

Brains on Conflict: Interpersonal Neurobiology and How the Science of Danger, Relationship and Integration Inform Conflict Resolvers

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Who am I?

- Mark Baumann
 - Lawyer, mediator, tribal judge pro tem
 - Associate, High Conflict Institute
 - Interpersonal Neurobiology, graduate credit certificate, Portland State University, 2013
 - <http://www.pdx.edu/ceed/interpersonal-neurobiology-certificate-of-completion>
 - Pepperdine University School of Law, Straus Institute for Dispute Resolution, 2008
 - WSBA ADR Section executive committee, Low Bono Section executive committee
 - 25 years in the trenches curiously

Interpersonal Neurobiology

- Aka, Relational Neurobiology
- Combination and interaction of
 - Relationship science and theory
 - Neuroscience, psychology, biology, physiology, ethology...
- Interdisciplinary: 26 fields
- Conciliatory: Attempts to harmonize and find common language, for issues such as:
 - Emotion, thought, mind
 - Communication, personality, mental health
 - Parenting
 - I am adding: conflict management
- Interpersonal Neurobiology Certificate Program, Portland State University

IPNB Luminaries

- Dan Siegel (founder), Allan Schore (psychotherapy), Stephen Porges (polyvagal theory), John Bowlby, Mary Main & Patricia Crittenden (attachment), Iain McGilchrist (hemisphere theory), Carl Rogers (client centered theory), Jaak Panksepp (emotion), Gabor Mate (attachment, addiction, ADHD) John Kabat-Zinn (mindfulness), Bonnie Badenoch (psychotherapy), Charles Darwin, Marco Iacoboni (mirror neurons), Bessel van der Kolk (trauma), Jean Decety (empathy)

How IPNB Has Informed Me

- **Understand what distressed people are trying to communicate**
- **Avoid manipulation**
- Improved ability to relate to clients
- Better help clients make effective choices
 - RPC 1.2, client must choose goals
- See client's needs better than they can
- Avoid ethical complaints
- Negotiation skill, agreement durability

Can You Relate?

- Can you put this information in terms of what you already know and do?
- “Go slow to go far”
- “People need to be heard before they can hear”
- “They are fighting about the pots and pans”
- “Focus on interests, not positions”

Four Core Concepts

- Danger
- Relationship
- Patterns of Information Processing
- Integration

Road Map: Science

1. Relevant brain-body parts
2. Fight-flight-freeze vs. Social Engagement System
3. Rejection-aggression connection
4. Adult attachment and patterns of information processing
5. Left brain-right brain and patterns of information processing

Road Map: Solutions

- Conflict Model (of personality)
- Relating and connecting to 2-pattern styles
- Integrative listening
 - Staying in “relationship”
 - Elements of listening
- 4-Step Integration Process
- Top 10 tips

Assumptions About Conflict

- Traditional view: Conflict is driven by issues, Interests
- IPNB View
- Conflict driven by core human drives
 - **Protection from danger**
 - **Be in relationship**
 - **Feel in control** (involves mastery and autonomy)
- Relationships affect/affected by brain/body
- People process information differently
- Integration leads to harmony
- Non-integration leads to system bias

Know yourself, know the issues

- *Caveat: This information can be difficult because you may find yourself looking at yourself*
- *“If ignorant both of your enemy and of yourself, you are certain in every battle to be in peril” **Sun Tzu, The Art of War.***
- *“The first thing you have to know is yourself. A man who knows himself can step outside himself and watch his own reactions like an observer.” **Adam Smith, The Money Game***
- *“Everything that irritates us about others can lead us to an understanding of ourselves.” **Carl Jung***
- *“The more you know yourself, the more patience you have for what you see in others.” **Erik Erikson***

Brain Parts and Systems

- Neurons and wires
 - Neurites are the axon and dendrites coming out of a single neuronal cell connecting neurons in brain; nerves are big neurites
- Neurotransmitters: social and fear chemicals
- Left and right parts (including neocortex hemispheres) top-bottom, integrating
- Parts, circuits, processes
- Memory systems, information processing
- mPFC
 - Middle Prefrontal Cortex, main area of executive functioning
 - Emotional balance, fear control, body regulation, flexibility of response, attuned communication, insight, empathy, morality, intuition

Polyvagal Theory (PVT)

- Describes a mammalian brain-body-relationship system
- For detecting danger and safety
- Which promotes two physical states:
- **Fight-Flight-Freeze vs. Social Engagement System**
 - Approach or withdrawal
- All humans *always in one or the other states*

- Dr. Stephen Porges

Polyvagal Theory Says:

- Body has an unconscious system,
- For detecting danger and safety in environment.
- The Neuroception system, which
- Perceives and process information,
- Then primes body for adaptive behaviors,
- With energetic and chemical flows to support:
- Fight-Flight-Freeze behaviors, or
- Social Engagement behaviors
 - FFF vs. SES, *one or the other, at all times*

PVT In Action

Google:

“Seattle Coffee Shop Shooting Hero”

Three types of response to danger

Neurobiological System: Amygdala- HPA-Vagus Nerve

- Amygdala, sniffs out danger, sends energy down two systems
- HPA axis
 - Chemical (adrenal) system, releases adrenaline, primes body to mobilize (FF)
- Autonomic Nervous System (ANS)
 - Electrical system
- Vagus nerve (vag is Latin for “wandering”)
 - wires up heart, lungs, gut, and
 - facial muscles, middle ear muscle connected

Neuroception System

- “Neuroception” (sixth sense)
 - Nervous system’s detection and processing of danger and safety in environment
 - Brain-body receives *far more* information input than we can process in our conscious awareness
 - Vagus automatically, unconsciously, responds to relationship cues
 - Face, prosody, body gestures
 - Impacts response during initial contact with another
- System can be tricked into sense of safety and approach with charm and seductions (i.e. sing song voice, smiles)
- Primes body systems, doesn’t control
- Coined by Porges

Vagal Tone

- Vagus (and other muscles) inputting data into Neuroception system, have a quality, or energetic tone
- Set points (heart rate variability)
 - People have strong, average, or weak vagal nerve strength (tone)
 - **stronger**: more able to tolerate danger, quickly recover from danger exposure
 - **weaker**: more reactive to danger, long time to recover from danger exposure
 - Significance: Requires more time, patience and safeness

Approach or Withdraw

- **Danger** drives energy down away from mPFC to support withdrawal (**FFF**)
 - Mobilization (fight-flight) or immobilization (freeze)
 - Relates to domestic violence victim behavior
 - People may not hear when in FFF energetic state
- **Safety** drives energy up to mPFC and social circuits for approach (**social engagement**)

Neuroceptive Behaviors

Body language

- Facial expression
- Eye contact/eyelid level
- Vocal tone
- Vocal pitch Orienting
- Prosody

- Contingently responsive

Example

- smile vs sneer vs flat
- droopy vs open
- expressive vs monotone
- midrange (safe) vs. low (unsafe)

- turning toward vs away from
- smile to smile
- Groan to groan

What is Danger?

- Danger cues?
 - Tiger, terrorist, stranger, snarling dog
 - Voice that is very low
 - Middle ear muscle is connected to vagus system
 - Facial gesture, body posture
- Failure to protect from danger
 - Person not meeting my needs
 - Not being in relationship

What is Safety?

- Dr. Porges, what is the most important take away from the Polyvagal Theory?
 - **“the importance of listening.”**
- Sending nonverbal signals: “it’s safe to come near me”
- Warm facial expressivity and voice tone
- Body posture
- High voice can elicit empathy response (crying cat)
- “Clients need to be heard before they can hear”
- Still Face Experiment: Dr. Edward Tronick (YouTube video)
 - Demonstrates how quickly and dramatically a baby responds to safety or danger situations

Polyvagal resources

- Dr. Stephen Porges (polyvagal theory)
 - YouTube search “Porges compassion conference” (one of many fascinating speakers at the 2012 Science of Compassion conference available on YouTube)
 - YouTube search: “porges dharma café”
 - Google: “porges neuroception zero to three” for article
 - Forthcoming book for therapists
- Rick Hanson, *Hardwiring Happiness*

Integrative Listening

- **10 elements of being in relationship and listening to support safety and autonomy (control)**
 - Share a warm CUP of COCOA in Reno NV
- CUP: Elements to support relationship (PVT state of approach)
 - **Connecting, Understanding, Presence**
- COCOA RNV: Elements to promote safety/relationship/control
 - **Care, Observe, Curious, Open, Accept, Reflections, Non-verbal**

Elements Supporting Relationship

- **Connecting**
 - Communicating, connecting, bonding; reciprocal exchange; Attuning and resonating to fully be with the other
- **Understanding**
 - Deeply, patiently, discovering what matters to the other. Coming to know what is, what is “in between,” what is not said but present
- **Present**
 - Giving your full and focused attention; staying in the moment, even with hard emotions; being with the other without fear; genuine, authentic; aware of the inner world of the other and you

Promoting Safety & Control

- **Caring**
 - Empathy, sympathy, compassion, perspective taking, warmth, kindness
- **Observing**
 - Present, attention, fully in the moment, labeling/languageing
- **Curious**
 - Open-ended questions, playful, lean into the emotion, exploring
- **Openness**
 - Not issue spotting or analyzing; non-attached, inviting without barriers
- **Accepting**
 - Non-judgmental/evaluative, validating, reactivity awareness, not-hooked
- **Reflections**
 - Micro/macro-summaries, conveying you “get it,” reflecting on oneself
- **NonVerbal/unverbalized** (most communication is nonverbal)
 - Prosody, facial & body gestures, implicit memory expression

Share a CUP of COCOA in Reno, NV

- Elements to support relationship: CUP
 - **Calm, Understanding, and Present**
- Elements promoting safety & control: COCOA -RNV
 - **Caring, Observing, Curious, Openness, Accepting, -Reflections, NonVerbal** and unverbalized awareness
- Significance: Relationship, safety, control establish trust and it cascades from there - dominoes

Social Rejection

- Mark's RBA rule
 - **Rejection Begets Aggression**
- Definition of relationship rejection: subjectively perceived dramatic relational devaluation
- Leary, M., Twenge, J. & Quinlivan, E. (2006). Interpersonal rejection as a determinant of anger and aggression. *Personality and social psychology review*, 10(2), 111-132.

Rejection: More Finely Parsed

- **Belonging**, and/or
- **Control**
 - prosocial
 - antisocial (dominance, aggression, revenge)
- Gerber, J., & Wheeler, L. (2009). On Being Rejected: A Meta-Analysis of Experimental Research on Rejection. *Perspectives on Psychological Science* 4, 468-488.

Attachment theory: Significance

- Attachment is about
 - relationship strategies
 - Patterns of Information Processing (PIP)
- Everyone has them
- They fall into two basic patterns
- Helps us more quickly adjust our communication styles to match and enhance our relationships

Attachment theory: Significance

- Teaches us about the basic nature of human relationship, especially
 - What people perceive as a relationship danger
 - How to comfort
 - How to communicate
 - A deeper understanding of needs
 - Patterns of information processing
 - Self-protective relationship strategies

Attachment and Genetics

- Attachment is primarily an environment/development theory
- Genes matter (temperament), but environment is more important, for example:
 - Environment can change the expression of genes (epigenetics)
 - Within a person, and inter-generationally
- Nature vs. Nurture, Nature and Nurture, **GxE**

What is Attachment? (Crittenden)

- Basic definition: **Relationship with a person who can provide protection and comfort from danger**
- Childhood attachment involves development of:
 - Relationship focused on protection and comfort
 - Patterns of processing information about danger and comfort
 - Strategies for self-protection and comfort

Attachment Theory

1. Children need communication strategies (coping skills) to engage caregivers to feed, comfort, engage, protect...
2. Infant self-protective relationship strategies fall into only 3 categories
3. Strategies mature with age, but initial strategy remains permanently encoded in inaccessible “implicit” memory (preconscious)
4. Self-protective strategies persist into adulthood
5. Relationship is filled with danger, especially during divorce
6. Most divorce “issues” revolve around maladaptive relationship strategies

Attachment Theory: Development Overview

- Created by John Bowlby (1950)
- Mary Ainsworth
 - Strange Situation procedure (1963), (YouTube videos)
 - ABC model: only 3 strategies to deal with danger
- Relationship strategy established at 7-11 months
- Mary Main: Adult Attachment Interview (1984) and adult attachment model (older)
- Patricia Crittenden: Dynamic Maturational Model of attachment (modern)
 - <http://www.patcrittenden.com/>
- Hundreds of studies, thousand's of people, reliable results

Parental communication in the attachment relationship

1. Contingent communication: Parent is present, attuned and resonates
 - Child's plea is understood and positively responded to by parent
2. Rejected communication (dismissed): Plea ignored/accepted reluctantly
3. Ambivalent communication: Plea accepted/rejected inconsistently

Attachment: ABC Model

- Secure: Type B
- Insecure: Type A
- Insecure: Type C
- Insecure: Type A/C
 - Mixed or alternating type (Crittenden)
 - Described as Typed D, “disorganized” in old model (Main)

Secure Attachment

- Type B = welcomed & understood, needs easily met, comfortable, confident, cooperative, flexible, balanced, good regulation of thoughts-emotions-behaviors
 - Parenting style typically welcoming, understanding
 - Involves “contingent communication”

Insecure Attachment

- Type A = Dismissive, rigid, cognitive, sequential, narrowly focused, emotion/relationship avoidant, communication limited. (Narcissism is an extreme form.)
 - Parenting style commonly rigid, cold, dismissive
- Type C = Enmeshed, chaotic, affective, emotional, relational, broadly focused, cognitive/factual avoidant, communication excessive. (Borderline is an extreme form. Echo and Narcissus.)
 - Parenting style commonly chaotic, safety and comfort unpredictable
- Type AC & A/C = Alternating or combined of above. (Antisocial is an extreme form)
 - Parenting style commonly hostile, safety and comfort unlikely

Adult Attachment

- Can stay in one category and mature
- Can move in and out of categories over lifespan
- Can move into more extreme categories
 - Adaptive in childhood, maladaptive in adulthood
- Predominate strategy in response to conflict
- May be, or look like, a personality disorder

Adult Attachment Involves

- **Relationship with a person who can provide protection and comfort from danger**
- Patterns of processing information about danger, comfort and sexual opportunity
 - Relationship experience leads to perceptual patterns,
 - And biases in information processing
- Strategies for self-protection, reproduction, protection of progeny
 - perceptual patterns leads to action patterns
 - actions vary depending on situation and perception
 - extreme stress/deeper dysfunction leads to uniformity of strategy
 - un-integrated information/patterns may lead to over-reliance on past experience
- ABC model groups individuals around approach to relationship safety/danger, reproduction, protection of progeny
- Patricia Crittenden, *Assessing Adult Attachment: A Dynamic-Maturational Approach to Discourse Analysis*

Attachment and Neurobiology: Implicit Memory

- Implicit memory: Unconscious way a child remembers a relationship strategy that protects them from danger
- Attachment relationship strategies encoded into brain memory:
 - Prior to language
 - Prior to adult memory skills
 - “Insecure” Very effective for an infant, maladaptive for an adult
 - Implicit memories never go away
 - Hard to access and gain awareness as adult
 - People can react and not know why
 - Can be recognized and managed (there is hope!)
- Trick is to gain “understanding of implicit world”

Attachment resources

- Dr. Patricia Crittenden
 - Patcrittenden.com
 - Patricia Crittenden, Crittenden, P. M. (2006). A Dynamic-Maturational Model of attachment. *Australian & New Zealand Journal Of Family Therapy*, 27(2), 105-115. Crittenden, P. M., & Landini, A., (2011). Accessible article online
 - *Assessing adult attachment: A dynamic-maturational approach to discourse analysis*. New York: W. W. Norton & Company. Heavy duty book describing psychological model based on attachment
- David Wallin
 - Wallin, D. (2007). *Attachment in psychotherapy*. The Guilford Press. Good basic overview of adult attachment.
- Family Court Review, July 2011, and April 2014 issues.

Right-Brain

Left-Brain

Integrated Brain

- Right brain is highly consistent with Type C strategy styles
 - Broad focus on environment, emotional, nonlinear, see's many options but cannot pick any, relational, physically interconnected with body
- Left Brain is highly consistent with Type A strategy styles
 - Narrow focus individual parts, logical, sequential, picks one option and sticks with it, internal, physically interconnected with itself
- Significance: Hemispheric Utilization bias
 - McGilchrist, I. (2010). Reciprocal organization of the cerebral hemispheres. *Dialogues in Clinical Neuroscience*, 12(4), 503-15.
- Resources
 - Google “left right brain” for artistic depictions in “images”
 - Iain McGilchrist (Google “RSA mcgilchrist” for Divided Brain video)

2 Patterns of Information Processing

Type A, Sequential, Left Brain

- Cognitive
- Distant, logical
- Dismissive
- Narrowly focused on present/things
- Narratives thin details and no context
- Finds parts, but no meaning in them
- Rigid

Type C, Contextual, Right Brain

- Affective
- Emotional, relational
- Enmeshed
- Broadly focused, past and present enmeshed
- Narratives overwhelming emotion and detail
- Finds a meaning, not the parts
- Chaotic

2-Pattern Parent Examples

- Examples of how a parent a parent would act when squarely in an A, C or AC style
- Type A parent: I love me, you don't matter
- Type C parent: You love me, and you don't matter
- Type AC : I don't love me you need to, and you don't matter

Stay in Relationship

- “Insecure” Self-Protective Strategies
 - were functional as a child, now they are not
 - They tend to push people away
 - Even though hard wired to want to be in relationship

Relate to Cognitive Type A

- *Sequential, narrow focus, de-contextualized*
- Provide context
 - Start narrative from a different starting point
 - Reference outside authority (rule, expert, experience)
- Bring awareness of others and the past
- Don't shame ("It's not your fault, so let's investigate...")
- Let them be the expert (play dumb)
- Don't get warm and fuzzy, but stay in relationship

Relate to Affective Type C

- *Emotional/relational, random, over-broad focus*
- Be warm and fuzzy, stay in relationship with proactive boundaries
- Extra structure
- Distinguish past from present
- Provide extra facts
- Emphasize awareness of sequence and consequence
- Write it out to be concrete:
 - Time line, financial future, center column worksheet

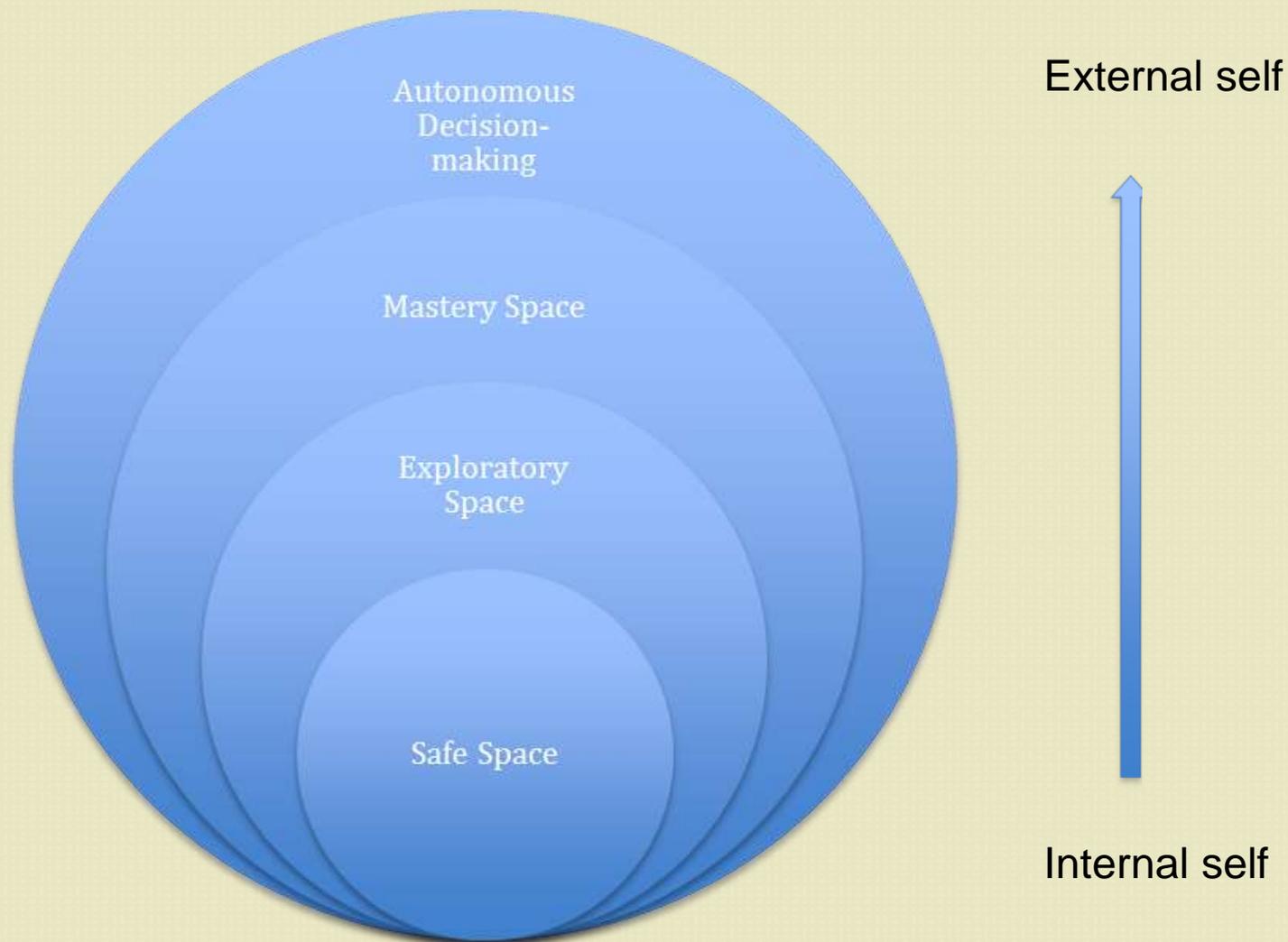
4-Step Integration Process Goals

- Maintain relationship, safety, control
- Use CUP of COCOA RNV
- First “come along side” the 2-pattern style
- Then, promote expansion into other pattern of processing
- Facilitate neural integration with linking and differentiating

4-Step Integration Process

- Step 1: Link. **Create safety and relationship**
 - Deeply understanding the person
- Step 2: Link. **Faux Mastery**
 - Providing a safe & positive place to explore *their idea* consistent with 2-pattern style
- Step 3: Differentiate. **True mastery**
 - Risky exploration, reality testing. Try moving into other information processing pattern
- Step 4: Integrate. **Autonomous decision making**

Creating Space for Client



IPNB elements for *relational professionals*

1. Conflict Model: Core drives, patterns of information processing, self-protective relationship strategies
 - Accept and adjust to lower expectations for change
 - Maintain appropriate boundaries, while engaging in maximum relationship
2. Integrative Listening
 1. Promote relationship by Connecting, Understanding, Presence (CUP)
 2. Engage with COCOA -RNV
3. 4-Step Integration Process, facilitate Safety, Mastery, Autonomy with relationship linking and differentiating
 1. Link by creating safety and relationship
 2. Link by with faux mastery (deepening control)
 3. Differentiate with true mastery and reality testing
 4. Integrate by facilitating choices (autonomy)

IPNB TOP 10 Everyday Tips

1. Set and maintain appropriate boundaries
2. Set reasonable expectations based on party abilities
3. Deeply listen and hear (especially what is not said) before assessing (listen:talk 10:1)
4. Interrogate with kindness and without judgment
5. Don't work (much) harder than your clients
6. Pace and lead: go at client's pace, gently lead when time is ripe, just as you would your children
7. Promote or give choices
8. Stay detached from the outcome
9. Notice how you feel during the interaction
10. Maintain awareness of your own biases

Conclusion

- Conflict behavior is driven by intense unconscious forces
- Reducing conflict involves brain/body-relationship integration by
 - reducing danger
 - providing comfort
 - staying in relationship
 - Supporting control

Materials and resources available at
<http://markbaumann.com>

Mark Baumann

Supplemental slides

Assumptions About Conflict

- Broader view: Conflict is driven by
 1. Genetics (temperament)
 2. Neurobiological systems (physical brain-body)
 3. Psychological - Personality
 1. (coping methods developed in childhood in response to perceived relationship danger)
 4. Relational (Systems, such as partner, family, work)
 5. Context
- Relationship danger is more complex than we normally think
- Conflict drives will spill over into us and affect our thoughts, emotions, behaviors (emotions can be contagious)

What's This Have To Do With Me?

- Adapt your approach to attachment strategies
 - What constitutes rejection/danger? Depends on style
- Be an attachment figure (limited re-parenting)
- Provide a safe attuned relationship (Safety)
- Reduce or avoid subjective perception of danger
- Provide comfort ethically
- Communication style is critical
- Facilitate party decision making (autonomy)