ATTACHMENT, MENTALIZING AND EPISTEMIC TRUST

- To hear (and feel heard and recognized)
- To understand (and feel understood; mentalized)
- To believe (trust) (and feel safe, able to “turn-off” mistrust and defensiveness and learn, explore, play)
- To remember (and apply and generalize to find soothing and affect regulation, represent and gain perspective, update sense of self and create a social map and a roadmap for the future.
Mentalizing: The skills and attitudes we utilize to understand human behavior based on intentional mental states.
MENTALIZING: SKILLS AND ATTITUDES

- **Grasping:** Fast, affective, intuitive, automatic
- **Interpreting:** Slow, cognitive, reflective, controlled

A balancing act

- Applicable to self
- Applicable to others
The active ingredients and the question of resilience:

- Revisiting the ghosts in the nursery
- Protective mechanisms accounting for resilience: genetic diathesis vs. stress and adversity
Trauma and Genetics in BPD: A Diathesis – Stress Model Mediated by Mentalizing
A Test of Diathesis-Stress Theories of the Etiology of Borderline Personality Disorder in a Birth Cohort of 12 Year Old Children

- **Objective.** To test if children with a positive family history of psychiatric disorder were more vulnerable to developing borderline personality symptoms following exposure to physical maltreatment and maternal negative expressed emotion.
- **Design.** Prospective longitudinal cohort study of a nationally representative birth cohort in Great Britain.
- **Participants.** 1,116 families with twins were followed from birth to age 12 years (retention 96%).
- **Main Outcome Measure.** Dimensional borderline personality symptoms and dichotomous extreme borderline group membership (dimensional symptoms ≥95th percentile).

Interaction between family history of psychiatric illness and history of maltreatment on BPD symptoms

Analysis of Extreme Borderline Group Membership

<table>
<thead>
<tr>
<th>Extreme Group</th>
<th>Comparison Children</th>
<th>RR</th>
</tr>
</thead>
<tbody>
<tr>
<td>++</td>
<td>20</td>
<td>28</td>
</tr>
<tr>
<td>+-</td>
<td>48</td>
<td>562</td>
</tr>
<tr>
<td>-+</td>
<td>3</td>
<td>42</td>
</tr>
<tr>
<td>--</td>
<td>44</td>
<td>1,372</td>
</tr>
</tbody>
</table>

Departure from Additivity = 9.73 \[95\% \text{ CI } (1.90, 15.73)\]

Antecedents and co-morbidities of BPD related characteristics in 12 year old children (Belsky et al., 2012)

Figure 1. Psychiatric Antecedents and Comorbidities of Borderline Personality Related Characteristics in 12 Year Old Children

<table>
<thead>
<tr>
<th>Child Characteristics 5</th>
<th>Correlations (Pearson’s r) Between Child Characteristics and Borderline Personality Related Characteristics:</th>
<th>Characteristics of Children in the Extreme Borderline Group and Comparison Children:</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>( r )</td>
<td>95% CI</td>
</tr>
<tr>
<td>Cognitive Functioning (5 yrs)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IQ</td>
<td>-0.11***</td>
<td>(-0.16, -0.06)</td>
</tr>
<tr>
<td>Executive Function</td>
<td>-0.06*</td>
<td>(-1.11, -0.10)</td>
</tr>
<tr>
<td>Theory of Mind</td>
<td>-0.11***</td>
<td>(-0.16, -0.07)</td>
</tr>
<tr>
<td>Behavioral and Affective Probs (5 yrs)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interviewer Rating of Temperament</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of Control</td>
<td>0.10***</td>
<td>(0.04, 0.15)</td>
</tr>
<tr>
<td>Approach</td>
<td>0.01</td>
<td>(-0.04, 0.06)</td>
</tr>
<tr>
<td>Inhibition</td>
<td>-0.01</td>
<td>(-0.07, 0.04)</td>
</tr>
<tr>
<td>Mother &amp; Teacher Rating of Impulsivity, Behavioral &amp; Emotional Problems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impulsivity (Mother Rating)</td>
<td>0.34***</td>
<td>(0.29, 0.38)</td>
</tr>
<tr>
<td>(Teacher Rating)</td>
<td>0.22***</td>
<td>(0.16, 0.28)</td>
</tr>
<tr>
<td>Externalizing Problems (Mother Rating)</td>
<td>0.44***</td>
<td>(0.38, 0.49)</td>
</tr>
<tr>
<td>(Teacher Rating)</td>
<td>0.24***</td>
<td>(0.17, 0.30)</td>
</tr>
</tbody>
</table>
MEDIATING PROCESSES SHAPE CONTEXT AND INFLUENCE GENE EXPRESSION

- Epistemic Trust
- Attention Control
- Representation of Experience
  - Agency/Sense of Self
  - Affect Regulation
    - Mentalizing
- Coping strategies/defenses
  - Executive Functions/Judgment/Planning
- Direction-Giving and Limit Setting (Morality)
  - Relationship Patterns

Genes

Psychosocial Environment

Developmental trajectories
The “P” Factor
(Caspi & Moffit, 2018)

- All for one and one for all: Mental disorders in one dimension
- Psychiatric symptoms aggregate into dozens of categorical, distinct diagnosis
- Psychiatric diagnosis aggregate into three domains: Externalizing, Internalizing and Psychotic experience domains
- These three domains aggregate into one dimension of psychopathology (“P”) from low to high
TRAUMA

SUD
PTSD
Depression
Anxiety
Increased risk of chronic diseases
High comorbidity
Diminished problem-solving capacity

ASPD
Self-esteem issues
Revictimization risk

Suicidal ideation
Self-harm
Withdrawal
Lower earnings

Anger
Impaired mentalizing capacity

Delinquency
Fewer assets

Aggression
Somatic problems
Quasi-autism
Reduced wellbeing

Poor attention

Elevated basal cortisol

Hyperactivity

Indiscriminate friendships

Poorer literacy and numeracy

Impaired memory and executive function

Interpersonal problems
Self-esteem issues
Revictimization risk

Insecure attachment

Increased risk of chronic diseases

Impaired mentalizing capacity

Diminished problem-solving capacity

Poorer literacy and numeracy

Impaired memory and executive function

Increased risk of chronic diseases

High comorbidity

Diminished problem-solving capacity

Poorer literacy and numeracy

Impaired memory and executive function
THE PATH OF RESILIENCE

- The Ghosts in the Nursery
  (S. Fraiberg, 1966)
- Out of the Woods
  (Hauser, Allen & Golden 2006)
Resilience: The capacity to function and adapt effectively in the face of adversity and/or vulnerability
Trauma or Resilience or Salutogenesis (Antonovsky & Sagy, 1986)
The Nature of Attachment
Pattern of affect, physiology, vocalization, movement activated by fear (threats to survival)

Automatically triggers defensive (stress) response of fight-flight-freeze
ATTACHMENT

- Defensive (stress) response activates attachment: to seek proximity and signal to evoke protection and regulation from another person
PSYCHIC EQUIVALENCE

Disposition to seek a matching, contingent, reciprocal response:

- Contingent: Cause (my signal) $\rightarrow$ effect (timing) (social outcome)

- Attuned: Matching affect, physiology
“What does mommy want for her birthday?”
Brain generates empathy by creating internal models of the other person’s brain activity (visceral simulation) and seeking to evoke a similar simulation of our own brain activity in the brain of the other.
ACHIEVING A MATCH ACTIVATES TWO RELATED NEURAL NETWORKS

- A limbic motivational – reward network involving the nucleus accumbens, ventral tegmental area, caudate, insula, amygdala mediated by dopamine, beta endorphins and oxytocin.

- An attention – empathy network involving the superior temporal and parietal cortices and the mirror neuron system.

- Intense and simultaneous activation of these two networks and the triggering of “cute aggression” as a natural break to the experience of fusion?
The eye region can signal specific social information, such as guilt, fear or flirtatiousness and a CFP study found that abused children could not read these expressions which might predispose to certain PDs.
Mirror Neurons
The experience of effectiveness in evoking a response that reduces distress and reverses helplessness and the threats to survival is the basis of the infant’s procedural sense of security and agency (“I am effective and can trust that others are responsive”)

SECURE ATTACHMENT
THE ESSENCE OF TRAUMA

- The brain encoded that survival = another person’s contingent, attuned, reciprocal response
- The essence of trauma is **social helplessness** (“I cannot evoke a response”)
- Adversity becomes traumatic when is complicated by the experience of being **alone**, without access to the mind and the responses of another person to downregulate our brain and help us gain perspective and represent the experience (give meaning)
Lack of reciprocity (social helplessness) is encoded as a threat to survival and automatically activates a defensive response of flight-freeze-flight (anxiety, distance, dissociation, anger) that evolved to reverse the state of helplessness.
Certainty about other minds and the way the world IS...
THE PROBLEM WITH DEFENSIVENESS: THE PROBLEM IS THE SOLUTION TO THE PROBLEM

- Evokes defensiveness in others (coercive cycles)
- Prevents social learning (epistemic mistrust)
The change from automatic processing to controlled, flexible, context-dependent processing
Contingent and marked mirroring

**Contingency of Mirroring**

The caregiver offers a response that has a “fit” with the infant’s current intentional mental state, at the time it is expressed.

**Markedness of Mirroring**

The caregiver mirrors while indicating that she is *not* expressing *her own* feelings (caricaturing).
THE GOOD AND THE BAD ENOUGH PARENT

- 2/3 failure rate in “good enough” parents (and therapists)
- Repair as the epigenetic signal to:
  - Inhibit mistrust and defensiveness
  - Activate epistemic trust
  - Effortful control of attention and representation of experience
CARETAKER’S RESPONSE PROMOTES DEVELOPMENT OF EXPLICIT/SYMBOLIC/PRETEND MODE OF SUBJECTIVITY

- Coming “on line” of control of attention and he awareness of different perspectives and joint attention (9 months)
- Coming “on line” of medial prefrontal cortex and anterior cingulate “puts the breaks” on automatic matching
- Separation of the representational (a perspective or a mental model) from the concrete and procedural: pretend vs “for real” encoded as explicit memories
THE RE-PRESENTATION OF EXPERIENCE

- Separate meaning from concrete experience
- Symbolize, categorize, multiple perspectives, “seeking” a coherent narrative
- The autobiographical narrative (the representation of the self)
THE ORIGIN OF THE SELF AS AN AGENT WITH INITIATIVE, CONTINUITY AND COHERENCE

- Caretaker’s representation of Baby’s internal state
- Visceral simulation/ Empathic resonance

Caretaker

- Contingent/synchronic, attuned and marked response

Internalization

- The coherent psychological self
- Baby’s procedural Visceral internal state
The Birth of the “Alien Self” in Disorganized Attachment

The caregiver’s perception is inaccurate or unmarked or both

Attachment Figure

The mental state of the baby is not represented

Failure in contingency, attunement and/or marking

Infant

The emerging representation of the self

The alien self

The alien self
The mentalizing “holes” – aspects of not-represented, not-mentalized experience – are activated by specific or generic stress
A biobehavioral switch model of the relationship between stress and controlled versus automatic mentalization (Based on Luyten et al., 2009)

Attachment - Arousal/Stress

Prefrontal/Controlled

Posterior cortex and subcortical/automatic

Mentalization

Switch Point
### Automatic Mode
- Embodied simulation
- Responses are procedural, habitual, and **automatic** (motor and affective cry) mimicry “triggered by concrete physiological, emotional, perceptual, motor cues
- Single perspective
- No model, concrete
- Certainty and demand for a concrete match (coerciveness/ psychic equivalence)
- Anterior insula, inferior mirror neuron network (superior temporal sulcus, lateral inferior parietal cortex, frontal gyrus,) Nacc, amygdala
- **Psychic equivalence**

### Controlled Mode
- Imagined (mentalizing)
- Delay
- Takes more information (multiple perspectives)
- Creates **flexible** coherent model (representational/symbolic) (pretend)
- dmPFC, vmPFC, TPJ, Temporal pole, ACC
- **Pretend Mode**
Repair leading to feeling understood is the epigenetic signal to “pay attention and learn”. The signal that it is safe to inhibit automatic, defensive responses and psychic equivalence (one perspective) and shift to trusting, learning, remembering and representing
Mentalizing, *Learning*, and the hard-to-reach “Pedagogical stance” and “Epistemic Trust”

Csibra and Gergely

An evolved mechanism for communicating culturally-specific “knowledge-about-living”

An evolved mechanism for “opening the mind” to receive socially – useful, culturally – attuned learning about how to negotiate the social world
Trust, pay attention and learn from this person

“What you are learning is crucial for your survival and is universally shared”
EPISTEMIC TRUST cont.

- Necessary to risk **not knowing** long enough to generate new understanding and knowledge

- The active ingredient of psychosocial interventions?
The Therapeutic Bargain

Taking the risk of attempting new ways to communicate, cope and relate in order to replace a non-mentalizing illusion of control and attachment with a mentalizing approach that offers the opportunity for real mastery and genuine attachment
MENTALIZING ASPECTS OF EFFECTIVE TREATMENT (AND RESILIENCE)

- To interrupt vicious, coercive, defensive cycles
- To model and promote a mentalizing stance of curiosity, openness, interest, tentativeness, that tolerates not knowing and respects other perspectives and seeks to understand the other from the inside and oneself from the outside
- To understand and to feel understood to evoke epistemic trust and social learning
- To take responsibility for mistakes and recognize them and the related breakdowns of mentalizing as opportunities to practice repair
- To focus on affect and trust and on how to acquire the capacity to regulate affect and learn socially when feeling threatened
- To acknowledge the courage needed to trust and change