talk and Sophistication of Symbolic Play between Parents and Children with Behavioral Problems. *Journal of Infant, Child, and Adolescent Psychotherapy*, 16(4), pp.291-307.

- Hughes, C. and Dunn, J. (1998). Understanding mind and emotion: Longitudinal associations with mental-state talk between young friends. *Developmental Psychology*, 34(5), pp.1026-1037.
- Jenkins, J., Turrell, S., Kogushi, Y., Lollis, S. and Ross, H. (2003). A Longitudinal Investigation of the Dynamics of Mental State Talk in Families. *Child Development*, 74(3), pp.905-920.
- Kelly, K., Slade, A. and Grienberger, J. (2005). Maternal reflective functioning, mother–infant affective communication, and infant attachment: Exploring the link between mental states and observed caregiving behavior in the intergenerational transmission of attachment. *Attachment & Human Development*, 7(3), pp.299-311.
- Laranjo, J., Bernier, A., Meins, E. and Carlson, S. (2010). Early Manifestations of Children’s Theory of Mind: The Roles of Maternal Mind-Mindedness and Infant Security of Attachment. *Infancy*, 15(3), pp.300-323.
- Main, M., & Solomon, J. (1990). Procedures for identifying infants as disorganized/disoriented during the Ainsworth Strange Situation. In M. T. Greenberg, D. Cicchetti, & E. M. Cummings (Eds.), *Attachment in the preschool years* (pp. 121–160). Chicago: University of Chicago Press.
- Main, M., Kaplan, N. and Cassidy, J. (1985). Security in Infancy, Childhood, and Adulthood: A Move to the Level of Representation. *Monographs of the Society for Research in Child Development*, 50(1/2), p.66.
- Marcu, I., Oppenheim, D. and Koren-Karie, N. (2016). Parental insightfulness is associated with cooperative interactions in families with toddlers. *Journal of Family Psychology*, 30(8), pp.927-934.
- McElwain, N., Booth-LaForce, C. and Wu, X. (2011). Infant–mother attachment and children's friendship quality: Maternal mental-state talk as an intervening mechanism. *Developmental Psychology*, 47(5), pp.1295-1311.

- McMahon, C. and Meins, E. (2012). Mind-mindedness, parenting stress, and emotional availability in mothers of preschoolers. *Early Childhood Research Quarterly*, 27(2), pp.245-252.
- McQuaid, N., Bigelow, A., McLaughlin, J. and MacLean, K. (2007). Maternal Mental State Language and Preschool Children's Attachment Security: Relation to Children's Mental State Language and Expressions of Emotional Understanding. *Social Development*, 17(1), pp.61-83.
- Meins, E. (1997). *Security of attachment and the social development of cognition*. Psychology press.
- Meins, E. (1997). *Security of attachment and the social development of cognition*. Psychology press.
- Meins, E., & Fernyhough, C. (1999). Linguistic acquisitional style and mentalizing development: The role of maternal mind-mindedness. *Cognitive Development*, 14, 363 – 380.
- Meins, E., Centifanti, L., Fernyhough, C. and Fishburn, S. (2013). Maternal Mind-Mindedness and Children's Behavioral Difficulties: Mitigating the Impact of Low Socioeconomic Status. *Journal of Abnormal Child Psychology*, 41(4), pp.543-553.
- Meins, E., Fernyhough, C., de Rosnay, M., Arnott, B., Leekam, S., & Turner, M. (2012). Mind-mindedness as a multidimensional construct: Appropriate and nonattuned mind-related comments independently predict infant–mother attachment in a socially diverse sample. *Infancy*, 17, 393-415.

- Meins, E., Fernyhough, C., Fradley, E., & Tuckey, M. (2001). Rethinking maternal sensitivity: Mothers' comments on infants' mental processes predict security of attachment at 12 months. *Journal of Child Psychology and Psychiatry*, 42, 637–648.
- Meins, E., Fernyhough, C., Russell, J., & Clark-Carter, D. (1998). Security of attachment as a predictor of symbolic and mentalising abilities: A longitudinal study. *Social development*, 7(1), 1-24.
- Meins, E., Fernyhough, C., Wainwright, R., Clark-Carter, D., Das Gupta, M., Fradley, E. and Tuckey, M. (2003). Pathways to Understanding Mind: Construct Validity and Predictive Validity of Maternal Mind-Mindedness. *Child Development*, 74(4), pp.1194-1211.
- Meins, E., Fernyhough, C., Wainwright, R., Das Gupta, M., Fradley, E., & Tuckey, M. (2002). Maternal mind- mindedness and attachment security as predictors of theory of mind understanding. *Child Development*, 73, 1715–1726.
- Mesquita, B. (2001). Emotions in collectivist and individualist contexts. *Journal of Personality and Social Psychology*, 80(1), pp.68-74.
- Oppenheim, D. and Koren-Karie, N. (2002). Mothers' insightfulness regarding their children's internal worlds: The capacity underlying secure child-mother relationships. *Infant Mental Health Journal*, 23(6), pp.593-605.
- Oppenheim, D. and Koren-Karie, N. (2013). The insightfulness assessment: measuring the internal processes underlying maternal sensitivity. *Attachment & Human Development*, 15(5-6), pp.545-561.
- Oppenheim, D., & Koren-Karie, N. (2002). Mothers' insightfulness regarding their children's internal worlds: The capacity underlying secure child–mother relationships. *Infant Mental Health Journal*, 23(6), 593-605.

- Oppenheim, D., Goldsmith, D., & Koren-Karie, N. (2004). Maternal insightfulness and preschoolers' emotion and behavior problems: Reciprocal influences in a therapeutic preschool program. *Infant Mental Health Journal*, 25(4), 352-367.
- Oppenheim, D., Koren-Karie, N., Dolev, S. and Yirmiya, N. (2009). Maternal Insightfulness and Resolution of the Diagnosis Are Associated With Secure Attachment in Preschoolers With Autism Spectrum Disorders. *Child Development*, 80(2), pp.519-527.
- Oppenheim, D., Koren-Karie, N., Dolev, S. and Yirmiya, N. (2012). Maternal sensitivity mediates the link between maternal insightfulness/resolution and child–mother attachment: the case of children with Autism Spectrum Disorder. *Attachment & Human Development*, 14(6), pp.567-584.
- Pearson, R. and Pillow, B. (2016). Mother–Child Conversation and Children's Social Understanding During Middle Childhood. *The Journal of Genetic Psychology*, 177(4), pp.103-121.
- Pinto, G., Primi, C., Tarchi, C. and Bigozzi, L. (2017). Mental State Talk Structure in Children's Narratives: A Cluster Analysis. *Child Development Research*, 2017, pp.1-7.
- Raikes, H. and Thompson, R. (2006). Family emotional climate, attachment security and young children's emotion knowledge in a high risk sample. *British Journal of Developmental Psychology*, 24(1), pp.89-104.
- Rosso, A. and Airaldi, C. (2016). Intergenerational Transmission of Reflective Functioning. *Frontiers in Psychology*, 7.
- Ruffman, T., Slade, L. and Crowe, E. (2002). The Relation between Children's and Mothers' Mental State Language and Theory-of-Mind Understanding. *Child Development*, 73(3), pp.734-751.

- Schneider, W., Schumann-Hengsteler, R. and Sodian, B. (2005). Young children's cognitive development: interrelationships among executive functioning, working memory, verbal ability, and theory of mind. *Choice Reviews Online*, 42(10), pp.426177-42-6177.
- Slade, A. (2005). Parental reflective functioning: An introduction. *Attachment & Human Development*, 7(3), pp.269-281.
- Slade, A., Grienemberger, J., Bernbach, E., Levy, D. and Locker, A. (2005). Maternal reflective functioning, attachment, and the transmission gap: A preliminary study. *Attachment & Human Development*, 7(3), pp.283-298.
- Steele, H., & Steele, M. (2008). *Clinical applications of the adult attachment interview*. New York: Guilford.
- Steele, H., Steele, M. and Fonagy, P. (1996). Associations among Attachment Classifications of Mothers, Fathers, and Their Infants. *Child Development*, 67(2), p.541.
- Target, M., Fonagy, P., & Shmueli-Goetz, Y. (2003). Attachment representations in school-age children: The development of the Child Attachment Interview (CAI). *Journal of child psychotherapy*, 29(2), 171-186.
- Taumoepeau, M. and Ruffman, T. (2006). Mother and Infant Talk About Mental States Relates to Desire Language and Emotion Understanding. *Child Development*, 77(2), pp.465-481.
- Tompkins, V., Benigno, J., Kiger Lee, B. and Wright, B. (2017). The relation between parents' mental state talk and children's social understanding: A metaanalysis. *Social Development*, 27(2), pp.223-246.

- Uluç, S. (2005). *Okul öncesi çocuklarda benliğ e ilişkin inançlar, kişilerarası şemalar ve bağ lanma ilişkisinin temsilleri arasındaki ilişki: Ebeveynlerin kişilerarası şemalarının ve bağ lanma modellerinin etkisi*. Yayınlanmamış Doktora Tezi, Ankara: Hacettepe Üniversitesi.
- Van IJzendoorn, M. (1995). Adult attachment representations, parental responsiveness, and infant attachment: A meta-analysis on the predictive validity of the Adult Attachment Interview. *Psychological Bulletin*, 117(3), pp.387-403.
- Verhage, M., Schuengel, C., Madigan, S., Fearon, R., Oosterman, M., Cassibba, R., Bakermans-Kranenburg, M. and van IJzendoorn, M. (2015). Supplemental Material for Narrowing the Transmission Gap: A Synthesis of Three Decades of Research on Intergenerational Transmission of Attachment. *Psychological Bulletin*, 142(4), pp.337–366.
- Villachan-Lyra, P., Almeida, E., Hazin, I. and Maranhão, S. (2015). Styles of attachment and acquisition of the theory of mind. *Estudos de Psicologia*, 20(3).
- William Turnbull, Jeremy I. M. Carpendale, & Timothy P. Racine. (2008). Relations between Mother-child Talk and 3- to 5 Year-Old Children's Understanding of Belief: Beyond Mental State Terms to Talk about the Mind. *Merrill-Palmer Quarterly*, 54(3), 367-385.
- Zeegers, M., Colonnese, C., Stams, G. and Meins, E. (2017). Mind matters: A metaanalysis on parental mentalization and sensitivity as predictors of infant–parent attachment. *Psychological Bulletin*, 143(12), pp.1245-1272.

APPENDIX

Appendix A. Attachment Story Completion Task (ASCT)

Yönerge: Şimdi, nelerimiz var bir bakalım (aile figürlerini çıkarın). Bak bu bizim ailemiz. Bu büyükanne, bu anne, bu baba ve bunlarda çocuklar. (figürleri katılımcıya gösterin ve isimlerini söyleyin). Katılımcının çocuk figürüne isim vermesi sağlanır.

Uygulamacı: bu annesi, bu babası, bu büyük annesi, buda çocuk. Hadi çocuğa isim verelim. Çocuğun ismi ne olsun istersin

Uygulamacı: Şimdi ailemizle ilgili bazı öyküler uydurup, oynatacağız. Ben bu aile ile ilgili öyküler anlatmaya başlayacağım, sende bu öykülerin sonunu anlatacaksın.

Doğum günü öyküsü (ısınma oyunu)

Bu bir masa. Bakalım üzerinde ne varmış (katılımcı pastayı görüp isimlendirene kadar beklenir) bu ne pastası..... Evet bir doğum günü pastası. Şimdi öyküyü dikkatlice dinle. Anne çok güzel bir doğum günü pastası yapmış. Şimdi de herkesi masaya çağırıyor.

Anne: büyükanne, baba, çocuklar hadi gelin. Doğ um günü partisi yapalım. Hadi bakalım sen bu öykünün gerisini oynat. *Kazara Dökülen Meyve Suyu Öyküsü*

(Çocuk, anne, baba, masa, tabaklar)

Uygulamacı: “Tamam, Aklıma yeni bir hikaye geldi” (büyükanneyi alın ve yeni figürleri aşağı ıda gösterildiğ i gibi yerleştirin, masadan uzaklaştırın.)

Uygulamacı: (içinde sofr a malzemelerinin olduğ u kutuyu sallayın) “akşam yemeğ i için sofrayı hazırlamamda bana yardım eder misin?” (kutu katılımcıya verilir, katılımcı sofrayı hazırlayana kadar beklenir, eğ er yardım isterse yardımcı olunur.)

Uygulamacı: “Şimdi aileyi yemek masasının etrafına oturtalım, böylece yemeğ e hazır olsunlar” (katılımcı figürleri yerleştirene kadar beklenir)

Uygulamacı: (kaldığ ı yerden devam eder) “Burada ailemiz akşam yemeğ i yiyor. (çocuğ un verdiğ i isim) ayağ a kalktı, uzandı ve meyve suyunu kazara devirdi.” (çocuk figürünü meyve suyu kabını devirecek şekilde hareket ettirin, çocuğ un kabı açıkça görmesini sağ layın)

Anne: “....., meyve suyunu döktün” (sitemli ama aşırıya kaçmayan bir ses tonuyla; anneyi’a çevirin ve konuşt uğ u sırada hareket ettirin).

Uygulamacı: “şimdi ne olduğ unu bana göster”

Yatak Odasındaki Canavar Öyküsü

(Çocuk, anne, baba, üzerinde battaniyesi olan bir yatak)

Uygulamacı: “Ailemizi yeni oyun için hazırlayabilir misin?” (Eğ er katılımcı bu şekilde düzenlemezse, oyuncakları aşağı ıda görüldüğ ü gibi yerleştirin. Tekrar, ailenin geri kalanının yatak odasındaki yataktan en az 30 cm uzak olması oldukça önemlidir.)

Uygulamacı: “Şimdi neler olduğ una bak. Dikkatlice dinle”

Anne: (annenin yüzü öyküdeki çocuğ a çevrilir ve konuşurken hafifçe hareket ettirilir.) “Yatma vakti. Hadi bakalım, odana git ve uyu.”

Baba: “Şimdi yatağ ına git” (yüzü çocuğ a dönerek, bir parça hareket verip ve sesi kalınlaştırarak)

Çocuk: “Tamam anne baba gidiyorum.” (çocuk figürünü yatağ a doğ ru yürütün)

Uygulamacı: (açıklama yapar) “..... üst kattaki odasına gidiyor, gidiyor”

Çocuk: “Anne! Baba! Odamda bir canavar var! Odamda canavar var! (korkmuş bir ses tonuyla)

Uygulamacı: “şimdi ne olduğ unu bana göster”

Yaralı Diz Öyküsü

(Çocuk, anne, baba, kayalık için sünger, çimen için keçe)

Uygulamacı: “Tamam, Şimdi başka bir öyküm var. Ben bunları toplarken, sen ailemizi oraya koy ve yeni öykü için hazırla.” (Uygulamacı masanın köşesini gösterir. Öyküde kayalığ a tırmanan çocuk dışında ailenin geri kalanının kayalıktan en az 30 cm uzak olması önemlidir.)

Uygulamacı: “Bak şimdi elimde neler var! (Bir parça yeşil alan ve kayalık yerleştirilir.) Bu bir park. Anne babanla parka gider misiniz?” “Bunlar bizim ailemiz, parkta dolaşmaya çıkmışlar ve bu parkta yüksek, oldukça yüksek bir kayalık var.”

Çocuk: “Anne, baba bakın. Bu yüksek, çok yüksek kayalığ a nasılda tırmandığ ımı seyredin.” (çocuk figürünü kayalığ a tırmandırılmaya başlanır, daha sonra düşer) “off!, dizim acıyor” (ağ lamaklı bir sesle)

Uygulamacı: “şimdi ne olduğ unu bana göster”

Ayrılık Öyküsü

(Çocuk, anne, baba, büyükanne, çimen ve araba için bir kutu)

Uygulamacı: “Hadi bu sefer büyükanneyi kullanalım.” (Yeşil alan ve arabayla birlikte, aile ve büyükanneyi masaya aşağı ıdaki gibi yerleştirilir. Arabanın katılımcının önünde olması ve her iki ebeveynin çocuklara ve büyükanneye bakıyor olası önemlidir.)

Uygulamacı: “Burası onların ön bahçesi, ve bu onların arabası. Bu ailenin arabası.” (Araba katılımcının önünde durduğı u sırada anne ve babanın yüzlerini çocuk ve büyükanneye çevrilir.)

Uygulamacı: “Sanırım (katılımcının ismi), anne ve baba tatile gidiyorlar.” **Anne:** “Evet çocuklar (kızlar). Babanız ve ben bir tatile gidiyoruz. Şimdi sizden ayrılıp, tatile çıkıyoruz.” (Anne hafifçe hareket ettirilerek çocuklarla konuşturulur.)

Baba: “Bir hafta sonra görüşürüz. Büyükkanneniz sizinle kalacak.” (Baba hafifçe hareket ettirilerek çocuklarla konuşturulur.)

Uygulamacı: “Şimdi ne olduğı unu bana göster”

Yeniden Bir araya Gelme Öyküsü

(Çocuk, anne, baba, büyükanne, çimen ve araba için bir kutu)

Araba içindeki iki ebeveynle beraber masanın altından geri getirilir. Çocuklardan uzak olacak şekilde masanın üzerine yerleştirilir. (örneğ in, katılımcının ulaşmasını ve arabayı sürmesini engelleyecek şekilde uygulamacının yakınına konulur.) Eğ er bir önceki oyunda katılımcı çocuklar ve büyükanneyi masanın ortasına yaklaştırmışsa, geri gelen araba ve çocuk figürleri arasında mesafe oluşturacak şekilde bu figürler katılımcıya yakın bir yere geri koyulur.

Uygulamacı: “Tamam, Ne oldu biliyor musun? Bir hafta geçti ve büyükanne pencereden dışarı bakıyor.” (Büyükkannenin yüzü arabaya doğ ru çevrilir ve konuşurken biraz hareket ettirilir.)

Büyükanne: “Bakın çocuklar, anne babanız geri geldi. Tatilden eve geri döndüler.”

Uygulamacı: “Şimdi ne olduğı unu bana göster” (katılımcının arabayı eve yaklaştırmasına izin verilir ve gerekiyorsa yardımcı olunur.)

