

X. Affective quality of mother-child interaction as a predictor of children's school achievement: Evidence for a situation specific relationship

Several studies suggest that affective bonds between parent and child influence children's cognitive development. Research on attachment, for example, indicates that in task situations secure attachment relationships are associated with more harmonious interactions and that securely attached children show more exploratory behavior, persistence and enthusiasm for the task at hand (De Ruiter & Van IJzendoorn, 1993). In the present study we examined the association between the affective quality of the mother in mother-child interactions at the age of 5 on the child's school achievement at the end of grade 1. Three issues were addressed: (a) whether this association is dependent on the specific task situation in which the mother-child interactions are observed, (b) whether the association is dependent on the domain of school achievement examined and (c) whether the association might be due to the socioeconomic status of the family and/or the mental ability of the child.

Method

Participants

Participants were 66 children (30 boys and 36 girls) who took part in a longitudinal study on the determinants of school careers. Of these children, 33 came from Dutch families, 12 from Turkish and 21 from Surinamese immigrant families.

Measures

Socioeconomic status. This variable is based on the occupation of the father and the educational level of the father and the mother.

Mother's affective quality in interaction. Mother-child interactions were videotaped in two tasks, when the child was 5 years of age. In the Book Reading task the mother was required to read a book to her child. In the Sorting task 21 pictures of common objects had to be sorted by the child with the mother's help. Mother's affective quality, e.g., supportive presence, respect for child's autonomy, confidence toward child, was rated using the scales of Erickson, Sroufe & Egeland (1985). For each task one sum score was computed.

Child's Vocabulary. The child's vocabulary was assessed at the age of 5 years with a test which is similar to the Peabody Picture Vocabulary Test. On each item the child was required to select the picture (out of four alternatives) that represented a given word.

School Achievement. Regular school achievement tests for word decoding, reading comprehension, spelling, arithmetic facts and arithmetic comprehension were administered at the end of grade 1 (age 7).

Results and conclusions

The correlation between mother's affective quality in the Book Reading task and the Sorting task was .62. For each task, therefore, separate regression analyses were performed to examine the relationship between mother's affective quality and school achievement (see Table 1). Mother's affective quality during the Sorting tasks was hardly related to school achievement, but a systematic relation was found between affective quality on the Book Reading task and four of the five achievement tests. On Spelling, Reading Comprehension and Arithmetic Comprehension this relation could be explained by SES, ethnicity and the child's age 5 vocabulary. For Word Decoding the relation remained significant after controlling for these variables. The results suggest that long-term effects of the quality of early mother-child relations on school achievement can only be found

between interaction quality in specific task situations and specific domains of achievement. Only the quality of mother-child relationship in tasks tied to specific school activities seems to be a predictor of school achievement.

References

De Ruiter, C., & Van IJzendoorn, M.H. (1993). Attachment and cognition: A review of the literature. *International Journal of Education*, 19, 525-540.

Erickson, M.F., Sroufe, L.A., & Egeland, B. (1985). The relationship between quality of attachment and behavior problems in preschool in a high-risk sample. In I. Bretherton & E. Waters (Eds.), *Growing points of attachment theory and research. Monographs of the society for research in child development*, 50, 147-166.

Table 1. Standardized regression weights of the prediction of school achievement at age 7 from mother's affective quality in the Book Reading task and in the Sorting task when the child was 5 years of age

		Reading A.			Arithmetic A.	
Mother's Affective						
Quality	Control Variables	WD	RC	SP	AF	AC
Book Reading	None	.47**	.27*	.29*	.19	.26*
	SES, Eth	.31**	.09	.28*	.17	.15
	SES, Eth, A5V	.24*	-.04	.19	.14	.09
Sorting	None	.20	.08	.12	.19	.26*
	SES, Eth	-.01	-.01	.06	.12	.12
	SES, Eth, A5V	-.06	-.07	.01	.10	.09

Note. Reading A. = Reading Achievement; Arithmetic A. = Arithmetic Achievement; SES = Socioeconomic status; Eth = Ethnicity; A5V = Age 5 Vocabulary; WD = Word decoding; RC = Reading Comprehension; SP = Spelling; AF = Arithmetic facts; AC = Arithmetic Comprehension.

+ $p < .10$; * $p < .05$. ** $p < .01$.