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American Behavioral Scientist 2003 47: 31

DOI: 10.1177/0002764203255210

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Child Development and the Human–Companion Animal Bond

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Companion animals are more common in households with minor children than in any other household type. More than 70% of U.S. households with children also have pets, with most parents reporting acquisition of an animal “for the children.” Yet, studies of children’s development largely have been limited to children’s relationships with other humans. This article argues for a biocentric approach to development, in which children’s contacts with the non-human world—animals, plants, and natural ecologies—come under scientific scrutiny. To understand the developmental significance of this ubiquitous aspect of children’s environments, theory and research on companion animals in relation to perceptual, cognitive, social, and emotional development are reviewed and evaluated. The significance of children’s encounters with animals, especially in the context of a human–companion animal bond, is emphasized. Biocentric research directions are described.

Keywords: *pets; companion animals; psychology; children*

When the children were changing the water of the goldfish, Frank had a sudden impulse of cruelty, and said to the others, “Shall we stamp on it?” . . . Before she [the teacher] could stop them, they had thrown the fish out into the sand and stamped on it. They stood round and looked at it, rather excited, and obviously wishing they hadn’t done it, and Frank said, “Now let’s put it into water, and then it’ll come alive again.”

—Isaacs (1930, pp. 204-205)

Raymond put on his blue-jean pants as he stood by the bed. Honey, Raymond’s fat, broad, elderly fox terrier, ambled into the room. Raymond greeted her in a sleepy but friendly voice. “Hi, Honey.” Honey put her front paws on Raymond’s knees. He scratched her back and patted her as he finished buckling his belt.

—Barker and Wright (1951, p. 18)

Drew: “You know what?”
Mr. Lloyd: “Hmm?”
Drew: “I have a turtle except it died.”
Mr. Lloyd: “Why did it die?”
Drew: “It wasn’t eating its food, turtle food.”

—Myers (1998, p. 56)

AMERICAN BEHAVIORAL SCIENTIST, Vol. 47 No. 1, September 2003 31-39
DOI: 10.1177/0002764203255210
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In the preceding quotations, spanning almost 70 years, scholars of child development observed naturally occurring encounters between children and companion animals.¹ In the first quote, Susan Isaacs, a British psychoanalyst, described a group of preschool children in her nursery school as they learned, the hard way, about the needs of fish. The second quote comes from *One Boy's Day* by the Americans Roger Barker and Herbert Wright, pioneers of ecological psychology, who demonstrated their method of behavioral observation within natural settings by meticulously recording every waking moment in a single day (April 26, 1949) in the life of 7-year-old Raymond living with his parents and dog Honey in a small, Midwestern town. In the third quote, Gene Myers, a contemporary environmental psychologist, sensitively recorded a group of preschoolers for a year as they interacted with, looked at, and thought about animals.

These three accounts are exemplary but they are not common. By and large, scholars of child development have ignored or, at best, slighted children's relationships with companion animals. This is surprising, for several reasons. First, companion animals are hardly a rare phenomenon; a recent survey by the American Veterinary Medical Association reported that 70% of all households with children younger than age 6 and 78% of all households with children older than age 6 had pets (AVMA, 1997). Similar percentages are reported in countries of Western Europe. Moreover, pets are more likely to be found in households with minor children than in any other household type.² Companion animals and children literally go together; their co-occurrence within households raises the question of what, if any, influence each might have on the other. Second, the theoretical paradigms currently dominating the study of child development emphasize the importance of studying children within their naturally occurring environments, as Barker and Wright had urged more than 50 years ago. For example, Bronfenbrenner's (1979) widely adopted ecological systems framework stresses that individual characteristics of children interact with multiple interrelated settings, such as family, school, peer groups, neighborhoods, communities, and society, and urges detailed examination of environmental characteristics and children's interactions with them. Dynamic systems theory (Thelen, 2000), relationship psychology (Fogel, 1993), and attachment theory (Bowlby, 1969) all situate children's development within the context of important relationship bonds. Presumably, these theoretical orientations would have led to studies of the nonhuman companions who are present in the majority of children's environments, yet, with a few exceptions (see, in particular, Bryant, 1985; Myers, 1998), scholars have restricted their inquiries to human relationships.

Elsewhere (Melson, 2001), I have argued that this anthropocentric, or human only, focus has impeded both theory and research into the developmental significance of animals, especially companion animals, for children. However, a small but growing group of developmentalists (Kahn, 1999; Myers, 1998) has been urging a "biocentric" approach to child development. Such an approach assumes that children will exhibit interest in and involvement with nonhuman as

well as human aspects of their environments. Consistent with the biophilia hypothesis (Kellert, 1997; Wilson, 1984), which posits that humans have adapted to be attentive to life forms, children are expected to show particular interest in living nonhumans, especially other animals.³

To demonstrate the usefulness of such an approach, I will briefly describe how considering children's connections with companion animals can enrich understanding of children's perceptual, cognitive, social, and emotional development. Where possible, I will draw on empirical research that helps document this claim. However, because of the anthropocentric focus described earlier, the research base is inadequate for most generalizations about children's relationships with companion animals. Noting this, I will hypothesize about potential developmental significance in areas not fully investigated to date and suggest fruitful research avenues for future study. I conclude with some cautions that point to the challenges inherent in biocentric studies of development.

Although most studies of pets in children's lives have understandably focused on social and emotional aspects, there are intriguing indications that companion animals also may play a role in perceptual, cognitive, and language development. Therefore, I begin with these more speculative areas.

PERCEPTUAL AND COGNITIVE DEVELOPMENT

The great scholar Eleanor Gibson's work on perceptual development (1988) provides a starting point. In her theory of perceptual affordances, infants extract knowledge through looking at, hearing, feeling, tasting, and acting on objects, thereby discovering what objects "afford," or the "what-can-I-do-with-this?" of things. During the first year of life (precisely when is still debated), infants distinguish between the movement of living beings and the movement of inanimate objects. For example, 7-month-olds register a surprised expression if they see an inanimate object, such as a block of wood, appear to move without any force applied to it, but they are not surprised when a person initiates movement (Spelke, Phillips, & Woodward, 1995). This study has not been replicated with a moving nonhuman animal. In Gibson's terms, living beings, such as a live cat, have fundamentally different affordances than do objects such as a stuffed toy cat of the same size and shape.

There is some evidence that the affordances of companion animals are perceptually interesting to young children, sustain their attention, and motivate their curiosity. Aline Kidd and Robert Kidd, who have extensively studied children and their pets, compared how infants and toddlers, ranging from 6 to 30 months of age, behaved toward their pet dogs and cats as compared with a "life-like," battery-operated toy dog and toy cat. The babies smiled, held, followed, and made sounds to the live animals, especially the dogs, more than to the toy ones (Kidd & Kidd, 1987). In another study, which, unlike that of the Kidds', controlled for the novelty of objects, 9-month-olds approached, touched, and

looked at a live dwarf rabbit more than a female adult stranger or a wooden turtle that moved, made noises, and flashed lights (Ricard & Allard, 1992). As a final illustration of the affordances of living animals, consider the findings of Nielsen and Delude (1989), who observed how 2- to 6-year-olds in their day care or kindergarten classrooms responded to a variety of live animals—a Mexican, red-legged tarantula; a 2 ½-month-old, English, angora rabbit; a mature cockatiel; and a 5-year-old, female, golden retriever dog—as well as two realistic stuffed plush animals—a dog and a bird. The children ignored the stuffed animals (80% never looked at them), but the live animals, especially the dog and bird, were powerful stimuli. Seventy-four percent touched the dog, which was in a sit-stay position, and 21% kissed the dog. More than two thirds talked to the bird.

The perceptually intriguing affordances of living animals may well stimulate children's learning, particularly about the characteristics and needs of animals (including other humans and themselves), or what psychologists term "naïve biology" (Carey, 1985). In support of this, Japanese kindergarteners caring for pet goldfish, as compared with their classmates, better understood unobservable goldfish biology, as shown by their more accurate answers to questions such as, "Does a goldfish have a heart?" The goldfish raisers also reasoned more accurately about other species, using analogies from goldfish care. One child explained that a baby frog could not stay the same size forever because "the frog will grow bigger as my goldfish got bigger" (Hatano & Inagaki, 1993). Although this study did not measure the relation between goldfish raising and understanding of death, it is possible that caring for companion animals promotes more elaborated and more accurate ideas about life and death.

Why do companion animals, indeed all animals, present such good learning opportunities? In the words of Hatano and Inagaki (1993), a living animal presents "inherently occurring variations in its critical parameters" (p. 126). In other words, animals are predictably unpredictable. To the observing child, animal behavior embodies what Piaget (1969) argues is the engine of all learning: cognitive incongruity, moderate discrepancy from established schema, and novel information. Moreover, for many children, companion animals are likely to be powerful motivators for learning, for at least two well-established reasons: (a) children learn and retain more about subjects in which they are emotionally invested⁴ and (b) children's learning is optimized when it occurs within meaningful relationships (Vygotsky, 1978).

SOCIAL AND EMOTIONAL DEVELOPMENT

Most research and theoretical attention to companion animals in the lives of children has focused on these domains of development. Considerable evidence documents that companion animals are important affective ties that many children rank among their most intimate (Melson, 2001). For example, when asked to name the 10 most important individuals in their lives, 7- and 10-year-olds

included, on average, two pets (Bryant, 1985). Establishing the importance of companion animal ties is an essential precondition to exploring their functions for socioemotional development. To illustrate, I briefly review two functions: social support and nurturance.

SOCIAL SUPPORT

Hundreds of studies identify lack of human social support as a significant risk factor for physical and psychological problems, especially for vulnerable groups of children and adults (Cohen & McKay, 1984). There is evidence that many pet-owning children derive emotional support from their pets. In a sample of 7- and 10-year-olds in California, Bryant (1985) found that pet owners were as likely to talk to their pets about sad, angry, happy, and secret experiences as with their siblings. In interviews with a sample of Michigan 10- to 14-year-olds, 75% said that when upset, they turned to their pets (Covert, Whirren, Keith, & Nelson, 1985). In a study of 68 5-year-olds in Indiana, all about to enter public schooling, 42% spontaneously mentioned a pet when asked, "Who do you turn to when you are feeling sad, angry, happy, or wanting to share a secret?" (Melson & Schwarz, 1994).

Children appear to discriminate among the support provisions of different relationships; when comparing parents, friends, and pets, elementary school children considered ties with pets most likely to last "no matter what" and "even if you get mad at each other" (Furman, 1989). In an indication that using pet support may have adaptive value, parents of those 5-year-olds who turned to their pets for support rated them as less anxious and withdrawn as compared with same-age children who did not use pet support but had pets available within their homes (Melson & Schwarz, 1994).

NURTURANCE

Because pets are dependent on human care for survival and optimal development, companion animals provide children the opportunity to learn about, practice, and become motivated to appropriately nurture another being. Elsewhere (Fogel & Melson, 1986), my colleagues and I have argued that the development of nurturance is an important underpinning for effective parenting, nonfamily child care, and caregiving of the elderly and persons with disabilities or illnesses. Of importance, from age 3, both boys and girls perceive nurturing human young as gender-linked, or in the words of one preschooler, "a mommy thing" (Melson, 2001; Melson, Fogel, & Toda, 1986). However, children view caring for pets, such as dogs and cats, as gender-neutral (Melson & Fogel, 1989). Consistent with these perceptions, boys engage in less, girls in more, baby and child care with age; by contrast, both boys and girls similarly maintain consistent, high levels of pet care as they develop. For example, according to parent reports, the amount of time children devote to pet care and play with pets increases

steadily with age from 5 to 12 years of age, whereas sibling care time correspondingly declines. As a result, 12-year-olds are spending more time caring for pets than caring for younger siblings, when both are present in their families (Melson & Fogel, 1996). Another study found that 75% of 8- to 10-year-olds had sole or shared responsibility for pet care and 92% felt that caring for their pets was an "important" or "very important" part of their relationship with the animal (Rost & Hartmann, 1987).

If, as Robert Weiss (1974) suggests, the opportunity to nurture others is a basic human need, even in childhood, pets may play a compensatory role in providing this outlet for only or youngest children. In support of this, we have found that pet-owning children without younger siblings spend more time in pet care and play than do their counterparts with younger brothers or sisters (Melson & Fogel, 1996).

There is no consistent evidence that nurturing pets generalizes to more sensitive caregiving of humans. In a retrospective survey of British university students, greater involvement caring for pets during childhood was related only to more humane attitudes toward pet and nonpet animals and more concerns about animal welfare (Paul & Serpell, 1993). However, a first- and fourth-grade classroom intervention designed to teach more appropriate, humane forms of nurturing produced greater empathy toward other children as well as more humane attitudes toward animals (Ascione, 1992). Consistent with this, 5- and 6-year-olds more attached to their pets expressed greater empathy toward peers (Melson, Peet, & Sparks, 1992), whereas 7- and 10-year-olds who reported more "intimate talks" with pets also reported more empathy (Bryant, 1985). Because empathy, or the ability to understand and share the feelings of another, is a necessary (although not sufficient) condition for nurturance, these findings should encourage further inquiry into links between nurturing pets and human relationships.

CAUTIONS

As noted earlier, research on children and companion animals is limited in both quantity and quality. With few exceptions, studies are correlational, leaving many confounds in any obtained relationship and preventing any causal conclusions. Take the association between human-directed empathy and attachment to pets, noted above. Parents may obtain pets for children who are already empathic. Highly empathic children may have greater skill at bonding with an animal (as well as a person).

Another issue is the lack of research that integrates assessment of relationships with both humans and animals. For example, contemporary studies of children's social support continue to ask only about those "people" who are important to the child, whereas research on the human-companion animal bond

restricts its inquiry to support derived from pets. This separation of scholarship on human from human-animal relationships prevents scholars from investigating whether, for example, pet support might compensate for, amplify, or be unconnected to human support.

A third concern is the tendency to examine either presumably positive aspects of children's relationships with their pets, such as attachment to one's pet, or less frequently, negative aspects (e.g., cruelty toward animals) (Ascione, 1992), without integrating both dimensions within the same study. An exception is Ascione, who, with colleagues, has developed an interview protocol to gather information on *both* maltreatment of and kindness toward animals (Ascione, Thompson, & Black, 1997). When scholars inquire about multiple facets of child-pet relationships, they uncover considerable complexity. Children report both benefits and "costs" (e.g., distress over a missing animal) to pet ownership (Bryant, 1990); similarly, they readily identify things they like and do not like about their pet.

Finally, particularly when children are studied, the child-pet relationship should be viewed systemically because family dynamics, particularly parent-child relationships, always modify and shape children's other relationships. Because the overwhelming majority of pet owners identifies their animals as "family members," the insights of family systems theory is useful to examine how pets alter (and are altered by) family dynamics. A study by Ann Cain (1985) offers intriguing hints of what we might find. Her interviews contain many examples of both adults and children "triangling" pets, that is, deflecting to pets or routing through pets emotion and communication intended for other human family members. For example, a mother is angry at her daughter but yells at the dog instead; a father talks to the cat so that his son can overhear, saying things he would not say directly to the child. Other aspects of pets within the family system are ripe for investigation. Children may cast their pets as functional younger siblings, as peer playmates, as their own "children," or even as a security-providing attachment figure.

In sum, there is enough existing research to argue for expansion of scholarship on children's environments to include nonhuman animals (as well as plants and natural ecologies). A biocentric account of children's development considers children's experiences with all living things, particularly animals, as well as humans. Such an account is yet to be written but exploration of the significant ties of children with their pets is an excellent starting point.

NOTES

1. I use the terms "companion animals" and "pets" interchangeably, although their meaning varies slightly. The former term more readily includes horses kept for recreational and companionship purposes. In these contexts, horses are not commonly referred to as "pets."

2. Estimates of nonhumans residing in households are more unreliable than estimates of humans because national census-taking within the United States and other countries collects data only on humans.

3. Humans are, of course, animals, but following customary usage and for clarity, I refer to all nonhuman animals as "animals" and to human animals as "humans."

4. In the only study demonstrating this point with companion animals, Inagaki showed that Japanese 6-year-olds who cared for pet goldfish at home had more knowledge about the biology of animals than did age mates whose teachers assigned them to care for classroom rabbits and ducks (Hatano & Inagaki, 1993).

REFERENCES

- Ascione, F. (1992). Enhancing children's attitudes about the humane treatment of animals: Generalization to human-directed empathy. *Anthrozoos*, 5, 176-191.
- Ascione, F., Thompson, T., & Black, T. (1997). Childhood cruelty to animals: Assessing cruelty dimensions and motivations. *Anthrozoos*, 10, 170-173.
- AVMA. (1997). *Veterinary economic statistics, August 1997*. Schaumburg, IL: Center for Information Management.
- Barker, R. G., & Wright, H. F. (1951). *One boy's day: A specimen record of behavior*. New York: Harper.
- Bowlby, J. (1969). *Attachment*. New York: Basic Books.
- Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Harvard University Press.
- Bryant, B. (1985). The neighborhood walk: Sources of support in middle childhood. *Monographs of the Society for Research in Child Development*, 50, No. 210.
- Bryant, B. (1990). The richness of the child-pet relationship: A consideration of both benefits and costs of pets to children. *Anthrozoos*, 3, 253-261.
- Cain, A. (1985). Pets as family members. In M. B. Sussman (Ed.), *Pets and the family* (pp. 5-10). New York: Haworth.
- Carey, S. (1985). *Conceptual change in childhood*. Cambridge, MA: MIT Press.
- Cohen, S., & McKay, G. (1984). Social support, stress, and the buffering hypothesis: A theoretical analysis. In A. Baum, J. E. Singer, & S. E. Taylor (Eds.), *Handbook of psychology and health* (pp. 253-267). Hillsdale, NJ: Lawrence Erlbaum.
- Covert, A. M., Whirren, A. P., Keith, J., & Nelson, C. (1985). Pets, early adolescents, and families. *Marriage and Family Review*, 8, 95-108.
- Fogel, A. (1993). *Developing through relationships: Origins of communication, self, and culture*. Chicago: University of Chicago Press.
- Fogel, A., & Nelson, G. F. (1986). *Origins of nurturance: Developmental, biological and cultural perspectives on caregiving*. Hillsdale, NJ: Lawrence Erlbaum.
- Furman, W. (1989). The development of children's social networks. In D. Belle (Ed.), *Children's social networks and social supports* (pp. 151-172). New York: John Wiley.
- Gibson, E. (1988). Exploratory behavior in the development of perceiving, acting, and the acquiring of knowledge. *Annual Review of Psychology*, 39, 1-41.
- Hatano, G., & Inagaki, K. (1993). Desituating cognition through the construction of conceptual knowledge. In G. Salomon (Ed.), *Distributed cognitions* (pp. 115-133). New York: Cambridge University Press.
- Isaacs, S. (1930). *Intellectual growth in young children*. London: Routledge Kegan Paul.
- Kahn, P. (1999). *The human relationship with nature: Development and culture*. Cambridge, MA: MIT Press.

- Kellert, S. (1997). *Kinship to mastery: Biophilia in human evolution and development*. Washington, DC: Island Press.
- Kidd, A. H., & Kidd, R. M. (1987). Reactions of infants and toddlers to live and toy animals. *Psychological Reports, 61*, 455-464.
- Melson, G. F. (2001). *Why the wild things are: Animals in the lives of children*. Cambridge, MA: Harvard University Press.
- Melson, G. F., & Fogel, A. (1989). Children's ideas about animal young and their care: A reassessment of gender differences in the development of nurturance. *Anthrozoos, 2*, 265-273.
- Melson, G. F., & Fogel, A. (1996). Parental perceptions of their children's involvement with household pets. *Anthrozoos, 9*, 95-106.
- Melson, G. F., Fogel, A., & Toda, S. (1986). Children's ideas about infants and their care. *Child Development, 57*, 1519-1527.
- Melson, G. F., Peet, S., & Sparks, C. (1992). Children's attachment to their pets: Links to socioemotional development. *Children's Environments Quarterly, 8*, 55-65.
- Melson, G. F., & Schwarz, R. (1994, October). *Pets as social supports for families of young children*. Paper presented at the annual meeting of the Delta Society, New York.
- Myers, G. (1998). *Children and animals: Social development and our connections to other species*. Boulder, CO: Westview.
- Nielsen, J. A., & Delude, L. A. (1989). Behavior of young children in the presence of different kinds of animals. *Anthrozoos, 3*, 119-129.
- Paul, E., & Serpell, J. (1993). Childhood petkeeping and humane attitudes in young adulthood. *Animal Welfare, 2*, 321-337.
- Piaget, J. (1969). *The child's conception of the world*. Totowa, NJ: Littlefield, Adams.
- Ricard, M., & Allard, L. (1992). The reaction of 9-to 10-month-old infants to an unfamiliar animal. *Journal of Genetic Psychology, 154*, 14.
- Rost, D. H., & Hartmann, A. (1987). Children and their pets. *Anthrozoos, 7*, 242-254.
- Spelke, E. S., Phillips, A., & Woodward, A. L. (1995). Infants' knowledge of object motion and human action. In D. Sperber, D. Premack, & A. J. Premack (Eds.), *Causal cognition: A multidisciplinary debate* (pp. 44-78). Oxford, UK: Clarendon.
- Thelen, E. (2000). Grounded in the world: Developmental origins of the embodied mind. *Infancy, 1*, 3-28.
- Vygotsky, L. (1978). *Mind in society*. Cambridge, MA: Harvard University Press.
- Weiss, R. (1974). The provisions of social relationships. In Z. Rubin (Ed.), *Doing unto others* (pp. 17-26). Englewood Cliffs, NJ: Prentice Hall.
- Wilson, E. O. (1984). *Biophilia*. Cambridge, MA: Harvard University Press.

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