Domestic Violence Intervention with the Brain in Mind

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Overview of the Program

* Domestic Violence Treatment History
* Overview of Treatment Outcome
* Typology Systems
* Risk Factors for Domestic Violence
* What's going on in the minds and brains of perpetrators?
* The Neuroscience of Violence
* Rethinking Emotions and Emotion-Regulation
* Empathy and Compassion
* The Mirror Neuron System
* Memory and Violence

Overview of the Program

❖ The hitting habit

❖ Cultivating gratitude, compassion and positivity

❖ Attachment theory and domestic violence

❖ Secure and insecure attachment

❖ Attachment theory and emotion regulation

❖ Attachment theory and cognitive representations

❖ Attachment theory and memory

❖ Secure Base Priming: An intervention for perpetrators?

Where have we been?

❖ First intervention programs started in mid-1970's

❖ Feminist-Social Learning-based (some led by professional, some led by para-professionals)

❖ Education was a major component

❖ Behavioral and cognitive interventions (time out, self-talk, etc)

❖ 3-6 month interventions

❖ Group modality

❖ Some family systems theorists were advocating for family/ couple intervention

Domestic Violence Treatment 1980's

❖ DV Diversion/Probation – Mandatory arrest

❖ Three distinct models:

    ❖ Feminist education (Duluth, Emerge, etc)

    ❖ Psycho-educational group treatment (Ganley/Harris, Sonkin/Durphy, etc)

        ❖ Cognitive-behavioral

        ❖ Psychodynamic

    ❖ Family systems (Haley/Madanes, MRI-Palo Alto, Niedig, etc.)

Outcome Studies on DV Treatment

- ❖ Shepard: Duluth outcome studies in 1987 and 1992 – 40% recidivism rate which was no different than non-treatment

- ❖ Babcock in 2004 found only a moderate size effect of effectiveness, about 10% better than no treatment (.09-.35 effect).

- ❖ 2005 – Feder, et. al. found negligible differences between treated and non-treated perpetrators

- ❖ 2011 – Smedsland, et. al. found only 1 of 6 of the most rigorous studies found a significant improvement.

Outcome Studies on DV Treatment

❖ Eckhardt, Murphy, et. al. (2013)

❖ About half of programs are significantly effective and about half are no different than no intervention

❖ Little differences between Duluth and Psychological models (when combined with probation, monitoring)

❖ No need to state mandate one form over the other (should leave it to the people providing tx)

❖ Alternative approaches showed better outcomes: readiness for change (motivational interviewing, couples therapy incorporated into group tx, self-referred groups, etc.).

Types of Intervention Models

* Crime prevention/criminal justice and social factors
* Biological and medical
* Psychological: Cognitive-behavioral, family systems, psychodynamic, narrative, dialectical behavior therapy, attachment theory
* Psycho-Educational: Anger management
* Educational: Duluth and similar models
* All have their strengths and limitations
* What can enhance the outcome in perpetrator treatment?

Do we need a new paradigm?

* DV literature on perpetrator treatment has remained fairly stagnant in the past 40 years
* Groups, 16-52 weeks, psycho-educational, time-outs, power and control
* Criminal justice interventions and law have affected our models in that the more specific the law, the more restrictions on therapists to use clinical judgment
* Low to moderate effect of current models
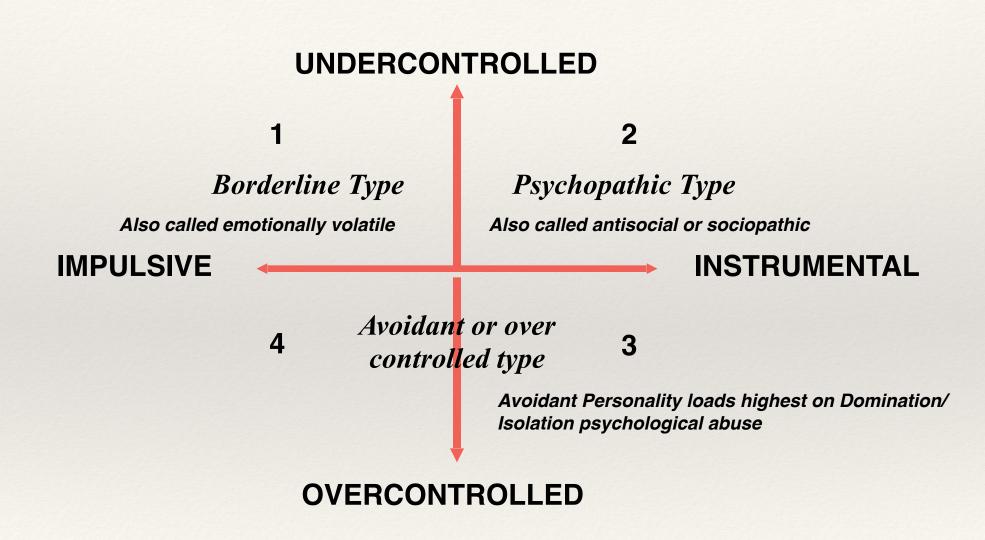* What can we do to improve treatment outcomes?

Typology Systems

- **Hamberger and Hastings 1986:**
- Antisocial/Narcissistic
- Schizoid/Borderline
- Dependent/Compulsive
- **Holzworth-Munroe & Anglin (1991)**
- Generally violent/antisocial
- Low level antisocial was identified in 2000
- Dysphoric/BorderlinePassive
- Dependent (Family only)
- **Saunders (1992)**
- Generally violent
- Emotionally volatile
- Emotionally suppressed

Dutton's Perpetrator Typologies

- Dutton's Typology System (The Abusive Personality, 2006)
  - Psychopathic: down regulating, lacking empathy, instrumental aggression and control (Dismissing Attachment)
  - Over-Controlled: down-regulating, can be empathic, instrumental/impulsive aggression and control (Pre-occupied Attachment)
  - Borderline: up-regulating, difficulty with empathy, impulsive aggression and control (Disorganized Attachment)

Two dimensional representation of Dutton's typology system

UNDERCONTROLLED

1

Borderline Type

Also called emotionally volatile

IMPULSIVE

2

Psychopathic Type

Also called antisocial or sociopathic

INSTRUMENTAL

Avoidant or over controlled type

4

3

Avoidant Personality loads highest on Domination/ Isolation psychological abuse

OVERCONTROLLED

Different Conceptualizations – Different Interventions

❖ There are many different conceptualization of the etiology of domestic violence and therefore they will give rise to different approaches to intervention

❖ The more we reduce and simplify, the more likely we will come across people what can't make use of our model

❖ Expand our thinking sufficiently so we can apply it differently as needed

❖ Incorporate other disciplines (developmental, social, neuroscience)

❖ Intervention needs to match the client's needs

❖ Hold our theory in one hand, but apply it judiciously with each individual client

❖ Therapist flexibility is key

Risk Factors for Domestic Violence

* *Capaldi, et. al, Oregon Social Learning Center, 2012*

* Childhood witnessing of family violence

* Childhood and adolescent aggression (conduct disorder)

* Alcohol (women) and drug abuse (men)

* Involvement with aggressive peers

* Social isolation

Risk Factors for Domestic Violence

❖ *Capaldi, et. al, Oregon Social Learning Center, 2012*

❖ Depression (particularly for women, but also men)

❖ High conflict marriages/relationships

❖ Hostile attitudes toward women (particularly for adolescents)

❖ Personality disorders (Particularly Cluster A (paranoid, schizoid, and schizotypal) and Cluster B (histrionic, narcissistic, and borderline disorders).

❖ All three clusters (A, B, C) of violent subjects; their violence didn't decline as quickly over time as did violent subject who didn't have personality disorders..

Risk Factors for Domestic Violence

❖ Birkley and Eckhardt, 2015 found:

❖ Anger, hostility, and internalizing negative emotions are moderately associated with domestic violence (estimating 50% of perpetrators this is a significant factor)

❖ These traits differentiate chronically violent (and acutely violent) from non-violent individuals

❖ Negative emotions, such as anger, theoretically increases risk of violence in a variety ways

❖ Present-day negative affect increase the availability of aggression-relevant beliefs, images, and memories (priming)

❖ When activated, these beliefs, images and memories increase the possibility that the problem will be solved with aggressive behavior

❖ Rationalization (I had to do it, I was provoked) and emotion defenses (down-regulating guilt and shame) perpetuate the behavior

❖ If you don't take responsibility and feel bad about your behavior, its not likely to change

Birkley and Eckhardt, 2015

❖ This is complicated if the person has had a history of child abuse or witnessing family violence

❖ The intense rage, helplessness and fear experienced in prior trauma is likely to be reactivated in the present day situation exacerbating the intensity of the reaction

❖ Anger and power/control related, but not in the way Duluth advocates propose

❖ Anger, as well as other withdraw emotions trigger a response in humans of either fight or flight (sympathetic nervous system)

❖ The solution may be stopping the source of the anger or getting away - which option will depend on history - recent and distant

What's going on in the **minds** of batterers?

- ❖ Different theoretical models result in different answers

- ❖ Power and control theories talk about a need for exercising control and acting on male privilege

- ❖ Anger management models focus how people are either overwhelmed by anger or avoid anger both may lead to aggression

- ❖ Cognitive-Behavioral approaches focus on cognitions that lead to emotion dysregulation and behavior problems

- ❖ Psychodynamic models look at the childhood factors, particularly childhood abuse and how it affect present-day relationships

- ❖ Family systems look at the behavior dynamics between family members and how they perpetuate problems in communication and behavior

- ❖ Models, such as trans-theoretical, narrative, mind-body, compassion-based, dialectical behavior therapy approach etiology in similar and unique ways

Why Consider Neuroscience?

❖ Neuroscience has experienced a huge proliferation of new findings about the brain in the past 20 years.

❖ Some psychological theories and concepts have been supported, some have been debunked

❖ Although many studies seem esoteric, many studies have direct and indirect application to clinical intervention

❖ All types of therapeutic interventions result in brain changes

❖ If the brain is the organ that we are most directly affecting, why not understand it better and be more thoughtful and deliberate in our interventions?

What's going on in the **brains** of violent people?

❖ Fear that leads to fight or flight responses

❖ Attitudes and belief systems that violence is a viable solution to conflict

❖ Deficits in emotion regulation

❖ Social cognition deficits and distortions

❖ Inhibition control problems

❖ Lack of integration of hemispheres

❖ Imbalance between sympathetic and parasympathetic nervous systems

❖ Neuromodulator deficiency, flooding and binding defects

❖ Implicit memory from prior trauma

❖ Emotion contagion in close relationships

❖ Genetic defects/changes due to heredity and environment (epigenetics)

The Neuroscience of Violence

Fear and the HPA System

- The HPA axis: Hypothalamus, Pituitary and Adrenal system (Flight or Fight)
- Sympathetic nervous system (gas pedal)
- Parasympathetic nervous system (breaks)
- Why do some people speed up and others slow down?
- Hypothalamus: Receives input (internal and external) from various structures (amygdala, PFC, hippocampus, etc.) and releases CRH (corticotropin-releasing hormone)
- Pituitary: During a threat situation, the pituitary will release adrenocorticotropin hormone (ACTH)
- Adrenal: ACTH causes release of cortisol and catecholamines (epinephrine and norepinephrine) in the adrenal cortex

Fear and the HPA System

❖ Cortisol: Is the stress hormone that puts us on alert

❖ However, it can also bind with glucocorticoid receptors in the hippocampus which can deactivate the HPA system and heighten our vagal tone index.

❖ We need to use other functions to deactivate the fight/flight response and activate the vagus nerve

❖ This involves executive control - prefrontal cortex

❖ The hypothalamus can also produce oxytocin and vasopressin the neuropeptides associated with maternal care and pair bonding

Fear and the HPA System

* Growing up in stressful (violent) environments means the HPA is being primed continually. The more you use it, the stronger it becomes.

* Perpetrators of violence have been found to have higher levels of CRH (corticotropin-releasing hormone) and lower levels of Omega-3 fatty acids in their circulating blood.

* Decreased Omega-3 increases CRH expression and hypothalamic activation

Fear and the HPA System

* Growing up in frightening families: HPA axis is exquisitely sensitive to threats and danger – even when it's not really present
* Putting on the breaks may begin a process that can lead to other outcomes - but this system may not be as strong
* Taking in more information can cut off the HPA response
* Reappraisal of what is happening
* Deep diaphragmatic breathing - with a long, slow exhale - is key to stimulating the vagus nerve and slowing heart rate and blood pressure.
* Time-outs may help, but priming/strengthening the system is key
* Learning to strengthen these alternative capacities/systems is key

Aggression and the Brain

- Aggression is advantageous for securing resources. But it can also have a severe impact on social and interpersonal cohesion (double-edged sword)
- It generally has very strong genetic and environmental determinants.
- Two types of aggressive behavior: lack of and excess of emotional sensitivity
- Lack of emotional sensitivity: instrumental, pre-meditated and goal-directed (eg, psychopathy, lacking both empathy and remorse)
- Reactive aggression: resulting from emotion overload/ overwhelm with difficulty controlling intensity and/or inhibiting behavior

Aggression and the Brain

❖ Reactive aggression is associated to the threat system (amygdala and HPA) and has strong evolutionary roots (survival of species)

❖ The amygdala, and its linked pathways, control avoidant, defensive or aggressive behavior

❖ Dysfunction of neural circuits regulating emotion (emotion control & inhibition control) are an associated with impulsive violence

❖ These circuits involve not only the amygdala, but also the anterior cingulate cortex and regions of the prefrontal cortex which are involved in planning and organizing

❖ Some individuals who are impulsively violent have low serotonin in the frontal cortex, consistent with the long held belief that disruption of the serotonin system is a highly significant feature in predisposing aggression.

Serotonin and Aggression

* Depression has been associated with aggression in adolescents and adults
* Low serotonin increases the risk for violent behavior
* Serotonin is critical for affect regulation that occurs in the prefrontal cortex rich in serotonin receptors
* Low serotonin results in weaker communication between the limbic system and the frontal lobes
* Prefrontal cortex regulates impulses generated by the limbic system
* Also involved with behavioral inhibition
* All children are born with aggression, but the caretaking environment helps to manage those impulses in a productive way
* When the environment models aggressive responses to emotions, children are likely to imitate these behaviors which are strengthened over time
* SSRI's have been shown to reduce hostility and aggressive behavior

Anger: The GABA Connection

- GABA (Gamma-aminobutyric acid) is the main inhibitory neurotransmitter

- Low GABA has been associated with high anxiety, low sociability and aggression in animals and humans

- Inverse relationship between levels of GABA in the brain and aggression

- *Study by Radtke, et. al. (2011): Transgenerational impact of intimate partner violence on methylation in the promoter of the glucocorticoid receptor.*

Pre-Birth Stress and the Brain

- ❖ Found that domestic violence during pregnancy resulted in changes in the glucocorticoid receptor gene (GR) in the offspring of victims
- ❖ Ten to nineteen years after birth, they found the offspring genes to be methylated
- ❖ Synapses couldn't bind as much GABA as those with non-methylated genes
- ❖ Their brains were different from those whose mother's didn't experience domestic violence

Anxiety and Aggression

- Complicated relationship - veterans with PTSD are more likely to be violent if they have simultaneous major depression

- Anxiety alone is not enough to cause violence otherwise the violence rates would be significantly higher

- Other factors contribute to overwhelming the person's coping mechanisms (childhood trauma, substance abuse, etc.)

- The management of anxiety is similar to that of aggression - increase executive control or decrease emotion reactivity

Managing Aggression

❖ **State-based aggression**: Strengthen executive control with drugs effecting serotonin processes, such as SSRIs (eg, Prosac or Celexa), anti-anxiety drugs (eg. Buspar) and anti-psychotics (Respirdal)

❖ **Trait-based aggression**: Genetics and environmental factors come together to manifest the trait. Chronic aggression is often a clue to genetic factors being involved (eg, GABA receptor gene, MAO-A gene, etc.)

❖ One way to approach treatment of **trait-based aggression** is to determine if the genetic factors are also causing an imbalance, deficiency or excess of neurological substance and try to correct for that (trial and error)

❖ So if GABA binding is the problem, GABA agonists (sedatives including benzodiazepines and other anxiolytics) may be prescribed

❖ If one suspects an insufficiency of MAO-A, Depakote (anti-epileptic), which has long been used to treat violent behavior, may be utilized

Working against Biology

- ❖ The bad news: Anger and aggression are the most stable personality characteristics.

- ❖ The good news: Research indicates that the brain is able to change through out the lifespan (neuroplasticity)

- ❖ The key to change is repetition, repetition and repetition

- ❖ Telling clients the truth about anger and aggression

- ❖ Medications can be invaluable to the change process

- ❖ Is once-a-week intervention enough?

- ❖ How long is the optimal amount of intervention?

Rethinking Emotions
and Emotion-Regulation

Emotions and Emotion-Regulation

* Emotion is derived from the French word, "emouvoir", which is based on the Latin word "emovere", where "e" means "out" and "movere" means "move."
* Interestingly, the word "motivation" is also derived from "movere."
* So emotion and motivation are rooted in a term that means to move.
* Our bodies rarely react without movement

Emotion and Emotion-Regulation

❖ Different contemporary theories of emotion (LeDeux, Panksepp, Damasio, Davidson, Ekman, etc.)

❖ William James (1842-1910) thought of emotion as a bodily process rather than a mental process. It is something you experience in your body and therefore one can't separate mind and body when it comes to emotion

❖ Emotion, cognition and behavior – Connections

❖ Our conscious experience results from an integration of various brain and body processes - not separate functions

Domestic Violence Intervention and Emotion

- Most DV programs are primarily focused on anger
- There is more to violence than anger
- Therapists need to expand their conceptualization of emotion and emotion-regulation with regard to perpetration and victimization
- Fear is an important factor, particularly for those who experienced trauma and loss
- Anxiety is another way of understanding emotional arousal
- Other forms of emotional vulnerability need to be addressed for clients to understand how to better calm the system when aroused

Domestic Violence Intervention and Emotion

❖ Other emotions to consider in treatment
  ❖ Shame is a social emotion that is also linked in emotional memory (implicit) when raised in shame-based families
  ❖ Development and strengthening of approach emotions – compassion, gratitude and joy
❖ Brain asymmetry and approach/withdraw emotions
❖ Richard Davidson found that 30 minutes of mindfulness meditation over 60 sixty days changed the relative activation patterns of the brain from left (withdraw) dominant to right (approach) dominant

Types of Emotion

- ❖ Damasio Three Types of Emotions: Primary, Background and Social Emotions
- ❖ Primary Emotions: Happy, sad, anger, fear, surprise and disgust
- ❖ Background Emotions: good, bad and everything in-between
- ❖ Social Emotions: shame, guilt, love, embarrassment, compassion, gratitude, envy, jealousy, empathy

Types of Emotion

- Primary emotions: Characterized by a burst & relatively quick decay
- Background emotions: more akin to mood (hours, days or weeks)
- Social emotions occur within the context of social relationships
- The purpose of emotion is solve problems or endorse opportunities
- Our clients are trying to solve problems, but do so in ways that are maladaptive or destructive

Emotions vs. Feelings

- ❖ Emotion is the physical experience of something changing in the body due to an internal (thought, appraisal or memory) or external (a critical or upset partner) stimulus

- ❖ Feeling is the mental representation of the experience of having an emotion

- ❖ Feeling is the awareness and mental labeling of the change in the body – self monitoring

- ❖ One can have emotion without feeling

- ❖ Behavior is the solution to the emotion (with or without feeling)

Types of Emotion Regulation

* Antecedent-focused (e.g., visiting family for holidays)
  * Situation selection (to go or not to go)
  * Situation modulation (sleep there or in hotel)
  * Redirecting attention (keep away from stepfather)
  * Shift perspective (he can't help himself)
* Response-focused
  * Adaptive (talking, breathing, getting away, medication, etc.)
  * Maladaptive (food, drugs, alcohol, sex, violence, withdrawal, verbal attack, etc.)

Emotion, Feeling and Language

❖ Many of our clients are unaware of their emotion states and behavioral intentions; and therefore can't really talk about it, so they show them

❖ When people show their emotions and intentions rather than talk about them, the mirror neuron system of others goes to work trying to figure out their intention

❖ When people talk about their emotions and intentions, there is no need to extrapolate

❖ When this mental process (figuring out where someone is) is taken care of higher cognitive processes can be activated

Empathy and Compassion

Social Cognition and Empathy

- Empathy and social cognition are complex processes in the brain relating to how we understand and recognize others emotions, their thoughts and intentions and interpret behaviors
- The two are closely related - our social brains allow us to understand others in complex ways
- In domestic violence situations, there are often deficits and distortions in social cognition and empathy that need addressing in order for people to have less conflict and problems interacting with loved ones
- Psychopath: Deficit
- Borderline (personality disorders): Distortions

Theodor Lipps & Empathy

- Philosopher Theodor Lipps (1851-1914) is remembered as the father of the first scientific theory of Einfühlung ("feeling into," or "empathy").
- Unlike his predecessors, he used the notion of Einfühlung to explain how people understand the mental states of others
- In 1903 he suggested the perception of an emotional gesture in another directly activates the same emotion in the perceiver, without any intervening labeling, associative, or cognitive perspective-taking processes. He called this "inner imitation."

Different types of Empathy

- **Emotional**: state matching; increases with familiarity, similarity and salience; self-other distinction
- **Cognitive**: no state matching; self-other distinction; perspective-taking (theory of mind)
- **Contagion**: state-matching; no self-other distinction; AKA vicarious emotional transfer (vicarious trauma)
- **Sympathy**: feeling sorry for other's situation, not necessarily their emotional state; self-other distinction; no state matching
- Studies suggest that a group of cells in inferior frontal cortex are involved in the process of **emotional** empathy (feeling another's emotions).
- These are called mirror neurons because they mirror in us what we perceive in others

Two Empathy Pathways in the Brain

* An older contagion-based emotional empathy system (mirror neurons)
* And a more recent (evolutionarily speaking), higher order, theory of mind, perspective-taking system (reflective function)
* Cognitive empathy involves the prefrontal cortex which is involved with hypothesizing about what is going on in the minds of others.
* This ability, mentalizing or reflective function, is the hallmark of secure attachment and perpetrators of domestic violence have deficits in this ability
* Their assumptions are often negative (malignant view of other's intentions)

Strengthening Empathy Skills

* Capacity for emotional empathy is directly related to one's ability to feel their own emotions and express them in words

* Successful or adaptive emotion regulation involves the up and down-regulation of emotion to tolerable levels so that it doesn't impair cognition and problem-solving

* Capacity for cognitive empathy/reflective function/ mentalizing is to have some understanding of one's own emotional experience, but also step outside yourself and look at the situation from the perspective of the other

Strengthening Empathy Skills

- Both emotional and cognitive empathy skills can be developed within the context of treatment
- Therapist modeling is the best way of helping clients develop these skills
- Showing empathy towards the client
- But also expressing a cognitive understanding the client's perspective
- Encouraging client hypothesize on partner or children's mind (theory of mind)
- Have client visualize themselves in a similar situation as their partner and explore how they might feel
- Identify actual experiences in the client's past that might resemble current situation and explore how they felt

Compassion, Empathy and the Vagus Nerve

- Sympathetic (arousal) and parasympathetic (calming) nervous system

- Activation of the vagus nerve increases states of calm and relaxation

- Increased vagal activity has been associated with increased empathy and compassion towards others

- Meditation has been associated with increased vagal activity, activation of the parasympathetic nervous system and increased compassion.

Forgiveness

Forgiveness – Fincham, 2010

❖ *"It is a rare person who has never felt "wronged," "let down," "betrayed," or "hurt" by a relationship partner. In close relationships we voluntarily make ourselves most vulnerable to another human being by linking the realization of our needs, aspirations, and hopes to the goodwill of our relationship partner. Rendering ourselves vulnerable makes possible the profound sense of wellbeing that can be experienced in close relationships. But at the same time, the imperfection of any partner means that hurt or injury is inevitable, and when it occurs, the hurt is particularly poignant precisely because we have made ourselves vulnerable. In the face of such injury, negative feelings (e.g., anger, resentment, disappointment) are common. Motivation to avoid the source of the harm, or even a desire to retaliate or seek revenge, is also typical. Indeed, some have argued that retaliation in such circumstances "is deeply ingrained in the biological, psychological, and cultural levels of human nature." This creates a particular challenge as hurts inflicted by an intimate partner have the potential to corrode, disrupt and even end the relationship."*

Forgivness

- In a 2014 study, Fincham found that subjects that witnessed violence between parents, who were able to forgive, had less dating violence than those who did not forgive. This effects was particularly robust with forgiveness of mothers

- Many perpetrators say they have forgiven their partners for transgressions, but when something occurs that resembles the prior incident, they are quick to seek revenge and react negatively

- Fincham describes forgiveness as the "struggle to overcome the negative feelings that result from being harmed. It is not forgetting, condoning or pardoning

- "Forgive and forget" is misleading because we must remember in order to forgive

Types of Forgiveness

❖ Fincham and colleagues developed the Relationship Forgiveness Scale, that measures forgiveness on three dimensions - *retaliation, withdrawal and benevolence.*

❖ *Why forgive?*

  ❖ Forgiveness highly correlated to relationship satisfaction

  ❖ Forgiveness correlated with relationship commitment

  ❖ Benign attributes of the other predicts greater forgiveness

  ❖ Higher conflict is correlates with low forgiveness

  ❖ Empathy and forgiveness is more correlated in men than women

Forgiveness

❖ **Non-forgiveness**: occurs when following a transgression the victim is no less motivated to avoid or punish the partner and is not motivated to approach the partner.

❖ **Ambivalent-forgiveness**: is characterized by an increase in positive behavior and affect towards the partner even though some negative motivation (e.g., a desire to teach him/her a lesson) continues.

❖ **Detached forgiveness:** occurs when a partner finds that s/he is less motivated to punish and avoid, but not more motivated to engage the other.

❖ **Completed-forgiveness**: involves change on all three forgiveness dimensions (benevolence, retaliation and withdrawal) and is most likely to result in relationship repair and reconciliation.

Boosting Forgiveness

- Relaxation exercise

- Deep breathing

- Think about a transgression experienced by a loved one

- Visualize the situation, what happened and how they felt

- Prime with the words - *reconcile, understanding, compassion, acceptance, empathy*

Alternatives to Retribution/Withdrawal

❖ Julie Exline (2013) recommends *"shrinking"* and *"warming."*

❖ Shrinking: focusing on the larger picture rather than narrowly ruminating about the offense, harm or unfairness. What are alternative, more benign reasons for their actions (they had a rough day, or were scared).

❖ Warming: cultivating positive feelings about the other (positive qualities, positive past experiences, listing things they appreciate about the person, focus on what they love about the other).

❖ Both of these relationship-enhancing behaviors are easier if the offender has shown a repentant attitude - including apologies and attempts to make things right or has communicated genuine caring and concern for the offended party.

❖ But even if there wasn't an apology, it doesn't mean that forgiveness is not possible.

Forgiveness in the Aftermath of Violence

❖ Rev. Marie Fortune (Domestic Violence on Trial, 1987)

  ❖ Truth-Telling: Acknowledgement of the offense, saying what actually happened without minimization, denial or blame.

  ❖ Taking of full responsibility for own actions, acknowledge the damage done, express remorse and seek repentance.

  ❖ Repentance: To turn around, to turn away from past behavior and not repeat it, to change one's way of being in the world on a fundamental level. Words are not enough - actions must be taken.

Self-Compassion Break

Kristen Neff, Ph.D.

www.self-compassion.org

Gratitude Meditation

Deepak Chopra

Chopra Meditation Center

chopracentermeditation.com

The Mirror Neuron System

Showing vs. Telling

- ❖ We show our emotions and intentions most of the time
- ❖ Showing is a not-conscious process
- ❖ There are times when taking stock is important; particularly in interpersonal relationships, and especially during times of stress
- ❖ When you're primed to automatically down-regulate or up-regulate taking stock is not possible
- ❖ When your automatic response is destructive, the only way to change that behavior is via consciousness and taking stock
- ❖ Additionally, showing can lead to contagion; which can in turn lead to mutual escalation of withdraw affect

Top-down & bottom-up processing

- We were all taught to pay attention to non-verbal behavior in graduate school. Body language was key to knowing our client's state of mind; or at least asking about it.
- Top-Down: stepping back and paying attention to body language, facial cues, gesticulation, tone of voice, pauses, language used, etc.
- Therapists need to be good observers of others.

Bottom-Up Processing

❖ However there is a quicker, and possibly more accurate, way of getting into our client's mind

❖ One that is less analytical and more experiential

❖ To develop and hone this ability requires the therapist to be more connected and aware of their own emotions and intentions.

❖ The therapist needs to be what's called, embodied – able to pay close attention to one's own experience (Lakoff, 1999)

❖ Curiosity: Why am I feeling or wanting to act in this way?

❖ A willingness to engage the client on this level of relating

The Mirror Neuron System

❖ First described by Giacomo Rizzolatti at the Neurophysiology Lab at the University of Parma, Italy

❖ MN are visual-motor neurons that fire when an action is observed in others.

❖ They simulate the observed intention or action within the observer

❖ Related to the cognitive functions of imitation, action understanding and social cognition

❖ Been associated with a variety of neurological and psychological disorders; including MS, schizophrenia, autism and spectrum disorders and alexithymia

The Mirror Neuron System

- ❖ Still controversial
- ❖ Meta analytic study by Molenburghs, et al (2011)
- ❖ Out of 300 published studies and 125 that met their strict inclusion they found that a core network of human brain regions do in fact possess mirror properties that not only include action and observation but non-motor activities auditory, somatosensory and affect.

Mirror Neurons & Insular Cortex

❖ Mirror neurons have been found in various parts of the brain, but particularly in the insular cortex

❖ Insular cortex is located deep within the cerebral cortex separating the temporal, parietal and frontal lobes

❖ The insula is involved with consciousness and functions related to emotion and regulation of body homeostasis: including perception, motor control, self-awareness, interpersonal experience and various cognitive functions (social cognition)

❖ Mirror neurons activate motor neurons so that we physically feel what others are feeling or intending

The Mirror Neuron System in Action

❖ You are on a bus from Vancouver to Calgary and you notice the person next to you all of a sudden looking pale. They start retching and filling a paper bag with clumps of undigested food. What do you feel? You feel a sense of nausea that one feels with motion sickness.

❖ When we witness such experiences we activate;

  ❖ Mirror neurons in the insula that would be active if we were experiencing such feelings, and

  ❖ Motor neurons in our premotor and parietal lobe that would be active if were were performing those physical actions (throwing up).

The Mirror Neuron System in Session

❖ Your client is calmly talking about an interaction they had with their partner. They describe a conversation where their partner, according to your assessment, was devaluing and humiliating. They are not using these words, but you evaluate the partner as sounding critical, humiliating and devaluing

❖ As you listen, you may perhaps be feeling anger, shame or disgust

❖ Why am I feeling this way?

❖ Because your mirror neurons may be simulating within you the emotions of your client is expressing non-verbally

The Mirror Neuron System in Session

❖ When your client is not expressing feeling through words - just emoting non-verbally – your brain is needing to figure out what is going on in their mind

❖ It uses the mirror neuron system to do that?

❖ When your client starts to verbalize their emotions (have feelings), your emotional experience begins to decrease

❖ Mirror neurons are most active when people are emoting and less active with they are emoting and feeling

❖ Mirror neurons are less necessary when emotions, intentions, needs and desires are explicit via language

Mirroring Aggression

❖ Your client is discussing an argument between him and his partner that occurred over the weekend. He was playing with his son and he and partner were starting to argue about extended family (visiting parents on Mother's Day). The conflict started to escalate and the partner called a time out. She grabbed their son and told him to leave. He started to argue that she was putting their son into their argument and was refusing to go on a time out. Things escalated from there and the police were called.

Mirroring Aggression

❖ In his session, he was talking about why he didn't leave and that he believed that his partner was punishing him by taking away their son. As I tried to encourage him to look at his emotional reaction (rather than continue on his intellectualizing narrative of why she was wrong) he started to interrupt and rather than taking in another point of view, he was getting agitated and ready to respond to every point I was making (that he had an emotional reaction to his son being taken away and I was encouraging him to look at that). I found I was feeling angry, frustrated and getting more aggressive in making my point the more he argued.

Mirroring Aggression

❖ Finally I stopped and I said, "I think it's happening right now." He said, "What?" I said that I thought what we were doing, is what he does with his partner. I told him this was very helpful, because it not only gave me a sense of what he does with her, but how she must feel when he does what he does with her. Focusing on the present dynamic and what I was feeling, helped him shift from his negative narrative that focused on her, to talking more about what he was feeling and why he might have been feeling, what he felt when she took away his son when she called for a time-out.

Memory, Anger and Aggression

Memory

- "Everything in life is memory; save for the thin edge of the present." (Michael Gazzaniga, 2000 - The Mind's Past)
- Memory is critical to the work of therapists
- Working Memory: the capacity to hold onto information long enough to manipulate or complete a task (conversation with therapist)
- Short Term Memory: hold onto information in an active, readily available state for a short period of time (next appointment or homework assignment)

Memory

* Long Term Memory
  * Semantic: Facts and figures
  * Episodic: Autobiographical events
  * Procedural: How to do things
* Explicit Memory: Conscious and intentional recollections of previous experiences
* Implicit Memory: Previous experiences aid in the performance of a task without conscious awareness
* Violence may be a form of implicit procedural memory

Implicit & Explicit Memory

❖ Explicit Memory: Involves conscious awareness, at the time of remembering, of the information, experience or situation being remembered.

❖ Implicit Memory: Where behavior, feelings or thoughts are influenced as a result of prior experience, but which is recalled or manifests without conscious recollection of the original events.

❖ With implicit memory, there isn't a sense of remembering, just experiencing.

❖ The day-to-day process of interpersonal relationships involves the recollection and experiencing of both types of memory.

Making & Retrieving Violent Memories

- Hippocampus and surrounding cortex of the medial temporal lobes is essential to making & retrieving memories
- During learning, the hippocampus links together information from other parts of the brain – emotional, behavioral, visual, auditory, sensory, etc. - these components are called *memory traces.*
- During retrieval, the hippocampus activates these memory traces; so starts the process of recall; usually with a part of the memory.
- The rest of the memory gets reactivated in time. This process involves a reactivation of a distributed network of representations in the cortex.
- These memories are referred to schemas. A particular schema become activates depends on availability and accessibility.

Making & Retrieving Violent Memories

- Some memories are easier to recall because of co-occurring emotion or important to sustaining life.
- These neural traces become more consolidated and *accessible* the more they are recalled. The more times any behavior is used, the most likely it will be accessible for recall (driving a car versus using a less frequent skill).
- So an emotion (anger, frustration, fear) can trigger memory, but so could a situation (infidelity, disagreement, being apart, parenting issues, etc)
- Situations that most couples experience could quickly evoke memories from childhood or incidents from the current or prior relationships.
- These frequently occurring behaviors are typically recalled implicitly.

Making & Retrieving Memories

- Cortical memory traces may overlap with each other. That way we can make generalizations from one circumstance to another. For example, mother-son memories may generalize to woman-male memory.

- If you experienced in childhood, frequent father-mother or parent-child arguments were solved or stopped through violence, arguments with a partner in the present could evoke a violent response.

- This overlap allows for knowledge and associations to bridge across different domains – efficient problem solving (such as quickly figuring out how to operate different types of cars).

- Practice remembering strengthens memory – this can be good or bad, it just depends on what you are remembering. The more you practice violence the harder it is to stop it because the memory is being consolidated each time you practice.

- Context is critical to remembering (barista on the bus) - the more similar the more likely it will be remembered.

Priming

- Priming is a form of implicit memory
- The exposure to an earlier stimulus/event increases the probability of a response to a later similar stimulus/event.
- Table - Complete a word Tab
- Childhood experiences include priming – response patterns that become automatic, without thought
- Secure base priming – A form of priming that boosts security in persons with insecure attachment
- Growing up in a home where peopled responded to conflict with anger and/or aggression primes the person to respond to conflict with anger and/or aggression in the present.

Priming Techniques

- Priming Techniques (experimentally)
- Exposing people (subliminally or supraliminally) to security-related words (e.g., love, hug, affection, and support) or the names of an individual's security-providing attachment figures;
- Exposing people (subliminally or supraliminally) to pictures representing attachment security; and
- Asking participants to recall memories of being loved and supported by attachment figures, or asking people to imagine such scenarios.

Priming Techniques in Session

❖ Secure base priming has been shown to reduce anger and aggression and increase empathy and altruism.

❖ Repetition is Key

   ❖ Repetition thickens that neural pathways and makes the new behavior easier to recall when needed.

   ❖ Repetition makes the desired emotion, belief or behavior more *available* and *accessible*

❖ Subliminal priming: interactions between therapist and between client in session (eg, modeling empathy, emotion regulation, communication, curiousness, flexible problem-solving, etc.)

❖ Supraliminal priming - time-outs, anger journal, etc.

The Hitting Habit

(Based on research by Benjamin Gardner Sood, UCL)

What are habits?

- Learned sequences of acts that have become automatic responses to specific cues

- Learned through context-dependent repetition

- Cue-dependent (stimulus-response)

- **Automatic**

- Do not require intention

- May be initiated without awareness

- Are initiated outside of volitional control

- Requires little/no effort

Habitual versus intentional behaviour

Habitual behaviour	Intentional behaviour
Bottom-up	Top-down
Directly cued	Consciously mediated
Impulsive	Deliberative
Does not require intention	Requires intention
Effortless initiation	Effortful initiation

Automaticity

- Automaticity is the essence of habit - both healthy and unhealthy

- Habit strength is associated with habit frequency

- Stronger stimuli are more likely to trigger habit/behavior

- Habit strength will moderate the intention-behavior relationship - the greater the habit strength the less control (intention-behavior)

- Habits are more immediately enacted than are intentions (impulsive versus premeditated)

Measurement is difficult

❖ Self-reporting habit is problematic because people have different interpretations of word "habit" - particularly violence

❖ People don't reliably reflect on their automatic actions

❖ Past is the best predictor of future behavior therefore getting a measure of types and frequency of habits does give sense of predictability (include corroborating data from other sources)

❖ As soon as you start talking about a habit, it changes (perhaps strengthens) intentional control

❖ Therefore history gathering and focus are critical to changing habits

❖ Asking about intentions, thoughts, planning,, etc.

Changing Habits

- Repetition, repetition, repetition.

- Lally and colleagues at University College London

- Goals have a moderate effect on habit formation

- Generally takes 18-254 repetitions to begin to reach automaticity for the NEW habit

- Frequent practice - daily if possible

- Apps and texting: Mobile Therapy, PTSD Coach (USVA)

Mindfulness & Meditation

Definitions Wikipedia

❖ Meditation is a practice in which an individual trains the mind or induces a mode of consciousness, either to realize some benefit or for the mind to simply acknowledge its content without becoming identified with that content, or as an end in itself.**

❖ Mindfulness is the intentional, accepting and non-judgmental focus of one's attention on the emotions, thoughts and sensations occurring in the present moment, which can be trained by meditational practices derived from Buddhist philosophy.**

❖ ***Wikipedia (www.wikipedia.com)*

Mindfulness Meditation

❖ Made popular by Jon Kabat-Zinn of the Center for Mindfulness at the University Massachusetts School of Medicine

❖ Mindfulness Based Stressed Reduction

❖ Large body of health research and highly correlated with improved health and wellness

❖ *Gu, J., Strauss, C., Bond, R., & Cavanagh, K. (2015). How do mindfulness-based cognitive Therapy and mindfulness-based stress reduction improve mental health and wellbeing? A systematic review and meta-analysis of mediation studies. Clinical psychology review, 37, 1-12.*

Tending Your Garden

- ❖ Imagine that your mind is like a garden (Rick Hansen, Ph.D.)

- ❖ You could simply be with it, looking at its all its contents without judgement or change

- ❖ You could pull weeds - decreasing negative thoughts

- ❖ You could grow flowers - increasing the positive thoughts

- ❖ Manage the mind in three ways: *let be, let go, or let in*

Self-Compassion

❖ Based on the work of Kristen Neff, Ph.D. (U of Texas, Austin)

❖ Notice suffering

❖ Feeling moved by suffering so that your heart responds to pain (compassion means to "suffer with")

❖ Feeling warmth, caring, and/or the desire to help the suffering person in some way.

❖ Wanting to offer understanding and kindness to sufferer when they fail or make mistakes, rather than judging them harshly

❖ Compassion for self/other means that you realize that suffering, failure, and imperfection is part of the shared human experience.

Self-Compassion and Mental Health

❖ The most common finding in the literature is the reduction of symptoms of anxiety and depression

❖ Improved self-esteem, less negative self-attributions

❖ Greater compassion and gratitude towards others

❖ More positive appraisals of negative life events

❖ Doesn't stop withdraw emotions (anger, fear, shame, etc) but allows person to have a more balanced perspective on self, others and the situation

❖ Reduces sympathetic nervous system (arousal, cortisol) and increases parasympathetic nervous system (oxytocin-opioid system)

❖ Increased heart rate variability (improved stress response)

❖ *Neff, K. D., & Dahm, K. A. (2015). Self-Compassion: What it is, what it does, and how it relates to mindfulness. To appear in in M. Robinson, B. Meier & B. Ostafin (Eds.) Mindfulness and Self-Regulation. New York: Springer.*

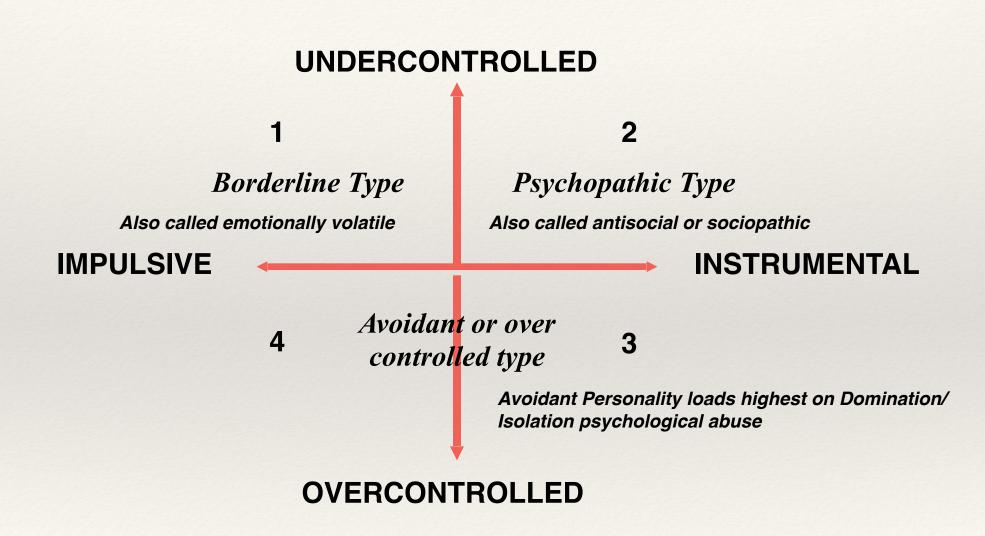# Soften, Soothe and Allow:
Working with emotions in the body

Kristen Neff, Ph. D. - www.self-compassion.org

Attachment Theory, Domestic Violence and Secure Base Priming

Dutton's Perpetrator Typologies

- Dutton's Typology System (The Abusive Personality, 2006)
  - Psychopathic: down regulating, lacking empathy, instrumental aggression and control (**Dismissing Attachment**)
  - Over-Controlled: down-regulating, can be empathic, instrumental/impulsive aggression and control (**Pre-occupied Attachment**)
  - Borderline: up-regulating, difficulty with empathy, impulsive aggression and control (**Disorganized Attachment**)

Two dimensional representation of Dutton's typology system

UNDERCONTROLLED

1

Borderline Type

Also called emotionally volatile

2

Psychopathic Type

Also called antisocial or sociopathic

IMPULSIVE   **INSTRUMENTAL**

Avoidant or over controlled type

4

3

Avoidant Personality loads highest on Domination/ Isolation psychological abuse

OVERCONTROLLED

Why Consider Attachment Theory?

* 40 years of child development research including, the effects of trauma, abuse, domestic violence and tendencies towards aggression and violence

* Longitudinal studies (40 years) that examine the long-term developmental effects of insecure attachment & protective aspects of secure attachment

* Thirty years of adult attachment focusing on many of the areas that domestic violence programs address - anger, attitudes, conflict, etc.

* 15 years of empirical evidence on how to boost attachment security in adults which can result in improved interpersonal relationships

* Can adjunctive secure base priming improve outcomes in batterer treatment programs?

Why Consider Attachment Theory?

- Violence and abuse occurs in the context of attachment relationships.
- At its core, attachment theory is about affect-regulation (particularly emotional distress) and perceptions and attitudes about close relationships.
- Very high insecure attachment rates among perpetrators and victims of abuse.
- There are different types of insecure attachment so it allows for individual differences.
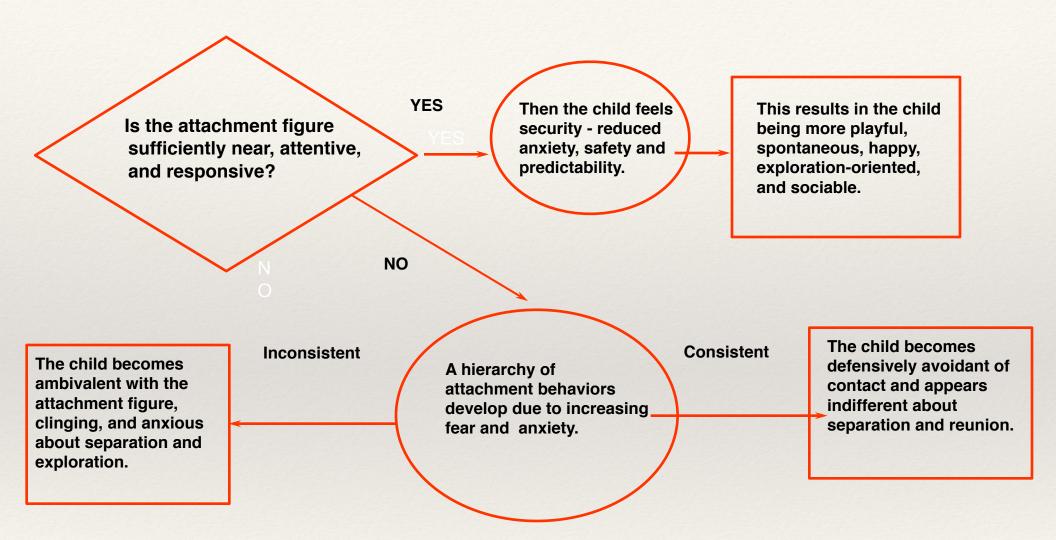
Attachment Theory in a Nutshell

❖ Attachment theory is a developmental life-span theory that attempts to explain how secure attachment develops and is maintained in infants/children and helps both children and adults survive temporary bouts of emotional distress and help them reestablish hope, optimism and emotional equanimity.

❖ It also explains how various forms of attachment insecurity develops and interferes with emotion regulation, social adjustment and mental health.

❖ According to Bowlby (1982), the development of an attachment orientation in childhood is based on many encounters and interactions with caregivers, which gradually create a mental network of relatively stable expectations and concerns.

The Development of Attachment

❖ Beginning in early infancy, an innate component of the human mind called the "attachment behavioral system" in effect asks the question: Is there an attachment figure sufficiently near, attentive and responsive?

❖ If yes, then certain emotions and behaviors are triggered, such as playfulness, less inhibited, visibly happier and more interested in exploration.

❖ If no, a hierarchy of attachment behaviors develop due to increasing fear and anxiety (visual checking; signaling to re-establish contact, calling, pleading; moving to reestablish contact. If the set of attachment behaviors repeatedly fails to reduce anxiety (get the caregiver to respond appropriately) then the human mind seems capable of deactivating or suppressing its attachment system, at least to some extent, and defensively attain self reliance. This leads to detachment

❖ If it's inconsistent the attachment behaviors described previously become exaggerated as if intensity will get the attachment figure to respond (which may or may not work). Like the dynamic between a gambler and the slot machine, the attachment figure will pay off or respond in sufficient frequency that the infant becomes preoccupied or anxious or hypervigilant about the attachment figure's availability.

The Development of Attachment

Is the attachment figure sufficiently near, attentive, and responsive?

YES

Then the child feels security - reduced anxiety, safety and predictability.

This results in the child being more playful, spontaneous, happy, exploration-oriented, and sociable.

NO

Inconsistent

Consistent

A hierarchy of attachment behaviors develop due to increasing fear and anxiety.

The child becomes ambivalent with the attachment figure, clinging, and anxious about separation and exploration.

The child becomes defensively avoidant of contact and appears indifferent about separation and reunion.

Continuum of Attachment

Down regulate   **Flexible**   **Up regulate**

A   B   C

Avoidant   **Secure**   **Resistant/Ambivalent**

Attachment Theory Concepts

❖ Attachment styles are not diagnoses, but descriptions of behavior patterns.

❖ Attachment patterns are very stable - 80% continuity over 30+ yrs.

❖ Attachment patterns are fairly predictable based on the parent's attachment status - ~70% predictability when assessed pre-birth.

❖ Attachment patterns help us get into the mind of others.

❖ Rates of secure attachment are fairly consistent cross-culturally.

❖ Attachment theory is in part based on ethology, the study of human/animal behavior and social organization from a biological perspective.

❖ Attachment to a stronger, wiser caregiver optimizes survival. The instinct to attach is built into the hardware of the species.

❖ It's not whether we attach or not, it's the quality of the attachment.

What's So Great About Attachment Security?

- **Children** with secure attachment engage in more elaborate make-believe play, display greater enthusiasm for tasks, are flexible and persistent in problem solving, have higher self-esteem, are socially competent, are cooperative with peers, are liked by peers, are empathic, have closer friendships and have positive social skills.

- **Adults** assessed as securely attached are happy, adaptively regulate their emotions, have stable close relationships, are flexible, are attuned to others, are compassionate, altruistic, and empathic, and more accepting of differences.

- **Parents** assessed as having secure attachment tend to imbue secure attachment in their children.

- **Couples** who are both assessed with secure attachment tend to seek out each other for comfort and caring, recognize signals for comfort and caring in their partner, provide comfort and care to their partner, accept comfort and caring from their partner when offered and utilize self-soothing skills when the partner is unavailable.

Attachment Theory and Affect

❖ Attachment theory may be thought of as a theory of affect regulation.

❖ If we think of regulating affect on a continuum from down-regulating to up-regulating:

❖ *Securely attached people are flexible and adaptable to the needs of the situation. They up-regulate or down-regulate depending on the demands of the situation.*

❖ *Insecurely attached people tend to either habitually down-regulate or up-regulate, regardless of the demands of the situation.*

❖ The narratives of securely attached adults (AAI), suggest that they are more conscious of their emotions, can represent them through language, and therefore maintain cognitive clarity and coherence.

❖ Insecurely attached adults tend to regulate their emotions in ways that dramatically decrease cognitive control and narrative coherence.

Attachment and Cognition

- The cognitive aspect of attachment (working models) refers to our beliefs about our own worthiness and the safety of others.
  - *"Am I the kind of person who is worthy of receiving care?"*
  - *"Can I trust that my attachment figure(s) will provide care when needed?"*
- These working models are developed and maintained through interactions with specific attachment figures in childhood and beyond (Priming).
- Working models are recalled automatically - primarily through implicit memory processes which guide thought and emotions and ultimately manifest in behavior.
- Attachment models may also be recalled and described explicitly, such as in psychotherapy or the Adult Attachment Interview.

What is Priming?

❖ Priming is a form of implicit memory where the exposure to one stimulus influences one's response to another stimulus

❖ For example: When primed with the word "NURSE" a person will more quickly unscramble the word: RTODCO

❖ Priming typically usually occurs without focused attention.

❖ Two classic priming experiments:

   ❖ *Mommy and I are One (Subliminal Psychodynamic Activation) (Silberman, 1985): Ameliorated symptoms of depression.*

   ❖ *Patience (Bargh, 1996): Reduced interrupting & rudeness*

Attachment and Priming

❖ Demands of the care-taking environment, throughout childhood, creates the context for the development of attachment patterns in children and these patterns persist into adulthood.

❖ Caregivers can be parents, grandparents, siblings and other care providers.

❖ These direct interactions prime and organize the developing brain.

❖ Priming can also occur as a result of observing the interactions of others - between caregivers and siblings and between caregivers.

❖ The child acts in ways that support and maintain caregiver behaviors.

❖ This mutual adaptation process can also occur in long-term adult relationships (pair bonds).

❖ The brain is very adaptive, but doesn't automatically distinguish between healthy and unhealthy adaptation - it just adapts.

Psychotherapy and Priming

❖ Psychotherapy is an encounter with someone with already-established and reinforced self/other expectations and affect regulation strategies.

❖ The therapist's interactions with the patient will either confirm/maintain or give the patient an experience that contradicts expectations/responses.

❖ Repeated interactions with the therapist may change working models and facilitate the development of new affect regulation strategies.

❖ Each interaction is an opportunity for the patient to reappraise working models or learn new affect regulation strategies.

❖ These repeated experiences can strengthen secure attachment neural circuits, build confidence in self/others and facilitate well-being.

Secure Base Priming

❖ Can people with insecure attachment, temporarily behave more like people with secure attachment when primed with secure base stimuli?

❖ Shaver and Mikulincer (2001): ***Attachment theory and Intergroup Bias: Evidence that Priming the Secure Base Schema Attenuates Negative Reactions to Out-Groups***

❖ They hypothesized that having a secure base could change how a person appraises threatening situations into more manageable events without activating insecure attachment type behaviors such as avoidance, fear, or preoccupation.

❖ Since then, they and other researchers have positively correlated secure base priming with increased self-esteem, compassion, altruism, mood, positive attitudes towards novel stimuli, reduced death anxiety, distortions of body image and decrease in symptoms of PTSD.

Priming Attachment Security

❖ Secure attachment schemas can be created/strengthened in people with insecure attachment through implicit (not-conscious) and explicit (conscious) methods (Mikulincer & Shaver, 2001).

❖ Successful methods include 1) Name of a security-providing attachment figure, 2) Words associated with the sense of security (e.g., love, hug, affectionate), 3. Images representing secure attachment, and 4) Guided imagery concerning the availability and supportiveness of real or imagined attachment figures.

❖ These techniques *temporarily* activate secure attachment mental representations and the positive emotions associated with them.

❖ Security priming has shown to increase: positive perceptions of self and others, pro-sociality, compassion, intergroup openness, and increased sexual intimacy. Priming has also been linked to reduced psychiatric symptoms.

Secure Base Priming Study

* How many priming experiences does it take to sustain the benefits of secure base priming?

* What does it take to change or establish a habit? Approximately 66 repetitions (18-254) (Lally, et. al, 2010).

* Brain asymmetry studies (Davidson, 2012) show that 60 days of meditation changes the relative activation of the PFC from right-dominant to left-dominant.

* Why can't SB Priming do the same?

Secure Base Priming Program

❖ *Daniel Sonkin & **Mayté Frías:** What is the effect of repeated SBP on attachment style, felt security and positive/negative affect?*

❖ **Domestic violence study**: Does repeated secure base priming reduce anger, negative attributions towards relationship partners and re-offenses during treatment?

❖ Priming reduces anger, relationship jealousy, negative relationship appraisals, anxiety, depression and increases empathy, altruism, openness to differences.

The Theory Behind the Experience

* Shaver and Mikulincer hypothesized that secure base priming could helps a person make more positive appraisals of potentially threatening situations (arguments).

* When we appraise situations in a positive way, we don't have to resort to insecure attachment type behaviors such as avoidance, fear, or anxiety, which can lead to anger, aggression and violence.

* Attachment behaviors are governed by the cognitive principles of schema availability (i.e., the presence in mind of cognitive representations of attachment relationships) and accessibility (i.e., the ease with which attachment representations spring to mind).

* These cognitive principles are closely intertwined. The more often a schema is activated, the more accessible it and its elements become in response to relevant environmental cues in the future. Because our brains like conserving energy, repeated emotions, thoughts and behaviors become automated.

* Attachment behaviors will be biased toward an individual's most well-rehearsed and therefore most chronically accessible attachment schemas. Hence the priming effects.

SECURE BASE PRIMES

Comfort

Embrace

Love

Support

Secure Base Guided Imagery

* Please think about a relationship you currently have or had in the past which you have found that it was relatively easy to get close to the other person and you felt comfortable depending on the other person. In this relationship you didn't often worry about being abandoned by the other person and you didn't worry about the other person getting too close to you.

* Now, take a moment and try to get a visual image in your mind of this person. What does or did this person look like? What was it like being with this person? You may want to remember a time you were actually with this person. How did you feel when you were with this person? How would you feel if they were here with you now?

* Please spend a few minutes thinking about the person you visualized and how they make/ made you feel safe, secure and comforted. (Bartz & Lydon, 2004; secure attachment prime)

* **If you are having difficulty identifying a relationship/person in this exercise, complete the following alternative exercise.**

* Imagine yourself in a problematic situation that you can not solve on your own, and imagine that you are surrounded by people who are sensitive and responsive to your distress, want to help you only because they love you, and set aside other activities in order to assist you.