

Interactive processes underlying the development of infant security of attachment: Maternal autonomy-support during infant exploration

Summary

The current study seeks to improve the prediction of infant attachment security by assessing maternal autonomy-support during infant exploration, in addition to maternal sensitivity. 85 mother-infant dyads took part in three home visits at 12 (T1), 15 (T2) and 26 (T3) months. Maternal sensitivity was assessed at T1, maternal autonomy-support at T2 and infant attachment at T3. Correlations showed that both maternal sensitivity and autonomy-support were significantly related to infant security of attachment ($r = .31, p < .01$ and $r = .30, p < .01$). A hierarchical regression analysis revealed that maternal sensitivity explained 10% of the variance in security of attachment, and maternal autonomy-support explained an additional 5% of variance. Both sensitivity ($b = .25$) and autonomy-support ($b = .24$) were uniquely related to attachment. These results speak to the relevance of examining maternal behaviors in the context of exploration in order to better understand the development of infant security of attachment.

Introduction

Maternal sensitivity → Infant security of attachment

The field of attachment has long been invested in understanding the processes underlying the development of infant security of attachment.

Most empirical work conducted on this question has addressed maternal sensitivity to infants' attachment needs. However, meta-analytic data suggest that maternal sensitivity accounts for only a moderate portion of the variance in attachment security (DeWolff & Van IJzendoorn, 1997).

Maternal behavior during exploration

Given that security of attachment is conceptualized as a balance between infants' attachment and exploratory behaviors, Grossmann et al. (2008) stressed the need to attend to parental behaviors in exploratory contexts when attempting to predict infant attachment.

Maternal autonomy-support refers to parental exploration-related behaviors, but has never been investigated in relation to infant attachment.

Definition of maternal autonomy-support

The degree to which parents encourage independent problem solving, choice and participation in decisions (Grolnick & Ryan, 1989).

In problem-solving task: informative feedback, positive encouragement, giving hints, solicited checking, and waiting for the child to require assistance before intervening (Grolnick et al., 2002).

Objectives

Drawing from self-determination theory, the current observational longitudinal study seeks to improve the prediction of infant attachment by assessing maternal autonomy-support during infant exploration, in addition to maternal sensitivity.

Given that maternal autonomy-support refers to parental exploration-related behaviors, we hypothesize that it will add a distinct contribution to the prediction of infant security of attachment, after accounting for maternal sensitivity.

Participants

- > 85 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 and procedure

Procedure: Three one-hour home visits (each variable was measured at a different age to diminish shared method variance).

12 months : Maternal sensitivity

Maternal Behavior Q-sort during in-home mother-infant interactions (MBQS; Pederson & Moran, 1995): following a home visit, an observer sorts 90 items describing potential maternal behaviors are sorted into nine piles based on the degree to which each item reflected the mother, from least representative (1) to most representative (9). The observer's sort was then correlated with a criterion sort. Sensitivity scores vary from -1= least sensitive to 1= prototypically sensitive.



15 months : Maternal autonomy-support

> Whipple et al.'s (2010) coding system used during a 10-minutes mother-infant problem-solving task (puzzle). Four scales are averaged into a total score, used in all analyses ($\alpha = .89$; $ICC = .86$):

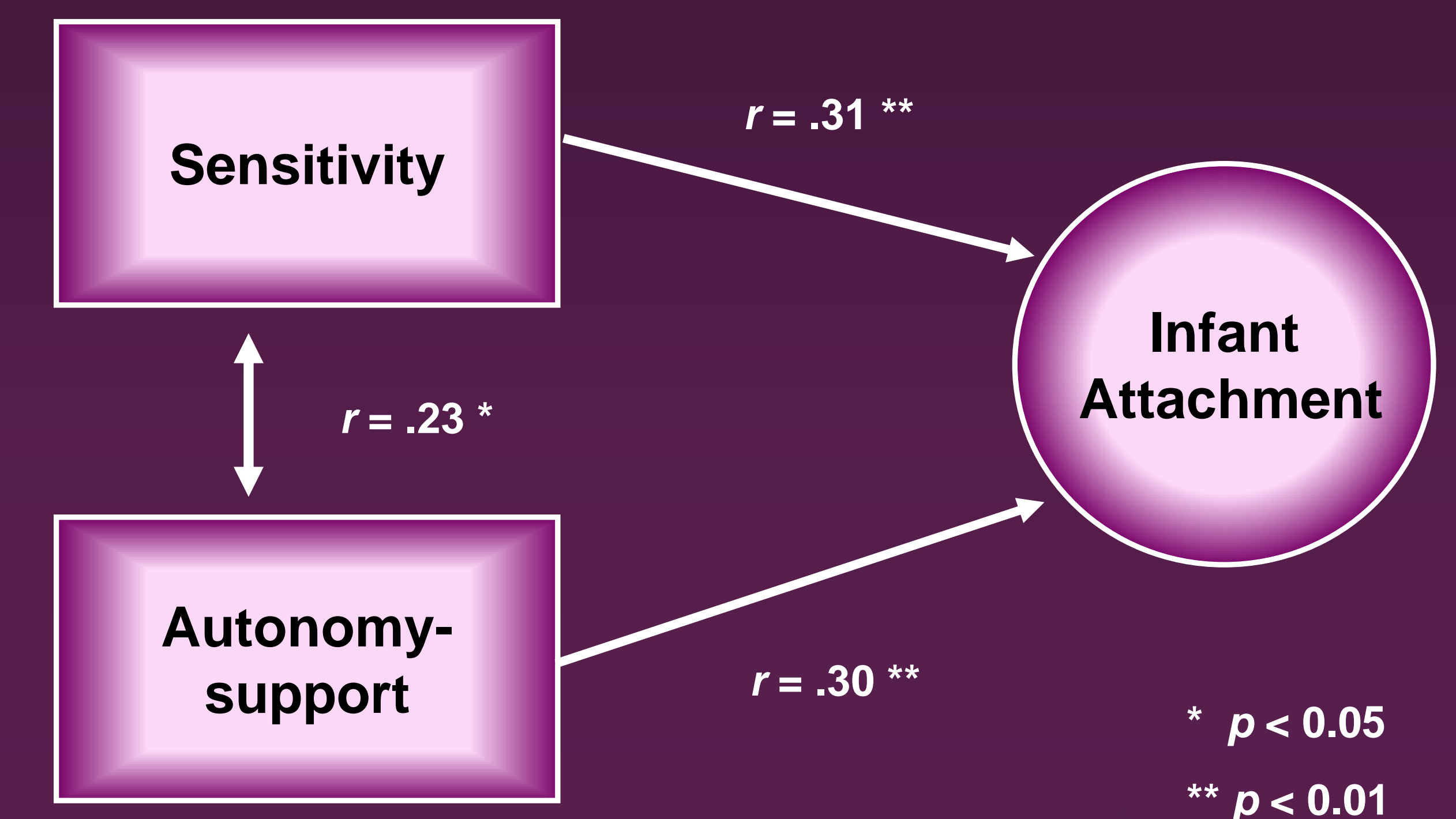
- 1) Task support : adapts the task according to child needs
- 2) Verbal support : encourages and gives useful hints
- 3) Perspective-taking: takes child's perspective and shows flexibility to keep him/her on task
- 4) Respect of choices and rhythm : follows child's pace, gives him/her choices and an active role

26 months : Children's security of attachment

The observer-rater Attachment Q-Sort (AQS; Waters, 1995): following a home visit, an observer sorts 90 items describing potential infant behaviors are sorted into nine piles based on the degree to which each item reflected the infant, from least representative (1) to most representative (9). The observer's sort was then correlated with a criterion sort. Attachment scores can thus vary from -1= most insecure to 1= prototypically secure.

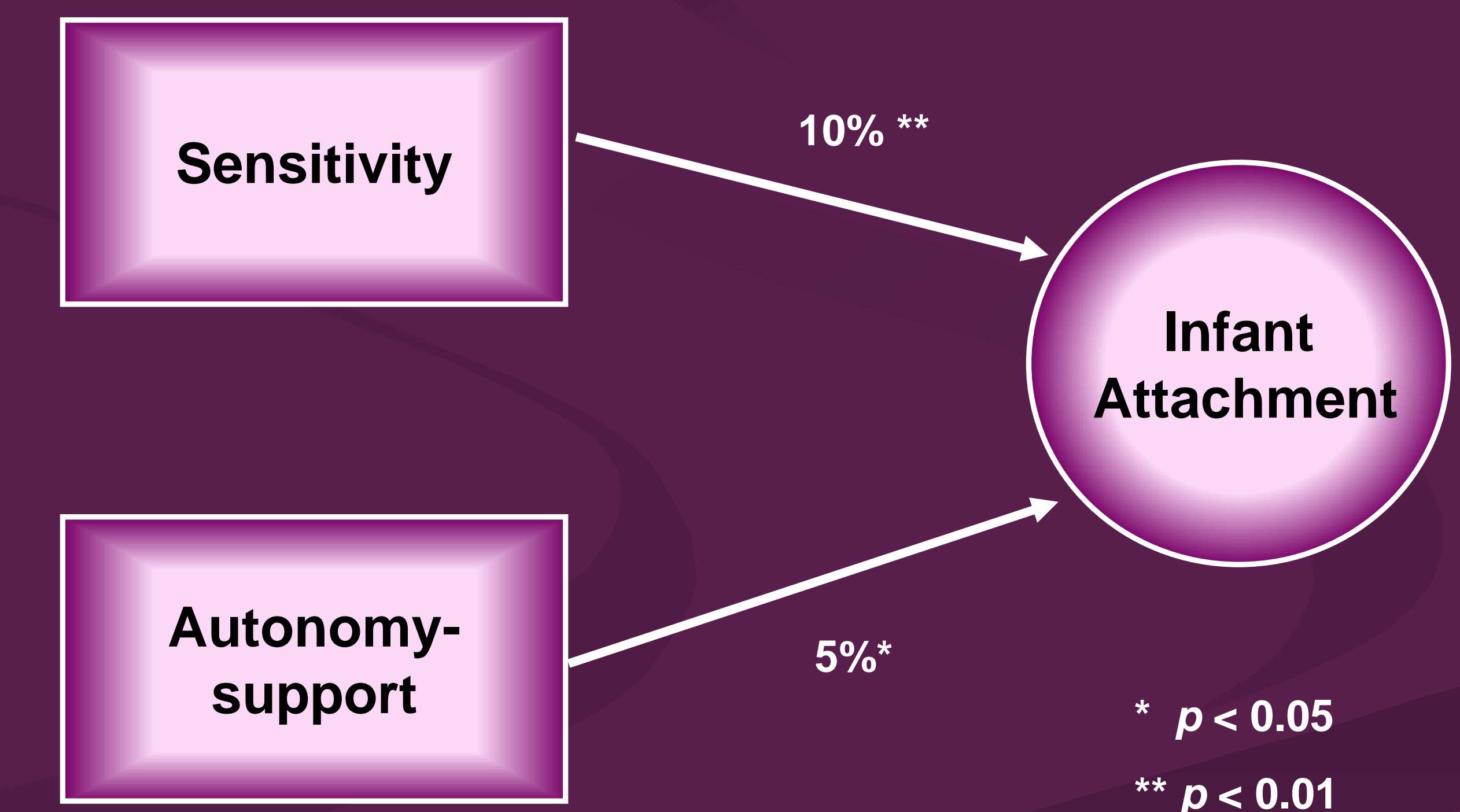
Results

Bivariate correlations between the three main variables



Regression analysis predicting infant security of attachment

Block	R ²	ΔR ²	F Change	β
1. Sensitivity	.10		8.9**	.31**
2. Sensitivity				.25*
Autonomy Support	.15	.05	7.09*	.24*



Conclusion

These results speak to the relevance of examining maternal behaviors in the context of child exploration in order to better understand the development of infant security of attachment, and hence move toward a better understanding of the mechanisms underlying the development of attachment patterns.