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PREVIEW

Attachment, Parent-Child Discourse and Theory of Mind Development

by

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A DISSERTATION

Presented to the Faculty of

The Graduate College at the University of Nebraska

In Partial Fulfillment of Requirements

For the Degree of Doctor of Philosophy

Major: Psychology

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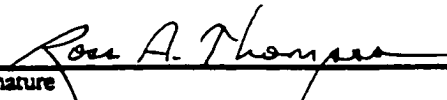
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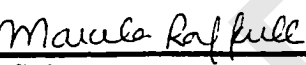
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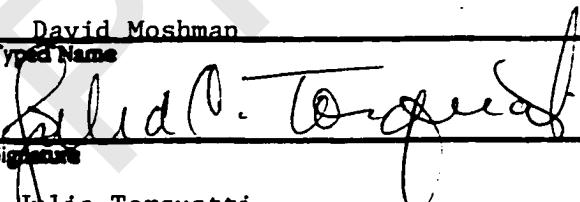
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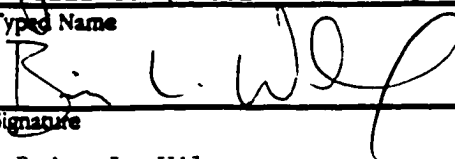
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Attachment, Parent-Child Discourse and Theory of Mind Development

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The current study proposes that secure attachment relationships provide children with a unique environment in which to learn about the relation between the mind and behavior. Secure attachment relationships possess characteristics such as goal corrected partnerships and open affective communication patterns, which help children perceive and understand the caregiver's mental state as they participate in ongoing interactions. This early insight into the link between mental states and the behavior of the caregiver may help securely attached children build more accurate and effective models of social interactions, easing the later navigation of their social world. The current study tested this theory with a sample of 78 4-year-olds and their mothers using measures of children's theory of mind, attachment security and mothers' affective and mental discourse. Results were contrary to the hypotheses, indicating that there was not a significant relationship between attachment security and children's theory of mind understanding. The discourse style used by mothers did not mediate the relationship between attachment and theory of mind nor did it have a significant relation to attachment as predicted.

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PREVIEW

Attachment, Parent-Child Discourse and Theory of Mind Development

The unique, enduring, emotional bond shared between parents and children assumes a central role in children's development. Often called "attachment" in developmental research, this bond is considered a fundamental component in many theories of socialization. Bowlby (1969) was the first to theorize about the importance of attachment bonds between parents and children, postulating that secure attachment relationships developed during infancy foster children's representations of relationships, which they draw upon to guide their future interactions with others. Recently, researchers have begun investigating the relations between attachment security and socialization processes such as parent-child discourse (Etzion-Carasso & Oppenheim, 2000; Oppenheim, Emde, & Wamboldt, 1996), as well as developmental outcomes such as children's understanding of mental states (Fonagy, Redfern, & Charman, 1997; Laible & Thompson, 1998; Meins, Fernyhough, & Russell, 1998; Steele, Steele, Croft, & Fonagy, 1999). The findings of this research support the theory that the attachment bond shared between parents and children creates a unique developmental context that influences parent-child discourse and children's understanding of themselves and others. However, to date there has been little attempt to investigate the interrelations between these areas of development concurrently, to offer a more comprehensive view of children's early social development (see Harris, 1999). The current study aimed to investigate the interrelations between attachment security, parent-child discourse and children's theory of mind, and to explore possible interactions between attachment security and parent-child discourse in the development of theory of mind.

Parents are considered the primary socialization agents of children (especially before they enter school) and as such, attachment theory often assumes a central role in theories about early socialization processes. In the original conceptualization of attachment bonds, Bowlby (1969/1982) postulated that, through the course of ongoing interactions with caregivers during infancy and early childhood, children form mental representations, termed “internal working models” (IWMs), of the relationship. Bowlby’s conceptualization of IWMs originated from a combination of object relations theory and the theory of Craik (1943), a neurobiologist who coined the term “internal working model” in reference to a survival theory of all organisms (see Bretherton & Munholland, 1999 for review). Craik viewed IWMs as mental models that organisms use to evaluate possible actions and their consequences in order to form more adaptive behaviors over time. In order to function adaptively, IWMs must be flexible and open to continual updates and developments as new information is processed with regards to new possible behaviors and alternative consequences to old and new actions. However, since they are mental models of action sequences, IWMs must also conserve the relational structure of events to accurately predict probable outcomes.

Bowlby elaborated on Craik’s original IWM theory most extensively in the area of self-other representations (Bretherton & Munholland, 1999). While object relations theorists had previously proposed the importance of the caregiver-child bond on later adult functioning, the models that supported such theories tended to be static in nature and lacked the flexibility needed to account for changes in children’s development. Given the continual transformations that occur in children’s needs and

their understanding of relationships throughout development, children's mental models of the relationship must have the ability to be easily updated in accordance with their current needs.

Bowlby proposed that since IWMs are based on regular patterns of caregiver behavior, children are able to draw upon them to forecast future behaviors of the attachment figure. Consequently, the IWMs that result from the attachment relationship act as a model for all future relationships as children draw upon their IWMs to guide their interpretations of social interactions and the construction of appropriate responses. Thus, through early attachment bonds with parents, children develop interpretive filters through which future social encounters are perceived. Given the importance of these representations on children's later social functioning, attachment security is often afforded a central role in theories and research concerning parental socialization of children's development.

However, the representations that are formed during infancy may not be invariable but instead, subject to reinterpretation throughout development as children gain cognitive abilities that afford them new perspectives on the world around them. Throughout childhood, cognitive, social and physical advances are made and consequently, children gain new abilities and experience transformations in their perceptions of the world around them. With these new abilities children begin to reconsider earlier experiences, draw new conclusions and ultimately represent prior information in a new way. As such developmental advancements in children's cognitive abilities are made, children's mental representations of their relationships undergo change as well (Thompson, 2000). For instance, before the language system

is mature, children's sensorimotor understandings of relationships are developed in the context of repeated interactions with the caregiver. By the end of the first year, developments in memory allow children to build models of behaviors they have experienced and use these to predict the caregiver's future behaviors. One of the most significant developmental advances impacting children's representations of caregiver behavior is their understanding of the role mental states assume in human action. Researchers refer to the concept as "theory of mind", indicating that children are forming theories about the role of mental representations in human behavior. Even infants have a rudimentary sense of the link between the mind and human action. This early awareness of the mind may be a natural consequence of early dispositions that draw their attention toward other humans (see Flavell, 1999 for review). For instance, infants are attracted to eyes, have the ability to discriminate among facial expressions, imitate human body movements, and respond differently to people than to objects. Such natural dispositions endow infants with essential tools for engaging in meaningful interactions with adults, facilitating socialization processes (Tomasello, 2000).

Research has demonstrated that infants and adults take advantage of these natural dispositions to communicate knowledge between one another. Infants' natural tendency to be attracted to eyes disposes them to follow the eye gaze of others, enabling infants to engage in joint attention. Joint visual attention between adults and infants acts as a communication device during interaction episodes such as face-to-face play and later, provides infants with critical information about referents of adults' communication. For instance, by 12-months of age infants use adults' gaze to

determine the referent for a novel verbal label (Baldwin, Bill, & Ontai, 1996) and before this are able to use gaze to determine the referent of adult affective cues, avoiding objects that are the recipients of adults' negative communicative gestures (Baldwin & Moses, 1996).

The natural behaviors of infants encourage adults to engage them in social activities that build on these sensitivities. For instance, joint attention between caregivers and infants facilitates extended face-to-face interactions. Similarly, the enjoyment infants display when noticing correspondence in their own and others' behaviors encourages caregivers to engage them in imitation games and may underlie infants' responding to the use of "motherese" which sounds much like the vocalizing of infants (Tomasello, 2000). Such interactions in turn enable infants to gain insight into themselves and others by helping them to see the adult as like the self. In fact, some argue that these sensitivities that are present from birth are evidence that infants enter the world with an understanding that adults are like the self and as such, are important sources of information (Tomasello, 2000). Whatever the direction of influence, it appears as though infants are quite sensitive to human action from early in life and use it as a source of information about themselves and their own actions. Furthermore, by engaging in these kinds of interactions with adults, infants come to learn about the intentional nature of human action early in development (Tomasello, 2000).

The idea that young infants have some understanding of the intentional nature of human action has recently been of interest to cognitive developmental researchers. To imply that infants have some understanding of intentionality is, to some, an

overestimate of abilities that much of the literature has attributed to developmental advances much later in development. However, there is some evidence that infants may indeed be sensitive to the intentionality of human action, as is evidenced by prolonged gaze at failed action sequences (Baldwin & Baird, 1999). By 18 months children are able to complete an intended action sequence with a novel object after viewing only a failed action sequence (Meltzoff, 1995). In a similar study, infants as young as 14 months were able to use vocal markers of intention (“There!” versus “Whoops!”) to infer intentionality evidenced by increased production of an intended action (i.e. “There!”) compared to a non-intended action (i.e. “Whoops!”) (Carpenter, Akhtar, & Tomasello, 1998). Thus, by 12 months children have some understanding of the “aboutness” of human action; specifically, that people relate to objects with some intentionality of action.

Infants therefore enter the social world with dispositions to attend to human action and at some point during the first year of life, develop the ability to understand such action as intentional or “about” objects. Recently, researchers have suggested that an early understanding of intentionality may be a basis from which children eventually form a more mature theory of mind (Baldwin & Baird, 1999; Tomasello, 2000). The most significant advancements in theory of mind development occur during the preschool years. By the time children enter this period of development they understand the role people’s desires assume in predicting the behaviors of others (Bartsch & Wellman, 1995; Wellman, 1990). For instance, they understand that different people may desire different things, that two people may differ in their level of desire for the same object, and that these desires motivate people’s actions (Bartsch & Wellman,

1995). In this sense, they understand simple causal relations between one's desires and the resulting emotional responses and actions. Consequently, they explain others' actions in terms of their underlying desires instead of taking into account the associated beliefs as well. While the maxim that people act to fulfill their desires is usually correct, it can lead to errors in predicting others' behavior since the same desires can produce different actions depending on the coinciding belief. For instance, a person may desire a candy bar that he believes to be in the drawer where he left it. However, if someone moves the candy bar to the refrigerator without the person's knowledge, then one would have to take into account both the desire (the candy bar) and the belief (it is in the drawer) to understand the resulting behavior, which will not coincide with the desire (looking in the drawer where there is no candy bar).

By 3 years of age children begin to display some evidence of transitioning from a "desire psychology" to a "belief-desire" psychology. At this age children are able to verbally explain behavior by referring to beliefs, desires and preferences. However, they continue to fail traditional false belief tasks in which they must predict where a character will look for a desired object that has been moved to a new location without their knowledge (Wellman, 1990). Before 4 years of age, children tend to weight desire satisfaction over belief and predict that characters will search for an object in its new location (out of their desire for the object), even though the character has no way of knowing the object is in this new location. Thus, they cannot understand that someone may represent the world in a manner that is not consistent with their own view of the world, resulting in a "false belief". It is theorized that successfully passing such a false belief task marks the emergence of a fully mature theory of mind.

As a consequence of these cognitive advances in preschool, children's representations of their relationships may undergo reinterpretation as they gain new insights on what motivates others' behaviors (Thompson, 2000). A central component in attachment relationships is the construction of unique social interactions centered around "goal-corrected partnerships". When such partnerships are created, children are able to take caregivers' goals into account and alter their goals accordingly, or behave in a manner that will produce a desired response from the caregiver. However, this assumes that children are able to take into account the goals of the caregiver, an ability that undergoes significant development in the preschool years. Thus, advances in children's theory of mind can have a significant influence on the attachment relationship. For instance, with a fully developed theory of mind, children have the intellectual resources to realize that the goals and motives of the caregiver can differ from the child's own and as such, the caregiver may act in a manner inconsistent with the child's own view of the situation. With such understanding, children can take into account the caregiver's goals in relation to their own in planning their actions within the attachment relationship, creating "goal-corrected partnerships". Ultimately, such changes in children's perception of the world and their caregiver have the capacity to impact the attachment relationship in significant ways.

Alternatively, attachment relationships may also influence theory of mind development as such knowledge may be made more salient in attachment relationships where children are active participants and thus, especially sensitive to the emotional cues and interaction patterns of caregivers (Harris, 1997). Theoretically, securely attached children form coherent and organized representations of the relationship that

they can use effectively to predict attachment figures' behaviors. This competence then provides children with the ability to engage in goal-corrected partnerships whereby they use these representations to alter their behavior in order to align their own goals with those of the attachment figure. Therefore, attachment relationships offer children the means by which to attend to and use their representations of others to guide their behavior. As such, engaging in goal-corrected partnerships may enhance children's sensitivity to mental representations in attachment figures before they are able to understand them in others. As these IWMs are later applied to other relationships, children's representations of the attachment figure may then facilitate their understanding of mental states in others.

While to date there is no research testing this theory, two recent studies (Symons, McLaughlin & Moore, 1997; Symons & Clark, 2000) used the attachment figure as the object in an unexpected location task and found that children tend to have a more difficult time determining where the story character will look than they do when an inanimate object is used. In this scenario, children watch as a child and mother are involved in an activity together (e.g. working in the yard, at the beach). The participant is then told that the mother needs to leave her child to do something (e.g. find the hose, get a drink) and leaves to another location. After the mother is out of sight of her child, she changes her location again. The participant is then asked where the child will look for the mother. Preschoolers tend to perform worse on this task than standard false belief tasks. However, when the mom changes locations due to external forces (e.g. a neighbor comes over and asks her to come over), children perform as well as on standard tasks. Symons and colleagues (1997) conclude that

when an animate object is substituted for an inanimate object in the unexpected location task, children's performance is disrupted due to their recognition that animate objects have intentions and desires of their own. Thus, children's interpersonal processes appear to disrupt their performance in such tasks. However, Symons and Clark (2000) did find that more securely attached children performed better on a standard theory of mind task using an inanimate object at age 5. Moreover, another study found a relation between attachment and theory of mind that was mediated by mothers' perceptions of their children as mental agents (Meins et al., 1998). This finding indicated that more securely attached children who also have mothers who see their children as mental agents tended to perform better on a standard theory of mind task. Together, these findings suggest that secure attachments foster an atmosphere that highlights the role mental representations assume in human behavior, affording securely attached children with a unique environment in which they learn about the mental states of others.

What remains unclear from these studies is whether securely attached children have a better sense of false beliefs *held by* a caregiver with whom they presumably engage in goal-corrected behavior. This is qualitatively different from using the caregiver as the object about which the character holds the false belief, as Symons and colleagues (1997) have done. Attachment theory would support the notion that through secure attachment relationships, children are afforded unique insight into the mental states of their caregivers. In order to test this hypothesis, a task that requires children to take into account their caregiver's mental state (i.e. a false belief) to predict the caregiver's behavior would be more demonstrative. The current study includes