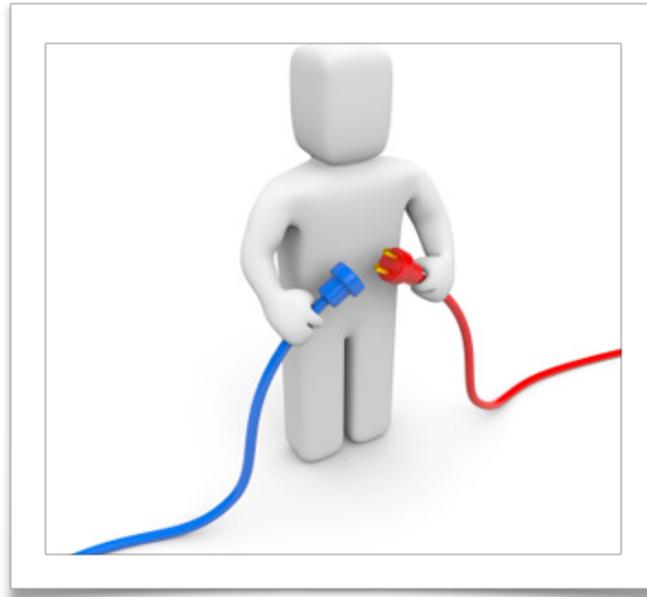


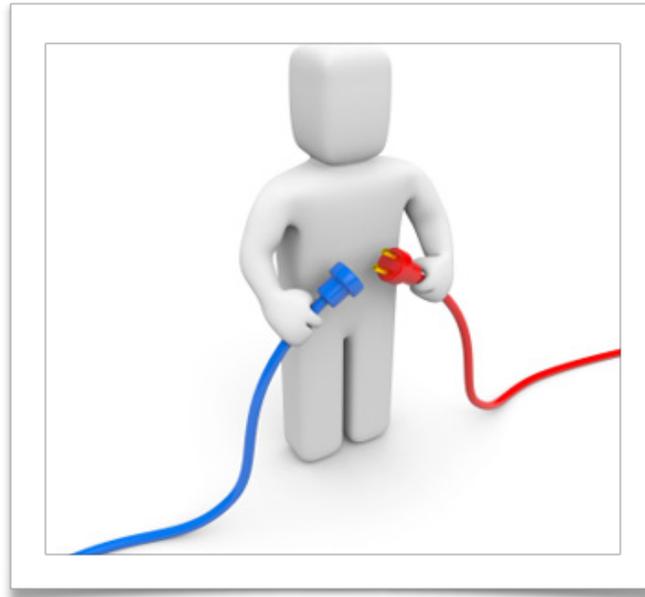
# The Disconnected Kid: Interpersonal Neurobiology and Attachment

Todd Frye, Ph.D., Mary Fry, Ph.D.,  
Brent Moore, Ph.D., & Andrew Secor, M.A.

What do you think of  
when you think  
Connected?



# Connection = Attachment



# What is Attachment

- Humans, especially infants, rely on “attachment figures” for protection, comfort, and emotional regulation
- The “attachment system” is an evolved, innate **proximity** regulator
- When there is a threat infants seek proximity of their care giver to return them to an emotional state of peace/joy

# Attachment and Emotion

- Emotions experienced are intended to be shared within the relationship between the primary care giver and the child
- Emotions prime proximity seeking behaviors and overall connection
- Lack of accessibility, responsiveness, and engagement to proximity seeking initiates detachment/disconnection

# Still Faced Video



# What Happens When a Child's Emotional Cues are Missed or Neglected?

- Three phases that children go through

- Phase I

- **Protest**-crying, screaming, anger, pounding the door.
  - Small sounds are temporary respite as child checks for a sign of attachment figures return.
  - Dominant attitude was hope for the attachment figures return
  - Dominant emotion fear, anger, distress.
  - Child rejects alternate care

# What Happens When a Child's Emotional Cues are Missed or Neglected?

## ● Phase II

- **Despair**-increased hopelessness of attachment figures return
  - Looks like deep mourning
  - Adults misinterpret as a sign of the child's recovery
  - Hostility toward other children and favorite objects tends to increase during this time.
  - Child still rejects alternate care

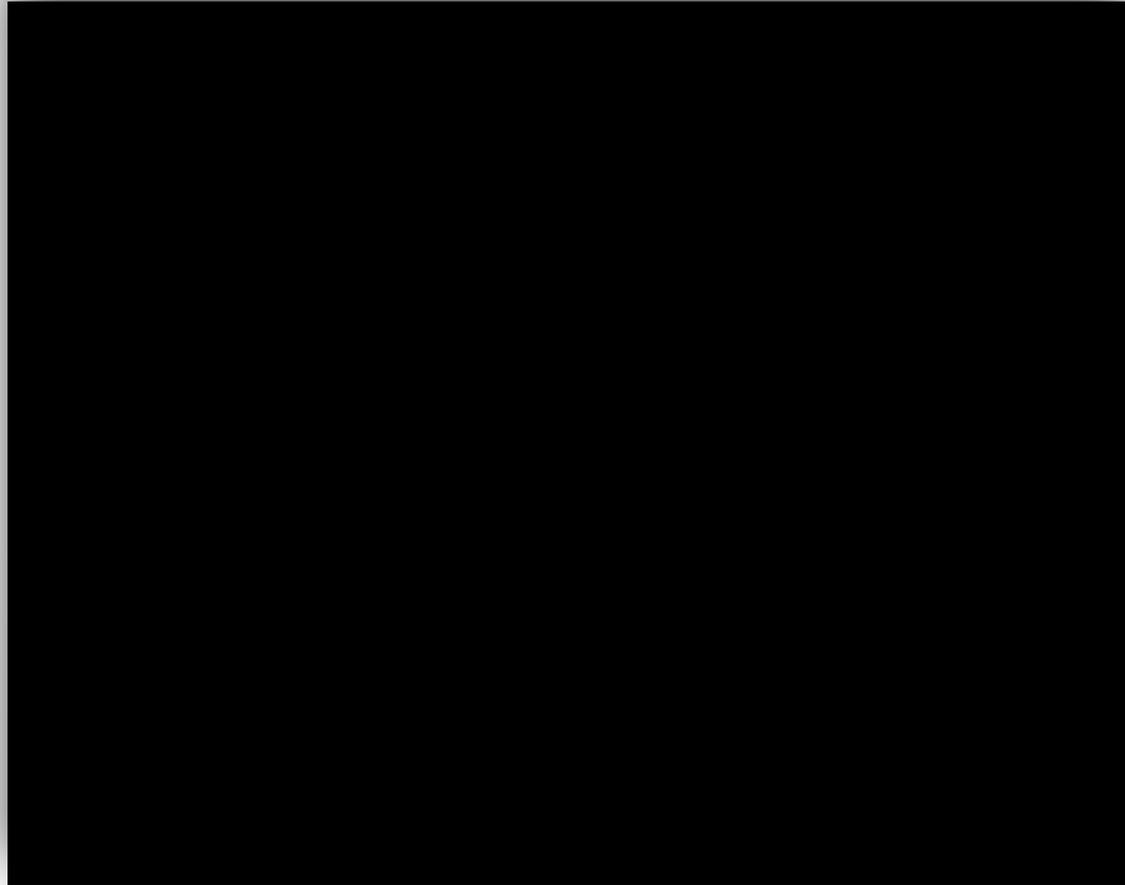
# What Happens When a Child's Emotional Cues are Missed or Neglected?

- Phase III

- Detachment

- Child actively turns his attention to the environment.
    - Alternate caregivers are no longer rejected.
    - Child appears apathetic to attachment figures return.

# Detachment & Harlow Monkeys



# 3 Types of Attachment Styles

- **Secure (Yes).** Seems confident that parent is accessible and responsive. Is competent, exploration-oriented, and affectively positive. Soothes easily. Shows early empathy, communicates clearly about feelings. Solves problems effectively.
  - **Origin:** sensitive, empathic caregiving; coherent discussion of emotions.

# 3 Types of Attachment Styles

- **Anxious (Maybe).** More crying, separation anxiety, and anger. Lacks confidence that parent will be accessible and responsive. Vigilance and preoccupation interfere with exploration. Attachment behavior has low threshold for activation. Fussy, angry, immature.
  - **Origin:** parental anxiety and uncertainty, insensitivity to child's signals, intrusiveness, inconsistency.)

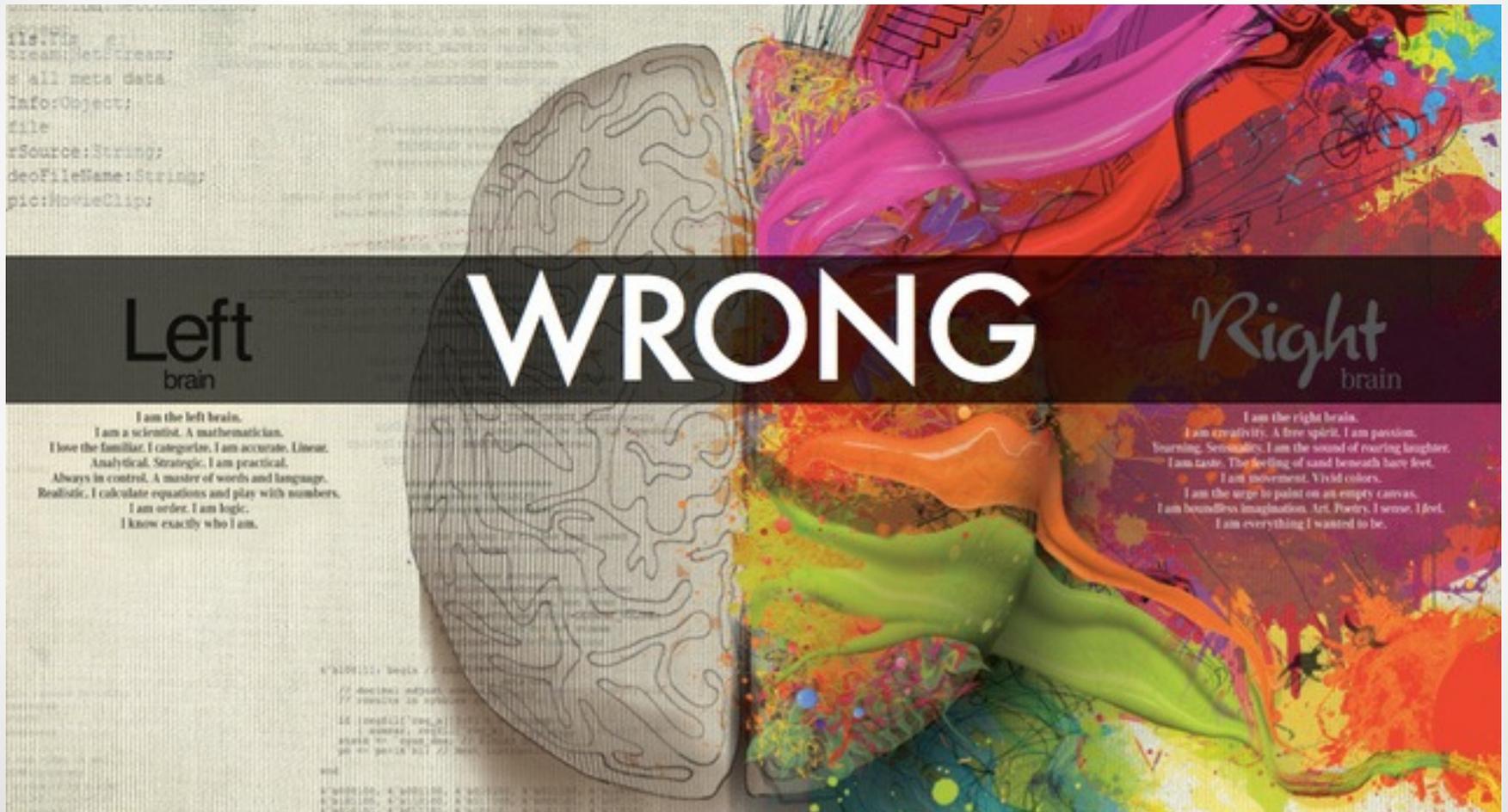
# 3 Types of Attachment Styles

- **Avoidant (No).** Cries relatively little during separation and actively avoids parent upon reunion. Engages in “displacement” exploratory activity, “turning to the neutral world of things without the true interest of exploration.”
  - **Origin:** parental rejection, coolness, discomfort with own and other’s negative emotions and physical contact.)

# Impact of Insecure Attachment

- Biochemical/Neurological Consequences
  - Infants raised without loving touch and security have abnormally high levels of stress hormones, which can impair the growth and development of their brains and bodies.
  - The neurobiological consequences of emotional neglect can leave children behaviorally disordered, depressed, apathetic, slow to learn, and prone to chronic illness.

# Caveat



# Interpersonal Neurobiology

What is integration?

- Being differentiated
- Being linked



Integration related to attachment

- Sending of information

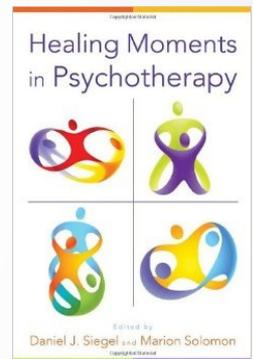
Communication is all about  
how one sends energy and  
information to someone else.

...



# Horizontal Integration

- “...usually remains undetected by the conscious minds...speaks clearly in the language of **gesture, posture, prosody, facial expressions, eye gaze, and unconscious affect**” (Ogden, 2013, p. 35).



# Our Divided Brain

## Left Side

- Later to develop
- Linear
- Logical/syllogistic reasoning
- Lists
- Linguistics
- Letter of the law

## Right Side

- Earlier to develop
- Holistic
- Visual-spatial
- Autobiographical memory
- Integrated map of the whole body
- Nonverbal signals
- Spirit of the law

# Nonverbal Messages

- Eye contact
- Facial expression
- Tone of voice
- Posture
- Gesture
- Timing
- Intensity



Connect & Redirect

# Verbal Messages

“Name it to tame it”

- Telling stories can calm big emotions

# Vertical Integration

## “Downstairs brain”

- Basic functions (e.g., breathing, blinking)
- Innate reactions (fight, flight)
- Strong emotions (e.g., anger & fear)

## “Upstairs brain”

- Sound decision making & planning
- Control over emotions & body
- Self-understanding
- Empathy
- Morality

# Vertical Integration

Tantrums:

- Upstairs tantrum
  - Volitional
  - Never negotiate with a terrorist
  - Firm boundaries
  - Clear discussion about appropriate and inappropriate behavior
  - State consequences
  - Follow through with consequences
- Downstairs tantrum
  - Nurture (connect & redirect)
    - Touch & tone of voice
  - Discipline with authority, but from a gentle posture

*Role of the amygdala*

**Engage, don't enrage**

# Neural Plasticity

- The human brain is moldable
  - Experience shapes the brain



Neural Firing



“Neurons that fire together, wire together.”

# Chaos & Rigidity

- Chaos = out of control
  - Confusion & turmoil
- Rigidity = imposing control
  - Unwilling to adapt, compromise, or negotiate

# Intervention Strategies



Practicing integration with students



# Using Mindsight

- **S**ensations
- **I**mages
- **F**eelings
- **T**houghts

# Interventions

- Reflective questions
  - What does this subject matter mean for you?

# Whole-Brain Strategies

1. Connect and Redirect: Surfing Emotional Waves
2. Name it to Tame it: Telling stories to calm big emotions
3. Engage, don't enrage: Appealing to the upstairs brain
4. Use it or lose it: Exercising the upstairs brain
5. Move it or lose it: Moving the body to avoid losing the mind
6. Use the remote of the mind: Replaying memories
7. Remember to remember: Making recollection a part of your family's daily life



# Whole-Brain Strategies

8. Let the clouds of emotion roll by: Teaching that feelings come and go
9. SIFT: Paying attention to what's going on inside
10. Exercise mindsight: Getting back to the hub
11. Increase the family fun factor: Making a point to enjoy each other
12. Connect through conflict: Teach kids to argue with a "we" in mind.

