## Attachment theory: Bowlby (1969/1982) and Ainsworth (1982)

### Attachment hierarchy

- When children are in need, they prefer to turn to specific figures, rather than others, to seek closeness, comfort, and security (attachment behaviors).
- Even within the select group of figures, the attachment preferences are organized in hierarchies; i.e., there are stronger preferences for some attachment figures than for others.
- The outcome of evolutionary processes

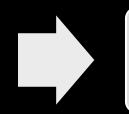
### Evolutionary Survival Mechanism (Bowlby, 1969/1982)

- What makes children survive?
  - Food & warmth
  - Attachment with caregiver
    - Survival: predators
  - Learn about the environment
    - Survival: learning
- All infants are attached to their caregivers.
  - Example: shopping mall

## Evolutionary Survival Mechanism (Harlow's monkey study)

- https://youtu.be/OrNBEhzjg8I
- According to Harlow:
  - Baby monkey feels great level of security in the presence of mother.
  - If baby monkey is frightened, it is running to the mother with being comforted, and then all fear disappeared and replaced by all senses of security.
  - Contacting the mother changes entire baby's personality.
  - Then, baby monkey explores and investigates new strange world. He can become normal happy and curious baby.
  - That may be baby's love with its mother.
- See the infant-mother Strange Situation: <u>https://youtu.be/QTsewNrHUHU</u>
  - Evidence: similarities between monkey baby and human baby are due to outcomes of evolution.

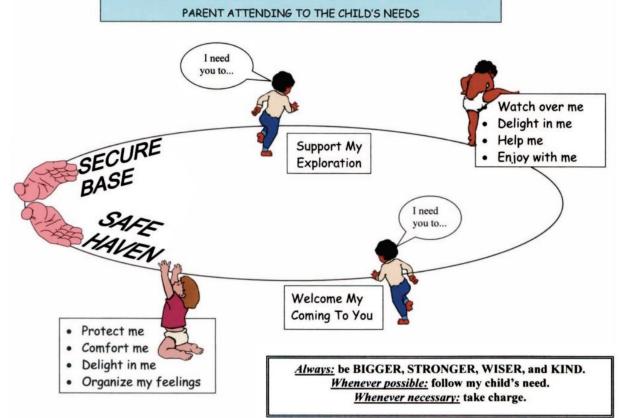
## **Sensitive mom**



# Secure baby

Sensitive mother:

- Recognizes signals and needs that child is giving.
- Accepts baby's emotional needs.
- Responds to child's signals and comfort the child
- Helps child's exploration.
- Available when the child emotionally needs her.

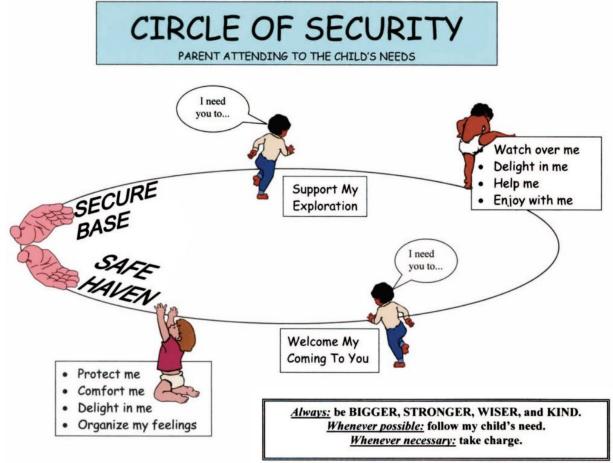


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## Secure-base behavior

- Baby's behavior to use mother as a secure base from which to explore the world is called "secure-base behavior"
  - See video of securebase behavior in monkey and toddlers



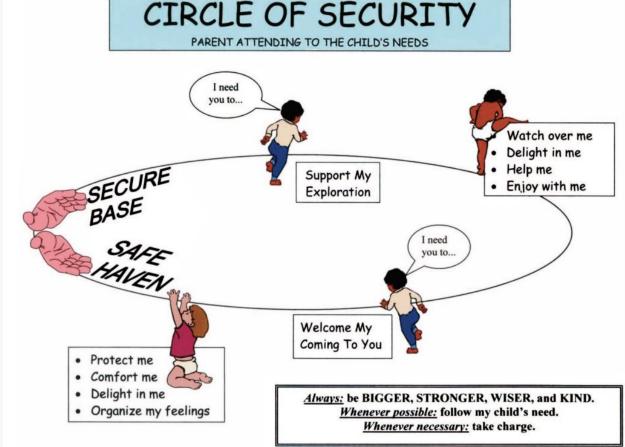
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### Infant-Mother Attachment Classifications

- Secure attachment (more than 60-70%)
  - Seek contact, proximity and interaction
  - Often try to maintain physical contact
  - Soothed by parents and return to play

## Insecure attachment (less than 30-40%)

- Avoid and ignore parents (avoidant)
- Resist contact (resistant)
- Purposeless (disorganization)



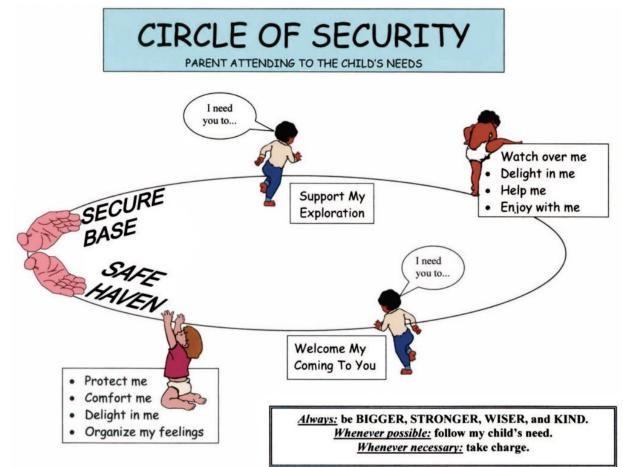
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## Secure attachment in adolescence

Secure adolescents trust their parent's availability when children need them.

 "My parents are always there and I feel I can always go to them and they always say something that will make me feel better."

(17-year-old girl)



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## Evolutionary Survival Mechanism (Bowlby, 1969/1982)

- What makes children survive?
  - Food & warmth
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    - Survival: predators
  - Learn about the environment
    - Survival: learning
- All infants are attached to their caregivers.
  - Example: shopping mall
- To maximize the chance of survival, children adapt their relationships with their parents
  - Sensitive mother -> secure baby
  - Insensitive mother -> insecure baby

### Attachment preferences during toddlerhood

(Umemura, Jacobvitz, Messina, & Hazen, 2013)

- Research question: With whom do toddlers prefer to seek comfort in mother-father-child triadic contexts?
- Two competing hypotheses from attachment theory
  - To enhance the chance of survival, a child prefers the primary caregiver over other caregivers when distressed (Bowlby, 1969/1982).
  - A caregiver's ability to comfort the child is related to the child's ability to seek comfort and recover from distress in later life (e.g., Ainsworth et al., 1978).
  - The primary caregiver vs. the better caregiver?
    - Parent who is the primary caregiver
    - Parent who has a secure relationship with the child

# Method

- Participants (Austin Parent & Partner Study)
  - 125 mothers, fathers, and 24-month toddlers in Austin
  - Race
    - 83% non-Hispanic White
    - 3% non-Hispanic Black
    - 6% Hispanic
    - 8% Other
  - Family income
    - 20% less than \$30,000
    - **32%** \$30,001 \$45,000
    - **25%** \$45,001 \$60,000
    - 22% more than \$60,000
  - Maternal age
    - M = 29.3 years (Range: 17 to 42) when female participants were in trimester of pregnancy.

# Method

#### Measures

#### Infant-mother and infant-father attachment security

- Observed at 12 and 15 months
- Mother's and father's time spent with the child at 24 months
  - Parents jointly completed their child's weekly schedule by indicating the hours the child spent each day from 6am to 11pm.

#### • Mother's and father's involvement in caregiving activities at 24 months

 Parents independently rated how often they involved in 6 caregiving tasks: awake child, dress child, supervise child, bath child, put child to bed, and look after child when sick.

#### Toddler's preference to seek comfort

- Observed at 24 months
- 30-minute observation during mother-father-child triadic interactions
  - The number of interactions infants initiated to mother or father when they were distressed
  - The number of interactions infants initiated to mother or father when they were content (comparison)

# Method

### (mother-father-child triadic interactions)

### Examples for child use mom as the secure base

- #85 3:00 (a little upset)
- #85 4:10 (not upset)
- #104 0:00 (not upset)

### Examples for preference for mom

- #004:
- 2:00 (dad offers comfort)
- 3:20 (dad: "I can hold you") (daughter: "mama")
- 4:40 (daughter gives snack to dad)
- 5:00 (dad: "I will get another napkin")
- #049:
- 11:20 (son falls down)

# Examples for father's rough-and-tumble play (father-child activation relationships)

- #088 15:00
- #104 7:00

- Outcome variable:
  - The number of interactions infants initiated to mother vs. father
- Independent variables:
  - Parent's sex (mother = 1 / father = 0)
  - Primary caregiver status
    - Primary: parent who spent more time and had more caregiving involvement
    - Secondary: parent who spent less time and had less caregiving involvement
    - Unclear: parent who either spent more time or had more caregiving but not both
    - (primary = 1 / secondary or unclear = 0)
  - Attachment security (secure = 1 / insecure = 0)
- Control variable:
  - Duration of negative or positive emotion

GEE analyses regressing toddler-initiated interactions with parents when toddlers express negative emotion

		ler-initiated interac		
	Mode	11		
Variables	В	(SE)		
Intercept	-0.38	-0.34		
Duration of negative emotion	0.54 ***	-0.15		
Parent's sex	0.59 **	-0.19		
Primary caregiver status				
Attachment security	-0.15	-0.23		

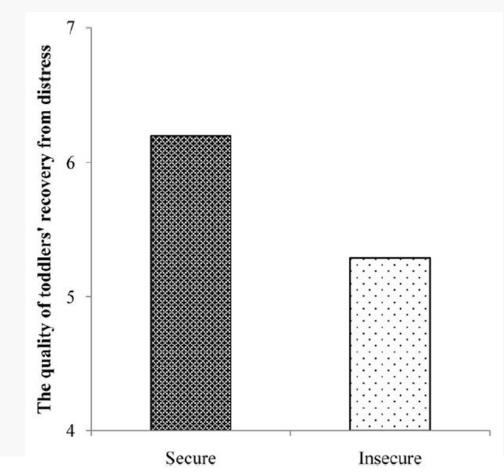
\*\**p* < .010. \*\*\**p* < .001 (Mother =1; Father =0)

GEE analyses regressing toddler-initiated interactions with parents when toddlers express positive emotion

	Toddler-initiated interactions during positive emotion				
	Mode	Model 1		Model 2	
Variables	В	(SE)	В	(SE)	
Intercept	1.26	-0.13	-0.06	-0.26	
Duration of positive emotion	0.18 ***	-0.03	0.25 ***	-0.03	
Parent's sex	-0.03	-0.02	0.29	-0.19	
Primary caregiver status			-0.47	-0.26	
Attachment security	0.1	-0.12	0.02	-0.19	

\*\*\**p* < .001

*Toddlers' recovery from distress was predicted by their security of attachment with the parent whom they approached when distressed.* 



## Conclusions

- Distressed toddlers prefer their primary caregiver or mother, independent of their attachment security.
- Implications: Promoting secure attachment with the primary caregiver (not the secondary caregiver) is important for children in the triadic family context.
  - Attachment-based interventions (e.g., Marvin, Cooper, Hoffman, & Powell, 2002; Dozier, 2003).

I am wondering why do toddlers continue to prefer the primary caregiver in case of distress even if this contact never results in successful recovery from the stress (due to the insecure attachment)? The primary caregiver is obviously not very helpful in fulfilling the child's emotional needs and helping them recover from distress. Therefore I would expect the child to learn from this experience and after trying couple times and still not getting the soothing and recovery it was expecting to gain from this interaction, I would expect the toddler to start looking for some other person which would be more successful in meeting his or her needs (e.g. the father, if mother was the primary caregiver).

You and your colleagues found that toddlers seek their mothers in times of distress even when they are insecurely attached to them. You clarify that it doesn't lessen the importance of attachment and attachment interventions. I wonder if a secure attachment with father may have a buffering effect on the child in such situations. I would also like to know – do fathers to whom children are securely attached play an important role in the attachment interventions?

Umemura et al. (2013) suggests that it might be possible that children are biologically predisposed to prefer the mother over the father. Would this possibility mean, that children prefer all females? For example sister over brother.

- Is the any difference between babies, whose primary caregiver is father and whose primary caregiver is mother?
- In this study was written that the combination of the parent's greater time spent with the child and greater involvement in caregiving tasks (e.g., awaking child, dressing child, supervising child at home, bathing child, putting child to bed, and looking after child when sick) predicted the child's preference for that parent even after controlling for parent gender. I was wondering if children whose spend more time with father are different of children from classical families where are mother the primary caregiver.