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Source: *Psychological Inquiry*, 2000, Vol. 11, No. 2 (2000), pp. 86-91

Published by: Taylor & Francis, Ltd.

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References

- Bard, K. A. (1995). Parenting in primates. In M. H. Bornstein (Ed.), *Handbook of parenting: Vol. 2. Biology and ecology of parenting* (pp. 27–58). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- Belsky, J., Steinberg, L., & Draper, P. (1991). Childhood experience, interpersonal development, and reproductive strategy: An evolutionary theory of socialization. *Child Development*, 62, 647–670.
- Bowlby, J. (1969). *Attachment and loss: Vol. 1. Attachment*. London: Hogarth.
- Clutton-Brock, T. H. (1991). *The evolution of parental care*. Princeton, NJ: Princeton University Press.
- Daly, M., & Wilson, M. (1981). Abuse and neglect of children in evolutionary perspective. In R. D. Alexander & D. W. Tinkle (Eds.), *Natural selection and social behavior* (pp. 405–416). New York: Chiron Press.
- Eibl-Eibesfeldt, I. (1989). *Human ethology*. New York: Aldine de Gruyter.
- Geary, D. C. (1998). *Male, female: The evolution of human sex differences*. Washington, DC: American Psychological Association.
- Geary, D. C. (2000). Evolution and proximate expression of human paternal investment. *Psychological Bulletin*, 126, 55–77.
- Goodall, J. (1986). *The chimpanzees of Gombe: Patterns of behavior*. Cambridge, MA: Belknap Press.
- Hofer, M. A. (1987). Early social relationships: A psychobiologist's view. *Child Development*, 58, 633–647.
- Lovejoy, C. O. (1981). The origin of man. *Science*, 211, 341–350.
- MacDonald, K. (1992). Warmth as a developmental construct: An evolutionary analysis. *Child Development*, 63, 753–773.
- Trivers, R. L. (1972). Parental investment and sexual selection. In B. Campbell (Ed.), *Sexual selection and the descent of man 1871–1971* (pp. 136–179). Chicago: Aldine.
- Trivers, R. L. (1974). Parent–offspring conflict. *American Zoologist*, 14, 249–264.
- Vrba, E. S. (1985). Ecological and adaptive changes associated with early hominid evolution. In E. Delson (Ed.), *Ancestors: The hard evidence* (pp. 63–71). New York: Alan R. Liss.
- Wilson, M., & Daly, M. (1997). Life expectancy, economic inequality, homicide, and reproductive timing in Chicago neighbourhoods. *British Medical Journal*, 314, 1271–1274.

The Complexity of the Caregiving System: A Perspective From Attachment Theory

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In one of his earliest writings, Bowlby (1956) pointed out that further understanding of attachment could be gained from examination of the mother's tie to her infant. Although Bowlby (1984) later wrote briefly about "parenting behavior" from a biological perspective as "like attachment behavior ... in some degree preprogrammed" (p. 271), he devoted his attention almost exclusively to examining the attachment side of what he called the "attachment-caregiving social bond" (Bowlby, 1969/1982, p. 377). It is to his credit that his initial focus on the sole behavioral system of attachment produced such a highly generative theory that subsequent theorists examining the caregiving system have had a solid theoretical and empirical base on which to build (see Bretherton, Biringin, Ridgeway, Maslin, & Sherman, 1989; Bretherton, Golby, & Cho, 1997; Cassidy, 1999, in press; Heard & Lake, 1997; Main, 1990; Pianta, Marvin, Britner, & Borowitz, 1996; Slade, Belsky, Aber, & Phelps, 1999; Zeanah, Benoit, Hirschberg, Barton, & Regan, 1994; and most extensively, George & Solomon, 1996, 1999, and Solomon & George, 1996).

In their target article, Bell and Richard claim that "attachment theory oversimplifies and further trivializes the process of caregiving" (this issue). In

this article, I present a contrasting perspective and attempt to demonstrate contemporary attachment theory's focus on the multifaceted, rich complexities involved in the caregiving behavioral system. I review discussion by a number of attachment theorists who argue that the caregiving system should be examined not only as a separate system, but also in connection with other parental behavioral systems and in relation to the child's behavioral systems. These attachment theorists also consider cognition and emotion, a variety of contextual factors, both past and present influences on caregiving, a life-span perspective, and differential maternal and paternal caregiving—all aspects of a theoretical perspective that is anything but simple.

The Caregiving Behavioral System

From an attachment theory perspective, caregiving is considered within the framework of the caregiving behavioral system. Bowlby (1969/1982) borrowed the concept of the behavioral system from the ethologists to describe a species-specific system of behaviors that leads to certain predictable outcomes, at least one of which contributes to the individual's reproductive fitness. The predictable outcome of activation of the parent's caregiving system is child–parent proximity, and

the biological function is protection of the child and enhanced parental reproductive fitness. The concept of the behavioral system involves inherent motivation. There is no need to view attachment as the by-product of any more fundamental processes or “drives.” Thus, Bell and Richard’s claim that “attachment accounts of caregiving lack a plausible motivation for caregiving, a reason why the caregiver should choose to nurture the dependent” (this issue) dismisses Bowlby’s initial thinking about the caregiving system and more recent expansions of this thinking that are solidly within contemporary biological theorizing and empirical research. The caregiving system is thought to have evolved because, during the time when humans and other primates were initially evolving, parents who provided protective care to their offspring were more likely to have offspring survive and pass on the genes for this caregiving behavior. This notion of inherent motivation is also compatible with Piaget’s (1954) formulation of the inherent motivation of the child’s interest in exploration.

Activation and Termination of the Caregiving Behavioral System

Bell and Richard claim that, according to attachment theory, “the caregiving behavioral system is inactive most of the time. ... [The] behavioral control system [described] by most attachment theorists ... is either turned on or turned off” (this issue). Bell and Richard contrast the “on-off caregiving of attachment theories” with their own perspective, wherein “caring is conceptualized as enduring and variable” (this issue). Yet, in parallel to Bowlby’s (1969/1982) revised view of the attachment system as never fully turned off, the caregiving system is viewed by attachment theorists as continually active (enduring) and variable (i.e., the interaction of a variety of factors contributes to whether caregiving behavior occurs at all and the intensity of that behavior). Bell and Richard further claim that, from an attachment theory perspective, the caregiving system “only becomes active when the dependent’s distress vocalizations or excessive distance from the caregiver stimulates it” (this issue). In fact, within the framework of attachment theory, the mechanism is not so simple. There are thought to be multiple and complex factors involved in the relative activation and deactivation of the caregiving system; activation of caregiving is viewed as far more complexly determined than simple responsiveness to child attachment behavior:

As is true for many behavioral systems, activation of the caregiving system results from both internal and external cues. Internal cues include presence of hormones, cultural beliefs, parental state (e.g., whether the parent is tired or sick), and activation of other pa-

rental behavioral systems (e.g., exploration, food-getting, fear). External cues include state of the environment (e.g., whether it is familiar, whether there is danger, whether others are present and who those others are), state of the infant (e.g., whether the infant is sick or tired), and behavior of the infant (e.g., whether he or she is exhibiting attachment behavior). (Cassidy, 1999, p. 10)

Interplay Among Behavioral Systems

Further adding to the complex nature of the caregiving behavioral system is the fact that it operates in conjunction with a variety of a parent’s other biologically based behavior systems. An appreciation of the interplay among behavioral systems has always been central to attachment theory, and two examples of this interplay involving the caregiving system are noted here. For instance, just as the child’s attachment and fear systems are closely linked (such that an increase in fear contributes to increased attachment behavior; Bowlby, 1973), so are the parent’s caregiving and fear systems. When a parent is frightened by threat to the child, she increases caregiving behavior; conversely, when a parent is in a safe environment and perceives no threat, she is likely to decrease caregiving behavior. Similarly, the exploratory and caregiving systems are likely to be intertwined, such that activation of a parent’s exploratory system may reduce activation of the caregiving system: On Super Bowl Sunday, a father may be more lax in his caregiving behavior during the game than following it. (See George & Solomon, 1999, for a full discussion of “competing behavioral systems.”)

Parent–Child Conflict

The caregiving system operates not only in concert with other parental behavioral systems, but also in concert with the child’s behavioral systems. Bowlby (1969/1982) considered the child’s attachment system and the parent’s caregiving system as “complementary” behavioral systems. In most cases, parents and children work together to maintain a comfortable, safe degree of proximity. If the child moves away, the parent will retrieve him; if the parent moves away, the child will follow or signal for the parent to return. Following Bowlby’s thinking, it seems likely that when the caregiving system is relatively activated, the child’s attachment system can be relatively deactivated; attachment behaviors are not needed because the parent has assumed responsibility for maintaining proximity. If the caregiving system is not relatively activated, then the child’s attachment system becomes activated, should the context call for it. This “dynamic equilibrium” (Bowlby, 1969/1982, p. 236) contributes to understanding the notion of the mother’s providing a

“secure base from which to explore.” The mother’s monitoring of child–mother proximity frees the infant from such necessary monitoring and permits the child’s greater attention to exploration (Main, 1973), although there are certainly times when both partners’ systems are concurrently activated and both take significant responsibility for maintaining proximity.

However, as Trivers (1974) noted, parents and children are at times in conflict because circumstances enhance the reproductive fitness of each member of the dyad differently. For instance, when an infant’s attachment system is activated in the presence of the mother, the infant’s sole wish is for her to respond. Although such infant behavior is usually a powerful activating stimulus for the mother’s caregiving system, the mother may choose among several competing needs and may or may not provide care. The child’s concern is immediate and focused; the mother’s concerns may be more diffuse and long-range (Main, 1981, 1990). The mother may have to leave the infant to work to support the family, or she may have several children to whose needs she must attend. Parental caregiving to a particular child is only one of many ways a parent can increase reproductive fitness. Others include having additional children; providing care to other children; maintaining ties to a mate, kin, or peers who will help protect offspring; and gathering resources. Thus, parents juggle a variety of complex, competing factors when faced with caregiving decisions. Main (1990) has proposed that from an evolutionary perspective, maternal unresponsiveness may be useful to the mother if it maximizes the total number of surviving offspring (see also Belsky, 1999; Simpson, 1999).

The Role of Cognition

A central notion of attachment theory is that early in life, humans develop mental representations of themselves, the people important in their lives, and the workings of the world (Bowlby, 1969/1982, 1973; Bretherton & Munholland, 1999; Main, Kaplan, & Cassidy, 1985). More recent attention to attachment across the life span has led to the proposition that parents also develop representations of themselves as parents and of their children (Slade et al., 1999; Zeanah et al., 1994), as well as a “current state of mind with regard to attachment” (Main & Goldwyn, 1998). The thinking is that parental mental representations influence parenting behavior, and there is evidence that this is the case (e.g., Slade et al., 1999). Understanding the process through which this occurs (selective attention, memory, interpretative bias, expectations) will be important in future research. What factors contribute to change in representational models and the relative influence of early and later models will also be important to explore.

The Role of Emotion

The emotions linked to caregiving may be as powerful as any experienced throughout life. As I noted in a previous article (Cassidy, 1999), the birth of a first child (which establishes the adult as a parent) is often accompanied by feelings of great joy; threats to the child are accompanied by anxiety; the death of a child brings profound grief. This intertwining of the caregiving system with intense emotions may result from selective pressures of evolution: Enhanced reproductive fitness may result when, for instance, a parent’s anxiety about threats to a child prompts the parent to seek effective interventions.

Explaining Parental Responsiveness

According to Bell and Richard, “attachment logic has suggested why sensitivity and responsiveness may be important for the child, but it has not been able to explain why they are important to the parent” (this issue). Yet consideration of the biological function of the caregiving system—protection of the young and enhanced parental reproductive fitness—is central to an attachment theory perspective, and such consideration leads to a biological understanding of why, for primates, responsiveness and sensitivity are “important to the parent.” The case of parental soothing serves as one example. Why would a parent expend effort to soothe a child frightened of thunder when the parent correctly perceives that the child is in no danger? There are a number of possible reasons, all of which increase parental reproductive fitness. I have proposed elsewhere that soothing behaviors serve, indirectly, to facilitate the parent’s monitoring of potential or real dangers to the child (Cassidy, 1999). Parental provision of contact usually comforts a distressed child. If the child continues to be distressed for a substantial time following contact, there may be another threat of which the parent is unaware. Through continuing attempts to soothe the child, the parent gains information about threat to the child. The parent may not realize, for instance, that the child has a painful splinter in her foot. Furthermore, there are many ways in which inconsolable crying (beyond infancy) can signal serious health problems; a parent will not know whether crying is inconsolable unless the parent attempts to console. Another possible reason for soothing is that it may contribute to reducing the health risks associated with chronic, unrelieved stress (e.g., Kobassa, 1979). In addition, it is likely that the child learns, through modeling, about how to soothe the distress of others. Given evidence that adults prefer romantic partners who are sensitively responsive (Pietromonaco & Carnelley, 1994; Zeifman & Hazan, 1997), having learned such behavior may increase the child’s later ability to attract desirable ro-

mantic (reproductive) partners. Both reducing risk to the child's health and enhancing the child's attractiveness to desirable partners, in turn, enhance the parent's own reproductive fitness. Another reason, which is perhaps the most basic reason for soothing, may be that the species has evolved such that a child's distress is aversive to the parent (even at the level of auditory pitch and frequency), and the parent desires and acts to terminate the aversive stimulus.

The Active Parent: Understanding Individual Differences

Bell and Richard refer to "the essentially passive caregiving behavioral control system described in attachment theory" wherein the parent "responds mechanically to the child's crying" (this issue). Behavioral systems, however, have never been viewed as "passive" systems by ethologists or attachment theorists. Furthermore, there has been considerable recent theorizing that individual differences in parental caregiving can be viewed in part as (nonconscious) active strategic parental attempts to increase reproductive fitness. In other words, it has been proposed that parents (nonconsciously) consider a complex constellation of factors and arrive at a (nonconscious) belief about the type of caregiving likely to enhance their reproductive fitness. This parental belief, in turn, is likely to influence the parents' active choices of caregiving behaviors. Thus, although the parameters of the caregiving system are thought to be biologically based and to have evolved through the process of natural selection, the caregiving system is thought to have evolved with the capacity to flexibly adapt to environmental variation in ways that enhance reproductive fitness. For further discussion of the ways attachment theorists view the caregiving system as characterized by active parental judgment and learning rather than as either "passive" or "strictly innate," as Bell and Richard claim, see Belsky (1999), George and Solomon (1999), and Main (1990).

The Influence of Past and Present

There has long been a theoretical view that past experiences guide present parenting. Fraiberg (1980), for instance, claimed, "we do unto others as we were done to." Similarly, Sroufe and Fleeson (1986) pointed out that babies learn both sides of important early dyadic relationships—at the same time they learn what it is like to be a baby in a relationship, they learn how it is that the caregiver is. Bowlby (1979) also proposed that secure childhood attachment would facilitate an individual's later parenting. More recently, theorists have begun to examine the complex intertwining of past and

present influences on parenting: What are the relative influences of past and present? Under what circumstances is one more influential? How much of a protective factor can early positive experience provide? Do relative influences vary across individuals? What is the role of biological change during adolescence? The field is in the midst of an explosion of learning about the processes through which neural pathways become established and influence later behavior, and greater consideration is being given to why, from an evolutionary perspective, individuals would be particularly influenced by early attachment experiences yet at the same time retain the ability to flexibly adapt to new circumstances (see Belsky, 1999; Cassidy, in press; George & Solomon, 1999; Siegel, 1999). Emerging data from studies using the Adult Attachment Interview suggest that when adult representations are not congruent with early attachment experiences (e.g., when an adult with negative childhood experiences has current attachment-related representations that are secure), it is adult representation rather than childhood experience that is more closely linked to the attachment quality of offspring (and presumably to parenting behavior; Pearson, Cohn, Cowan, & Cowan, 1994).

A Contextual Perspective

Rather than considering simply the parent's (past and present) contribution to the caregiving system, recent theorizing has used a complex, contextual approach, in which the parent's own characteristics are considered to play an important role yet are not viewed as solely causal. Parental characteristics are thought to operate within a larger context that includes characteristics of the child; the larger family system, including the marriage, the family size and structure, sibling characteristics and relations, and the larger kinship network; and the environment, including the safety of the neighborhood, availability of resources, and the social network. Experimental research with primates has suggested that mothering does in fact differ as a function of these contextual factors (Suomi, 1999). (For further discussion of a contextual perspective on caregiving, see Belsky & Isabella, 1988; Berlin & Cassidy, 1999, in press; Cowan, Cohn, Cowan, & Pearson, 1996; and George & Solomon, 1999.)

Mothers and Fathers

Contributing additional complexity is the fact that some caregivers are mothers and some are fathers; within the contemporary evolutionary perspective, the existence of separate maternal and paternal caregiving systems is readily understood. Both mothers and fathers are concerned with their own reproductive fit-

ness. Yet, because mothers and fathers may differ substantially in the extent to which the survival of any one child enhances this fitness, their parenting behavior may differ. Compared to fathers, mothers have more to gain in terms of reproductive fitness from each child for several reasons (e.g., mothers' certainty about parental status, shorter reproductive life span, longer interchild intervals, and greater energy expenditure per child [during pregnancy and lactation]; see Trivers, 1972). Despite these differences, there is almost surely considerable overlap between maternal and paternal caregiving systems as well.

A Life-Span Perspective

Understanding caregiving would be complex even if all parents were 25 years old and all children were infants. Yet both children and parents develop. The life-span perspective characteristic of attachment theory leads to consideration of two key questions that add further layers of complexity to attempts to understand caregiving. First, when does an adult become a parent? Becoming a parent at age 22 has advantages and disadvantages compared with becoming a parent at age 42; becoming a parent at age 14 brings still another set of considerations. Second, what age is the child who is being parented? Opportunities and challenges—and a parent's own strengths and weaknesses—differ when the child is an infant, a toddler, an adolescent.

Summary

Despite increasing theoretical attention to the caregiving system, there is as yet relatively little research related to this theorizing. Much research remains to be conducted, and the next decade should prove an exciting time on this front. Bridges across multiple theoretical perspectives may serve to further enrich our understanding of the caregiving system. The perspective from which Bell and Richard approach caregiving differs substantially from that of most contemporary attachment theorists, who instead are grounded within a framework of contemporary evolutionary biology. It is important to note, before closing, that Bell and Richard's assessment of attachment theory leads them to argue not only that there are scientific flaws in the theory's proposals about caregiving, but also that the theory is not particularly sensitive to the challenges of parenting: "Attachment theory has come close to trivializing the difficult conflicts and choices that caregivers experience" (this issue). In his clinical writings, however, Bowlby (1979, 1988) uniformly expressed considerable empathy and compassion for the difficulties and complex considerations that par-

ents face as they struggle to do the best possible job of raising their children. Finally, it is important to note that attachment theory has guided research examining some of the questions that have been most central to parents: How are children's hospital stays best handled? How will maternal employment influence children? Will parents spoil children by responding to their cries? Can children become attached to day care providers, and what qualities in the care provider contribute to the formation of a secure attachment?

Notes

This article was written with support from grants by the National Institute of Mental Health (RO1MH50773 and RO1MH58907) and the National Institute for Child Health and Development (RO1HD36635). I am grateful to Inge Bretherton, Mary Main, Robert Marvin, and Susan Woodhouse for their thoughtful comments on a previous draft of this article.

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References

- Belsky, J. (1999). Modern evolutionary theory and patterns of attachment. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 141–161). New York: Guilford.
- Belsky, J., & Isabella, R. (1988). Maternal, infant, and social contextual determinants of attachment security. In J. Belsky & T. Nezworski (Eds.), *Clinical implications of attachment* (pp. 41–94). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Berlin, L. J., & Cassidy, J. (1999). Relations among relationships: Contributions from attachment theory and research. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 688–712). New York: Guilford.
- Berlin, L. J., & Cassidy, J. (in press). Understanding parenting: Contributions of attachment theory and research. In J. Osofsky & H. Fitzgerald (Eds.), *Handbook of infant mental health*. New York: Wiley.
- Bowlby, J. (1956). The growth of independence in the young child. *Royal Society of Health Journal*, 76, 587–591.
- Bowlby, J. (1969/1982). *Attachment and loss: Vol. 1. Attachment* (2nd ed.). New York: Basic Books.
- Bowlby, J. (1973). *Attachment and loss: Vol. 2. Separation*. New York: Basic Books.
- Bowlby, J. (1979). *The making and breaking of affectional bonds*. London: Tavistock.
- Bowlby, J. (1984). Caring for the young: Influences on development. In R. Cohen, S. H. Weissman, & B. J. Cohler (Eds.), *Parenthood* (pp. 269–284). New York: Guilford.
- Bowlby, J. (1988). *A secure base*. New York: Basic Books.
- Bretherton, I., Biringin, Z., Ridgeway, D., Maslin, D., & Sherman, M. (1989). Attachment: The parental perspective. *Infant Mental Health Journal*, 10, 203–221.

- Bretherton, I., Golby, B., & Cho, E. (1997). Attachment and the transition of values. In J. Grusec & L. Kuczynski (Eds.), *Handbook series: Parenting and children's internalization of values*. New York: Wiley.
- Bretherton, I., & Munholland, K. A. (1999). Internal working models in attachment relationships: A construct revisited. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 89–114). New York: Guilford.
- Cassidy, J. (1999). The nature of the child's ties. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 3–20). New York: Guilford.
- Cassidy, J. (in press). Adult romantic attachments: A developmental perspective on individual differences. *Journal of General Psychology*.
- Cowan, P. A., Cohn, D. A., Cowan, C. P., & Pearson, J. L. (1996). Parents' attachment histories and children's externalizing and internalizing behavior: Exploring family systems models of linkage. *Journal of Consulting and Clinical Psychology*, 64, 53–63.
- Fraiberg, S. (1980). *Clinical studies in infant mental health: The first year of life*. New York: Basic Books.
- George, C., & Solomon, J. (1996). Representational models of relationships: Links between caregiving and attachment. *Infant Mental Health Journal*, 17, 198–216.
- George, C., & Solomon, J. (1999). Attachment and caregiving: The caregiving behavioral system. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 649–670). New York: Guilford.
- Heard, D., & Lake, B. (1997). *The challenge of attachment for caregiving*. London: Routledge.
- Kobassa, S. C. (1979). Stressful life events, personality, and health: An inquiry into hardness. *Journal of Personality and Social Psychology*, 37, 1–11.
- Main, M. (1973). *Exploration, play, and cognitive functioning as related to child-mother attachment*. Unpublished doctoral dissertation, Johns Hopkins University, Baltimore, MD.
- Main, M. (1981). Avoidance in the service of attachment: A working paper. In K. Immelmann, G. Barlow, L. Petrino, & M. Main (Eds.), *Behavioral development: The Bielefeld Interdisciplinary Project*. New York: Cambridge University Press.
- Main, M. (1990). Cross-cultural studies of attachment organization: Recent studies, changing methodologies, and the concept of conditional strategies. *Human Development*, 33, 48–61.
- Main, M., & Goldwyn, R. (1998). *Adult attachment scoring and classification system*. Unpublished manuscript, University of California at Berkeley.
- Main, M., Kaplan, N., & Cassidy, J. (1985). Security in infancy, childhood, and adulthood: A move to the level of representation. In I. Bretherton & E. Waters (Eds.), *Growing points in attachment theory and research* (pp. 66–104). *Monographs of the Society for Research in Child Development*, 50(1-2, Serial No. 209).
- Pearson, J., Cohn, D., Cowan, P., & Cowan, C. P. (1994). Earned and continuous security in adult attachment: Relation to depressive symptomatology and parenting style. *Development and Psychopathology*, 6, 359–373.
- Piaget, J. (1954). *The construction of reality in the child*. New York: Basic Books.
- Pianta, R. C., Marvin, R. S., Britner, P., & Borowitz, K. (1996). Mothers' resolution of their children's diagnosis: Organized patterns of caregiving representations. *Infant Mental Health Journal*, 17, 239–256.
- Pietromonaco, P. R., & Carnelley, K. B. (1994). Gender and working models of attachment: Consequences for perceptions of self and social relationships. *Personal Relationships*, 1, 63–82.
- Siegel, D. J. (1999). *The developing mind: Toward a neurobiology of interpersonal experience*. New York: Guilford.
- Simpson, J. A. (1999). Attachment theory in modern evolutionary perspective. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 115–140). New York: Guilford.
- Slade, A., Belsky, J., Aber, L., & Phelps, J. (1999). Maternal representations of their toddlers: Links to adult attachment and observed mothering. *Developmental Psychology*, 35, 611–619.
- Solomon, J., & George, C. (1996). Defining the caregiving system: Toward a theory of caregiving. *Infant Mental Health Journal*, 17, 183–197.
- Sroufe, L. A., & Fleeson, J. (1986). Attachment and the construction of relationships. In W. Hartup & Z. Rubin (Eds.), *The nature and development of relationships* (pp. 51–71). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.
- Suomi, S. J. (1999). Attachment in rhesus monkeys. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 181–197). New York: Guilford.
- Trivers, R. L. (1972). Parental investment and sexual selection. In B. Campbell (Ed.), *Sexual selection and the descent of man, 1871–1971* (pp. 136–179). Chicago: Aldine-Atherton.
- Trivers, R. L. (1974). Parent-offspring conflict. *American Zoologist*, 14, 249–264.
- Zeanah, C., Benoit, D., Hirschberg, L., Barton, M. L., & Regan, C. (1994). Mothers' representations of their infants are concordant with infant attachment classification. *Developmental Issues in Psychiatry and Psychology*, 1, 1–14.
- Zeifman, D., & Hazan, C. (1997). Attachment: The bond in pair-bonds. In J. A. Simpson & D. T. Kendrick (Eds.), *Evolutionary social psychology* (pp. 237–263). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Parent-Child Emotional Bonds: Loving or Caring?

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The key proposition of Bell and Richard's thought-provoking article is that attachment theorists have tended to focus on the needs and motivations underlying infants' attachment behavior, rather than on the motivation of the adults who nurture them. From

the perspective of these authors, attachment theory explains infant attachment behavior in terms of the infant's needs for protection and felt security, but it says little about why parents (particularly quality caregivers) respond in ways that increase the security of the