Enhancing Attachment Security:
Clinical & Neurobiological Perspectives

Overview
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❖ Can repeated priming alter attachment style in a lasting way?

Attachment Theory in a Nutshell
❖ Attachment theory is an attempt to explain how secure attachment develops and how it helps people survive temporary bouts of pain, discomfort, doubts and distress and help individuals 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

Attachment Theory and Affect
❖ Attachment theory can 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
❖ Insecurely attached people tend to either habitually down-regulate or up-regulate
❖ Securely attached people tend to be more conscious of the ebb and flow of their emotions and can tell you how they feel
❖ Insecurely attached are less aware and therefore show you how they feel, but are generally not representing through language
Attachment and Cognition

- There is also a cognitive aspect to attachment (working models) that refers to our beliefs about our own worthiness and the safety of others (world is generally a benign place)
- “Am I the kind of person who is worthy of receiving care?”
- “Can I trust that my attachment figure will provide care when needed?”
- These working models are essentially based on memories created through interaction with attachment figures in childhood
- Those memories may be explicit - “My used to say....”
- Most attachment memories are implicit - learning through experience.
- Priming is one way affect regulation and working models of self and others are learned.

Secure Attachment and the Brain

- Bowlby believed that there was an "attachment-part" of the brain.
- Rather than a particular brain structure there are brain areas are functionally related to attachment emotions, cognitions and behaviors.
- Affective: cerebellum (positive affect) and post-central gyrus; middle temporal, inferior parietal areas (social emotion processing, and emotional experience)
- Cognitive: Medial and prefrontal cortex (higher order cognitive processes including attentional control, emotion regulation, and appraisal) and hippocampus (memory) and parietal lobe (social and sensory attention and processing)
- Behavior: Supplementary motor area and supramarginal gyrus (areas linking reward and motivation).
- Gillath (2012) found SB priming activates areas of the brain involved in the release of dopamine, vasopressin and oxytocin.

Priming and Memory

- 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 usually occurs without focused attention to learning - though it can occur through this means as well
- Two classic priming experiments:
  - Mommy and I are One (Subliminal Psychodynamic Activation) (Silberman, 1985): Ameliorated symptoms
  - Patience (Priming) (Bargh, 1996): Reduced interrupting & rudeness

Psychotherapy and Priming

- Unlike parenting, where we are starting with unestablished models, psychotherapy involves an encounter with someone with already established and reinforced expectations about self and other
- The therapist interactions with the client will either confirm or not confirm expectations
- Repeated interactions may contribute to the restructuring of the self-other models, as well as the development of new affect regulation strategies
- Attuning to the clients signals is critical to this process so that the client has the opportunity to experience the healthy seeking of proximity to an attachment figure for alleviation of distress, the reestablishment of emotional equanimity and then being able to move on to other activities knowing they can either return or self-soothe via the mental representation of the therapist
- Repetition strengthens the secure attachment neural circuits in the brain
Secure Base Priming

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

Semantic Networks & Nodes

❖ “The idea behind both subliminal and supraliminal priming manipulations is that stimuli associated with a sense of security enters a semantic network and creates a process of spreading activation that touches upon affective as well as semantic nodes, thereby creating a sense of security similar to that which might be evoked by supportive attachment figures.”
❖ A semantic network is a set of traces, concepts or nodes that are linked or related to one another to create a coherent knowledge set.
❖ Bird may include the mental image of: wings, can fly, feathers and may even be connected to other nodes, such as chicken or eagle
❖ Secure attachment may include - mother, holding, safety, love, affection....
❖ Insecure attachment may include - mother, distant, smothering, anxious....
❖ Semantic networks are typically semantic (descriptive) as well as affective

Schemas: Availability & Accessibility

❖ “Attachment style activation and application are governed by 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 an available schema is activated, the more accessible it and its elements become in response to relevant environmental cues in the future.
❖ Global attachment style represents an individual’s most well-rehearsed and therefore most chronically accessible attachment style.
❖ Information processing will be biased by whichever schema is activated at a given point in time—hence the priming effects.”

What’s So Great About Attachment Security?

❖ Children: Engage in more elaborate make-believe play, display greater enthusiasm for tasks, are flexible and persistence 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 better social skills.
❖ Adults: 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.
❖ What’s not to like?
❖ So how can be boost attachment security in adults?
The sense of attachment security can be primed into people with insecure attachment using implicit (not-conscious) or explicit (conscious) methods.

Successful methods include 1) Name of an 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 attachment figures.

These techniques temporarily activate secure attachment mental representations and the support and comfort associated with them (e.g., secure IWMs).

Security priming has been shown to lead to temporary changes in: 1) positive perceptions of self and others, 2) pro-sociality, 3) compassion, 4) intergroup openness, and 5) improved mental health (reduced anxiety, PTSD symptomology, etc).

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 show that 60 days of meditation changes the relative activation of the PFC from right-dominant to left-dominant

Cogmed Working Memory Training has robust effects after 20 sessions (5 days a week over four weeks)

What are the effects of SBP on attachment style and mood over time?

Need to agree to participate in research study to use exercises

It is not psychotherapy or counseling or a medical intervention - but rather a brain-training exercise

Fill out a brief demographic questionnaire

Pre-tests: ECR-Short (12 items) and WHOTO

Each training day is a pre-mood and post mood scale

One priming exercise a day

Words, Images, Guided Imagery Exercises
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.

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

- Imagine yourself in a problematic situation that you cannot 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.

Secure Base Priming Program

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