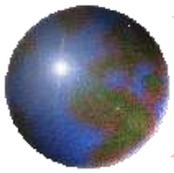


# **Attachment to Human and Nonhuman Attachment Entities Across the Lifespan**

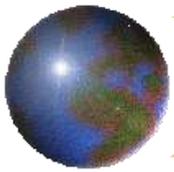
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# *Traditional Attachment Theory*

- ❖ Mainstream attachment theorists (e.g. Ainsworth et al., 1978) focused on an infant's attachment to a caregiver
  - ❖ Typically the mother
- ❖ Since then, the paradigm has begun to be stretched in a variety of ways
  - ❖ Attachment of older children to their caregivers or parents
  - ❖ Romantic attachments (Hazan & Zeifman, 1999)
  - ❖ Attachments to objects such as pacifiers (Passman & Adams, 1982) or security blankets in infants or young children (Mahalski, 1983; Mahalski, Silva & Spears, 1985)
  - ❖ Attachments to pets (e.g., Jarolmen, 1998; Sable, 1995)



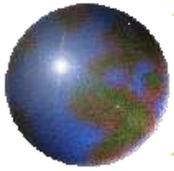
## *Moral Attachment*

- ❖ Kohlberg (e.g. Kohlberg & Diessner 1991) also recognized two things not often part of this mainstream attachment literature
  - ❖ Attachment and moral attachment are applied to individuals beyond parents
    - Such moral attachments may be applied to peers or teachers, and even groups or communities
  - ❖ Moral attachment develops in stages
  - ❖ Attachment is a lifespan construct, not limited to one or a few ages
- ❖ The current research combines ideas from these two different research traditions by:
  - ❖ Looking at attachments to a variety of different entities
  - ❖ Relating the kinds of attachments that are seen to developmental changes (including stage of development)



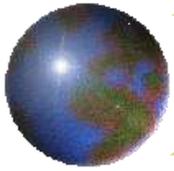
# Research Plan

- ⊕ The current study compares the attachments of 8 to 10 year old children to those of adults
- ⊕ Children and adults were interviewed about losses of “Things that they cared about”
- ⊕ Participants either spontaneously spoke or were asked about losses of:
  - ⊗ People
  - ⊗ Pets
  - ⊗ Objects
  - ⊗ Places
  - ⊗ Events
  - ⊗ Abstract entities (“ideals”)



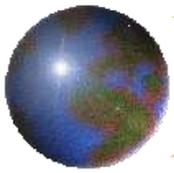
# Questions

- What is the relationship between attachments to people and attachments to other entities?
  - Are attachments to other entities based on an individual's original attachment to the mother?
    - The traditional attachment literature suggests the basis for later attachments is
      - An infant's attachment to its mother
    - Is there evidence that attachments to other entities, as a rule, are less significant than those to humans?
    - Given the importance of relationships with other humans for survival of the species,
      - It is predicted that attachments to nonhuman entities would be less significant



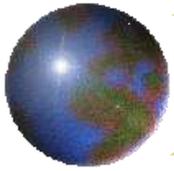
# *Developmental Differences*

- ⊕ Traditional attachment theory has emphasized continuity much more than discontinuity
  - ⊕ That is, if infants are securely attached, then they are expected to show continuing security of attachment as they develop
    - They may also show more adaptive functioning in other areas
- ⊕ As a result, the study of developmental changes in attachment has been neglected
- ⊕ Here, we are comparing children and adults and are specifically interested in developmental changes
- ⊕ A useful framework for thinking about developmental change:
  - ⊕ The Model of Hierarchical Complexity



# *What areas might develop?*

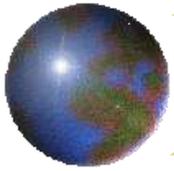
- ❖ Commons (1991) suggested several aspects of attachment that will change with development:
  - ❖ Attachment processes – the ways by which people become attached
  - ❖ Perspective-taking – how accurately behaviors of others are discriminated and understood
  - ❖ Attachment objects – what kinds of entities do individuals become attached to
  - ❖ Outcome values – how are different outcomes of an individual's behavior valued
  - ❖ Response patterns – what kinds of behaviors exist in an individual's repertoire
- ❖ In the current paper, we will be presenting data on how attachment objects might change with development



# Method

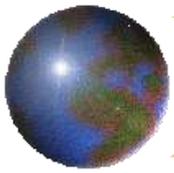
## *Participants*

- ⊕ 18 participants were children (9 girls and 9 boys)
  - ⊞ Mean age = 8.38 years, *S.D.* = .70
    - Most were 8 or 9 years of age; there was one 10 year old
  - ⊞ Children were recruited from summer camp and school programs in the Boston and Cambridge, MA areas
  
- ⊕ 22 participants were adults (13 female and 9 male)
  - ⊞ Mean age of 30.52, *S.D.* = 10.38. range 18 to 60
  - ⊞ Adults were recruited from a variety of settings
    - But a large subset of them were graduate students and employees of a large private university in the Northeast of the U.S.



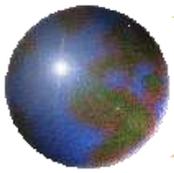
# *Interview Procedure – Part I*

- ⊕ Participants were interviewed
  - ⊕ Using a combination of open-ended and closed format questions
- ⊕ First participants were asked to give a definition of what it means to “care” for something
- ⊕ Then participants were asked:
  - ⊕ “Sometimes a person or a thing that you care for might go away or get lost.
  - ⊕ Has that ever happened to you?
  - ⊕ Can you tell me about that?”
- ⊕ Participants were encouraged to remember as many losses of “cared for entities” as they wanted to bring up
- ⊕ The interviewer then asked about specific entities the participant had not mentioned



## *Interview Procedure – Part II*

- ⊕ The participant was asked
  - ⊞ “Which of these losses was the most important?”
    - In other words, which was the greatest loss?”
- ⊕ They were also asked to talk about losing a person and an object if they had not done so already
- ⊕ In the case of each of these entities they were encouraged to discuss what happened and what their emotions were
  - ⊞ Emotional reactions were also scaled on an intensity scale
- ⊕ Participants were explicitly asked
  - ⊞ Whether caring for an entity was related to their caring for any other entity, and
  - ⊞ Whether the lost entity could be replaced with a substitute of some kind



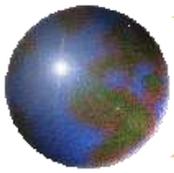
## *How many of each object?*

	<b>Children</b>	<b>Adults</b>	<b>Total</b>
People	1.44 (1.15)	2.29 (1.06)	1.90 (1.17)
Objects	1.50 (1.20)	1.29 (.96)	1.38 (1.07)
Abstract Entities	.61 (.78)	1.67 (2.15)	1.18 (1.73)
Pets	.94 (.64)	.86 (.79)	.90 (.72)
Places	.33 (.49)	.71 (.78)	.54 (.68)
Games/Events	.78 (.65)	.33 (.66)	.54 (.68)



## *Were attachment entities mentioned with significantly different frequencies?*

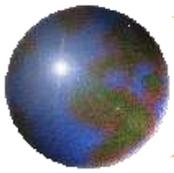
- ⊕ With *attachment entity* as a repeated measures factor and *child vs. adult* as a between subjects factor,
  - ⊕ The mean number of times that the six types of attachment entities were reported significantly differed,  $F(5, 185) = 11.638$
- ⊕  $p < .0001$ ;  $\eta = .49$  a moderately large effect size (Rosenthal & Rosnow, 2001)
- ⊕ The pattern of such differences was calculated using post-hoc t-tests and is shown in Table 2



# Comparisons

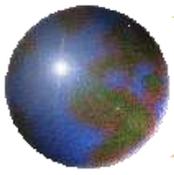
## Bonferroni Corrected $p$ 's

People > objects	$t(38) = 2.24, p < .031$	<i>ns</i>
People > abstract	$t(38) = 2.74, p < .009$	<i>ns</i>
People > pets	$t(38) = 4.60, p < .0001$	$p < 0.015$
People > places	$t(38) = 6.59, p < .0001$	$p < 0.015$
People > events	$t(38) = 6.93, p < .0001$	$p < 0.015$
Objects > abstract	<i>ns</i>	<i>ns</i>
Objects > pets	$t(38) = 2.47, p < .018$	<i>ns</i>
Objects > places	$t(38) = 3.92, p < .0001$	$p < 0.015$
Objects > events	$t(38) = 4.56, p < .0001$	$p < 0.015$
Abstract > pets	<i>ns</i>	<i>ns</i>
Abstract > places	$t(38) = 2.56, p < .015$	<i>ns</i>
Abstract > events	$t(38) = 2.51, p < .017$	<i>ns</i>
Pets > places	$t(38) = 2.34, p < .025$	<i>ns</i>
Pets > events	$t(38) = 2.66, p < .011$	<i>ns</i>
Events > places	<i>ns</i>	<i>ns</i>



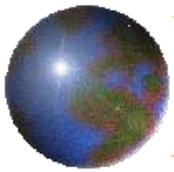
## *Were Children And Adults Different?*

- ⊕ There was no significant main effect of age category (child versus adult)
- ⊕ There was, however a significant age category by attachment entity interaction
- ⊕  $F(5,185) = 3.99, p < .002; \eta = .31$ , a medium effect size
- ⊕ This suggests that the order of attachment entities differed for children and adults
  - ⊕ For children, the order was as follows: objects, people, pets, games or events, abstract entities and places.
  - ⊕ For adults, it was the following: people, abstract entities, objects, pets, places and games/events.



# *Which type of loss labeled as most important?*

	<b>Children</b>	<b>Adults</b>
Person	.28 (5)	.71 (15)
Object	.28 (5)	.14 (3)
Abstract Entity	.06 (1)	.10 (2)
Pet	.33 (6)	.05 (1)
Place or Event	.06 (1)	0



## *Kinds Of "People" Losses*

	<b>Children</b>	<b>Adults</b>
Death of parent	.05 (1)	.17 (6)
Abandonment by parent	.10 (2)	.03 (1)
Death of non-parent	.30 (2)	.29 (10)
Relationship break-up	0	.20 (7)
Ending of friendship	.55 (11)	.31 (11)



## *Abstract Entities*

- ⊕ No child spontaneously mentioned the loss of an abstract entity; three adults brought this up without prompting
- ⊕ When cued, 7/18 (35%) of children said that they had experienced such a loss
- ⊕ When adults were cued, 13/21 (65%) agreed they had experienced a loss of this kind
- ⊕ Clearly the adults are more likely to report such losses, but when we look at the specifics of what constituted a loss of an “abstract entity” the differences become more striking



## *Examples: Abstract Entities*

### ⊕ “Did you ever lose hope?”

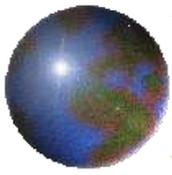
- ⊕ CHILD: Lost hope because his mom took him to a restaurant instead of a movie
- ⊕ ADULT: Lost hope that the marriage would be long lasting and healthy

### ⊕ “Did you feel regret?”

- ⊕ CHILD: Felt regret because did not take swimming lessons
- ⊕ ADULT: Felt regret about losing their innocence, after they were exposed to situations which challenged strongly held ideas, assumptions and expectations about the human condition

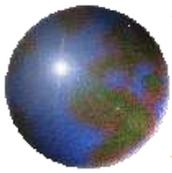
### ⊕ “Did you lose your self-esteem?”

- ⊕ CHILD: After being teased at school
- ⊕ ADULT: Due to being demoted from a job for not performing up to expectations



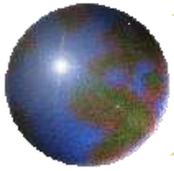
## *Were Non-human Attachments Related to Human Ones?*

- ⊕ It was predicted that there would be very few attachment entities whose attached value was due to a connection to a valued person in an individual's life (transitional objects)
- ⊕ Participants were explicitly asked about this
- ⊕ Of 54 entities mentioned, only 9 (16%) were classified as “transitional objects”
- ⊕ When tested with the binomial test against 0, this was not significantly different from zero.



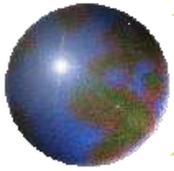
## *Which Entities Can Be Replaced?*

- ❖ To what extent did the participants report that certain attachment entities could be replaced with new ones (substitutability)?
  - ❖ For losses of people, 57% could not be replaced
    - Friends who moved tended to be replaceable
  - ❖ For losses of objects, 29% could not be replaced
  - ❖ For losses of pets, 9% could not be replaced
- ❖ This differs somewhat in children versus adults, and according to the nature of the specific loss
  - ❖ Children saw .73 (27/37) of the attachment entities they mentioned as replaceable
  - ❖ Adults saw .49 (18/37) of the attachment entities they talked about as being replaceable, but .51 as not replaceable



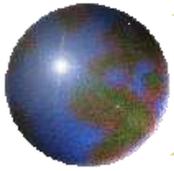
## *Discussion and Conclusions*

- ⊕ The results make clear that both children and adults have significant attachments not just to people, but also to pets, objects, and even ideals.
- ⊕ These findings were shown in at least two ways.
  - ⊞ The mean number of entities mentioned suggested that people were the most important attachment figures
  - ⊞ However, individuals also spoke about their feelings of loss for objects, pets, abstract entities, and to a lesser extent, about places
  - ⊞ Second, adult participants as a group said that their losses of people were the most important to them
  - ⊞ A few, however, made a point of speaking instead about the loss of an ideal, the loss of a pet, or even the loss of an object.
  - ⊞ Among the children, roughly equal numbers mentioned objects, people and pets.



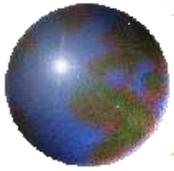
## *Losses of Abstract Entities*

- ⊕ A unique aspect of this study was the inclusion of questions about the loss of abstract entities
- ⊕ 3/22 (14%) of adults brought this up spontaneously
- ⊕ On average, the adults mentioned 1.67 such losses
- ⊕ In some cases, adults' losses of things like hope or their innocence were very significant to them
- ⊕ These losses brought forward strong feelings of sadness or regret
- ⊕ In some cases, they were seen as more important than losses of people



## *General Implications*

- ⊕ These results seem to suggest a possibly general human tendency to feel attachments to a wider range of entities than previously clearly recognized
- ⊕ In this sample, the majority of such attachments were not directly related to an attachment to a significant person
- ⊕ These attachments to non-human entities do not seem well explained by the Bowlby-Ainsworth attachment theory
- ⊕ As recent attention to hoarding suggests, “excessive attachment” to non-human entities such as objects or pets, can have some significant consequences



## *Implications for Moral Attachment*

- ⊕ Moral attachment (Kohlberg & Diessner) is characterized as a mechanism by which:
  - ⊕ A relationship with a specific person
  - ⊕ May promote moral learning and development
- ⊕ Here, the ‘relationships’ are with a variety of entities
- ⊕ Attachments to pets, objects, places and abstract entities seem to also provide opportunities for taking moral action on behalf of such entities
- ⊕ This may explain why, as moral stage increases, the numbers and kinds of entities that are to be “cared for” in moral decisions increase