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The Nature and Origins of Infant-Adolescent Mother Attachment Relationships

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The Nature and Origins of Infant-Adolescent Mother Attachment Relationships

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Workshop on Attachment: Causes and Consequences
Center for Studies in Behavioral Neurobiology
Concordia University
Concordia University, Montreal
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With more than a little assistance from...

- Sandi Bento, Research Coordinator
- Carey Anne DeOliveira (CPRI, London)
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- Acia Blank
- Anneli Sepa
- 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



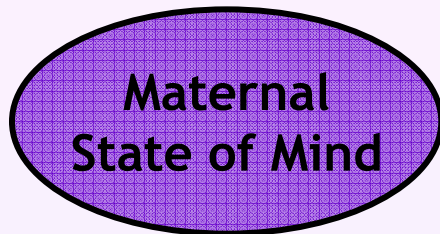
Some Background to Today's Talk

The Nature, Sequelae and Origins of Attachment

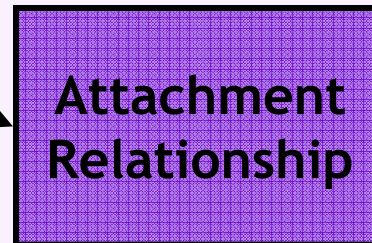
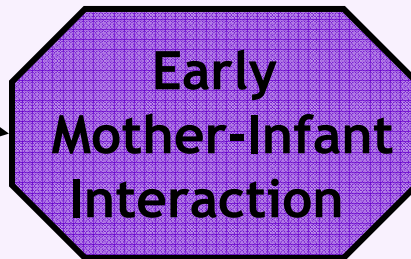
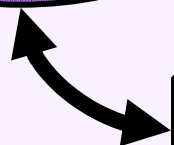


The First Relationship

Maternal
Childhood *Trauma*
Experience



*Organized and
Disorganized
Attachment
Relationships*



Future Relationships



Internal
Working
Model of
Attachment



Disorganized Attachment

- First noticed in infants with a history of maltreatment
- Breakdown 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
- **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
- Unresolvable conflict

Lyons-Ruth (1999)

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

- **Issues...**



Conceptual and Empirical Issues

A theory with an identity crisis??

- Developmental origins in interaction?
 - Fear arising from atypical **disrupted maternal behaviour**, or
 - Extreme insensitivity, or both???
 - Beyond simple associations
- Is Disorganization a breakdown or an absence of organized pattern?
 - Limited or pervasive
- Disorganization beyond the Strange Situation



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 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)
- Correspondence between maternal AAI and StSit relationship classifications



Some Results of the Adolescent Study



1. Disorganization and Substantially Disrupted Maternal Interaction

- Objectives
 - To identify particular aspects of disrupted maternal behaviour associated with Unresolved representations and Disorganized attachment and
 - To establish maternal disrupted behaviour as a mediator between disorganized state of mind and relationships
- Overview
 - Maternal interview (6mos) - Adult Attachment Interview (AAI)
 - Maternal disrupted interaction in play (12mos) - AMBIANCE
 - Attachment (12mos) - Strange Situation (StSit)

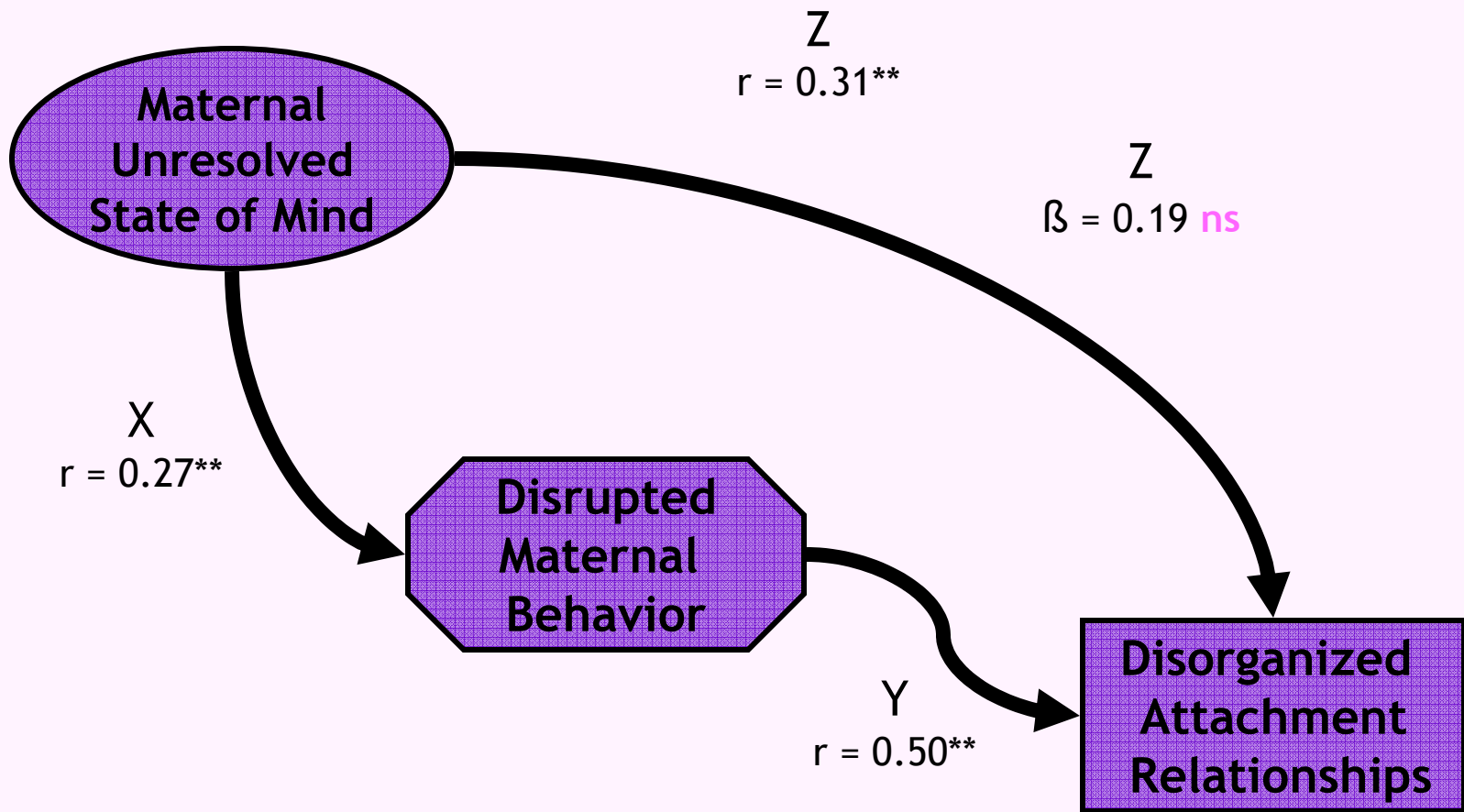
*Madigan, Moran, & Pederson
Developmental Psychology - February 2006*



Results - Study 1

- Association of Unresolved maternal state of mind with Disorganization relationship ($r = 0.31$)
- Association of disrupted maternal behaviour with
 - Unresolved state of mind ($r = 0.27$) and
 - Disorganized attachment ($r = 0.50$)
- Associations between Disorganization and 3 aspects of Disrupted Maternal Behaviour
 - Role boundary/confusion;
 - Fearful/disorientation;
 - Intrusive negativity
 - **NOT** Affective communication errors or Withdrawal

Transmission of Disorganized Attachment via Disrupted Maternal Behaviour



Summary - Study 1

- Replication of key associations in hi-risk sample
- Identification of specific elements of disrupted maternal behaviour most related to Disorganized relationships
- First evidence of statistical mediation
- But ---- longitudinal evidence??



2. Stability & Change: Disorganization & Maternal Interactive Behaviour

Objectives

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

Overview

- Attachment at 12 (StSit)& 24mos (**Interesting-but-Scary**)
- Disrupted maternal interaction at 12 & 24-mos (AMBIANCE)
- Home observations at 6 & 24mo - Maternal Behaviour Q-sort (MBQS)

*Evans, Forbes, Moran, & Pederson -Manuscript revised and resubmitted -
Child Development*

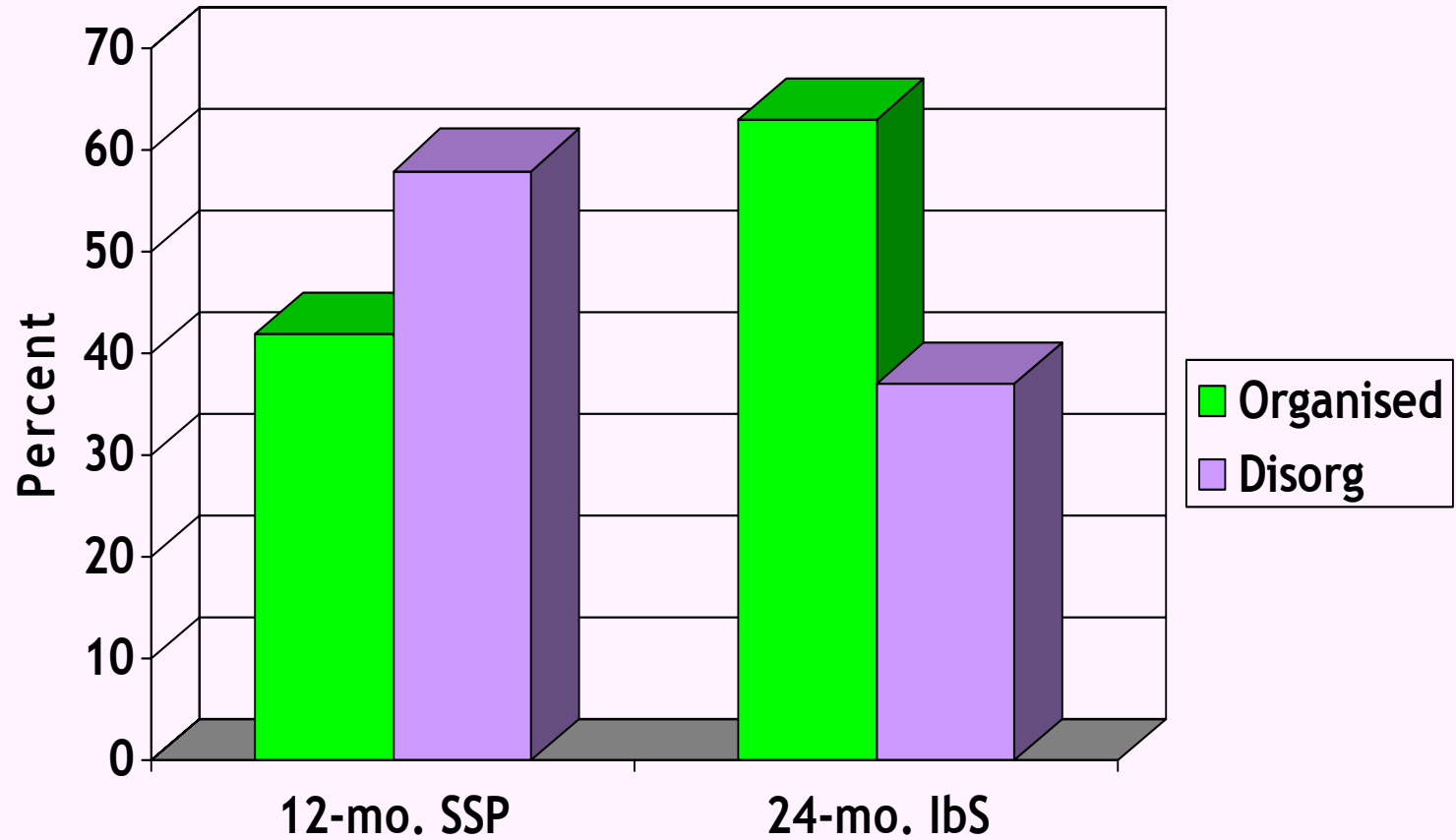
Results - Study 2



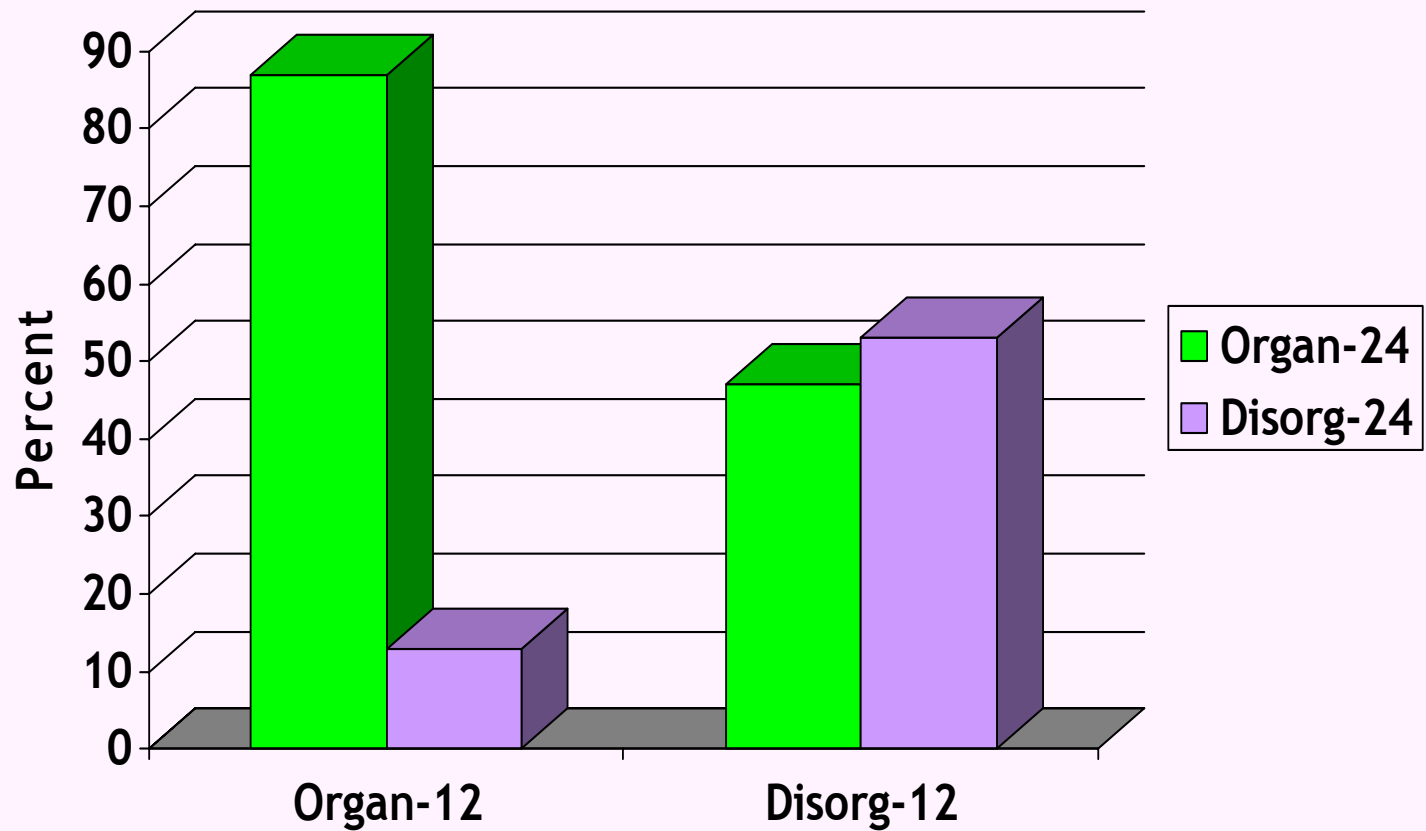
12- and 24-Month Attachment

		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

Distribution of Attachment at 12- and 24-Months



Changes in Attachment Between 12- and 24-Months



Initial Results - Study 2

- Continuity - Statistical correspondence as theoretically predicted
- Organized relationships unlikely to change; many Disorganized become Organized
- Similar patterns for maternal Disrupted behaviour
- Accounting for change in Disorganization status???



Accounting for change in Disorganization status 12-24mos???

- Regression analyses of continuous variables
 - 24mos Disrupted maternal interaction predicts 24mos Disorganization
- Difference Scores
 - 12→24mos Change in Disrupted maternal interaction predicts 12→24mos change in Disorganization





Categorical analyses...



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

ATTACHMENT	Maternal Behaviour		
	Stable DisR	Stable NotDisR	DisR→NotDisR
Stable DisOrg	POS	NEG	
Stable Not-DisOrg	NEG	POS	
DisOrg→Not-DisOrg			POS

 Above chance
 Below chance

DisOrg - Disorganized

DisR - Disrupted Maternal Interaction

$\chi^2 (9, N = 71) = 36.61, p < .001$; Kappa = .39, $p < .001$.

Results - Study 2

- Stable quality of maternal behaviour associated with stability in relationship
- Improvement in quality of maternal interaction associated with shift from Disorganized to Organized relationships
- Same was also true for quality of maternal sensitivity observed in the home, so...



3. The Big Picture: Maternal Representations, Interaction 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 - Revise & Resubmitted -

Develop & Psychopath



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

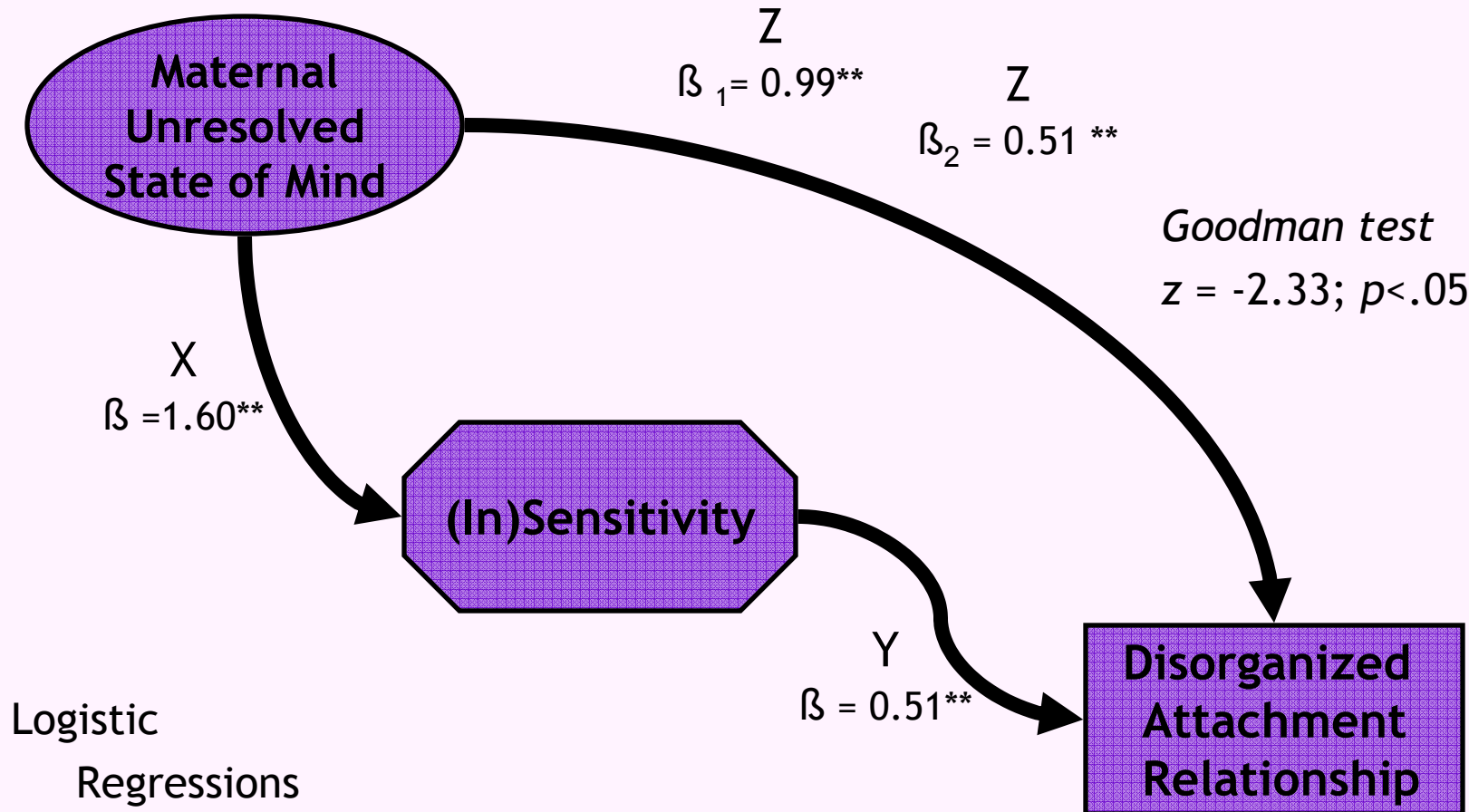
- Unresolved maternal state of mind associated with:
 - (in)Sensitive and Disengaged maternal interactive styles (not non-synchronous) and
- Disorganized relationships associated with:
 - (un)Harmonious interaction, Prefers Visitor, and Sad/Withdrawn

Traditional Mediation Analyses

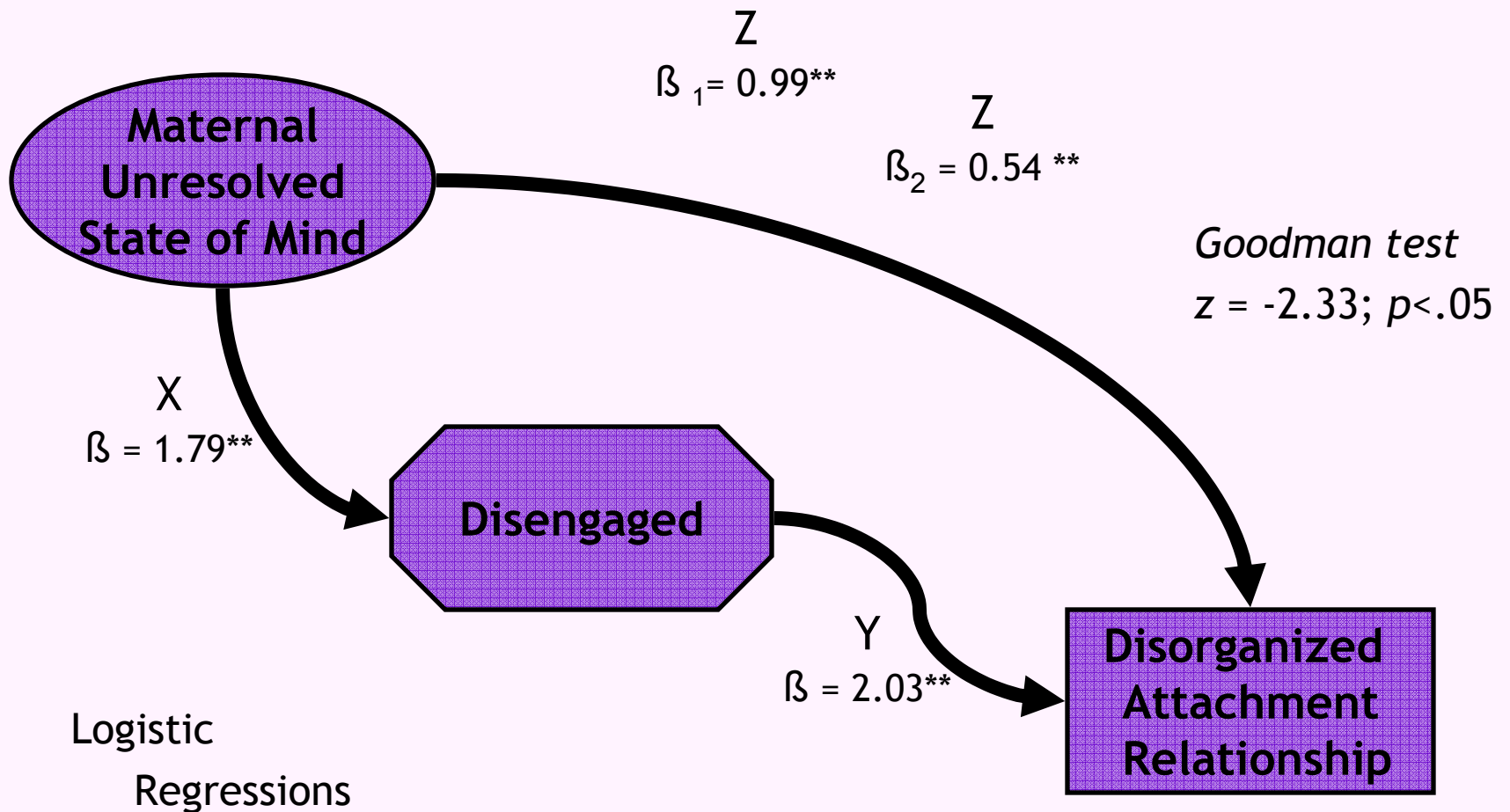
Logistic Regressions
Linear Causal Model



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

Sensitive

Disengaged

Disengaged

and

and

and

Child Style

Harmoniously

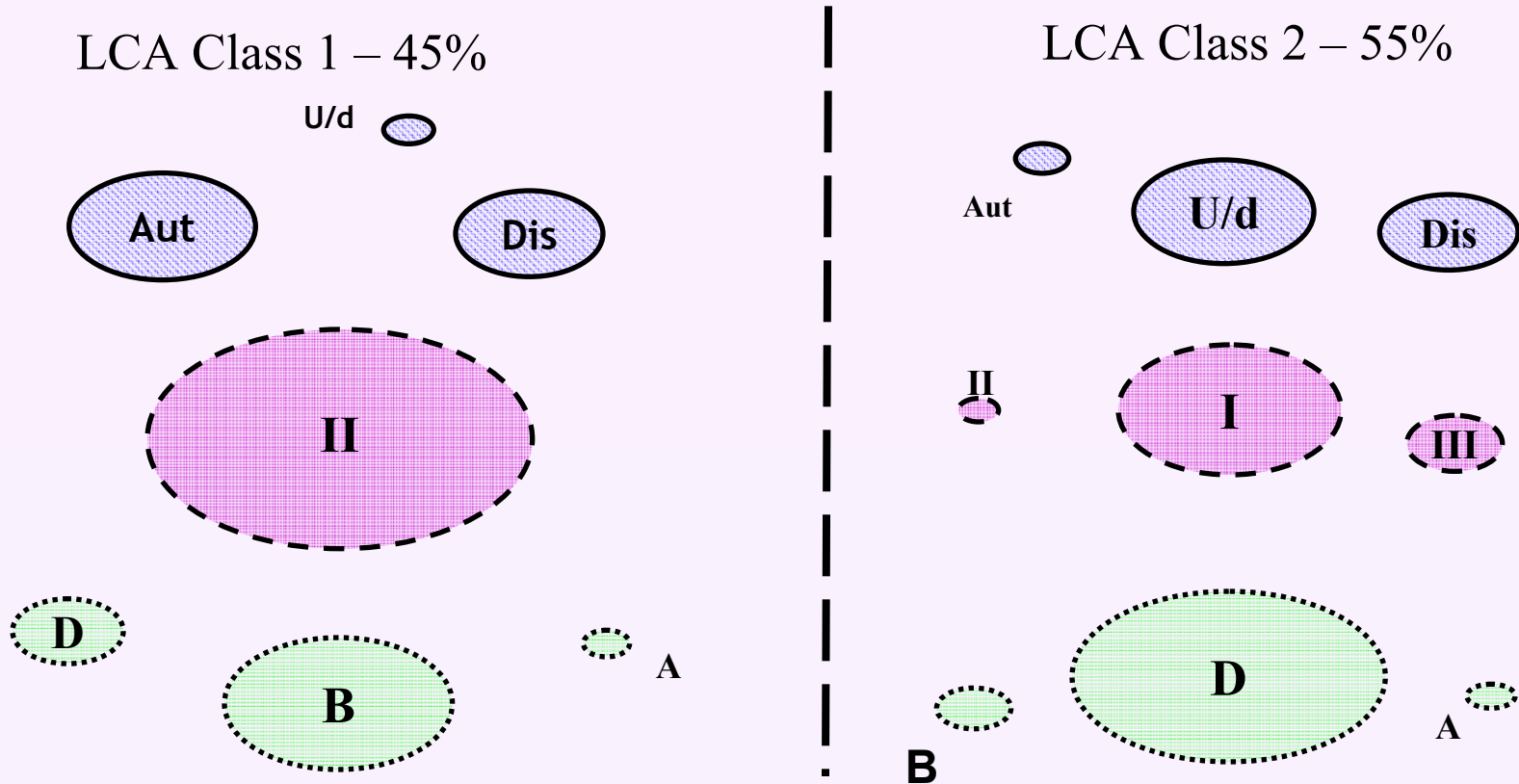
Prefers Stranger

Sad/Withdrawn



Figure 2. Graphic description of two classes identified through LCA using co-occurring patterns of mother/infant behavior profiles. Diameter of circles represent relative conditional probabilities

Mother/Infant Dyadic Interactive Profiles



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

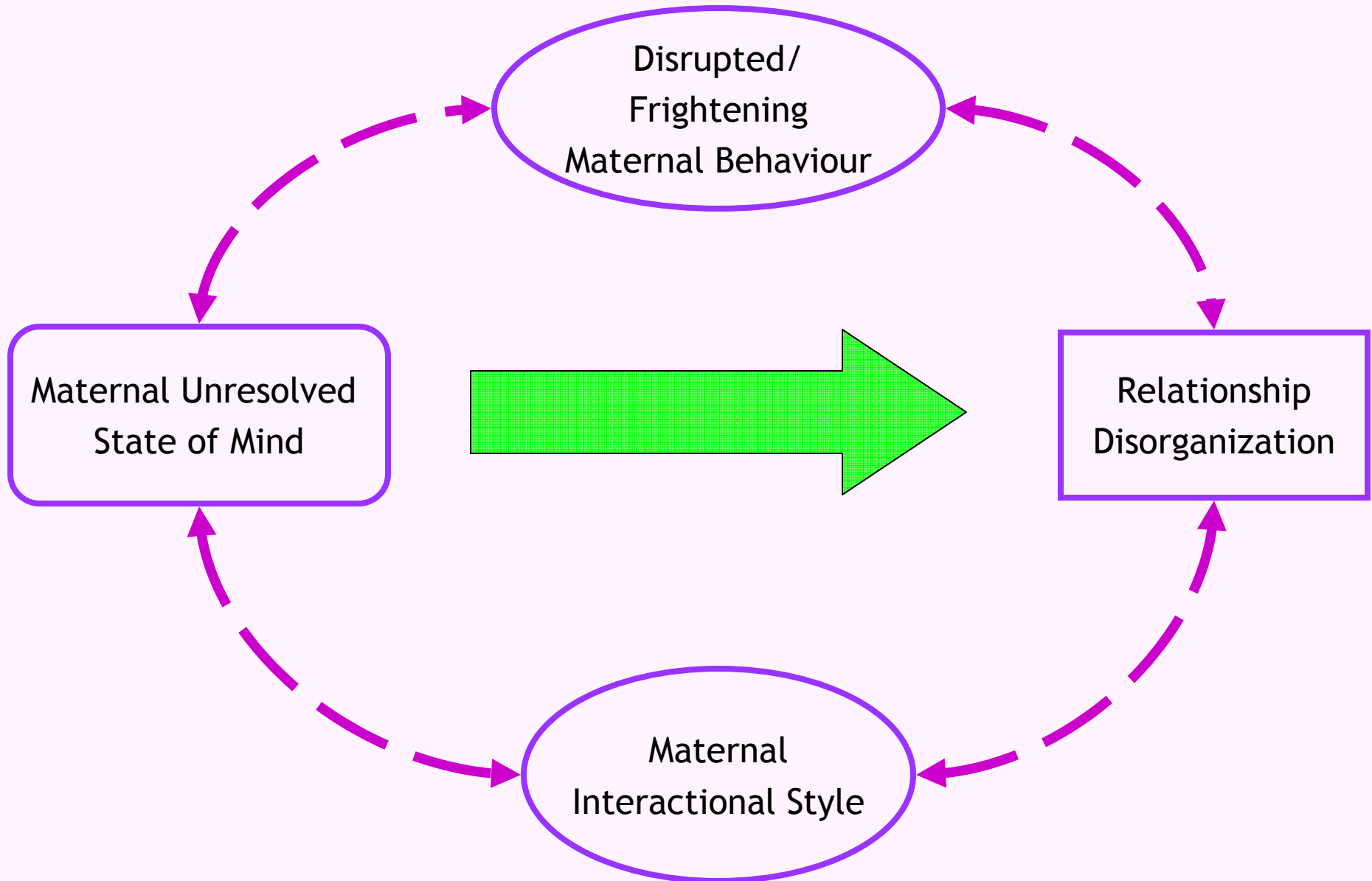
Relationship

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 naturalistic aspects of maternal interaction
 - i.e. not limited to atypical disrupted or frightening behaviour

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>

