Mistrust to Trust: Helping Defensive Children Learn to Trust

A Brain-based Model of Attachment-focused Treatment

ATTACCh Conference 2015

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SCIENCE-PRACTICE DIALOGUE: THE PATHWAY TO BETTER TREATMENT
Brain-Based Integration: The Wheel Model of Interpersonal and Intrapersonal Processes

TOP DOWN

MINDFULNESS PRACTICES

REAPPRAISAL

NARRATIVE WORK AND STORY TELLING

SENSORIMOTOR WORK

EMDR: bilateral stimulation

TRAUMA PROCESSING: FEAR EXTINCTION, RECONSOLIDATION

ENERGY TX: TAPPING

PLAY

OXYTOCIN "PRIMING"?

OPIOIDERGIC MEDS.

VAGAL STIM.

SAFE ANIMALS

NEURO-FEEDBACK

YOGA

MASSAGE TX

DDP

PACING THE CHILD'S JOURNEY FROM MISTRUST TO TRUST

J Baylin 2014
BRAINS IN CONTEXT: EXPERIENCE-DEPENDENT DEVELOPMENT

SAFE TO BE SEEN, HEARD, “KNOWN”

"EXPERIENCE-DEPENDENT" BRAIN DEVELOPMENT AND “EPIGENETICS”

NOT SAFE TO DEPEND ON CAREGIVERS

SAFE

EXPRESS GENES FOR BUILDING THE SOCIAL ENGAGEMENT SYSTEM

unsafe

EXPRESS GENES FOR BUILDING THE SELF DEFENSE SYSTEM
TWO BASIC MODES OF SOCIAL: BONDED RELATIONSHIPS AND HIERARCHICAL RELATIONSHIPS (ATTACHMENT VS SOCIAL RANK)
TWO RELATIONAL SYSTEMS: CONNECTION AND SELF DEFENSE

GETTING CLOSE: SOCIAL ENGAGEMENT SYSTEM

GOOD TENDING PROMOTES DEVELOPMENT OF THE SOCIAL ENGAGEMENT SYSTEM

BONDED RELATIONSHIPS: OXYTOCIN, OPIOIDS, PROLACTIN, AND DOPAMINE

KEEPING YOUR DISTANCE: SOCIAL AVOIDANCE/DEFENSE SYSTEM

POOR TENDING PROMOTES PREMATURE DEFENDING

CONFLICT-BASED RELATIONSHIPS: STRESS HORMONES, CCK, NOREPINEPHRINE, “T”
MIRROR CELLS: THE NEUROBIOLOGY OF MIMICRY, “MODELING”, AND EMPATHY...... A ROLE IN TRAUMATIZATION?

ARE MIRROR CELLS INVOLVED IN INTERPERSONAL TRAUMATIZATION?

A MECHANISM FOR TRANSMITTING STRESSFUL STATES FROM PERSON-TO-PERSON

DO THERAPISTS NEED GOOD MIRROR CELLS?

AUTISTIC PEOPLE HAVE UNDERACTIVE PEOPLE-MIRRORING CELLS
Parenting Effects on the Child’s Neuroceptive System

Sensitive, Attuned, Contingent Caregiving

GOOD PARENTING HELPS THE CHILD REGULATE STATES: ATTACHMENT FIGURE AS A “CO-REGULATOR” OF INTERNAL STATES

HIGHER (SMART) VAGAL SYSTEM

IN

OUT

AMYGDALA

OXYTOCIN

LOWER VAGAL SYSTEM

GOOD PARENTING HELPS THE CHILD REGULATE STATES: ATTACHMENT FIGURE AS A “CO-REGULATOR” OF INTERNAL STATES

SAFE: SOCIAL ENGAGEMENT

J baylin

UNSAFE: Who’s that guy and where’s my Mother?

FREEZE: WHAT’S GOING ON HERE? DO I APPROACH OR AVOID?
STATE-DEPENDENT FUNCTIONING AND INTERSTATE TRAVEL

- EMOTION
- BEHAVIOR
- COGNITION

INTERSTATE TRAVEL: COREGULATION OF STATES
Meaning-Making System ("coherent" Story about self/Others/relationships)

People-reading System (Mindsight plus Empathy)

Reward System

Approach System

Executive System

"on"

SELF-DEFENSE SYSTEM "off"

"safe"

amygdala
**SOCIAL BUFFERING** “...the mother acts as a switch for amygdala-mediated fear learning...”

“...the mother acts as a switch for amygdala-mediated fear learning, and can move around the timing of amygdala-sensitive periods that can include accelerated transitions into the mature state. Exposure to the mother....at older ages maintains the immature state of the amygdala, whereas early maternal absence will result in an accelerated development of the amygdala and a resultant premature adult-like phenotype” Nim Tottenham, 2013, p 8

Good care buffers the young child’s amygdala by triggering release of oxytocin and keeping the amygdala from activating the fear/stress/defense systems.
Deep, visceral safety

"It’s OK, Mom. You can eat me"

TRUST BUILDING: CONSTRUCTING SAFE SHARING OF PERSONAL SPACE: “WE SPACE”

Playfulness, Acceptance, Curiosity, Empathy
OPTOGENETICS: WATCHING AND CONTROLLING THE AMYGDALA BRAIN SWITCH IN REAL TIME
DUAL OPIOID SYSTEMS: COMFORT AND JOY OF GOOD CONNECTIONS


**JOY**: PLEASURE FROM PLAYFUL COMPANIONSHIP

**COMFORT**: CARING RESPONSE TO DISTRESS TRIGGERS OPIOID RELEASE IN THE AMYGDALA AND TURNS OFF THE PAIN/DISTRESS REACTION

**THINKING ABOUT COMFORT AND JOY**

**TOP DOWN INHIBITION OF THE STRESS/DEFENSE SYSTEM**

**PAG**
POOR TENDING ACTIVATES PREMATURE DEFENDING

AND........ THIS DEFENDING CAN BECOME A CHRONIC PROCESS = BLOCKED TRUST

DEFENSE SYSTEM/ SOCIAL ENGAGEMENT (POLYVAGAL MODEL)
social pain: no buffering

Jaak Panksepp  Lieberman and Eisenberg  Jim Coan

Dorsal ACC and the Insula: the Suffering Circuit

Acetaminophen “squelches Both these Neural Responses To Ostracism”

Take a Tylenol and Don’t call me in the morning

Being ignored and left out activates the dorsal anterior cingulate cortex, a region linked with the emotional aspects of physical agony, and the insula, an area instrumental in judging pain severity. Taking acetaminophen squelches both these neural responses to ostracism.
BLOCKED TRUST: WHEN KIDS HAVE TO PLAY DEFENSE BY SUPPRESSING THE JOY AND THE PAIN OF CONNECTION

HEALING PROCESS: HELPING CHILDREN RECOVER THE ABILITY TO FEEL THE JOY AND THE PAIN OF CONNECTION

SELF DEFENSE

SUPPRESSES GROWTH OF THE HIGHER BRAIN REGIONS
Attachment and the Separation Distress System: When There is No Social Bufferer

“When we begin to understand the nature of the separation distress system at the neurobiological level, we may learn how to disentangle the damage wrought by emotional misfortunes”  
Jaak Panksepp, 2001)

The Separation Call And Maternal Response System: The Anterior Cingulate Cortex (ACC)

Reactivating the separation distress system is crucial for helping defensive children learn to trust

Social Pain and the Opioid System: Relational Pain Management
Experience-dependent Gene Expression and Brain Construction

Good care and poor care have different effects on gene expression in various brain regions:

- Amygdala
- Hippocampus
- PFC

Behavioral Epigenetics
RELATIONAL SAFETY AND TRUST: THE ROLE OF OXYTOCIN and the Amygdala

GOOD CARE

SAFE: APPROACH, TRUST, ENGAGE

SOCIAL ENGAGEMENT

POOR CARE

SELF DEFENSE

OT = OXYTOCIN
CRH = STRESS HORMONE (corticotropin releasing hormone)

Epigenetics: Good Care Promotes Gene Expression for OT receptors, Poor Care, for CRH receptors

OT = OXYTOCIN
CRH = STRESS HORMONE (corticotropin releasing hormone)
Social Apathy: Diminished Caring, Maternal Neglect of “Offspring”

HOW CAN YOU “TURN OFF” THE ACC? RELEASE OPIOIDS INTO THIS REGION, THE BRAINS NATURAL PAIN SUPPRESSING SYSTEM (VERY RICH IN MU RECEPTORS)

ACC DEACTIVATION MUST BE INVOLVED IN BLOCKED CARE

DNIS: DESCENDING NOCIFENSIVE INHIBITORY SYSTEM (SEE VOGT, 2008)
Very Rapid Ways to Reach the Amygdala and Change Its Firing Patterns: Neurofeedback, Brainspotting, Bilateral stimulation, Tapping, Music
INTERSTATE TRAVEL: USING YOUR BRAIN STATE TO PROMOTE STATE SHIFTING IN THE OTHER PERSON

ADULT’S BRAIN: PARENT, THERAPIST, PARTNER IN “SMART VAGAL” STATE OF OPENNESS, ENGAGEMENT, MINDSIGHT

DEFENSE “OFF”, APPROACH “ON”
STATE-DEPENDENT FUNCTIONING AND INTERSTATE TRAVEL

- EMOTION
- BEHAVIOR
- COGNITION

INTERSTATE TRAVEL: COREGULATION OF STATES
MUTUAL DEFENSE SOCIETY

BLOCKED TRUST  +  BLOCKED CARE
Adult’s Compassionate State of Mind Can Promote a Calming Effect on the Child’s Brain, targeting the child’s hypersensitive amygdala

PACE: PLAYFULNESS, ACCEPTANCE, CURIOSITY, EMPATHY

DANIEL HUGHES, PHD

SOCIAL BUFFERING: SENDING SAFETY MESSAGES INTO THE BRAIN OF THE MISTRUSTING PERSON

- Face (kind eyes)
- Voice (prosody)
- Soothing touch

Adult’s compassionate state of mind towards the child enables the adult to send calming nonverbal messages to the child’s Amygdala, facilitating the switching process in the child’s brain From defensiveness to engagement
Where’s your kid in your parenting brain?

Embracing the HULK: Compassion for the sulky, Moody teen

Loving kindness brain

Defensive brain
COUPLED BRAINS: THERAPIST AND CLIENT

THERAPIST

CLIENT/CAREGIVER

THE TWO STEP: COREGULATE AFFECT, CO-CONSTRUCT NEW MEANING

REPROCESS, REAPPRAISE, REVISE: NEW MEANING

SOCIAL BUFFERING OF THE CLIENT’S LIMBIC SYSTEM ENABLES CLIENT TO ACCESS mPFC region for “Affective/Reflective” Dialogue and Reappraisal of Old Beliefs
Shifting From Mistrust to Trust: THE ELEMENT OF SURPRISE

PACE AS A FORMULA FOR THERAPEUTIC CONFUSION:
DISCOMBOBULATING THE CHILD’S NEGATIVE EXPECTATIONS AND ACTIVATING THE CHILD’S CURIOSITY…… “YOUR WEIRD”

PACEn E

PLAYFULNESS
ACCEPTANCE
CURIOSITY
EMPATHY

SURPRISING THE MISTRUSTING BRAIN BY VIOLATING EXPECTATIONS ABOUT CAREGIVER’S REACTIONS
PPEs: Positive Prediction Errors

VIOLATING THE AUTOMATIC, MINDLESS EXPECTATIONS/PREDICTIONS OF BEING TREATED HARSHLY

DOPAMINE SYSTEM: A LEARNING SYSTEM THAT CAN GENERATE ERROR SIGNALS WHEN EXPERIENCES “VIOLATE” EXPECTATIONS

dACC or aMCC: In the cingulate cortex

OFC: REVERSAL LEARNING
PACING THE KID AND CREATING THE ESSENTIAL EXPERIENCE OF SURPRISE: “YOU’RE WEIRD” POSITIVE PREDICTION ERRORS (PPEs)

REAWAKENING THE BLOCKED POTENTIAL FOR THE KID TO SAFELY FEEL SAD AND RECOVER THE ABILITY TO SEEK COMFORT

PACE PROMOTING “INTERSTATE”, AFFECTIVE TRAVEL: FROM ANGER TO SURPRISE TO CURiosity TO SADNESS
Story Power: Combining Coregulation of the Child’s Affect with Cocreation of New Meaning

PAUL ZAK: DRAMATIC STORIES ON THE BRAIN

CORTISOL PLUS OXYTOCIN (AND, I WOULD BET, OPIOIDS)

A = amygdala
MPFC = middle prefrontal cortex
STORY TELLING VOICE: WOW, YOU WON'T BELIEVE THIS ONE.....

CAPTURING THE LISTENERS AND HOLDING THEM IN THE STORY SPACE
CULTIVATE COMPASSION FOR YOUR MISTRUSTING CHILD
MUSTER WARMTH
TAKE DELIGHT IN SOME ASPECT OF YOUR CHILD
“STAY IN THE GAME”: IT’S NOT A SPRINT, IT’S A MARATHON
ENDURE WHAT FEELS LIKE REJECTION AND KNOW IT FOR WHAT IT IS: MISPLACED MISTRUST
IT’S NOT TRULY PERSONAL; IT’S GENERALIZED MISTRUST
ENHANCE YOUR “APPROACHABILITY”: WORK AT MAKING YOURSELF SAFE TO BE NEAR
PRACTICE CATCHING AND RELEASING YOUR OWN DEFENSIVE REACTIONS
STRENGTHEN YOUR CAPACITY FOR DEEP RELAXATION AND EXHALING
IDENTIFY AND DESENSITIZE YOUR “HOT BUTTONS”: TRIGGER WORK
MAINTAIN A GOOD SUPPORT SYSTEM
REMEMBER TO PLAY

Jonathan Baylin, PhD  coauthor with Daniel Hughes of Brain Based Parenting, Norton, 2012
The Mindful Brain: Reflection and Attunement in the Cultivation of Well-Being

Daniel Siegel
AWAKENINGS AND STORIES

- HENRY
- DIRT GIRL
- THE HULK
- “S”: RESILIENCE
- TWO COOKS