

Relationship between Mother-Child Conversations and Child's Social Understanding in Middle Childhood

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Background

The current study explored the relationship between mother-child conversations and children's social understanding. Previous research has demonstrated a relationship between maternal talk and younger children's social understanding (e.g., (Adrian, Clemente, & Villanueva, 2007, Brown, Donelan-McCall, & Dunn, 1996, Dunn, Bretherton, & Munn, 1987, Ruffman, Slade, & Crowe, 2002). However, this relationship has not been examined with children older than 5 years.

During middle childhood (5-10) children demonstrate significant changes in their social understanding. Older children are better at (a) taking multiple people's perspectives, (b) understanding the interconnection between people's intentions, emotions, and beliefs, and (c) understanding of individual differences in personality traits

Thus, the purpose of this study is to identify whether maternal speech is related to advancements in social understanding during middle childhood.

Goals

The first goal of the current study was to describe age differences in children's conversations about the mind.

The second goal was explore how maternal language relates children's age, gender, and social understanding.

Method

Participants: Participants were 38 mother-child pairs. Children were divided into a younger group of 11 boys and 9 girls ($M = 5$ years, 11.5 months; range: 5 years to 7 years) and an older group of 10 boys and 8 girls ($M = 9$ years, 3 months; range: 7 years, 10 months to 10 years, 9 months)

Procedure: First, children were interviewed separately by a female experimenter. Children completed a social dilemma task and the Peabody Picture Vocabulary Test (PPVT). Second, mothers joined their child and completed a conversation task.

Social Dilemma Task: Children heard a story in which one character had to choose between an invitation from a new student and an invitation from a best friend that would leave one of those two characters upset (Selman, 1980; Selman, Schorin, Stone & Phelps, 1983). Children were asked to explain why the main character should choose one invitation over the other (Perspective Taking), give an alternative explanation for the main character's choice (Alternative Perspective Taking), explain the characters' emotional responses (Empathetic Sensitivity), and provide a description of one of the characters (Person Perception).

A combined score based on responses to all for questions was created using Bosacki's (1998; Bosacki & Astington, 1999) coding scheme. Lower scores were given for situational and behavioral responses and higher scores were given for complex mental responses that coordinated multiple perspectives. Thus, higher scores reflected greater complexity of social understanding.

Conversations: Children participated in a conversation task with their mothers. Mothers read 4 stories about social conflicts and discussed them with their children. Conversations were coded for the mother's and child's talk about: basic emotions, advanced emotions (mixed or complex emotions), beliefs, desires, coordinated mental thought (i.e., recursion and related mental states), personality traits, and contrasting perspectives. Response categories were combined to create two dependent variables for the mother and the child: Basic Mental Talk (basic emotions, belief, desire, and personality traits) and Advanced Mental Talk (advanced emotions, coordinated mental thought, and contrasting perspectives).

Example of a Story from the Conversation Task



This is Nicole.

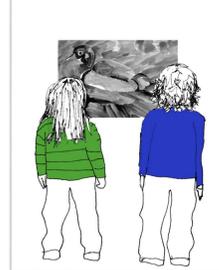


This is Katie.

Nicole spent all week working on a picture for the school's art show.

On Friday night friends and family were invited to come view the school's work.

Nicole invited her friend Katie from another school.



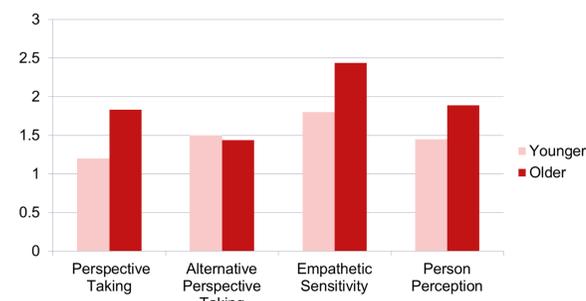
When they arrived, Nicole said, "Let's go look at the paintings. Everybody worked really hard on them.

When they are in front of Nicole's picture, Katie says, "who painted this picture? This painting is really ugly."

Results

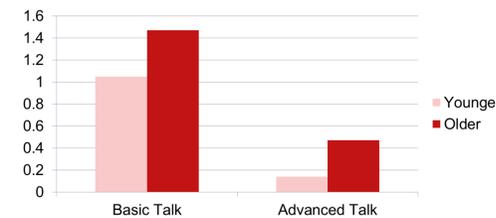
Social Dilemma: 2 x 2 (Age x Gender) ANCOVA's were conducted for each of the four questions as well as for a combined score. There were main effects of Age for Perspective Taking, $F(1,33) = 6.20, p = 0.02, \eta_p^2 = 0.16$, Empathetic Sensitivity, $F(1,33) = 9.46, p = 0.004, \eta_p^2 = 0.22$, Person Perception $F(1,33) = 4.16, p = 0.05, \eta_p^2 = 0.11$, and Combined scores $F(1,33) = 10.14, p = 0.003, \eta_p^2 = 0.24$. No effects of gender were found.

Mean Score for Social Dilemma Subscale by Age Group



Children's Talk: 2 x 2 (Age x Gender) ANCOVA's were conducted for both Basic Mental Talk and Advanced Mental Talk. There was a main effect of Age for Basic Mental Talk, $F(1,32) = 7.39, p = 0.01, \eta_p^2 = 0.19$ and a main effect of Age for Advanced Talk, $F(1,32) = 7.54, p = 0.01, \eta_p^2 = 0.19$. No effect for gender was found

Age Differences in Children's Talk



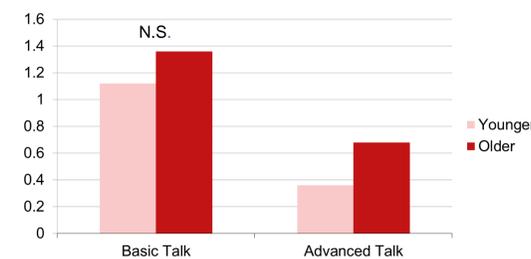
Correlation between Children's Talk and Social Dilemma Task

	1	2	3
Children's Mental Talk			
1. Basic	1.00	.51*	.20
2. Advanced		1.00	.46*
Social Understanding			
3. Social Dilemma			1.00

* $p < .01$

Mother's Talk: 2 x 2 ANCOVA's (Age x Gender) were conducted for maternal Basic Mental Talk and Advanced Talk. There were no significant effects for age or gender for maternal Basic Mental Talk. There was a main effect of Age for maternal Advanced Talk $F(1,32) = 9.77, p = 0.004, \eta_p^2 = 0.23$.

Age Differences in Maternal Talk



Next, a hierarchical linear regression was conducted to determine whether maternal talk was related to children's social understanding independent of children's age and language ability. In the first step of the regression, age and children's PPVT scores were entered first. These two variables predicted 20% of the variability in children's Social Dilemma scores, $F(2,36) = 4.19, p = 0.02$.

Maternal Basic Mental Talk, maternal Advanced Mental Talk, maternal Emotion Questions, and maternal Mental Questions were entered into the second step of the regression. These maternal language measures increased the variance explained to 39%, $F(6,36) = 3.19, p = 0.02$. Thus, maternal mental talk increased the variance in children's Social Dilemma scores above the effects of children's age and language

Correlation between Maternal Talk and Social Dilemma Task

	1	2	3	4	5
Maternal Mental Talk					
1. Basic	1.0	.33*	.23	.05	.31
2. Advanced		1.0	.20	.08	.47**
3. Mental Questions			1.0	.24	.04
4. Emotion Ques.				1.0	-.22
Social Understanding					
5. Social Dilemma					1.0

* $p < .05, ** p < .01$

Conclusions

Compared to the younger children, the older children: (a) performed better the Social Dilemma task, (b) produced more instances of basic mental talk (i.e., talk about beliefs, emotions, personality traits, and desires), and (c) produced more instances of advanced mental talk (i.e., talk about contrasting perspectives, recursion and relationship between mental states, and advanced emotions).

Mothers of older children produced more instances of both basic and advanced mental talk. Mothers' advanced mental talk was a unique predictor of children's social understanding and children's advanced mental talk.

These results suggest that mothers may respond to children's increasingly sophisticated social understanding with more complex talk about the mind. In turn, the increasing complexity of mother's talk may scaffold children into talking and thinking about other's mind in more complex ways.

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