Children's Language Ability at 2 Years of Age: Links to Prior Maternal Mind-Mindedness

Jessica Laranjo and Annie Bernier
Department of Psychology, University of Montreal

Summary

Associations have frequently been reported between quality of early mother-child interactions and children's subsequent language development (e.g., Kelly et al., 1996). Maternal mind-mindedness (MM) has been found to relate to children's linguistic acquisitional style (Meins et al., 1999), but has not yet been examined in relation to child vocabulary. This study examines the links between early maternal MM and child expressive vocabulary. With the participation of 84 mother-infant dyads, two home visits (at 1 and 2 years of age) allowed for the assessment of maternal MM (T1; Meins et al.'s 2001 coding system) and children's expressive vocabulary (T2; *MacArthur Communicative Development Inventory*). Results indicate that early maternal MM is significantly related to subsequent children's expressive language at 2 years, even after controlling for family socio-economic status (SES). Furthermore, maternal comments on children's cognitions is the only type of specific maternal comment that is significantly related to children's expressive language.

Introduction

Toward the end of the second year of life, language development becomes a salient developmental task, as indicated by a marked spurt in the growth of children's vocabulary. Associations have frequently been reported between quality of early mother-child interactions and children's subsequent language development (Hebert et al., 2004; van Bakel & Riksen-Walraven, 2002). Specific maternal behaviors have been found to relate to children's language ability, such as maternal responsiveness (Tamis-LeMonda et al., 2001), mothers' maintaining of children's interest (Landry et al., 2000) and maternal sensitivity (Paavola et al., 2006). Maternal mind-mindedness, defined as "the mother's proclivity to comment appropriately on her infant's mental states" (Meins et al., 2002), appears especially likely to contribute to child language due to its verbal nature, and has been found to relate to children's linguistic acquisitional style (Meins et al., 1999). However, it has not yet been examined in relation to child vocabulary per se. Furthermore, mothers' references to different types of mental states (e.g., thoughts, desires, emotions) while interacting with the child are differentially related to child outcomes such as theory of mind understanding (Symons et al., 2006; Taumoepeau & Ruffman, 2008), but have not been examined in relation to child language.

Objectives

This study examines the prospective links between early maternal mind-mindedness, including references to different types of mental states, and child expressive vocabulary at 2 years of age.

Participants

➤ 84 mother-infant dyads (50 girls)

➤ Recruitment proceeds from random birth lists of the city of Montreal, Canada

➤ Mothers were between 20 and 45 years old (M = 31)

➤ Mothers had between 10 and 18 years of formal education (M= 15)

➤ Family income varied from less than $20,000 CDN to more than $100,000 CDN (M = $60,000 to 79,000 CDN)

Measures & Procedure

T1 (1 year-old) : Maternal mind-mindedness

➤ Maternal mind-mindedness was assessed based on a 20-minute videotaped free-play sequence between mother and infant, later coded using Meins et al.'s (2001) guidelines.

Appropriate mind-related comments (Meins et al., 2001).

1. On the infant's mental states and processes (e.g., "You want this book", "You find this game difficult").
2. On the infant's emotional engagement (e.g., "You've had enough").
3. On the infant's attempts to manipulate other people's thoughts (e.g., "You're making fun of me").
4. Comments that involved the mother speaking for the infant (e.g., "See mom, it's easier this way").

A comment is considered appropriate when the coder agrees with the mother's comment on her infant's state of mind or when it is linked with a past or current activity.

In addition, and following Bartsch and Wellman's (1995) criteria, all appropriate maternal references to infant mental states were further divided into 3 categories: references to (a) desires; (b) cognitions; and (c) emotions.

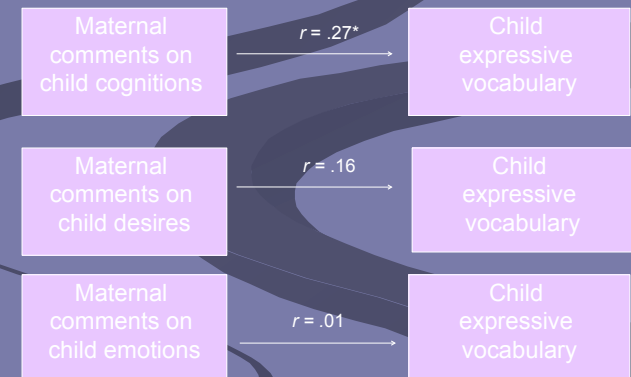### T2 (2 years-old) : Children's expressive language

➤ MacArthur Communicative Development Inventory (Fenson et al., 1993): Mothers are asked to identify from a list which words they have heard their child say.

Results

Bivariate correlation between maternal MM and child expressive vocabulary at 2 years of age, before and after partialling out SES

Maternal mind-mindedness	$r = .26*$ ($r = .22*$)	Child expressive vocabulary
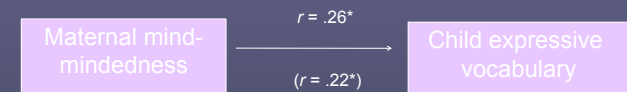
Bivariate correlation between maternal references to mental states (desires, cognitions and emotions) and child expressive vocabulary at 2 years of age

Maternal comments on child cognitions	$r = .27*$	Child expressive vocabulary
Maternal comments on child desires	$r = .16$	Child expressive vocabulary
Maternal comments on child emotions	$r = .01$	Child expressive vocabulary

* $p < .05$.

Conclusion

The findings of this paper suggest that maternal MM is relevant to understanding child vocabulary at the time when language development becomes a salient developmental task. However, they also suggest that it may be worthwhile to refine the assessment of MM to consider specific types of maternal comments separately.