

The role of SES in parent-infant book reading and later language development

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Background

- Early onset of parent-child book reading is an important predictor of later language development (Debaryshe, 1993; Karrass & Baumgart-Rieker, 2005; Payne, Whitehurst & Angell, 1994), in turn affecting reading and academic success (NICHD, 2005; Walker, Greenwood, Hart & Carta, 1994).
- However, few studies have examined parent-child book-reading interactions during the first year of life, and their relation to children's later language skills. In addition, little is known about the role of socioeconomic status (SES) in early book-reading interactions.
- We aimed to address these gaps in a sample of parents and their 10-month-old typically developing infants.

Research questions

RQ1: How much variation is there in features of parent communication and child interest during book-reading interactions when infants are 10-month-old?

RQ2: Is parents' SES (maternal education) associated with features of the book-reading interactions, and with children's language abilities at 18-mos?

RQ3: Controlling for infants' earlier abilities and maternal education, do specific features of the book-reading interaction at 10-mos predict infants' language abilities at 18-mos?

Method

Design and sample

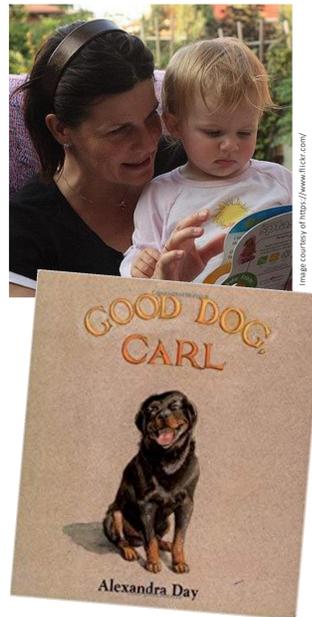
- A longitudinal study of 44 mother-infant dyads (spanning age 10- to 18-mos); average years of maternal education 15.5 ($SD = 2.16$), ranging from 10 years (less than a high school degree) to 18 years (master's degree or higher)
- Recruited from a large metropolitan area in the Northeast US

Procedure

- Visited at home and videorecorded during book reading and toy play when infants were 10- and 18-mos
- Book reading interactions at 10-mos reliably transcribed and coded for maternal communication measures and child interest (see Table 1 for coding measures)

Child language measures

- **Receptive vocabulary:** MacArthur Communicative Development Inventory (MCDI; Fenson et al., 1994) short form (10- and 18-mos)
- **Expressive vocabulary:** MCDI, Mullen Scales of Early Learning Expressive Language Scale (MSEL; Mullen, 1995), and number of word types produced during play (18-mos)
- **Pragmatic language abilities:** Language Use Inventory (LUI; O'Neill, 2009) (18-mos)



Results

Table 1. Variation in Maternal Communication and Child Interest During Book-reading Interactions (RQ1)

Book-reading variables	M (SD)	Range
Maternal word tokens	87.83 (33.42)	28.60–183.43
Maternal word types	41.06 (16.08)	15.35–78.29
Maternal MLUw	3.76 (0.83)	2.17–5.34
Maternal questions	6.02 (3.35)	1.15–15.69
Maternal wh-questions	1.68 (1.30)	0.00–5.54
Maternal other questions	4.34 (2.57)	0.00–11.08
Maternal concrete utterances	11.76 (4.47)	3.43–23.53
Maternal extending utterances	2.25 (2.09)	0.00–8.31
Maternal other utterances	8.92 (5.00)	1.71–21.71
Maternal point tokens	4.09 (2.97)	0.00–12.00
Maternal point types	1.74 (1.12)	0.00–4.71
Child interest	3.10 (0.76)	1.50–5.00

Table 2. Correlations Between Maternal Education and Features of the Book-reading Interaction (RQ2). * $p < .05$.

Book-reading variables	Maternal education
Maternal word tokens	.21
Maternal word types	.37*
Maternal MLUw	.32*
Maternal questions	.05
Maternal wh-questions	.14
Maternal other questions	-.01
Maternal concrete utterances	-.17
Maternal extending utterances	.21
Maternal other utterances	.13
Maternal point tokens	.03
Maternal point types	.05
Child interest	-.22

Table 3. Correlations Between Maternal Education and 18-mo Language Measures (RQ2). † $p < .10$.

Variable	LUI	MESL	MCDI:C	MCDI:P	Word types
Maternal education	.01	.29†	-.19	-.04	.26

Figures 1–3. Zero-Order Correlations Between Features of the Book-reading Interaction and 18-mo Language Measures (RQ3).

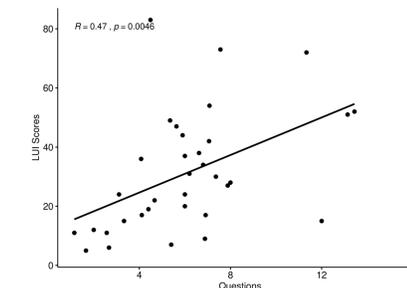


Figure 1. Relation Between Maternal Questions and Children's Pragmatic Language Skills

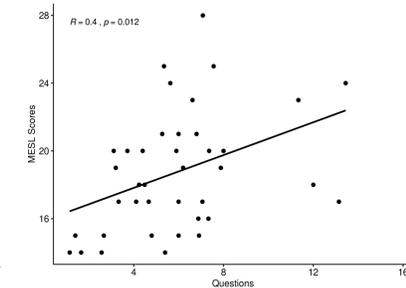


Figure 2. Relation Between Maternal Questions and Children's Expressive Vocabulary Skills

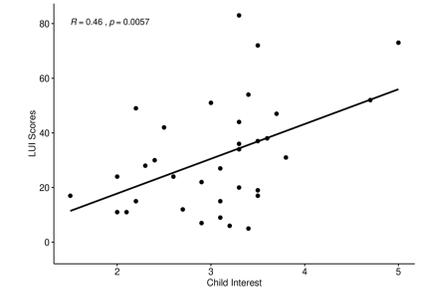


Figure 3. Relation Between Child Interest and Pragmatic Language Skills

Table 4. Results of Regressing Both Child Interest and Maternal Questions on the LUI, the MSEL, and Child Word Types at 18-mos (Controlling for MCDI:C Scores at 10-mos and Maternal Education) (RQ3). * $p < .05$.

	LUI			MSEL			Word types		
	B (SE)	β	t	B (SE)	β	t	B (SE)	β	t
(Intercept)	-35.84 (28.37)	-	-1.26	0.81 (6.05)	-	0.13	-44.18 (19.64)	-	-2.25*
Control variables									
MCDI:C scores at 10-months	0.30 (0.37)	.13	0.80	0.09 (0.08)	.22	1.23	0.12 (0.25)	.08	0.50
Maternal education	1.47 (1.46)	.17	1.01	0.77 (0.31)	.44	2.51*	2.28 (1.00)	.38	2.28*
Book-reading predictors									
Child interest	8.09 (3.83)	.34	2.12*	0.84 (0.71)	.19	1.18	3.29 (2.40)	.22	1.37
Questions	2.58 (0.93)	.44	2.78*	0.43 (0.19)	.36	2.25*	1.51 (0.63)	.37	2.40*

Acknowledgements

This work was funded by grant R21HD078771 from the NICHD to M. Rowe. A. Muhinyi is supported by the Economic and Social Research Council (grant number ES/J500094/1). We thank the participating children and families as well as the Research Assistants involved including: Myra Thomas, Virginia Salo, Molly McDowell, Kaitlin Herbert, Haley Kittel, Stone Dawson, Emily Dowling, Grace Zielinski, Meishi Haslip, Jennifer McCatharn, Rebecca Goldberg, Emma Gulley, and Julian Blatt.

Conclusions

- Maternal questions and infants' interest during early book reading (10-months) predicted language development (18-months)
- Maternal education is not associated with maternal questions and children's interest in this sample at this early age
- Encouraging caregivers to engage in early book reading, and to ask their infants questions and support their engagement, could promote language skills