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Disorganized Attachment in Adolescent Mother-Infant Dyads: Its Nature, Origins, and Developmental Consequences

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Disorganized Attachment in Adolescent Mother-Infant Dyads Its Nature, Origins, and

Developmental Consequences

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A Presentation to the LaMarsh Centre for Research on Violence and Conflict Resolution
October 22, 2007

With more than a little assistance from...

- Sandi Bento, Research Coordinator
- Carey Anne DeOliveira (CPRI, London)
- Heidi Neufeld Bailey (U of Guelph)
- Jen Phillips
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- Ann Krupka
- Ann Robson

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- Anneli Sepa
- Mari Fransson
- Deanne Pederson
- and others, including countless London area mothers and their babies

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Our Research Program - Overview

Attachment - The First Relationship

Its origins in the first year and in the mother's childhood experience

and

its developmental consequences





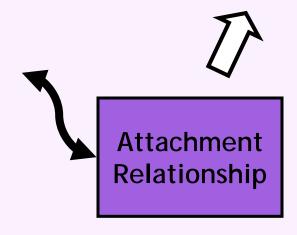
Some Background to Today's Talk

The Nature, Sequelae and Origins of Attachment





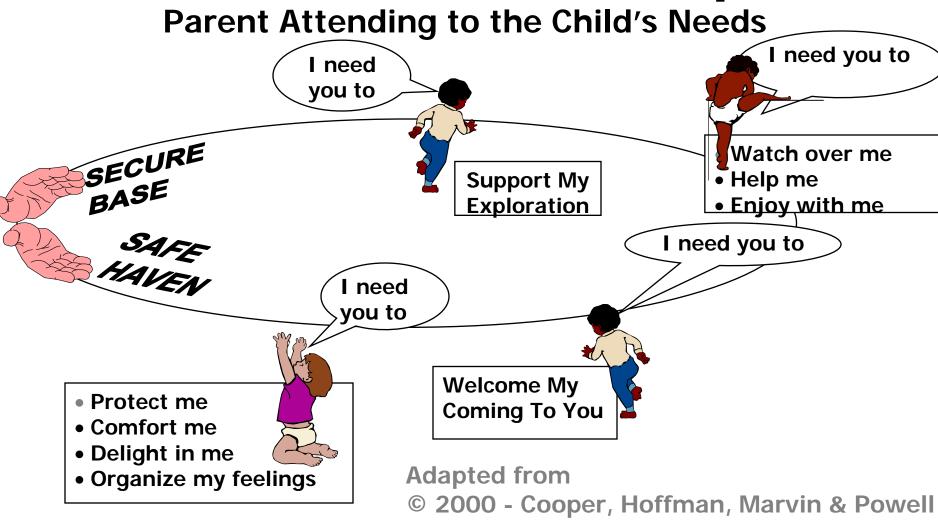
The First Relationship







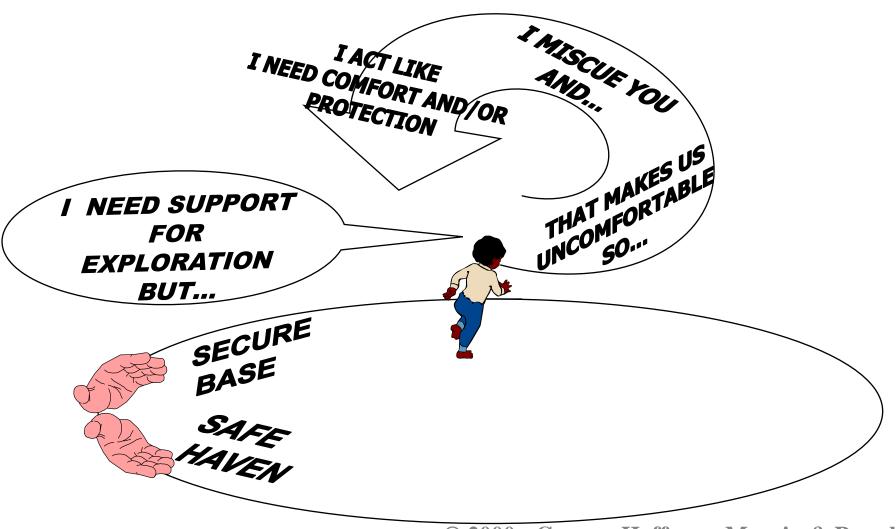
Circle of Security Secure relationship



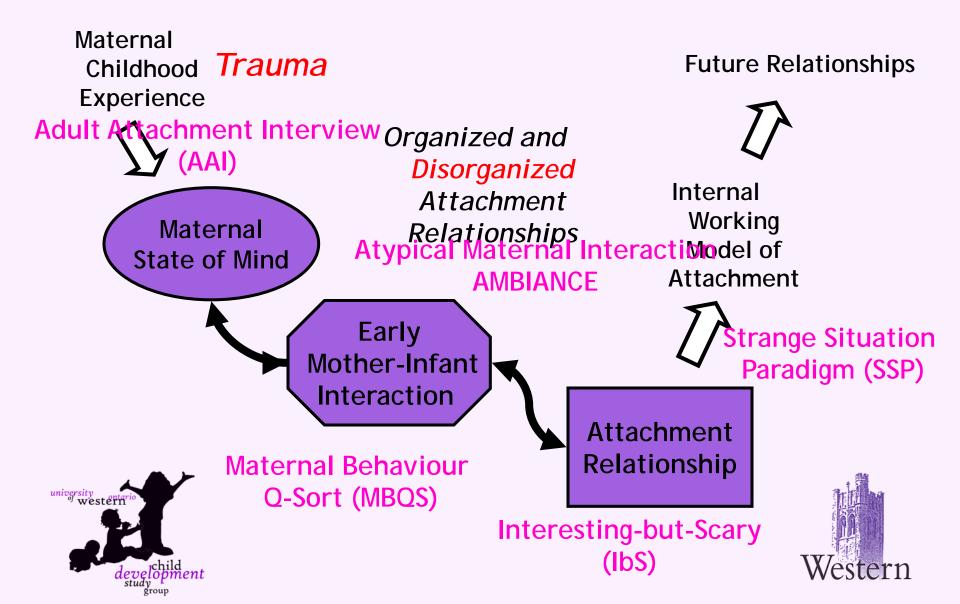
CIRCLE OF LIMITED SECURITY Child Miscuing Avoidant Relationship



CIRCLE OF LIMITED SECURITY Child Miscuing Ambivalent Relationship



The First Relationship



Disorganized Attachment Relationship

- First noticed in the Strange Situation in infants with a history of maltreatment
- Breakdown/absence of attachment system no consistent or coherent strategy
- Unusual, conflicted, contradictory behaviour
 - Approach parent in odd ways
 - Move away from parent when upset or frightened
 - Freeze
 - Display fear of parent
- 15% in non-clinical samples; as high as 80% in at-risk samples
- Associated with maternal Unresolved maternal state of mind regarding attachment



Sequelae of Disorganized Attachment

- Disturbances in affect regulation,
- Externalizing behaviour problems in childhood,
- Dissociative behaviour,
- Disturbed interpersonal relationships in childhood and adolescence
- Other...
- Intervention less successful with Disorganized dyads





Current Theories of the Development of Disorganized Attachment

Main & Hesse (1990)

- Frightened/Frightening Behaviour
- Irresolvable conflict

Lyons-Ruth (1999)

- Severely disrupted interaction and failure to repair
- Profound deficit in maternal interaction
- "Relationship diathesis"



Issues...



Understanding Disorganization - Outstanding Issues

- 1. What are its developmental origins??
 - Irresolvable distress arising from atypical/anomalous Atypical Maternal Interaction, or
 - Extreme insensitivity no basic scaffold
 -or both???
 - Need evidence beyond simple associations
- 2. Is Disorganization a breakdown or an absence of organized pattern??
 - Limited or pervasive impact on interaction??
 - Disorganization beyond the Strange Situation??

Answers have important impact for development, intervention...

Western Adolescent Mothers Study

- 99 adolescent mothers and infants (18.4 years)
- Maternal Adult Attachment Interview: 6 months
- Home visits: 6, 12, 24 months
 - Q-sorts of mother and infant interaction
- University visits: 12, 24 months (and 4.5 & 11 years)
 - Attachment classification at 12 and 24 months
 - Videotaped play interaction
- And much else...
 - (including intervention program)





An Overview of the Participants

- High Prevalence of Disorganization
 - Disorganized Relationship 58%
 - Unresolved Maternal State of Mind 37%
 - Abuse history 52%
 - Maternal sensitivity markedly low (MBQS- .12 @ 12 mo)
- Found strong correspondence between maternal AAI and StSit relationship classifications





Results of the Adolescent Study





Disorganization and Substantially Atypical Maternal Interaction

Objectives

- To identify particular aspects of Atypical Maternal Interaction associated with Unresolved representations and Disorganized attachment and
- To establish maternal Atypical Interaction as a mediator between disorganized state of mind and relationships

Overview

- Maternal interview (6mos) Adult Attachment Interview (AAI)
- Atypical Maternal interaction in play (12mos) -AMBIANCE
- Attachment (12mos) Strange Situation (StSit)



Madigan, Moran, & Pederson Developmental Psychology, 2006



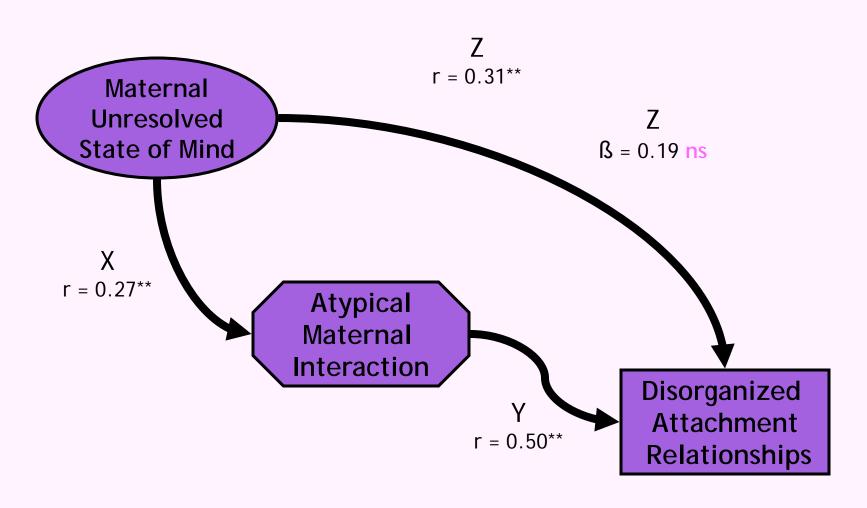
Results - Study 1

- 1. Association of Unresolved/disoriented maternal state of mind with Disorganized relationship (r = 0.31)
- 2. Association of Atypical Maternal Interaction with
 - Unresolved/disoriented state of mind (r = 0.27) and
 - Disorganized attachment (r = 0.50)
- 3. Association of **Disorganized** rel'ship and 3 aspects of Atypical Maternal Interaction
 - Role boundary/confusion;
 - Fearful/disorientation;
 - Intrusive negativity
 - NOT Affective Communication Errors or Withdrawal





Transmission of Disorganized Attachment via Atypical Maternal Behaviour



Summary - Study 1

- Replication of key associations in hi-risk sample
- Identification of specific elements of Atypical Maternal Interaction most related to Disorganized relationships
- First evidence of statistical mediation by Atypical Maternal Interaction
- But ---- longitudinal evidence??





Study 2 - Stability & Change: Disorganization & Atypical Maternal Interaction

Objectives

- Very few longitudinal studies of attachment in early childhood
 - especially including Disorganization
- None linking changes in attachment to changes in maternal interactive behaviour

Overview

- Attachment at 12 (StSit)& 24mos (Interesting-but-Scary)
- Atypical Maternal Interaction at12 & 24-mos (AMBIANCE)
- Home observations at 6 & 24mo Maternal Behaviour Qsort (MBQS)



Evans, Forbes, Moran, & Pederson Child Development, 2007



Results - Study 2



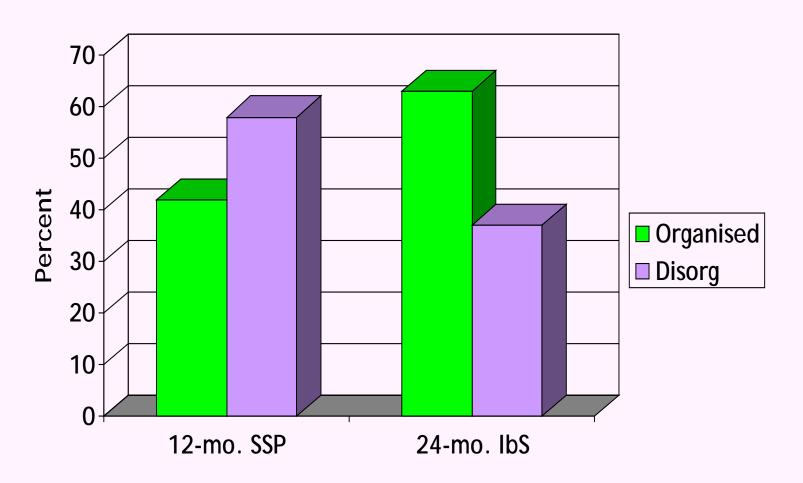


12- and 24-Month Attachment

		24-Month Attachment			
		Organized	Disorg	Total	
12-Month Attachment	Organized	26	4	30 (42%)	
	Disorg	19	22	41 (58%)	
	Total	45 (63%)	26 (37%)	71	

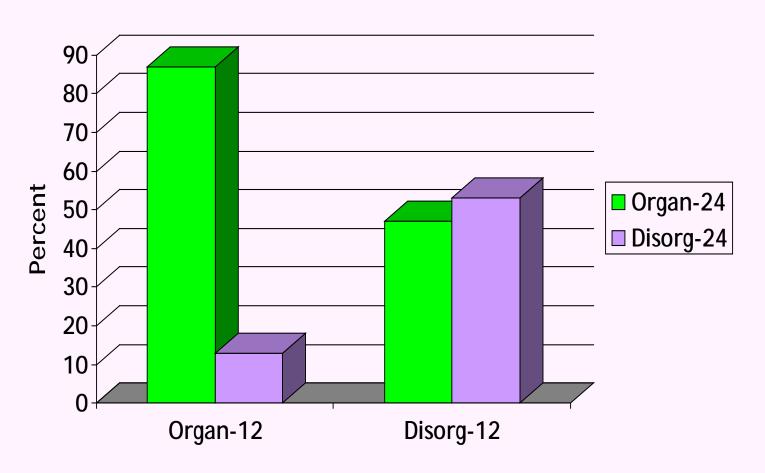
Clear stability in assessments of attachment between 12 (SSP) and 24 (lbS)months, but also much change...

Distribution of Attachment at 12- and 24-Months



Substantial drop in number of Disorganized relationships - 12 to 24 mon

Changes in Attachment Between 12- and 24-Months



Organization is stable - Disorganization more likely to change

Initial Results - Study 2

- Statistical continuity in attachment across time as theoretically predicted
- Organized relationships unlikely to change; many Disorganized become Organized
- 3. Similar patterns for Atypical Maternal Behaviour

Can parallel change in Atypical Maternal Interaction account for changes in Disorganized status from 12 to 24 mon???





Accounting for change in Disorganized status 12-to-24mon???

- Regression analyses of continuous variables
 - 12-to-24mon change in Atypical Maternal Interaction predicts 12-to-24mos change in Disorganization
- 2. Difference Scores
 - 12-to-24mon Change in Atypical Maternal Interaction predicts 12-to-24mon change in Disorganization



Categorical analyses...



Associations Between Attachment Disorganization and Atypical Maternal Interaction at 12- and 24-Months

ATTACHMENT	Maternal Interaction Stable DisR Stable NotDisR DisR→NotDisR			Above chance
Stable DisOrg	POS	NEG		Below chance
Stable Not-DisOrg	NEG	POS		
DisOrg→ Not-DisOrg			POS	

x2 (9, N = 71) = 36.61, p < .001; Kappa = .39, p < .001.

DisOrg - Disorganized
DisR - Disrupted Maternal Interaction

Changes in Disorganization Map Changes in Maternal Atypical Behaviour

Results - Study 2

- 1. Stable quality of maternal interaction associated with stability in relationship
- Improvement in quality of maternal interaction associated with shift from Disorganized to Organized relationships
- 3. But....Indications that same was also true for quality of maternal sensitivity observed in the home, so...





3. Maternal Representations, Interaction in the Home and Attachment Relationships

Objectives

- Exploration of key elements of attachment system
 - Seldom observed in same study in home
 - Never involving Disorganization and hi-risk sample

Overview

- Maternal state-of-mind at 6mo (AAI), home observations at 12mo (MBQS), and attachment at 12 mo (StSit)
- Innovations in description, conceptual model and analyses



Bailey, Moran & Pederson Develop & Psychopath, 2007



Results - Study 3





Styles of Maternal and Infant Interaction

- Styles of Maternal Interaction
 - Sensitive/Insensitive
 - Disengaged
 - Non-Synchronous
- Styles of Infant Interaction
 - Interacts Harmoniously with Mother
 - Prefers Stranger
 - Sad/Withdrawn





Results - Study 3

- Unresolved maternal state of mind and Disorganized relationships associated with:
 - (in)Sensitive and Disengaged maternal interactive styles (not non-synchronous) and
- Basis for conducting mediational analyses...





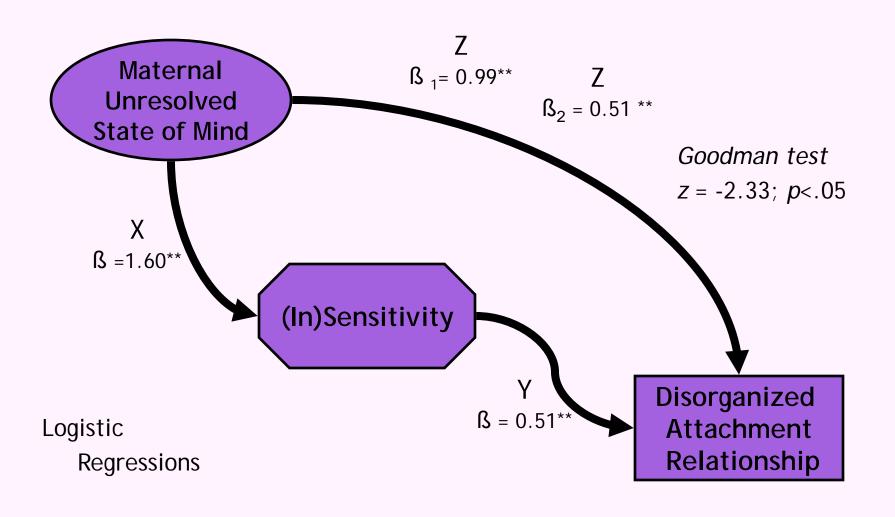
Traditional Mediational Analyses

Logistic Regressions Linear Causal Model

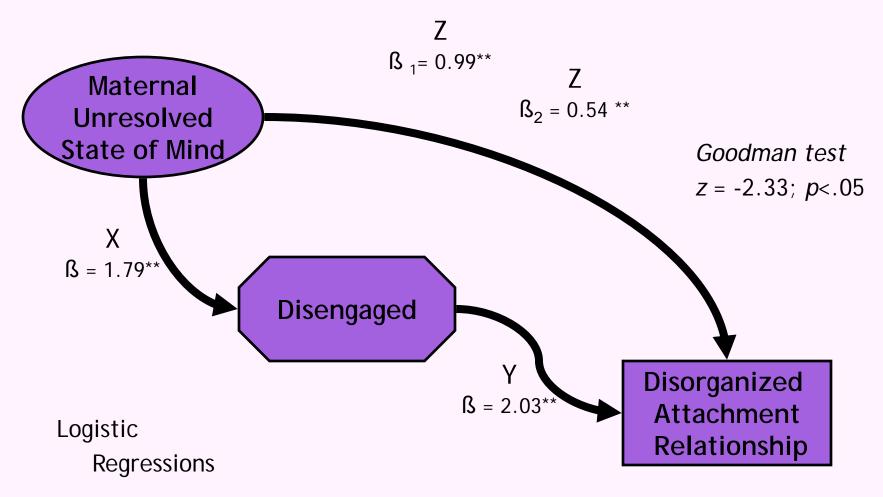




Transmission of Disorganized Attachment via Insensitive Maternal Behaviour in the Home



Transmission of Disorganized Attachment via Disengaged Maternal Behaviour in the Home



Relationship-Based Analyses

Latent Class Analysis Systems Model





Dyadic Styles of Maternal and Infant Interaction

Maternal Style

and

Harmoniously

Child Style

Disengaged

Sensitive

and

Prefers Stranger

Disengaged

and

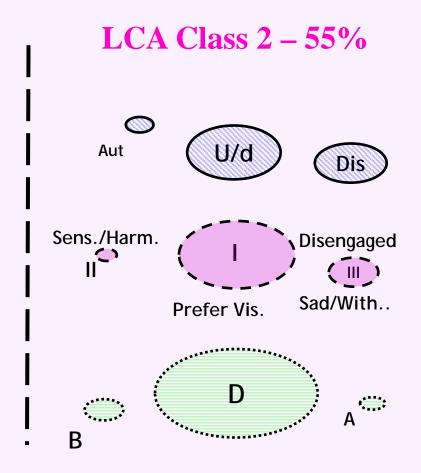
Sad/Withdrawn





Mother/Infant Dyadic Profiles

LCA Class 1 – 45% U/d Aut Dis Sens./Harmon. **∷** A





Maternal State of Mind

Dis - Dismissive Aut - Autonomous U/d - Unresolved

Dyadic Interactive Style

I - Disengaged/Prefers Visitor

II - Sensitive/Harmonious

III - Disengaged/Sad-Withdrawn

Relationship

- A Avoidant
- B Secure
- D Disorganized



Results - Study 3

- Disorganization has a more pervasive impact on mother-infant interaction than thought - not simply a breakdown of an organized pattern
- Disorganization associated with <u>both</u>
 Atypical Maternal Interaction <u>and</u>
 naturalistic aspects of maternal interaction

4. Frank Insensitivity *vs*Atypical Maternal Interaction

- Atypical Maternal Interaction assessed with AMBIANCE at 12mon in play without toys
- Maternal sensitivity assessed with MBQS at 12mon in home
- Hierarchical regression:
 - Disorganization as dependent variables
 - (1) Atypical maternal behaviour and (2) sensitivity as predictors

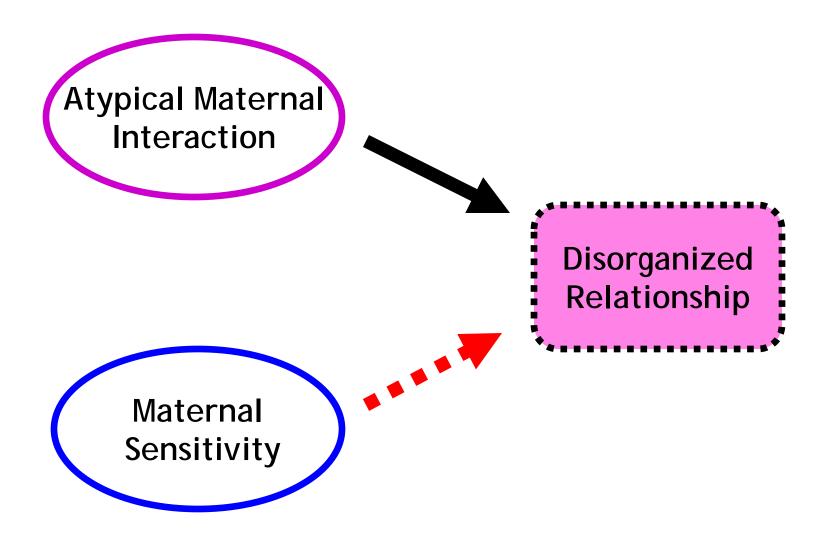
Results - Study 4 Sensitivity and Atypical Behaviour

- 1. As predicted by theory:
 - Atypical behaviour predicts Disorganization
 BUT
- 2. Contrary to theory:
 - Maternal Sensitivity adds to prediction of Disorganization

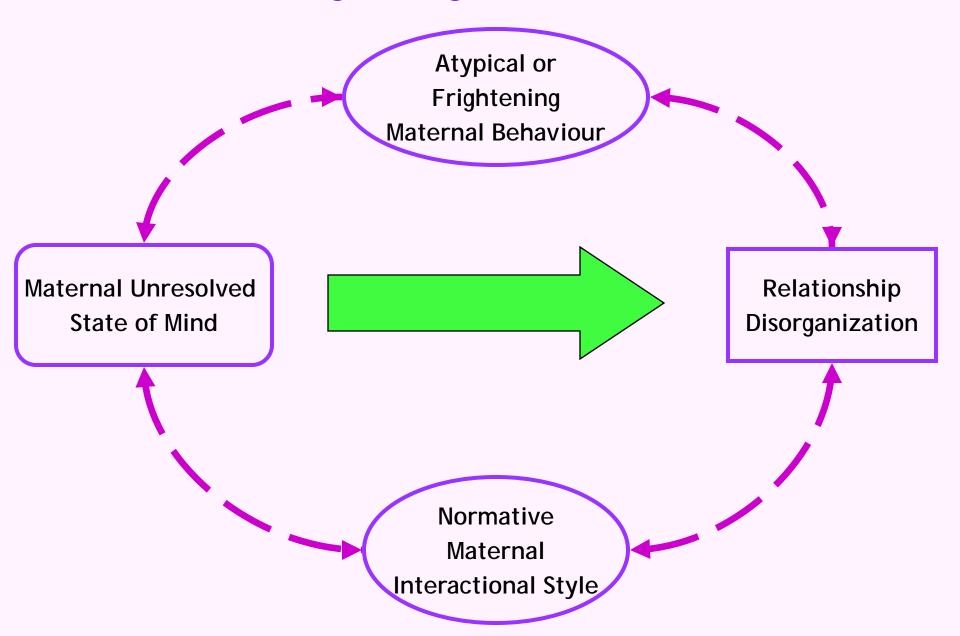




Interactive Correlates of Attachment Relationship Quality



Integrating Two Models



"Just as children are absolutely dependent on their parents for sustenance, so in all but the most primitive communities, are parents, especially their mothers, dependent on a greater society for economic provision. If a community values its children it must cherish their parents."

John Bowlby, 1951, p.84, WHO Report Cited by Inge Bretherton, Developmental Psychology, 1992





For additional information:

The Pederson-Moran Research Group at the University of Western Ontario

http://www.ssc.uwo.ca/psychology/faculty/pedmor/pedermor.html





Interactive Correlates of Attachment Relationship Quality

