

ASSOCIATION BETWEEN ATTACHMENT SECURITY TOWARDS PARENTS AND COGNITIVE DEVELOPMENT IN SCHOOL AGED CHILDREN: AN EXPLORATORY STUDY

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THEORETICAL BACKGROUND

- According to attachment theory, primary relationships developed within the first year of life continue to play an important role in childhood and beyond (Cassidy & Shaver, 2008).
- Few studies investigated the relationship between attachment and cognitive development, yielding mixed results (van Ijzendoorn, Dijkstra & Bus, 1995; West, Mathews & Kerns, 2013).

Main purpose: To investigate the relationship between the degree of attachment security (toward mother and father) and children's cognitive development, taking into account perceived parents' availability and child dependency on parents (Lieberman et al., 1999)

METHOD

Participants

Thirty-three native-born Italian children (51% females) attending 3th grade (Mean age = 105 months, SD = 2.9) were recruited in a primary school in Cagliari.

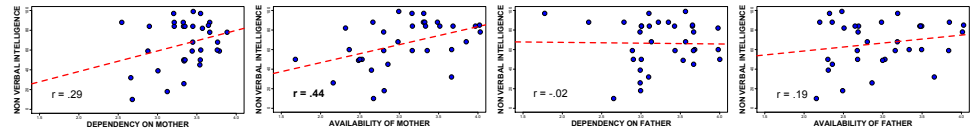
Procedure and measures

Children were assessed during school hours using the following measures:

Measures	Assessment tool	Characteristics
Perceived security of attachment	Security Scale (Kerns et al., 1996)	<ul style="list-style-type: none"> • Maternal (15 items) and paternal (15 items) scales • Child Dependency and Parental Availability subscales (proposed by Lieberman et al., 1999) • Higher scores indicating more secure attachment
Non-verbal intelligence (NVI)	Raven Colored Progressive Matrices (Belacchi et al., 2008)	<ul style="list-style-type: none"> • Culture-fair test of fluid intelligence (Gf) • 36 multiple choice questions, to identify the missing element that completes a pattern

RESULTS

1. Bivariate associations between Attachment Subscales and Non Verbal Intelligence



Note. For Non Verbal Intelligence, Raven Percentile Scores are presented. Significant ($p < .05$) correlations are presented in bold. ($n = 33$)

Perceived Maternal Availability is significantly and positively associated with Non Verbal Intelligence

2. Multivariate associations between Attachment Subscales and Non Verbal Intelligence

Analytic approach: A series of regression models with Non Verbal Intelligence as dependent variable was performed. Independent variables were Maternal and Paternal Attachment Subscales, and their two-way interactions. To select the best fitting model, the Bayesian Information Criterion (BIC) was used.

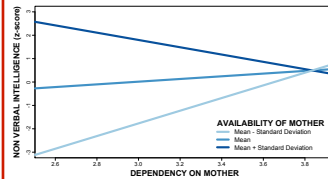


Figure 1. Estimated interaction between Dependency on Mother and Availability of Mother. ($p = .008$, partial eta square = .26, $n = 33$)

- The best model (R -square = .60) supported the presence of a multivariate pattern explaining cognitive development
- Dependency on Mother moderated the effects of Maternal Availability and Dependency of Father on Non Verbal Intelligence (see Figures 1 and 2)
- High Maternal Availability and Dependency on Father were associated with better cognitive performance, but only among children with low Dependency on Mother

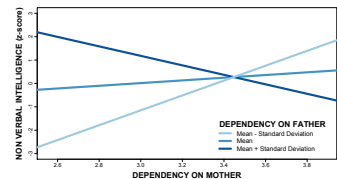


Figure 2. Estimated interaction between Dependency on Mother and Dependency on Father. ($p = .011$, partial eta square = .25, $n = 33$)

DISCUSSION

- Parental availability and child dependency on parents as perceived by children themselves seem to partly explain children's non-verbal cognitive skills
- If corroborated on larger samples, these results suggest the need of taking socio-emotional variables into account when children's cognitive performance and development are investigated