

Emotion Regulation and Emotional Development:

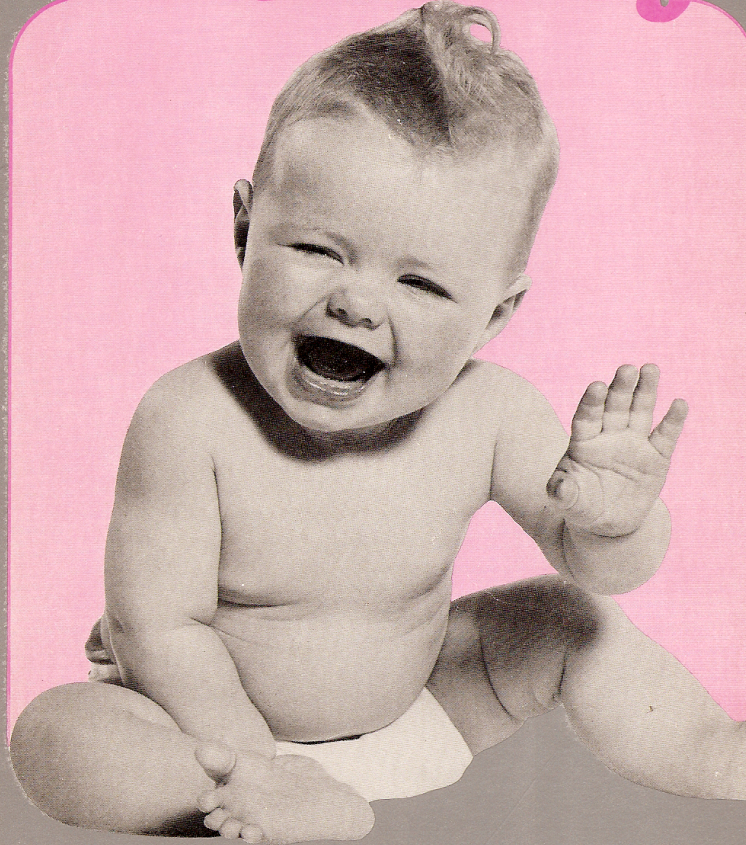
A View from Attachment Theory



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Knowing & Enjoying

Your Baby



Alan Sroufe

A SPECTRUM BOOK S-471



\$3.95 (\$4.50 in Canada)

Insights from the Minnesota Longitudinal Study of Parents and Children . . .

- the organizational perspective to development
- the centrality of emotion, especially in the context of primary relationships, to the organization of personality development
- attachment relationships as emotionally regulatory and as forums for emotion understanding
- internalization of relational experience in emergent self-system processes and relational expectations
- continuous attention to context
- non-linear transactional developmental processes examined in the context of longitudinal research

A study of the security of attachment and developing social cognition . . .

Sample drawn from the NICHD Study of Early Child Care and Youth Development:

1,016 children and families from 10 sites nationwide, recruited immediately after birth and followed to age 15.

Security of attachment assessed at 3 ages:

- 15 months (Strange Situation)
- 24 months (Attachment Q-sort)
- 36 months (modified Strange Situation)

Maternal sensitivity ratings based on 15-minute mother-child play sessions at home (15 and 24 months) or in the lab (36 and 54 months)

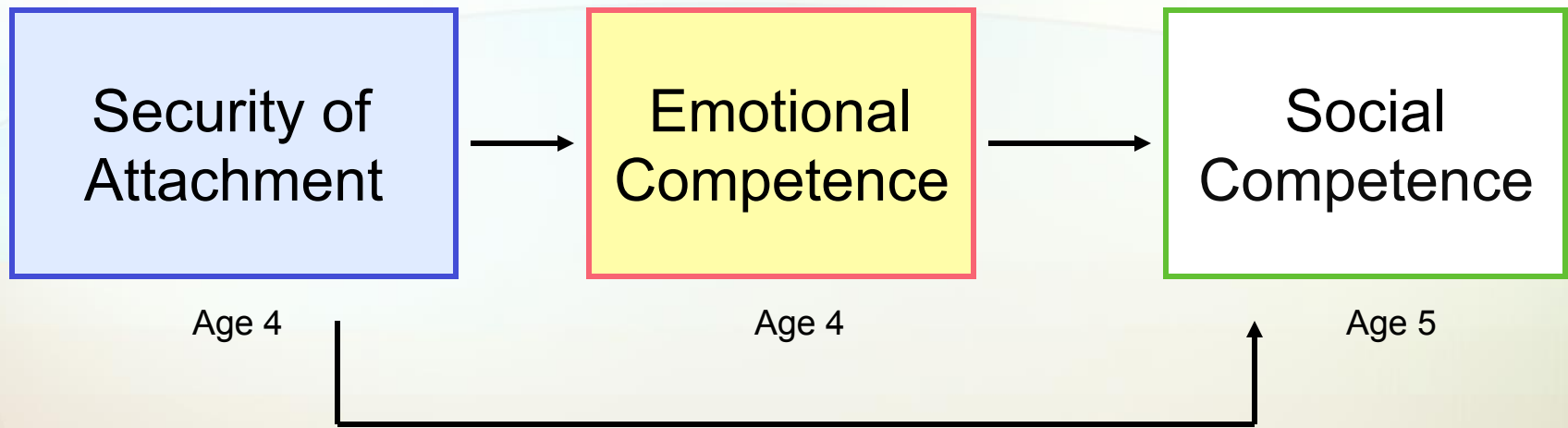
Maternal depressive symptomatology measured using Centers for Epidemiological Studies Depression subscale at 15, 24, 36, 54 months, and first grade.

Social cognitive measures in early childhood:

- Negative attribution bias (54 months): Children's descriptions of intent by the story character in response to 4 cartoon stories describing ambiguous social situations
- Social problem solving skills (54 months): Children's responses to 5 stories describing social problems; scoring for socially competent solutions
- Negative attribution bias (1st grade): Children's responses to 8 stories with aggression and rejection themes; asked to explain peer intent and what they would do next
- Aggressive solutions (1st grade): Children's aggressive responses to the ambiguous social situations in the 8 stories described above
- Loneliness (1st grade): Children's responses to a short interview with 16 questions describing feelings of loneliness

	Negative Attributions 54 mos	Socially Competent Solutions 54 mos.	Loneliness 1st grade	Aggressive Solutions 1st grade	Negative Attributions 1st grade
Early Maternal Depression					+
Early Maternal Sensitivity		+		-	
Later Maternal Depression					
Later Maternal Sensitivity				-	
15 month Attachment					
24 month Attachment		+	-		
36 month Attachment	Avoidant > Secure	Avoidant < Secure	Resistant > Secure		Resistant > Secure

Note: All associations reported in this chart were significant at or lesser than the $p < .05$ level.



Adapted from Denham, S., Blair, K., Schmidt, M., & DeMulder, E. (2002). Compromised emotional competence: Seeds of violence sown early? *American Journal of Orthopsychiatry*, 72, 70-82.

**How is the security of attachment
associated with
emotion understanding
and
emotion regulation?**

and why?

Young children in secure relationships are more proficient at emotion understanding

(e.g., Laible, 2004; Laible & Thompson, 1998; Ontai & Thompson, 2002; Steele, Steele, Croft & Fonagy, 1999)

But why?

- Bretherton: secure dyads share more “open, fluid communication” that enables emotional sharing, especially of negative emotions that young children find most disturbing and confusing
- If this is so, what are the characteristics of this communication style?
- If this is so, what characteristics of the mother or of family life are associated with this communication style with children?

A study of the family emotional climate, parent-child conversation, and children's emotion understanding . . .

How is emotion understanding related to the security of attachment and the quality of mother-child conversation about emotion?

How is maternal depression associated with emotion understanding in young children?

Sample:

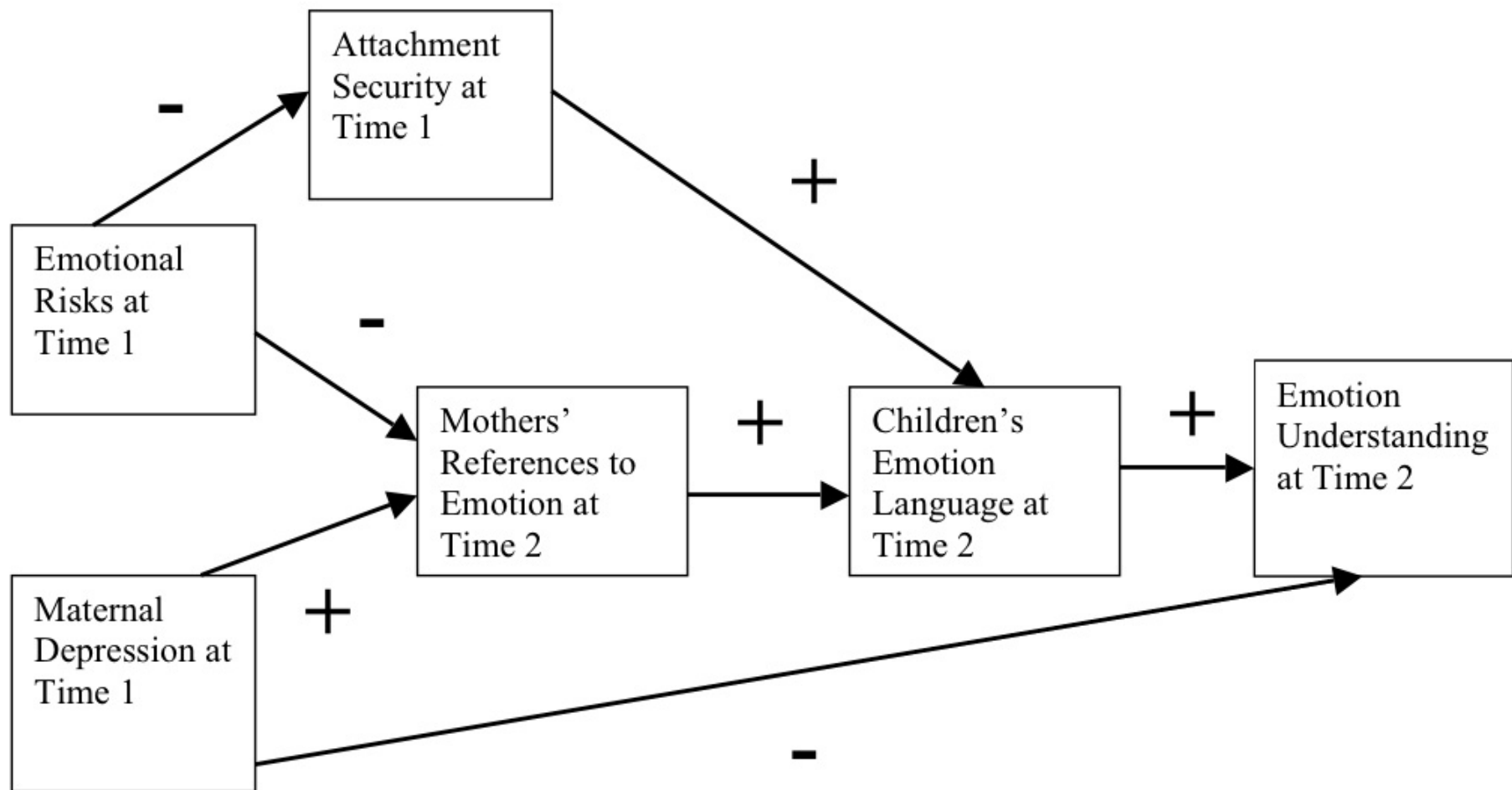
42 children: mean age 2 ½ years at time 1
3 ½ years at time 2 and their mothers

Measures:

- at 2 ½ years:
- Attachment Q-sort
 - CESD (maternal depression)
 - Maternal report of emotional risks in the family (e.g., substance abuse; domestic violence)
- at 3 ½ years:
- CESD
 - Denham affective perspective-taking task
 - PPVT
 - parent-child conversations
(shared recall of past emotional events)
 - * frequency of maternal references to emotion
 - * children's emotion labeling
 - * children's use of negative emotion words

Preliminary findings . . .

- Children's spontaneous use of emotion labels and use of negative emotion words were significantly correlated, so they were combined to create an index of **emotion language**.
- Maternal depression scores were significantly correlated over time, but only **depression scores from the first assessment** (at age 2 ½) were associated with **children's emotion understanding**.
- The security of attachment was positively associated with performance on the Denham task. **Secure children were stronger in emotion understanding**.



causes

linking
events

outcomes

requests for
information

total emotion
references

definitions

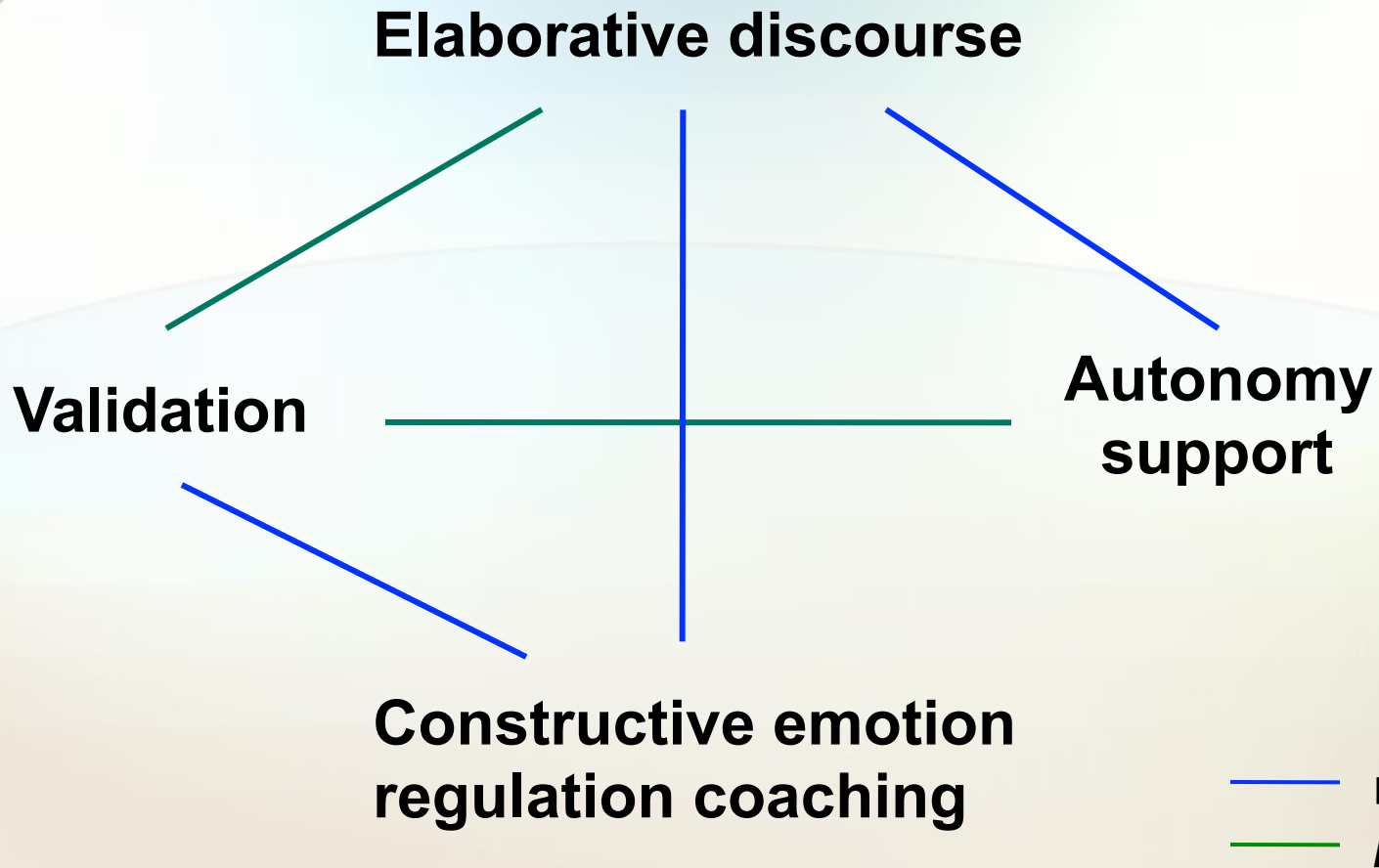
All discourse categories were significantly
and positively related to elaborative ratings

— $p < .05$

— $p < .01$

— $p < .005$

— $p < .001$



Security of attachment is significantly associated with the composite of these measures of conversation quality

Interim conclusions . . .

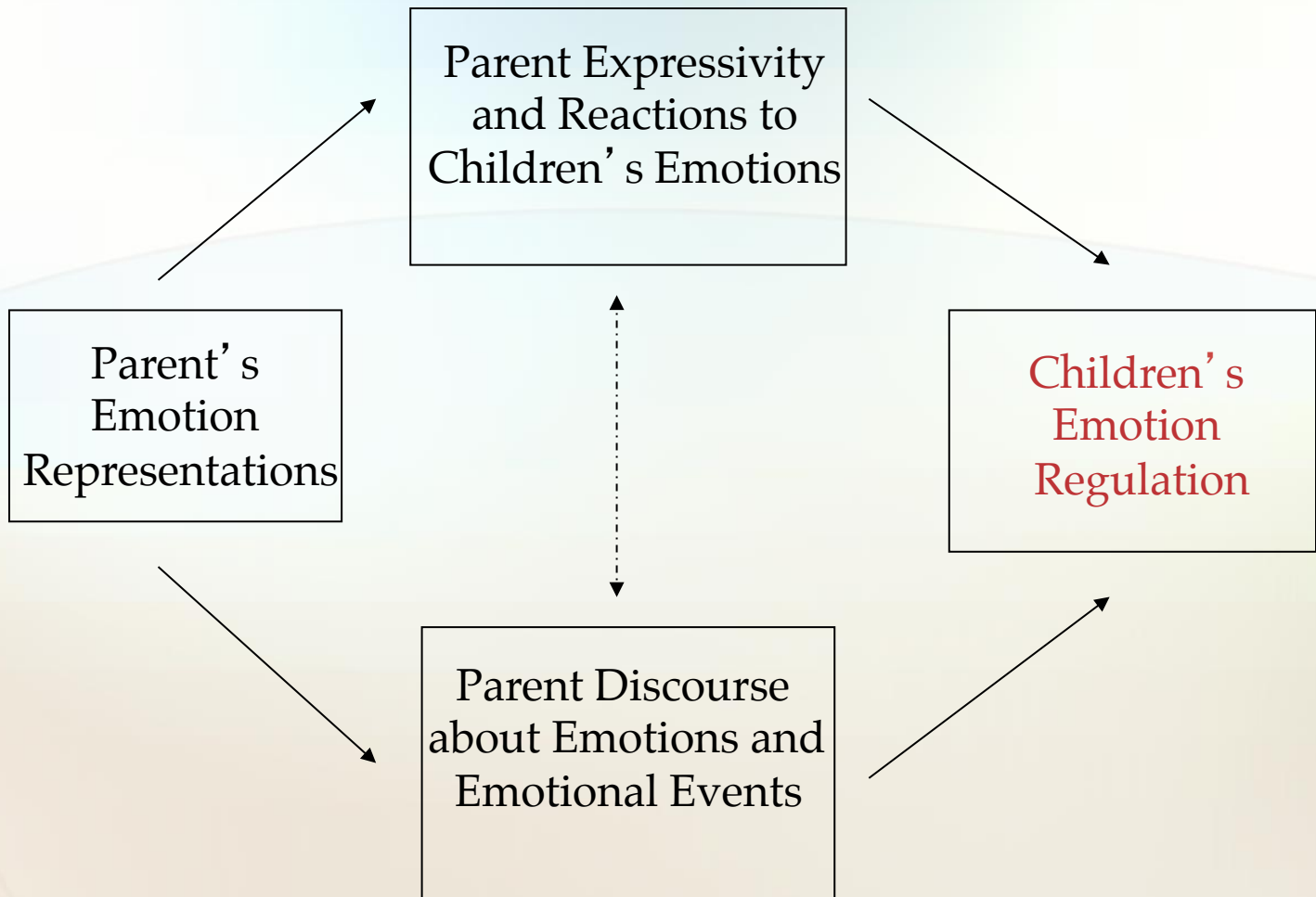
- A secure attachment is a relational context for young children to comprehend their (negative) emotions and learn about their regulation in the context of a psychological secure base.
- Both the content (knowledge about emotion causes and outcomes) and the quality (conveying constructive support) are important; the latter is associated with attachment security.
- A caregiver's capacity to provide this secure base is based, in part, on supports and stresses in her own life, including emotional demands and representations of her own emotions.
- Early conversations about emotion have broader significance for psychological growth. Conscience development, for example, is not predicted by mothers' references to rules but instead by references to others' feelings.

Young children in secure relationships are more proficient at emotion regulation

(e.g., Contreras et al., 2000; Gilliom et al., 2002; Kochanska, 2001; Nachmias et al., 1996; NICHD ECCRN, 2004)

But why . . . ?

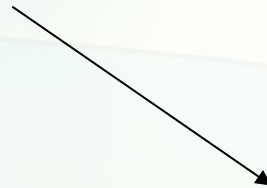
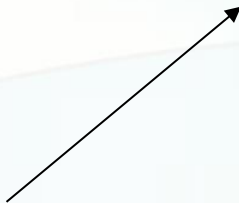
- greater responsiveness of mothers in secure relationships as children are struggling to manage difficult feelings
- mothers in secure relationships talk with children about emotion in a more descriptively rich, elaborative manner
- securely-attached children have greater emotion understanding, especially of negative emotions that require management
- caregivers in secure relationships provide a more accepting context in which children can talk about difficult feelings



Parent's
Emotion
Representations

Parent Expressivity
and Reactions to
Children's Emotions

Children's
Emotion
Regulation



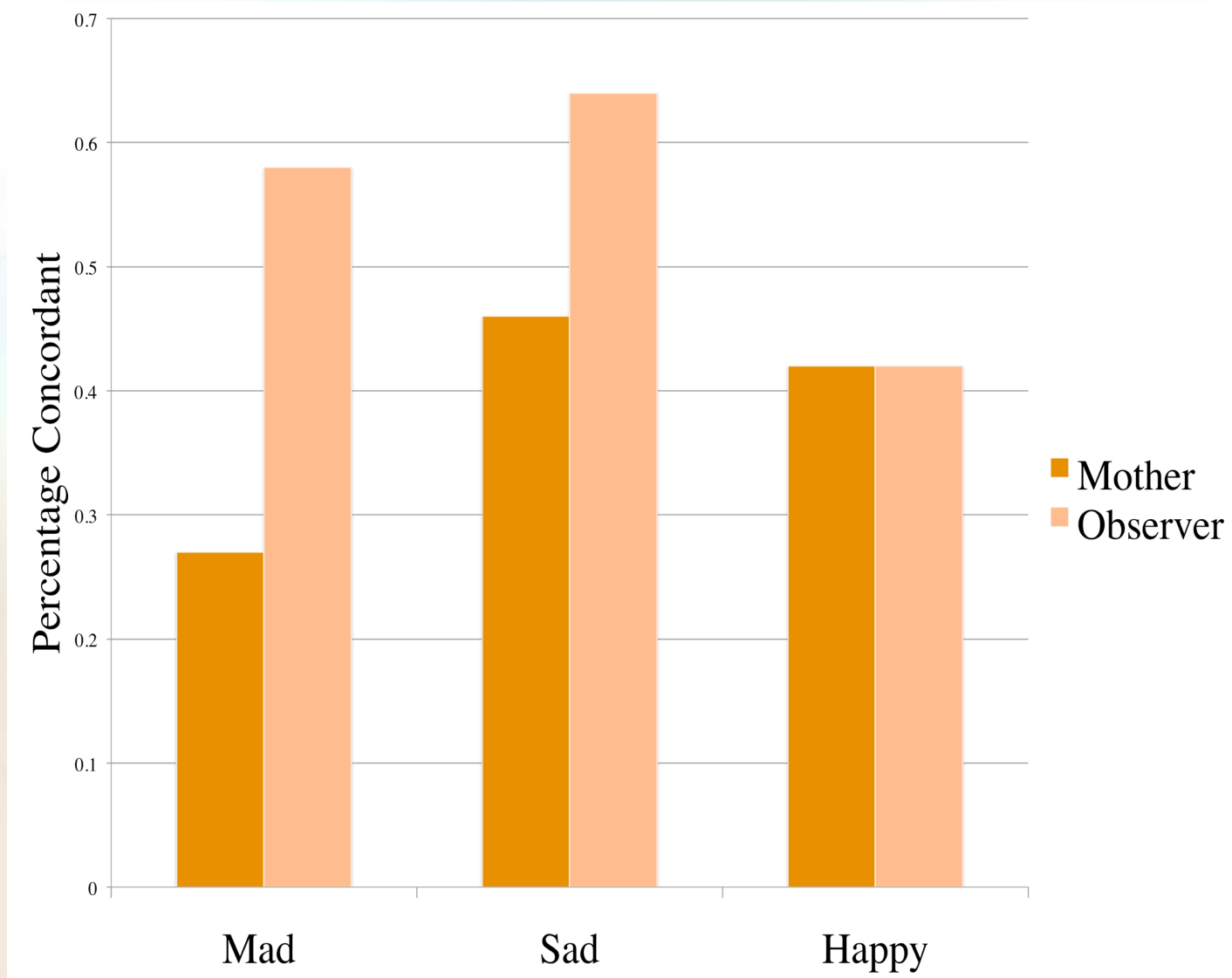
A study of preschoolers' understanding of emotion and emotion regulation . . .

72 children (mean age 4½; 30 girls) and their mothers

During a laboratory visit, children and their mothers participated in an emotion regulation probe (denied request task). Later in the session, mothers and children were independently shown a videotape of the task and were interviewed about how the child felt during the probe, and why.

Later, well-trained research assistants coded children's behavioral, facial, and verbal expressions of emotion during the denied request task.

Child Emotion Attribution Concordance with Mothers and Observers



Predicting individual differences in mother-child concordance

- **Maternal emotion representations.** Mothers completed the *Trait Meta-Mood Scale* (Salovey et al, 1995) subscale for *attention to emotion* to assess mothers' attention to and acceptance of their own emotions.
- **Maternal depressive symptomatology.** The CES-D (Radloff, 1977) was used to assess mothers' report of recent depressive symptomatology.
- **Security of attachment.** The AQS (Waters & Deane, 1985) was used to assess attachment security.
- **Child negative emotion understanding.** Scores were derived from the Denham affective perspective-taking task.

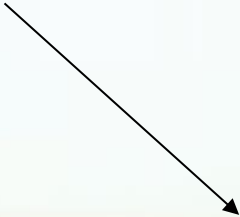
Logistic Regression Analysis Predicting Mother-Child Concordance in Emotion Attributions

Variable	Odds ratios	95% CI
Attention to emotion	3.53 *	1.05 - 11.86
Maternal Depression	1.04	0.96 - 1.12
Security of Attachment	90.53 *	2.51 - 3262.30
Child negative emotional understanding	1.28 +	0.97 - 1.70

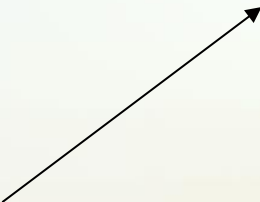
for model, $\chi^2 (4) = 15.93^{**}$

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

Parent's
Emotion
Representations



Parent Discourse
about Emotions and
Emotional Events



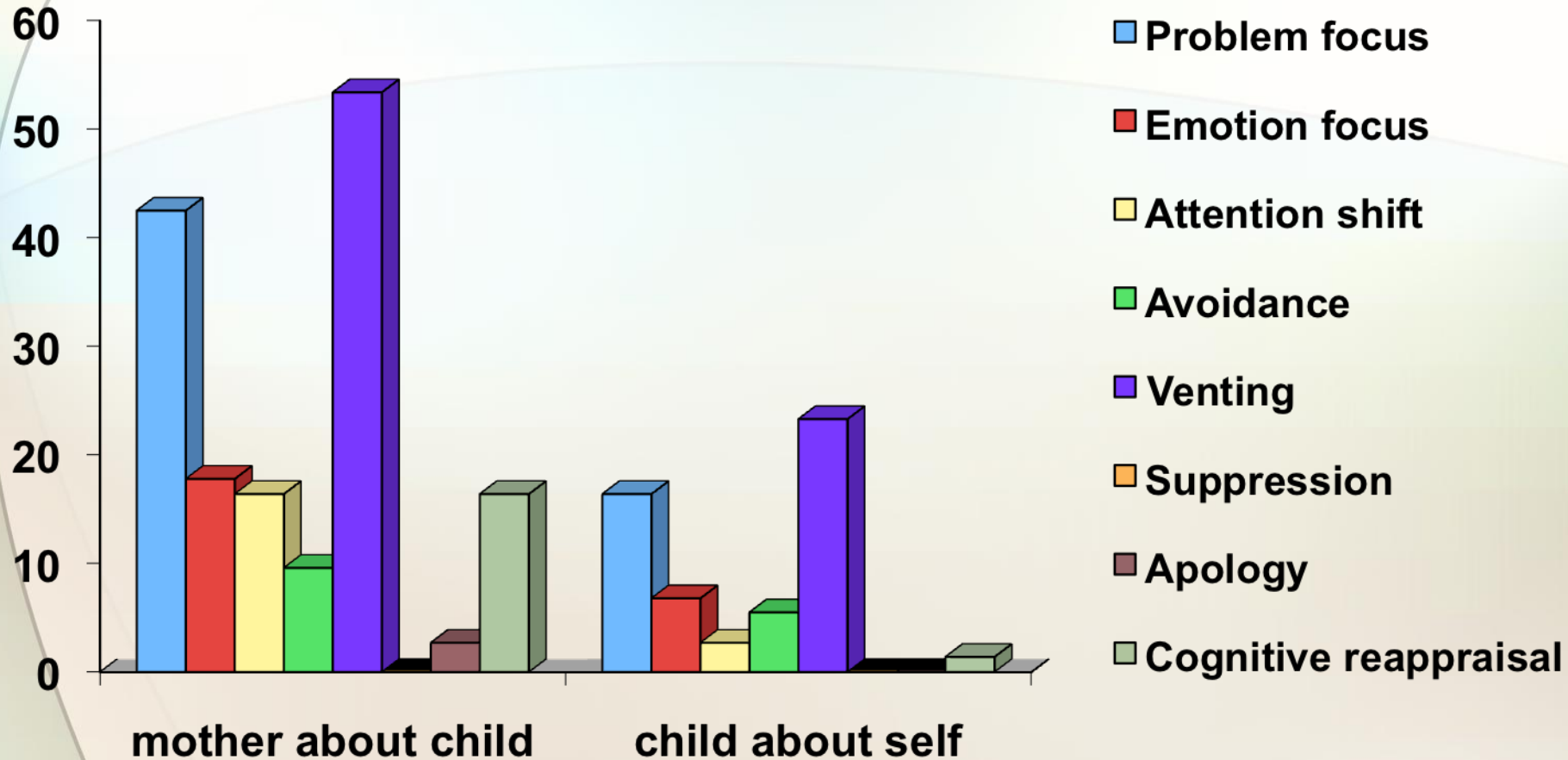
Children's
Emotion
Regulation

Emotion regulation strategies:

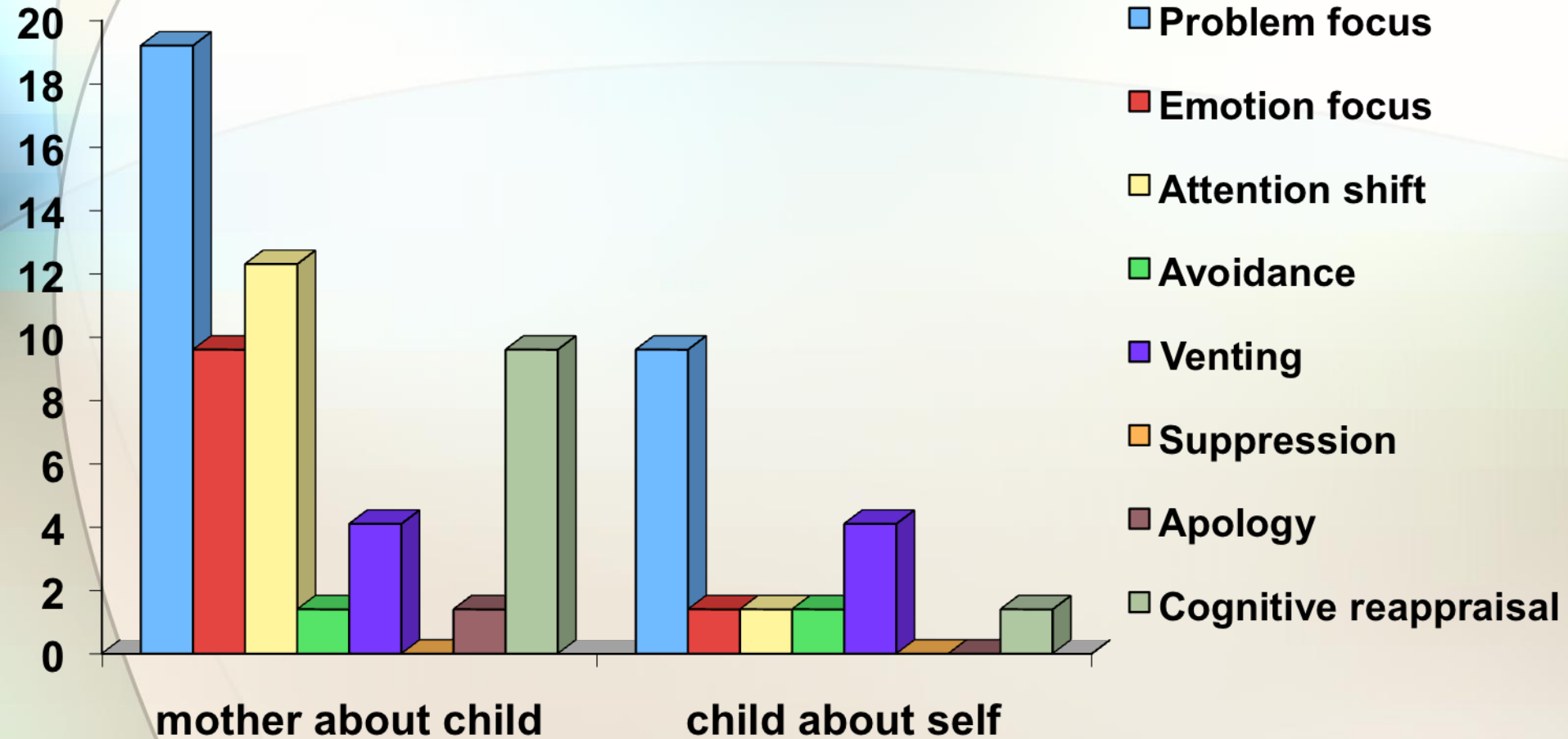
- Problem focused: Addresses the circumstances provoking emotion
- Emotion focused: Manages the feelings aroused by the situation
- Attention shifting: Efforts to distract from the emotion or situation
- Cognitive reappraisal: Refocusing on positive or constructive aspects of the situation
- Avoidance: Leaving the situation or stopping emotion provocations
- Venting: Behavioral or verbal expression of emotion
- Suppression: Efforts not to feel or to display emotion
- Apology: Making amends

In addition, we identified statements of **effectiveness**: when the speaker explicitly indicated that this strategy alleviated the situation or made it better

Emotion regulation strategies identified by mothers and preschoolers in emotional reminiscing



Effectiveness of emotion regulation strategies reported by mothers and children in emotion reminiscing



On our emotion regulation problem-solving task, children with secure attachments were significantly less likely than children with insecure attachments to endorse **venting** as an effective emotion regulation strategy for negative feelings.

Digitized recordings of mother-child emotion conversations were coded for behavioral and verbal indicators of **child avoidance**, including:

- behavioral evasions
- verbally explicit evasions or refusals
- changing the topic

Transcriptions of mother-child conversations were assigned a summary score for **maternal validation** (5-point scale with 5 high), based on mother's conversational contributions indicating:

- acceptance of child's perspective (even if it contradicts mother's own view)
- expressions of empathy for child's feelings
- focus on child's (not mother's) viewpoint

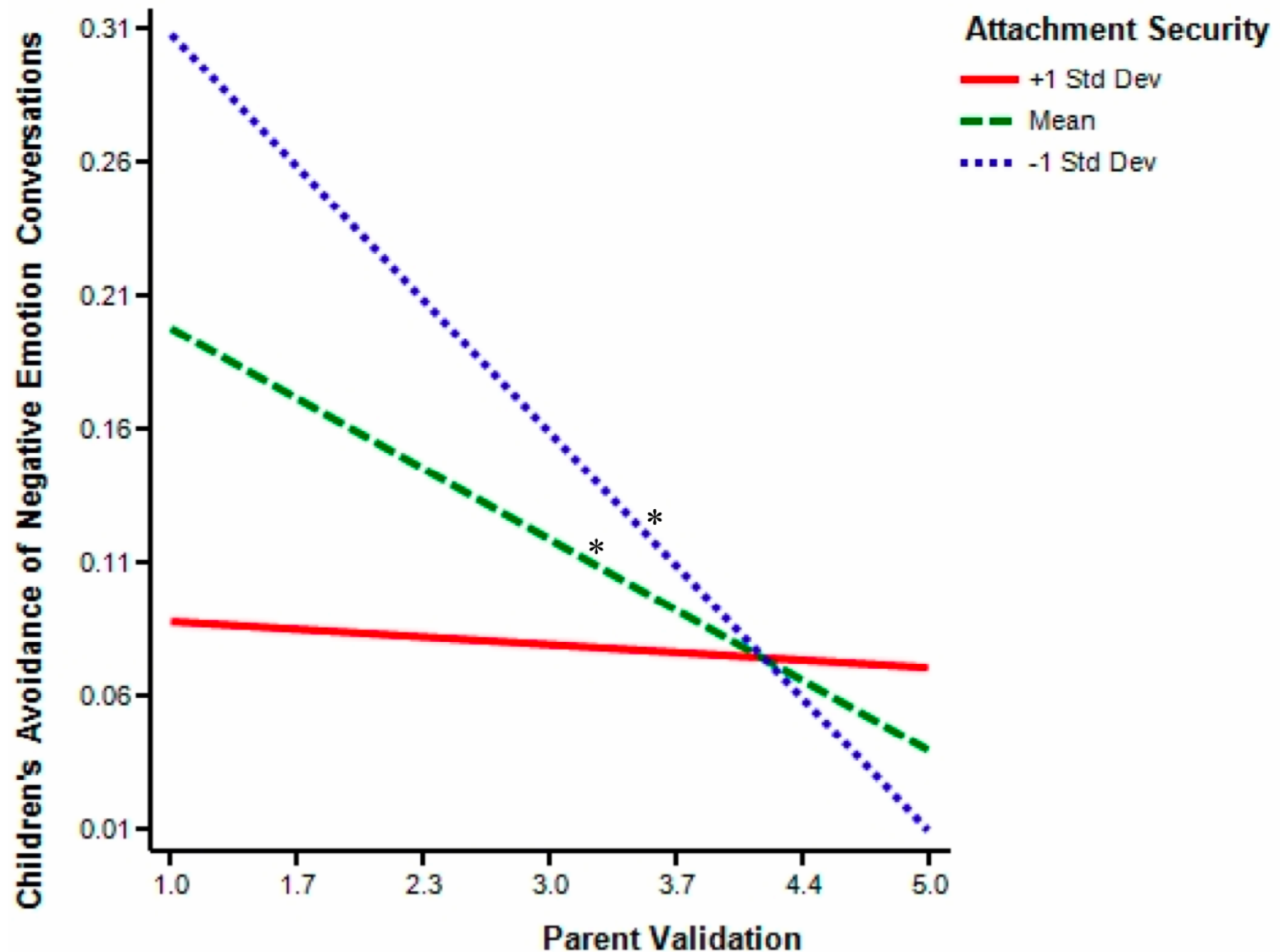
Predicting Child Avoidance in Mother-Child Conversations about Negative Emotion

Variable	Step 1			Step 2			Step 3		
	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Emotion understanding (negative emotions)	-.03	.01	-.41**	-.03	.01	-.37**	-.03	.01	-.37**
Security of attachment				-.21	.11	-.21*	-.18	.11	-.17
Maternal validation				-.04	.01	-.23*	-.04	.02	-.23*
Attachment x Validation							.21	.10	.21*
R^2	.17**			.29**			.33**		
<i>F</i> for change in R^2	14.57**			5.60**			4.40*		

* $p < .05$

** $p < .01$

Interaction of Attachment and Maternal Validation in Predicting Child Avoidance



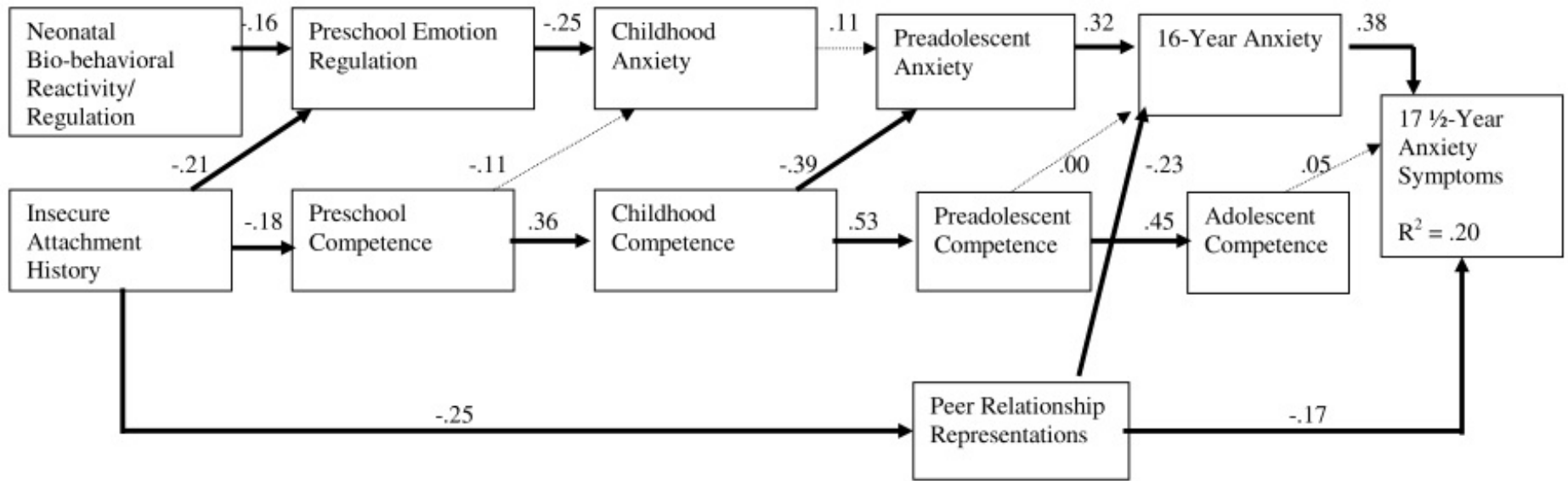
* Slope significant at $p < .05$

Summary thoughts . . .

- There are multiple ways that secure attachment contributes to the growth of emotion regulation in children:
 - maternal sensitivity in secure relationships to children's feelings and efforts to manage challenging emotions,
 - secure children's capacities for emotion understanding, particularly of negative emotions that require regulation,
 - the conversational context of secure dyads that facilitates emotional communication and emotion understanding
- Relational contributions to the growth of emotion regulation are overlapping and sometimes compensatory (multifinality)
 - maternal conversational style may be especially important for children in insecure relationships
 - these processes may be especially important for children at risk

Final thoughts

- Identifying associations between attachment security and emotional understanding / emotion regulation is only the first step to understanding how relationships influence emotional growth and personality.
- Both mothers and young children bring important psychological resources to their conversations about emotion, and these resources are shaped in part by the quality of their relationship.
- The context of child, maternal, and family functioning is crucial to these processes – revealed only when we study at-risk families.
- Longitudinal work is needed to study the developmental interaction between relational and psychobiological aspects of self-regulation in the context of debates about the nature of emotion regulation itself.



From Bosquet, M., & B. Egeland (2006). The development and maintenance of anxiety symptoms from infancy through adolescence in a longitudinal sample. *Development and Psychopathology*, 18, 517-550.

Thanks!

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