

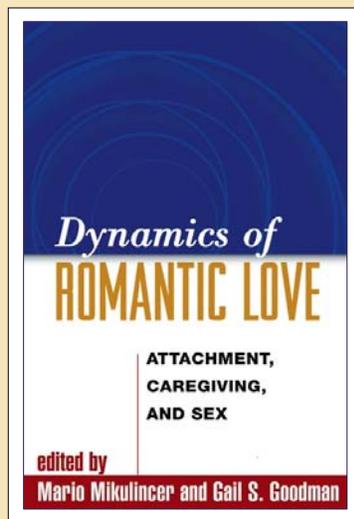
# How Do I Love Thee?

## A Psychological Perspective Based on Attachment Theory

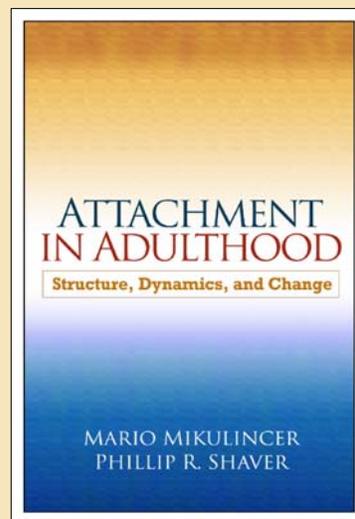
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This part of the lecture is based  
on two recent books:



2006



2007

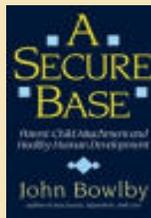
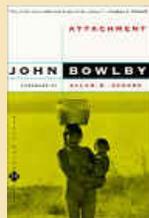
## **In this part of the lecture, I'll shift analytic levels:**

- Dr. Carter focused mainly on the brain and on hormones and neurotransmitters
- She relied mainly on animal models (biology)
- I'll focus mainly on thoughts, feelings, and behavior (psychology)
- relying mainly on studies of people
- But underlying my work are some of the same peptides, emotions, and brain processes . . .
- supplemented by more complex cognitive and emotion-regulation processes (e.g., perceptions of a partner's trustworthiness; defenses such as suppression and denial of feelings)



## **Bowlby and Ainsworth's attachment theory**

Created by John Bowlby, a British psychiatrist, to explain why "maternal deprivation" so often leads to anxiety, anger, delinquency, and depression



Bowlby published five major books between 1969 and 1988

## **Bowlby and Ainsworth's attachment theory**

Bowlby's theory was first tested on human infants and their mothers by Mary Ainsworth, an American psychologist, and her colleagues (whose major book appeared in 1978)



She invented a laboratory procedure, the Strange Situation, to assess the quality or style of a human infant's "attachment" to its mother (or other primary caregiver)

## **Harlow's monkeys and Ainsworth's "Strange Situation"**



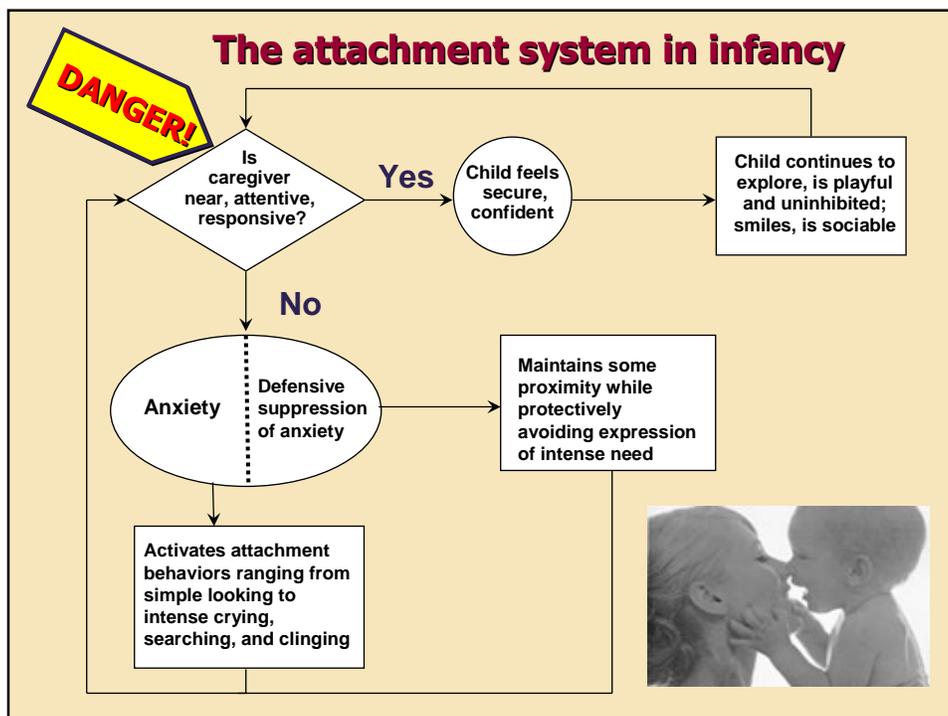
**Secure attachment facilitates exploration; insecure attachment interferes with it, especially under stressful conditions**



## Attachment theory simplified



- Human beings, especially children, rely on attachment figures (human “safe havens”) to protect them from danger and help them cope with threats and dangers
- The attachment behavioral system is an evolved, innate regulator of proximity (hence of safety, security, and emotion-regulation), focused on a few “attachment figures”
- When threats abate, other behavioral systems are activated – exploration (curiosity), caregiving, sex (reproduction) – via the “secure base” effect
- Several patterns of infant attachment have been studied, especially: **secure**, **anxious**, and **avoidant**



## Patterns of infant attachment behavior in the Strange Situation (Ainsworth)

- **Secure:** Confident that parent is available and responsive. Exploration-oriented, emotionally positive. Soothes easily. Exhibits early empathy and ability to talk about emotions. (**Documented origin:** sensitive, empathic parental caregiving; coherent parental discussion of emotions)
- **Anxious:** Cries a lot, anxious, angry. Lacks confidence that parent is accessible and responsive. Inhibited exploration. Attachment behavior is too readily activated. (**Documented origin:** parental anxiety, uncertainty, inconsistency, intrusiveness, parental self-concern, misperception of child's needs and signals)
- **Avoidant:** Cries little during separation and actively avoids parent upon reunion. Engages in rigid, displaced exploratory activity, "turning to the neutral world of things without the true interest of exploration." (**Documented origin:** parental rejection, lack of warmth, discomfort with child's dependency, negative emotions, and desire for close physical contact)

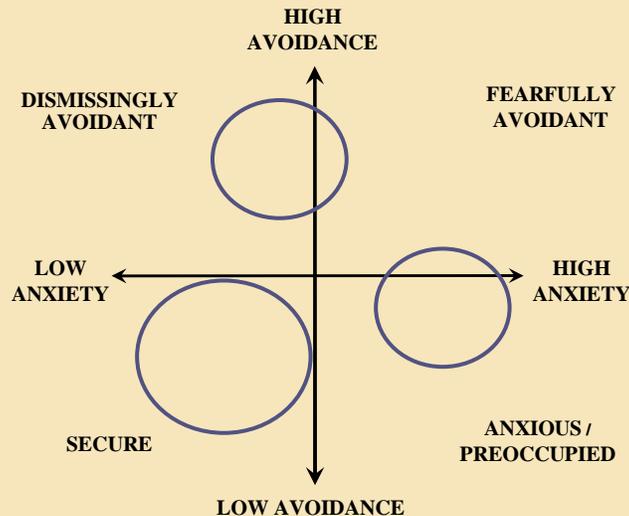
## In 1987, using a simple questionnaire, we assessed adult attachment patterns in romantic relationships

\_\_\_ I find it relatively easy to get close to others and am comfortable depending on them. I don't often worry about being abandoned or about someone getting too close. (**Secure, 55% of college students and adults in general samples**)

\_\_\_ Relationship partners are reluctant to get as close as I would like. I often worry that my partner doesn't really love me or won't want to stay with me. I want to get very close to my partner, and this sometimes scares people away. (**Anxious, 20%**)

\_\_\_ I'm uncomfortable being close to others; I find it difficult to trust them completely, difficult to allow myself to depend on them. I'm nervous when anyone gets too close, and relationship partners often want me to be more intimate than I feel comfortable being. (**Avoidant, 25%**)

**The adult attachment patterns are regions in a continuous two-dimensional space**



**We now measure adult attachment patterns using two continuous 18-item scales**

**Avoidance** (samples from 18 items)

1. I prefer not to show how I feel deep down.
2. I try to avoid getting too close to my partner.
3. I turn to my partner for many things, including comfort and reassurance. (reverse-scored)

**Anxiety** (samples from 18 items)

1. I rarely worry about being abandoned. (reverse-scored)
2. I need a lot of reassurance that my partner loves me.
3. I resent it when my partner is away from me.

## **Longitudinal studies show . . .**

- Probably for some of the biochemical reasons Dr. Carter discussed, children and adults attach to people who relieve their anxiety; they prefer consistently sensitive, responsive attachment figures, but will settle for less if necessary
- A child's attachment style (location in the two-dimensional space) persists over time if relationships with parents are stable, and this style then influences other relationships
- The pattern can change if important relationships or partners change (e.g., if a person finds a security-enhancing relationship partner or loses one through death or divorce)
- Change is also possible through deliberate therapeutic interventions (and in short-term experiments, as I'll show)
- In other words, there is both **stability** and **plasticity** in attachment patterns, and the reasons for both stability and change are primarily social

## **Recent brain imaging studies show . . .**

- When adolescents or adults "fall in love," they often go through distinct phases, with the initial one marked by high anxiety, excitement, and intense sexual attraction (and high cortisol, dopamine, opiates, and immune factors).
- These manifestations gradually subside as "attachment" takes over, possibly through the biochemical processes Dr. Carter discussed (e.g., oxytocin, vasopressin).
- When a shock-threatened woman (in an fMRI scanner) holds the hand of a kind man, her fear (measured in the brain) subsides, but not as much as when she holds her husband's hand.
- The more secure her relationship with her husband, the more her fear is reduced by holding his hand (as with babies and their attachment figures).
- When adults who are in love look at a picture of their beloved, the pattern of brain activation is similar in some ways (but not all) to a mother looking at a picture of her baby.

### **Sample research findings from adult attachment studies: The avoidant pattern**

- less invested in close relationships (lower interest and commitment, less communication with partner)
- worse at noticing and decoding a partner's facial expressions
- expresses less grief following losses and breakups
- doesn't use touch to communicate affection or intimacy
- more favorable toward short-term, uncommitted sex
- fantasizes about someone other than current sexual partner
- withdraws rather than helps when partner is distressed (is poor at caregiving)
- often feels bored and distant during social interactions (according to daily-diary studies)
- doesn't like to self-disclose and doesn't approve of others who self-disclose
- less likely to forgive a partner's transgressions; less likely to feel grateful when benefited by the partner

### **Sample research findings from adult attachment studies: The anxious pattern**

- deeply invested in relationships, yet experiences many breakups and losses (because of conflicts and misunderstandings, as well as poor partner choice)
- handles conflicts poorly; more likely to become (violently) angry
- grieves intensely following loss, has trouble achieving resolution
- is afraid romantic partner will leave; uses sex to maintain a partner's interest and availability
- worries about others' disapproval during daily interactions
- self-discloses too much and indiscriminately, wants to get close too quickly
- tends to be vigilant about partner's whereabouts, easily becomes jealous
- is an intrusive, over-involved caregiver
- has difficulty leaving dissatisfying (even abusive) relationships, because of worrying about being alone and unloved

## **The attachment system can be experimentally activated in adults**

- Subliminal (very fast) exposure to threatening words (e.g., failure, illness, death) results in greater mental access to attachment-related mental processes – for example, quicker recognition of attachment-related words (love, hug, secure, close)
- Secure people activate positive but not negative attachment concepts under these conditions; anxious people activate both positive and negative concepts; avoidant people activate both, but the negative ones only when a “cognitive load” is added
- In other words, avoidance seems to require effortful mental suppression, which can be disrupted

## **More about attachment-system activation**

- Subliminal presentation of a threatening word (e.g., failure, separation) increases mental access to attachment figures’ names, but not to the names of other familiar people; attachment figures are psychologically special as primary stress reducers
- Attachment anxiety (as measured with the questionnaire I mentioned earlier) correlates with faster mental access to attachment figures’ names, regardless of threat (anxious people’s attachment system is always “on”)
- Avoidant attachment correlates with slower access to attachment figures’ names (indicating inhibition or defensiveness) when the subliminal threat word is “separation,” but not when it is “failure” (so the suppression seems to be attachment-specific)

## Coping with loss or separation



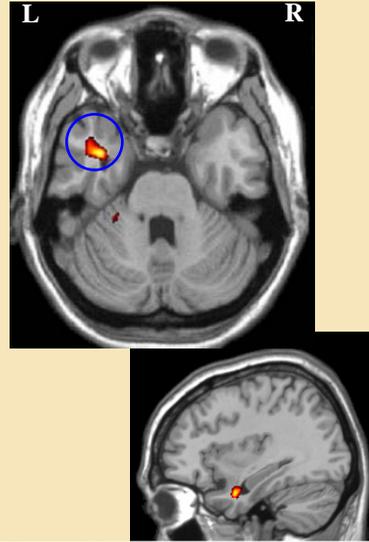
- Loss of an attachment figure, such as a parent, romantic partner, or spouse, is distressing for people of all ages
- Attachment behaviors (crying, searching, clinging to reminders of a lost figure) are natural responses to loss, which probably evolved (biologically) because they increased the likelihood of reuniting with a temporarily absent person (the attachment system doesn't "know" about permanent losses)
- Attachment anxiety and avoidance modify reactions to loss and methods of coping with thoughts of loss

## Research on reactions to loss

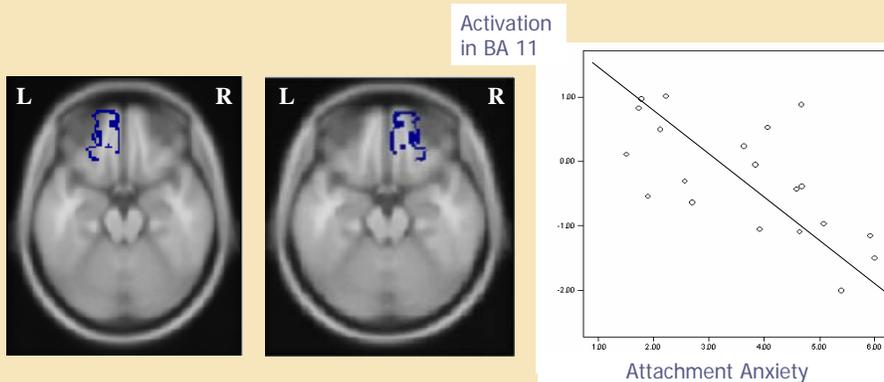
- We have conducted several studies in which we asked couple members, first, to think about coming home and learning that their partner was leaving them for someone else. Then, after 10 minutes, to "stop thinking about that."
- Most people displayed increased skin conductance (emotional, autonomic arousal) when thinking about the loss, but when asked to "stop thinking" about it . . .
  - secure and avoidant individuals were able to do this, and their skin conductance levels declined accordingly
  - anxious adults found it difficult to turn off the painful thoughts, and their skin conductance levels remained high . . . But why, exactly?

**Attachment anxiety correlates highly (.74) with activation in brain regions related to negative thoughts and memories**

For example, it correlates with activation in the anterior temporal pole, parts of the amygdala, and areas in the hippocampus, which in previous studies have been related to recalling sad, frightening, or angry memories and to preparing a reaction to dangers and threats



**Attachment anxiety is negatively associated with activation in a frontal brain region (BA 11) in both hemispheres (-.60)**



Along with the previous slide, this indicates that people who score high on attachment anxiety have stronger emotional reactions to loss and greater difficulty controlling them.

## **What happens when avoidant defenses break down?**

- If avoidant people are especially defensive about losses and breakups, their defenses should be harder to maintain under a “mental load” (either cognitive or stress-related)
- We reran our “don’t think” studies, but this time using a word-availability measure of loss-related and self-related words
- We found again that avoidant individuals could suppress loss-related thoughts and exaggerate their own positive traits, but under a “load” they performed more like anxious people – reacting intensely to loss-related words and to their own negative traits.
- In real-world studies, we find that avoidant defenses crack under sustained pressure (divorce, birth of a seriously handicapped child, military trauma)

## **Can a person’s sense of security be strengthened?**

- Yes, people who become involved with a secure partner, a good therapist, or a good leader show measurable signs of increased security, and the effects can be long-lasting
- As a person’s attachment style gradually changes toward greater security, he or she behaves better in relationships and has better mental and physical health
- People perform better at work under the leadership of a security-enhancing manager or leader (even in the military)
- They are better able to explore and articulate their own feelings and wishes and be more creative and cooperative
- Related short-term shifts can occur even from brief “security priming” (e.g., reminding a person of past security-enhancing experiences), which made us wonder whether this effect might be extended even more broadly, beyond romantic and family relationships

## **Some proven short-term methods of bolstering security:**

- **Subliminally** presenting the names of a particular person's security-enhancing attachment figures (usually parents, close friends, lovers/spouses, or therapists, but also religious figures, such as God or the Virgin Mary, if a person believes in them and views them as loving)
- This is similar to an ancient (but **supraliminal**) Buddhist meditation technique (meditating on how your mother loved you and then focusing this kind of love on others)
- **Subliminally** presenting words related to security, such as love, hug, affection, safety, security, warmth, caring
- Using **conscious** guided imagery ("Think of a time when . . .") to evoke thoughts, memories, and images of secure love
- Showing pictures that evoke feelings of warmth, affection, gratitude, or love (e.g., Picasso's drawing of a mother and baby, a picture of a loving couple seated on a park bench)

## **Proven results of short-term security boosts (not produced by simple positive emotion)**

- A more positive mood that transfers to neutral stimuli, especially if encountered under stressful or anxiety-provoking conditions
- Greater empathy, compassion, and altruism – even if helping another person requires suffering oneself
- Greater tolerance of out-group members, greater willingness to befriend or assist them
- Reduction in hurt feelings, less readiness to perceive others as dangerous or ill-intentioned, thus making it easier to approach, assist, and/or forgive them
- Greater interest in a long-term rather than a short-term sexual relationship
- Reduced distortion of body image in patients with eating disorders; reduced PTSD symptoms following traumatic experiences
- In most cases, these benefits occur regardless of dispositional attachment style, suggesting that they can benefit anyone who undergoes security enhancement

## Conclusions and points for discussion

- Humans, like some other mammals, are “built” (by evolution) to attach to close relationship partners – in the human case including partners of different kinds (parents, lovers, marital partners, close friends, organizational leaders)
- We have an increasing understanding of how attachments “work” – much more than we can cover tonight – and one of the mediators is oxytocin, as Dr. Carter explained
- Unfortunately, attachments can be insecure, and when they are, this damages a person’s relational behavior and psychological and physical health in many ways
- Fortunately, research is revealing both short- and long-term methods for bolstering people’s sense of security, suggesting that insecurities can be reduced or overcome
- When they are, the whole world benefits, not just the secure individual, but all of his or her associates, because a secure person is more loving, trusting, cooperative, and altruistic than an insecure one; this suggests an alternative, or at least a supplementary, approach to “homeland security”



**THE END**

**Thanks! Happy  
Valentine’s Day**

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