

Using Theory & Clinical Observation to Generate Testable Hypotheses



A New Perspective on Post-natal Depression

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I. THEORY



Dynamic-Maturational Model
of Attachment & Adaptation

Central unique feature of the DMM

The organizing function of exposure to danger.

- Regulate attention
- Organize the mind
- Organize behaviour

The DMM as a comprehensive theory of development & adaptation

From Bowlby

- ❑ Psychoanalytic
- ❑ General systems theory
- ❑ Evolutionary biology
- ❑ Cognitive information processing
- ❑ Cognitive neurosciences
- ❑ On-going integration of theories

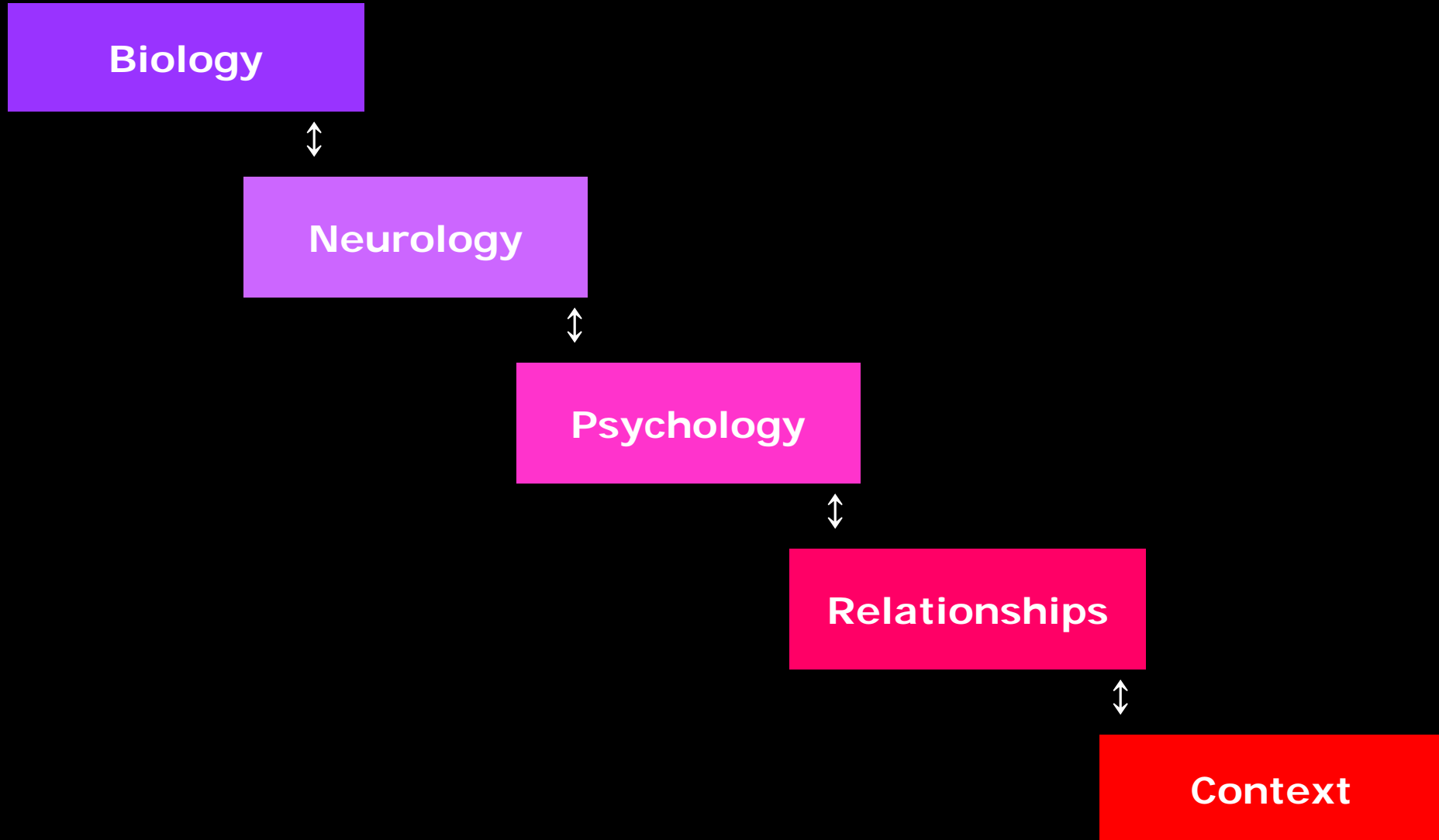
From Ainsworth

- ❑ Naturalistic observation
- ❑ The Strange Situation as a standardized assessment
- ❑ The ABC patterns of attachment
- ❑ Empirical grounding of attachment theory
- ❑ On-going expansion of the model

DMM additions

- ❑ Epigenetics
- ❑ Neurobiology
- ❑ Temperament
- ❑ Sociobiology
- ❑ Developmental psychology
- ❑ Behavioral learning theory
- ❑ Piaget cognitive development
- ❑ Eriksonian development
- ❑ Social learning theory
- ❑ Theory of mind
- ❑ Cognitive psychology (Behavioral, Constructivist)
- ❑ Vygotsky - ZPD
- ❑ Transactional theory
- ❑ Family systems theory
- ❑ Vygotsky/Bronfenbrenner: Social ecology

DMM understanding of behavior as a complex interactive process



Two sources of information

□ COGNITION

- Temporal order → causal attributions
- Learning theory & contingencies

□ AFFECT

- Intensity → arousal
- Anger, fear, desire for comfort
- Fight, flight, or freeze

Cognitive information

- ❑ Inhibit that which leads to punitive consequences (danger)
 - Doing what you want
 - Showing negative affect (anger, fear, desire for comfort)
- ❑ Exhibit that which leads to desirable consequences (safety)
 - Doing what adults want
 - Showing positive affect

Affect

- Arousal, i.e., changed body state (feelings), motivates action
 - Comfort → continuing activity
 - Anger → aggression
 - Fear → escape
 - Desire for comfort → affectionate approach
 - Tiredness → no action
 - Sadness → no action

Intensity, Arousal, & Affect

- Mania & Pain
- Fear
- Anger
- Desire for comfort
- **Alert & comfortable**
- Bored
- Tired
- Sleep
- Depressed
- Unconscious

Intensity, Arousal, & Affect: Normative

- Anger
- Desire for comfort
- Alert & comfortable
- Bored
- Tired

Intensity, Arousal, & Affect: Severe Pathology

- Mania & Pain
- Fear
-
-
-
-
- Sleep
- Depressed
- Unconscious

Two Basic DMM Strategies

- **Type A**: Very **COGNITIVE**; little affect
- **Type C**: Little cognition; intense **AFFECT**

DMM Strategies in Adulthood

Integrated True Information

True Cognition

True Negative Affect

Distorted Cognition &
Omitted Negative Affect

Distorted Negative Affect
& Omitted Cognition

False Positive Affect

False Cognition

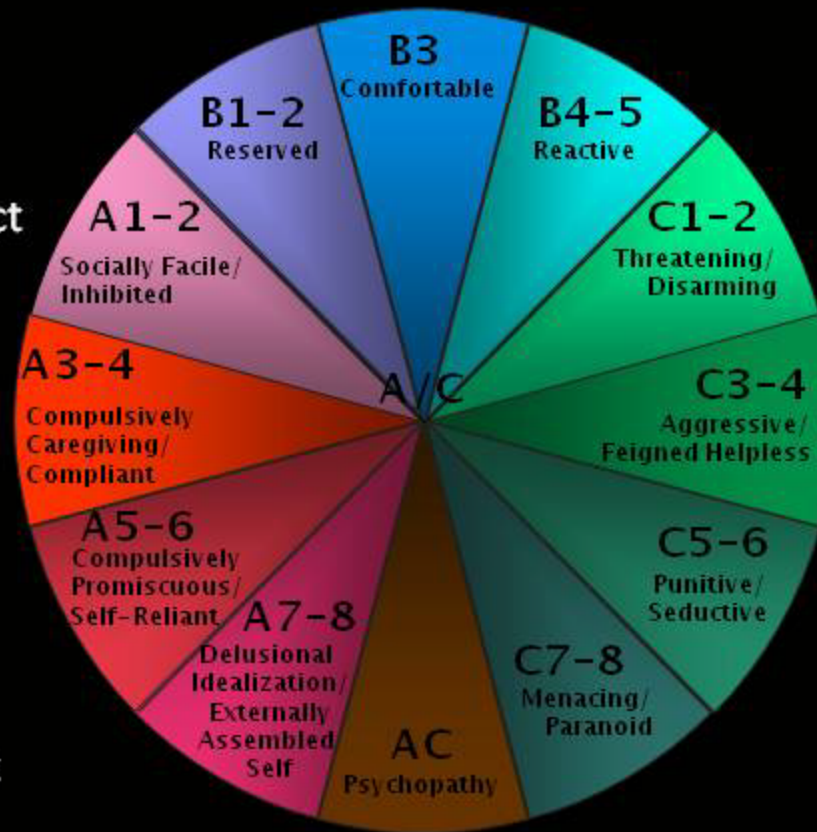
Denied Negative Affect

Denied True Cognition

Delusional Cognition

Delusional Affect

Integrated Transformed Information



Types A & C are psychological opposites

- Type A: Reduce limbic arousal, increase repetition of sensorimotor sequences
- Type C: Increase limbic arousal, create unpredicted consequences

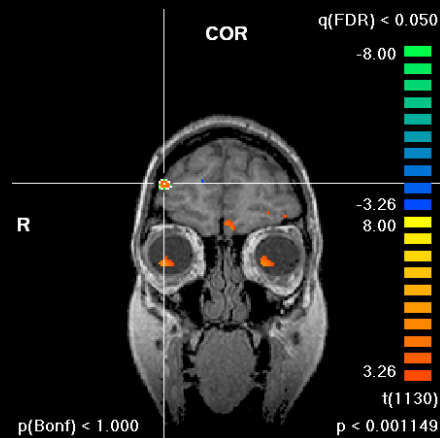
Strathearn, et al.

DMM-AAI & fMRI data

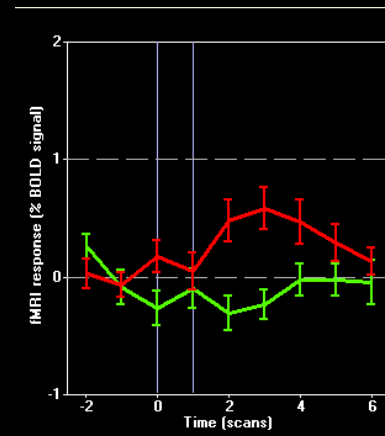
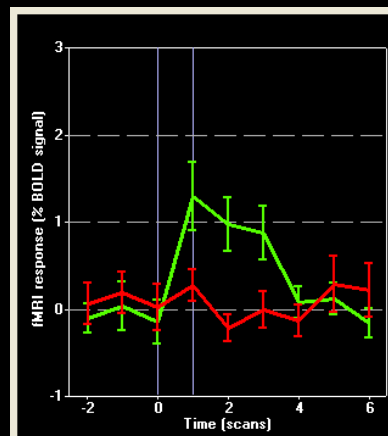
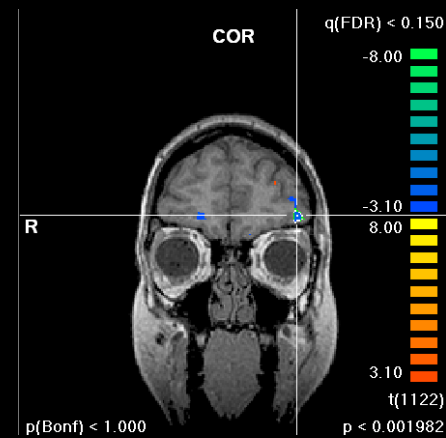
- ▣ Strathearn, L., Fonagy, P., Amico, J.A., & Montague, P.R. (2009). Adult attachment predicts mother's brain and peripheral oxytocin response to infant cues. *Neuropsychopharmacology*, 34, 2655-66.
- ▣ Shah, P. E., Fonagy, P. & Strathearn, L. (2010). Exploring the mechanism of intergenerational transmission of attachment: The plot thickens. *Clinical Child Psychology and Psychiatry*, 15, 329-346.

Mothers' brain responses to **own** vs. **unknown** baby: Prefrontal cortex

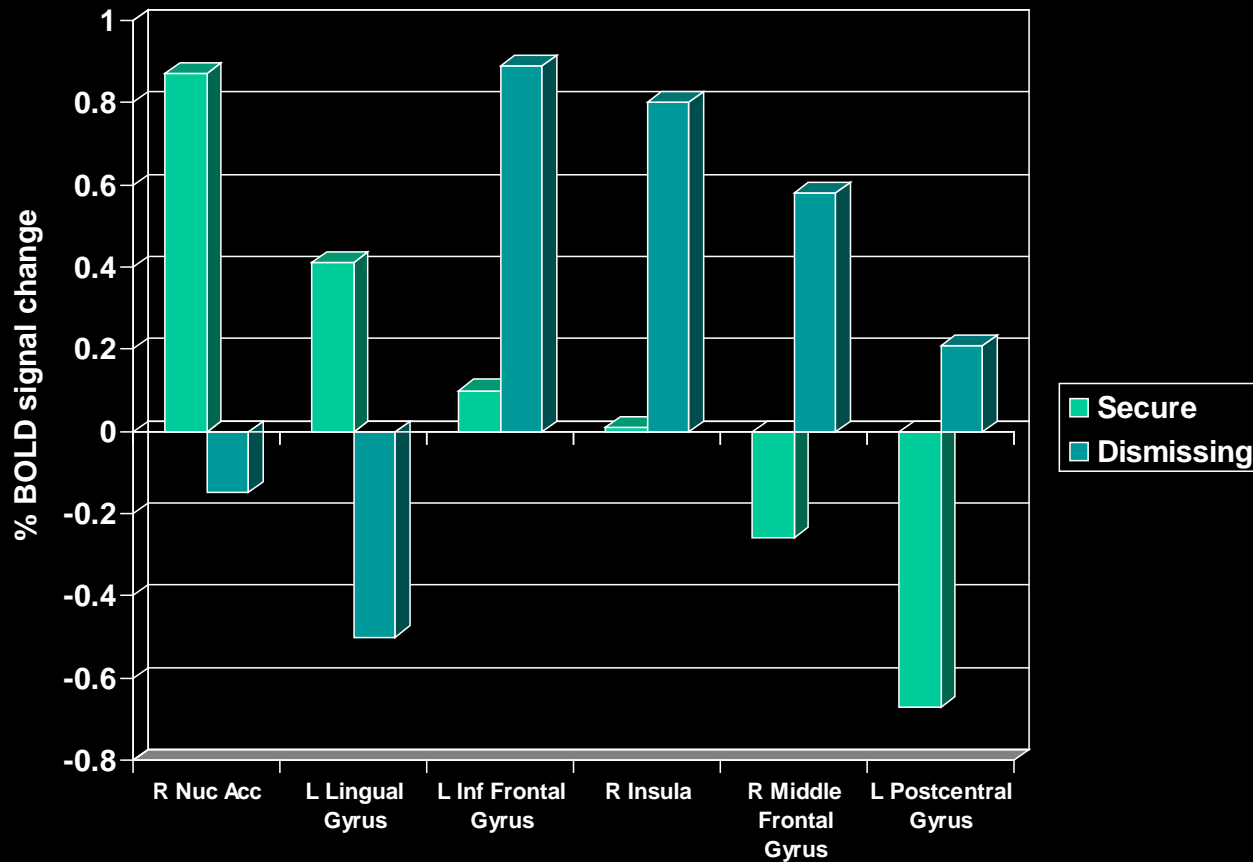
Type B



Type A



Maternal Brain Response to Own Baby's Crying Face



Types A & C behave differently when faced with danger

□ Type A:

- Inhibits feelings
- Does what others want
- Blames self
- Feels shame
- Sometimes explodes with anger or fear
- Has no explanation for explosive behaviour

□ Type C:

- Exaggerates anger and fear
- Behaves vengefully and deceptively
- Blames others
- Considers the self innocent
- Offers elaborate false reasoning

II. Clinical Observation



3-minute mother-infant
interaction (CARE-Index)

Depression

- ❑ Affect: Low arousal, non-motivating affect
- ❑ Cognition: Low expectation that one's behavior will have any effect(i.e., non-contingency between self & outcomes)
- ❑ Absence of strategic behavior of either an inhibitory or arousing sort;

Mother in Black

- ❑ Image removed for confidentiality of the dyad.

Red Hair

- Image removed for confidentiality of the dyad.

III. Developing an Hypothesis



Integrating information from
several sources

Post-Natal Depression

- Increase in rates of PND, especially in middle class
- Compulsive strategy (performance?)
- Work, wife, and mother!
 - Women's new roles
 - High rates of single parenting
 - Older mothers
 - Less childhood parenting experience
 - Isolation from other young mothers
 - Importance of mothers in early years
- All perfect, please!
- Dp A4- ?

Effect on Baby of PND

- ❑ Lack of perceived connection to mother
 - a. No temporally contingent connection
 - b. No affective connection (no attunement)

- ❑ No perception of existing unless
 - a. Compulsive caregiving attracts the mother (A3)
 - b. Exaggeration of affect attracts the mother (C+)

Treatment of PND

- ❑ Effects of CBT:
 - a. Change semantic cognitions of failure (I can't do it') to cognitions of "I can do it."
 - b. Separate cognition from context
 - c. Repair the compulsive performance strategy

- ❑ Effect of pharmacological treatment:
 - a. Raise arousal to motivate positive activity
 - b. Separate arousal from context
 - c. Permit retention of failed compulsive performance strategy without low mood

A Functional Formulation of PND

- Crisis of:
 - New role requiring change in old roles
 - Old rules requiring high competence in all roles
 - Inattention to function of negative affect

- Resolution requires
 - Change in daily life priorities
 - Change in standards of performance
 - Attention to feelings as information

Outcomes if PND is assuaged, rather than resolved

- ❑ Mother's strategy is repaired, not changed
- ❑ Context must then adapt
 - Spouse
 - Children
- ❑ Children may become caregivers
- ❑ Without adaptation, someone will become symptomatic

Appropriate Treatment of PND?

Opportunity for empirical comparisons of alternate interventions/treatments directed to different systemic levels.

Hypothesis

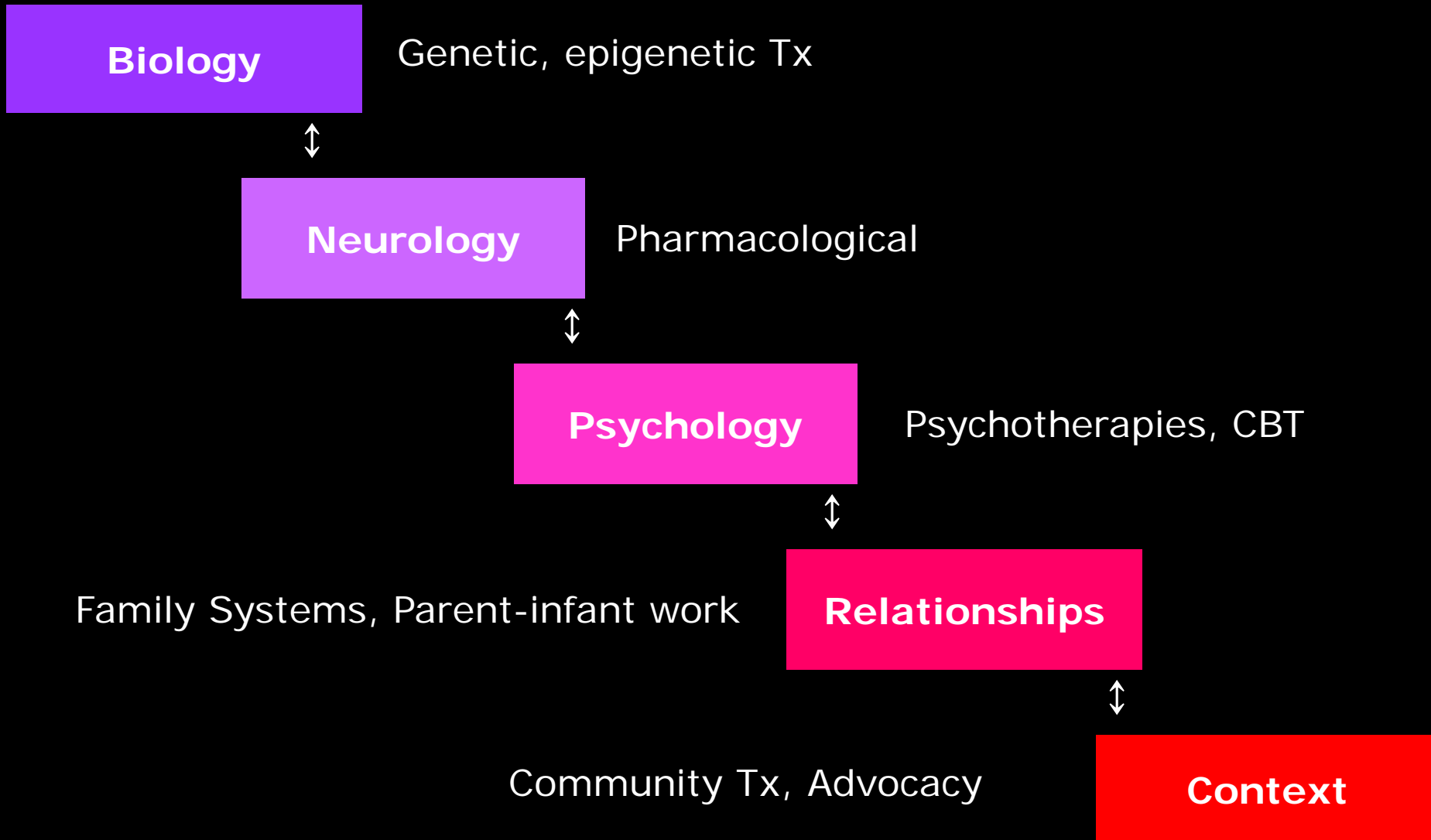
- ❑ Some cases of PND will be associated with a failing compulsive performance attachment strategy
- ❑ Effective treatment will address:
 - Self-defined standards
 - Interpersonal processes (affect & cognition)
- ❑ Treatment can be directed to:
 - Mother
 - Mother-baby dyad
 - Family
 - Community/culture

IV. Testing the Hypothesis



Multi-group, multi-method
design

Integrating Theories of Change



Design

- 2-4 group comparisons
- Mother, dyad, sibs, family, community
- Pre-post treatment assessment
- Multi-method, multi-informant
 - AAI
 - Interaction (CARE-Index)
 - Symptoms checklists
 - Etc.

Monkey: Post-natal Psychosis

- Image removed for confidentiality of the dyad.

Intrusions of Forbidden Negative Affect

- ❑ Compulsive A strategy (A)
- ❑ Depression (Dp A)
- ❑ Extreme unmet need for protection & comfort
- ❑ Dp A [ina]
- ❑ Extreme alternation in arousal in context of irresolvable conflict

A Functional Formulation of Psychosis

- Crisis of:
 - Context requiring new behavior
 - Old context requiring old behavior
 - Impossibility to staying or moving forward
 - Engagement of extra-familial system to manage the crisis
- Resolution requires
 - Change in the past context to accommodate the new
 - Change in standards of performance
 - Attention to intrusions as information

For further reading on the DMM:

- ❑ Crittenden, P. M. (2008). *Raising parents: Attachment, parenting, and child safety*. Collumpton, UK: Routledge/Willan Publishing.
- ❑ Special DMM issue of *Clinical Child Psychology and Psychiatry (CCPP)*, 15, 2010.
- ❑ Crittenden, P. M. (2006). A dynamic-maturational model of attachment. *Australian and New Zealand Journal of Family Therapy*, 27, 105-115.
- ❑ Crittenden, P.M., & Dallos, R. (2009). All in the family. *CCPP*, 14, 387-407.

For other downloads, see

www.patcrittenden.com