

What is Adult Attachment?

Pat Sable

Published online: 24 August 2007
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Abstract This paper explores the concept of adult attachment. Although attachment theory is now getting a great deal of attention, there is not yet a clear picture of what it means to be attached in adulthood or what the clinical applications of the approach might be. Using Bowlby's distinctive ethological-evolutionary framework and updating it with findings from neurobiology and attachment research, it is proposed there is an attachment behavioral system that operates throughout the lives of adults and that this changes the way we understand our clients' distress and carry out psychotherapy.

Keywords Adult attachment · Ethology · Evolution · Psychotherapy

Introduction

As John Bowlby intended it to be, attachment theory is now recognized and accepted as a “lifespan developmental theory” (Crowell et al. 1999, p.434), relevant for understanding how certain early affectional experiences influence emotional and physical well-being, not only in childhood but throughout adulthood as well. Though Bowlby's view of the nature of the infant—caregiver bond was his first concept to gain interest and attention in attachment, there is now an enormous amount of research and literature on adult attachment, including how the theory can be useful in clinical practice.

Despite the advances in investigating adult attachment, there is still limited understanding of what it means to be attached in adulthood (Crowell et al. 1999; Hazan et al. 2004; Main 1999). For example, there is not a consensus of what relationships are considered to be adult attachments, or how to characterize their functions and expression. According to Bowlby (1969), a child targets his attachment behavior to someone perceived to be older, stronger and wiser, but this point can be misleading when applied to the reciprocal attachment behavior and the sexual nature of some adult attachments. Moreover, Marrone (1998) notes that attachment theorists may have focused more on the mother-child bond because it was considered to have greater influence on development. And, although Bowlby himself repeatedly stated that attachment was a lifelong phenomenon, neither he nor Ainsworth wrote as much about adults. Similarly, the literature on psychotherapy with adults is less developed (Eagle and Wolitzky in press; Harris 2004). As a result, the knowledge base of adult attachment is still evolving, not yet conclusive or complete.

There are many dimensions and functions involved in adult relationships, and we don't yet know how far attachment concepts go in explaining this complexity. In particular, Hazan et al. (2004) point out that Bowlby contended it was necessary to delineate the development and functioning of normal attachment in order to identify dysfunctional variations. However, the extensive research on attachment patterns, stemming from Ainsworth's (Ainsworth et al. 1978) Strange Situation procedure, shifted the focus onto individual differences. As a result, there has been less progress in delineating what processes are involved in establishing and carrying out the functions of normative attachment and how these change over time (Berscheid 2006; Hazan et al. 2004; Kirkpatrick 2005). Furthermore, there are substantial differences in what the

P. Sable (✉)
School of Social Work, University of Southern California, 877
Teakwood Road, Los Angeles, CA 90049-1334, USA
e-mail: esable@aya.yale.edu

various studies on adults measure, which makes it questionable to attempt generalizations from the findings (Crowell et al. 1999; Hazan et al. 2004). Kirkpatrick (2005) alleges that adult attachment studies also fail to fully take account Bowlby's distinct ethological-evolutionary perspective.

The purpose of this paper is to explore what is meant by the concept of adult attachment. Using Bowlby's ethological-evolutionary perspective as a framework, and updating it with findings from attachment-based research and neurobiology, it is proposed that there is now sufficient evidence to support Bowlby's hypothesis of a behavioral system of attachment which, initiated in infancy, extends into and throughout adulthood. Its function, essentially similar to that of attachment in infancy, is to assure the formation of reliable relationships that can be counted on for psychological and physical protection, affect regulation, and ultimately, reproductive success (Bretherton 1985; Crowell et al. 1999). It is further proposed that a fuller understanding of the normative aspects of adult attachment can facilitate identifying maladaptive tendencies, improving our ability to understand and help our clients.

The discussion begins with a brief overview of attachment theory, followed by findings from the field of attachment research that can be utilized to define adult attachment. Next, the function and expression of attachment in adults is addressed. The theoretical basis advanced by findings from neuroscience and animal studies is then considered. The discussion concludes with a look at attachment-based psychotherapy, a part of the theory that has tended to be less clear for clinicians (Brisch 2002; Diamond and Marrone 2003; Eagle 2006; Eagle and Wolitzky in press; Rutter 1997). An area of emphasis is how Bowlby used an evolutionary framework to connect brain, body, and mind in his reformulation of traditional psychoanalytic theory and how this offers an additional perspective for understanding and helping our clients.

The Ethological-Evolutionary Framework of Attachment

According to Bowlby (1969, 1973, 1980), attachment theory is based on the premise that human beings, like many other animals, have a natural inclination to make and maintain lasting affectional bonds—or attachments—to familiar, irreplaceable others, and, once established, the quality, security and stability of these ties is related to emotional health and well-being throughout life. The theory actually began with Bowlby's attempt to explain observations that he and social worker James Robertson made of young children who were separated from their

parents and cared for by strange persons in strange surroundings. In describing what it was like for these children to be alone, trying to cope without the support and reassurance of their familiar caregivers, Bowlby discovered the pain of separation as well as the anguish of loss. This led him to consider that a special bond with the parental caregivers was disrupted by prolonged separation. He called for research to specify what caregiving experiences children need in order to develop confidence in themselves and their ability to deal with the challenges they will meet in life. His allegation of the pivotal role security had in adaption shifted the focus of child development away from the classical psychoanalytic developmental view emphasizing sexuality and conflict, and toward safety and familiarity in relationships (Holmes 1995). Bowlby also added an ethological-evolutionary perspective proposing that a mother was indispensable to her child, not primarily for oral needs and feeding, but for the biological function of protection from danger. He incorporated this ethological orientation, along with concepts from control theory, to hypothesize a behavioral system composed of a set of instinctive behaviors to explain how an infant establishes and maintains the connection so essential to its emotional security and actual survival.

More recently, research on the “neurobiology of attachment” has extended the basis of Bowlby's concept of an attachment behavior system by suggesting that its functions are carried out by the right hemisphere of the brain, specifically the right cortex (Schore 1994). Like Bowlby's premise that the attachment system evolved for protection from predators and other dangers, the brain is an evolving organ, “designed by natural selection” (Kirkpatrick 2005, p. 162), then shaped by experiences and the environment. Secure attachment and adaptive functioning are promoted by a caregiver who is emotionally available and appropriately responsive to her child's attachment behavior, as well as capable of regulating both his or her positive and negative emotions.

Schore (1994, 2003a,b) contends that though the brain retains some plasticity throughout life, the quality of early caregiving has a particularly significant impact on its development, structure and functioning. Bowlby (1969) also emphasized that the potential for attachment difficulties or disruptions to activate “attachment behavior does not disappear with childhood but persists throughout life” (p. 350). Although elicited with less urgency, the need to maintain contact with attachment figures and to especially seek them out when stressful situations arise is a hallmark of attachment throughout the whole life cycle. The means of achieving proximity and communication become developmentally more organized, diverse and sophisticated, and attachment behavior becomes directed to persons and groups beyond the family, but the conditions

that elicit the behavior do not change. At times of threat, danger, separation or loss, adults are likely to seek emotional support and protection from affectional figures. In some situations an adult may be able to reduce distress simply by thinking about an attachment figure but under certain circumstances these mental representations would not bring relief, and the person requires actual proximity (Mikulincer and Shaver 2007). This behavior has been dramatically captured on television when, for example, family members reunited after a disaster vigorously touch and hug each other.

Research Defining Adult Attachment

The assumption that the attachment behavioral system operates across the lifespan provides the scaffolding for exploring and clarifying a concept of adult attachment. Through what Bowlby (1969, 1973) called internal “working models,” early attachment experiences are carried forward as mental representations of attachment figures in relation to the self “along the pathway toward the adult personality” (Grossmann et al. 2005, p. 104). In terms of attachment in adults, the earliest research evidence of its effects came from the works of Marris (1982), Parkes (1991), and Weiss (1982, 1991), who found that separation or loss of key affectional figures led to a sequence of responses—protest, despair, detachment—comparable to those Robertson and Bowlby had identified in young children who were separated from their parents. Subsequent adult attachment research such as Kahn and Antonucci’s (1980) social convoy diagram, and Hazan and Shaver’s (1987) self-report measure of adult romantic relationships have shown that there are certain adult relationships which are felt to be unique and irreplaceable, and which provide a sense of familiarity, companionship and emotional security. Generally, pair-bonds of marriage or other committed heterosexual or gay relationships are perceived to be the prototypical indication of these attachments (Berscheid 2006). However, there is research evidence, for example by Kahn and Antonucci (1980), that other family members, selective friends, pets, or therapists also provide elements of attachment, even though the provisions of these bonds may not be as extensive, flexible, or interchangeable as the more physical availability of a romantic partner (Antonucci 1994; Mikulincer and Shaver 2007; Sable 1995; Siegel 1999; Weiss 1991). Kahn and Antonucci (1980) designed a Social Convoy diagram to address various aspects of adult relationships over time. The Social Convoy consists of three concentric circles with the word “you” in the center. Respondents are asked to place in the inner circle those figures to whom the individual feels “so close that it’s hard to imagine life

without them” (Antonucci 1986, p. 10). In the middle circle, they are asked to place those who are “not quite as close but who are still very important,” and in the outer circle, those not included in the first two circles but who are “close enough and important enough in their life that they should be placed somewhere in their network of relationships” (Antonucci 1986, p.11). The procedure has been administered by mail-in questionnaire or personal interview to individuals ranging in age from 18 to 95 with varied health and cultural backgrounds. The researchers concluded that relationships with individuals placed in the respondents’ innermost circle could be considered equivalent to attachment relationships, and that personal well-being across the life cycle would be dependent on having at least one of these close relationships. Figures placed in the outer two circles comprise a network of social support that enhances life though it is considered that the loss of these would not lead to the grief and mourning that would follow the loss of those in the inner circle.

These conclusions are supported by Weiss’s (1988) studies of divorced and widowed individuals in which he hypothesized that there are two types of loneliness: an emotional loneliness that results from the loss of attachment; and a social loneliness that results from gaps in a group or social network. This differentiation was evident in my research with women who had been widowed from one to three years (Sable 1989). Like Weiss, I found the women reported a loneliness that was difficult for them to overcome, and they made it clear that though social ties eased the pain of their loss they did not replace having an exclusive attachment.

Another adult attachment study is that of Hazan and Shaver’s (1987) whose self-report measure of adult attachment was used to investigate the impact of attachment quality on romantic love. Their questionnaire asks respondents to choose which of three statements most accurately describes their general feelings about themselves in intimate relationships. The choices: secure, ambivalent or avoidant are modeled on Ainsworth’s infant classifications of attachment patterns. In addition, there are questions about childhood relationships and a significant romantic relationship. Hazan and Shaver found that secure attachment was associated with both happier love relationships and reports of a caring and attentive childhood. Subsequent research has extended the instrument to include a fourth attachment style “fearful” as well as an Adult Attachment Questionnaire (AAQ) (Simpson et al. 1996) which converted the prototypes into a series of Likert-type items. Findings from the AAQ basically support Hazan and Shaver’s (1987) measure, with insecure attachment represented by two dimensions, avoidance or anxiety (Mikulincer and Shaver 2007).

Still another study of adult attachment, based on Ainsworth's attachment patterns, is the Adult Attachment interview (AAI) devised by Main and colleagues (George et al. 1996) to explore the meaning adults assign to their childhood experiences. The semi-structured interview asks individuals to describe their relationships with childhood attachment figures and to recall incidents which substantiate their memories. There are direct questions about attachment events such as separation, loss or rejection, followed by requests to offer explanations of how parents' behavior may have influenced their adult personality. The AAI is scored according to the person's current "state of mind with respect to attachment" (Hesse 1999, p. 395), with interviews classified as secure/autonomous, dismissing, preoccupied or unresolved/disorganized. Adult security was identified by the respondents' ability to reflect on their experiences and to describe them in an open and coherent manner. Their actual early experiences need not have necessarily been trouble-free as long as they were integrated into a balanced view that neither idealized nor maligned their parents. The other patterns suggest a defensive strategy which either maximizes (preoccupied) or minimizes (dismissing) attachment behavior.

Although the measures were designed for different purposes, the results of each suggest there is an attachment behavioral system that remains active throughout life. The system has the same evolutionary purposes of security and safety as it does for the young but because it does not need to be as readily activated, and tends to be more subtle and flexible, it may not be as easily recognized for what it is.

The Function of Attachment in Adult Relationships

Bowlby (1969, 1973) introduced the term "attachment" to describe certain emotional relationships that individuals form and try to maintain because they are fundamental to feelings of belonging, security and protection from fear. He called the figures to whom attachment behavior is directed "attachment figures" and said that the stability of these bonds was related to mental and physical well-being throughout the entire life cycle. With a secure base in relationships, a person of any age feels freer to move out and about in the world, exploring new experiences and activities, assured of a comfortable and reassuring refuge to return to should this be needed (Ainsworth 1991).

The distinction Bowlby (1973) made between attachment and dependency is important for understanding this feature of adult attachment. Self reliance and the ability to function with confidence stem from having had a foundation with available and responsive caregivers who both offered comfort and support and encouraged exploration. It is considered adaptive, not over-dependency, to seek

proximity, safety, and reassurance if distressed or unhappy. Besides being a pejorative term, dependency can imply the person should mature and become independent—that is having less need for others. It was this point that led Bowlby (1969) to write that the term regression be used with caution because an adaptive activation of attachment behavior could mistakenly be seen as pathological dependency in an adult. In fact, we know from extensive research that adults live longer and have happier and healthier lives when they are in lasting, committed relationships (Diamond and Hicks 2004); without close relationships individuals are more susceptible to psychological and physiological distress, including injury, disease, substance abuse, depression and suicide (Gilbert 2001; Hazan and Zeifman 1999). Bowlby's (1969) concept of a psychobiological system of attachment functioning to regulate emotions and assure the continuity and security of affectional bonds accounts for this "vastly complex intertwining of our biology and our emotions" (Sapolsky 1998, p. 2). Additionally, his concept of internal working models accounts for the continuity of earlier attachment experiences, as well as the potential for change.

The working models of adults are cognitive-affective structures that regulate the attachment system by monitoring and managing cognition, feelings and behavior in response to attachment-related situations (Collins et al. 2006). The complexity and flexibility of representations built up over years of experience make it possible to think through the details and options for dealing with events; activate attachment behavior to contend with threatening conditions; and assess the intensions and availability of attachment figures. In the same way that children use their caregivers for refuge and protection, adults will seek proximity to attachment figures at times of adversity. In fact, attachment-based research has confirmed that a characteristic of secure attachment is "a capacity to rely trustingly on others when occasion demands" (Bowlby 1973, p. 359), a characteristic that Bowlby points out exists in individuals who are truly self-reliant. Although adults do not generally need the regular physical presence of an attachment figure which is required for the young, they do need to know they would have a reliable base available and responsive if they were frightened or ill, wanted advice or reassurance. They need to know they have someone looking out for them who would track them down if they did not show up when expected. Over the course of evolution, attachment has proven to be a well-designed mechanism for motivating two individuals to stay together and to react strenuously if their relationship is in jeopardy (Hazan and Zeifman 1999). Rothchild (2000) uses the concept of an anchor to depict a feeling that comes from having someone who gives a person a feeling, in both mind and body, of safety, relief, and well-being. Like Schore (2003a),

Rothchild uses findings from neuroscience as a theoretical basis for understanding the mind-body connection in her treatment of individuals dealing with traumatic experiences.

Neurobiology and Adult Attachment

In his foreword to the reissue of Bowlby's Volume I, Attachment, Schore (2000) writes that Bowlby's charting of attachment anticipated the recent advances in understanding brain-mind-body processes and how they mediate the attachment system. Schore's (1994, 2000, 2003a,b) work, which integrates findings from neurobiology with attachment research, makes a significant contribution to this understanding of brain development by identifying the psychobiological processes based in the right brain to right brain connection between caregiver and infant. Schore (2000) perceives attachment theory as a theory of dyadic affect regulation and explains that the nature and quality of early caregiving influences brain development and, in turn, a later capacity to regulate emotions. Schore (2003a) reinforces attachment theory by emphasizing that responsive caregiving implies a caregiver who is emotionally available and psychobiologically attuned to her child.

Although ongoing events post-infancy (including external social and cultural factors), can alter developmental pathways, the "repeated sequences of interactive experience" (Stern 1977, p. 5) that take place between mother and child during the first 18 months to 2 years are seen as the foundation of emotional development. Moreover, Schore's (2003a) depiction of the importance of the child having positive experiences with his or her caregiver has evolutionary significance. Attuned interactions between caregiver and child trigger endogenous opioids such as endorphins that elicit feelings of pleasure and well-being. Positive experiences motivate proximity and communication, resulting in greater likelihood of protection and healthy development (Hazan et al. 2004; Schore 2003a). Conversely, negative experiences such as inconsistent, abusive or neglectful caregiving can undermine resilience, rendering a person more prone to emotional distress when confronted with environmental demands or danger (Bowlby 1977).

Animal Studies and the Neurobiology of Attachment

Schore's (2000) concept of attachment theory as a theory of affect regulation adds an important dimension to identifying aspects of adult attachment, in particular how emotions are a defining feature of the attachment behavioral system, and also how research is elucidating the

neurobiological underpinnings that sustain attachment. The physiological co-regulation that is characteristic of attachment has been investigated and documented by infant researchers such as Tronick (1989, 2007) and Stern (1985) and it has also been identified in animal research such as that of Harlow (Harlow and Zimmerman 1959) and Hofer (1995). It was a major paradigm shift when Bowlby (1969) recognized that animal studies could have relevance for understanding the instinctive roots of attachment behavior in humans, and he framed his reformulations of traditional theory within an ethological perspective. Bowlby had been searching for an alternative explanation of the observations of the separation experiences in young children than the explanations that existed in traditional psychosexual developmental theory. When he was introduced to the work of ethologists, such as Lorenz (1952) and Tinbergen (1951), he saw the potential to apply their concepts and research strategies to certain aspects of human behavior.

An example which supports Bowlby's observations and assumption of an innate attachment system that is pertinent to adult attachment comes from studies of prairie voles, small rodents, which form lasting bonds and display attachment behavior to their mates. Another pair-bonding species, titi monkeys, stay physically close to each other and become agitated and distressed if separated (Hazan et al. 2004). There is also research supporting Schore's (2003b) belief in "the critical role of somatic, bodily based activities" (p. 259) of caregiving for later adaption. For example, there is evidence that touching rat pups early in their lives influences how they age years later. From either a person handling the pup in a laboratory for 15 minutes a day during its first weeks, or the licking and grooming of a mother rat to her offspring in those same early weeks, Meaney and colleagues (Issa et al. 1991) found that there was less memory impairment at age two than found in other "old" rats. There is also research that shows licking and grooming behavior is correlated with decreased physiological responses to stress in the rat's adult lives (Liu et al. 1997).

In showing that caregiving and pair-bonding for both humans and animals gives rise to certain similar, persisting behavior patterns, it seems plausible to suggest that the phenomenon of attachment is not exclusive to humans; nor is it confined to childhood. Furthermore, animal data in particular indicate that the consequences of early experiences do not depend on language or complex thinking but are a product of evolutionary processes that apply to non-human and humans alike (Bowlby 1969; Suomi 1999). People obviously have cognitive processes which allow for more sophisticated and symbolic thought, as well as attachment behaviors that are more flexible and varied. However, the instinctive origins are the beginning—for people like they are for animals—built into our feelings

and behavior, providing the physiological underpinnings of attachment behavior. Subsequent experiences then influence the direction that developmental pathways take, veering the person toward resilience and the ability to process and integrate experiences (Rothchild 2000) or conversely toward a vulnerability to succumb to psychological distress when faced with stressful situations.

Attachment-based Psychotherapy with Adults

The concept of developmental pathways, replacing the model of development based on psychosexual stages, fixation, and regression, suggests an array of possible pathways along which a person may progress, depending on current and past experiences with attachment figures as well as environmental conditions (Bowlby 1988). When adverse experiences divert development onto a suboptimal pathway, adaptive functioning is put in jeopardy, and can eventually lead to what Schore (2003a) describes as a disturbance of affect regulation. Schore posits that adult attachment disorders reflect the lasting effects of early maternal misattunement which had a negative impact on the child's developing brain. Bowlby (1973, 1980) also connected early disruptions in caregiving to later psychological disturbance with his thesis that certain distress is an "expression of attachment-related problems" (Lashinger, et al. 2004, p. 161) reflecting "unmet attachment needs" (Karen 1994, p.386) which continue to plague the person as an adult. According to his Darwinian perspective, symptoms of intense anxiety, depression, and/or anger that move these people to seek therapy are part of our innate equipment, elicited to preserve vital bonds of attachment. However, disruptive or traumatic experiences have either exacerbated these natural feelings or caused them to be inhibited and/or redirected to other situations or persons. Bowlby (1980) called the defensive process which shuts out the meaning and/or memories of certain painful events, defensive exclusion. It can lead to disjointed thoughts and emotions, hampering the ability to regulate affect, relate to others, or cope with the tasks and stresses of everyday life.

In looking at attachment-based therapy, Bowlby (1979) acknowledged there was common ground with other theories, but said it could be distinguished from them by both its emphasis and orientation. He especially noted that "how we conceive the place of attachment behavior in human nature" (p. 156) and how we think that individuals come to acquire certain distressing symptoms influence how we carry out therapy. Bowlby's approach, to frame these considerations with an ethological-evolutionary perspective, suggests that whatever one's age, the attachment system is continually alert and adjusting to a variety of both internal and external conditions with a particular focus on

whether attachment figures would be available and responsive if called upon (Kirkpatrick 2005). This suggests that clients often seek therapy when their instinctive needs for attachment and security are not being met (Harris 1997), regardless of whether they are able to let themselves know this or not. By helping clients understand the evolutionary significance of attachment as well as the evolutionary function of their problems, the door is opened to a revised perspective on feelings and behavior that once seemed puzzling or maladaptive (Kirkpatrick 2005). Within this framework for understanding emotional dysregulation and distress, advances in understanding bodily processes and brain development are expanding while also supporting Bowlby's (1988) view of the role of the therapist and the therapeutic process. Bowlby stated that it is through having a new kind of attachment experience with the therapist, together with revising the story of one's life into a more coherent narrative, that a person may be able to reappraise and restructure maladaptive working models.

Park (2004) defines coherent narrative as a mental construct that clients form as they are able to rethink and alter assumptions about their attachment experiences. The "springboard for change" (Park 2004, p.137) is provided by the therapist who tries to engage the client in a "joint exploration" (Bowlby 1991, p. 460) of the unhappy events, painful feelings and memories which may be relevant to current emotional problems. The role of the therapist is to become a "relatively secure base" (Bowlby 1981, p. 251) where the client can begin to experience the feeling of safety and support that comes from having a caring, reliable relationship. Schwartz and Pollard (2004) and Eagle (2006) note that this is not likely to be automatic, and may take time, since many individuals come to therapy because they have had difficulty making and sustaining satisfactory bonds in the past. Also, attachment theory presumes that it takes time for the therapist to be considered an attachment figure and requires that the therapist is felt to be familiar, emotionally available and affectively attuned to the client. As attachment forms through a gradual internalization of soothing and calming interactions with the therapist, the person experiences psychological and physiological regulation of dysregulated states and begins to develop the ability to integrate and regulate his or her own feelings and thoughts (Baylis 2006; Mikulincer and Shaver 2007).

A concept to come out of attachment theory that clinicians are finding helpful (see, for example, Bettmann 2006; Shilkret 2005) is that part of a therapist's attunement is assessing the client's attachment style and then regulating therapeutic approach accordingly. For example, some years ago I (Sable 1983, 2000) wrote about Kelly, a young adult woman who I described as "emotionally detached" (based on Bowlby's 1977 delineation, but what might currently be called unresolved/disorganized), and suggested that this

was an alternative to diagnosing her as borderline or narcissistic, adapting our understanding of her symptoms, attachment history, and transference reactions to a new theoretical base. Kelly came for therapy because of the fear, anxiety, and dissociation she noted whenever she tried to make a romantic relationship with a man. Her anxiety symptoms included fear of the dark, “strange areas,” crowds, and going most places alone like shopping or the theater. At times she became depressed and suicidal, withdrawing to her home except for going out to work.

When she began treatment, Kelly reported she could barely remember any details about her childhood. However, she did remember that she always felt afraid, on guard and cautious. She was also cautious with her therapist, acting tense and distant, speaking haltingly with few words and minimal affect. The therapy hours during those first months seemed interminable. Only slowly and over the four years of our work together, did Kelly come to develop trust and a feeling of safety, and start to let herself remember and sort through a tumultuous and traumatic childhood of alcoholic parents, family violence, and a mentally ill mother who was critical and frightening. Her parents, for instance, threatened to abandon or send Kelly away when she misbehaved and later, following her parents’ divorce, sent to live with her father, was warned by her step mother to beware of men and sex. Learning at a young age that she could not rely on her caregivers, or make sense of their illogical communications, Kelly deactivated her attachment behavior, not allowing herself to access or express the love and comfort she so desperately wanted.

Kelly’s deactivated attachment system also demonstrates that affective experiences are rooted in the body (Park 2004) and illustrates Nelson’s (2005) notion that adult tears like those of children, can be an expression of attachment behavior, signaling a need to be close to others. Kelly’s mother would tell her to stop acting like a baby if she cried and as an adult she did not cry, claiming that the only result was sore eyes. Likewise, she visualized “dire consequences” if she expressed anger and the mere thought of doing this made her feel “wooden, with a whirl of thoughts and a knot in my stomach.” Similarly, her agoraphobic symptoms are physiological indications of having failed to internalize a secure base (Eagle 2003). Bowlby (1973) argued that these kinds of fears are part of a group of “natural clues to danger” that are hard-wired into humans, and have the function of motivating movement away from potential threat and toward the safety of an attachment figure. These clues which quickly activate fear and attachment behavior include external stimuli such as being alone, strangeness, heights or sudden change in light or sound, and internal states such as pain, illness or fatigue. With age, development, and the internalization of a secure

base, attachment behavior over natural clues is less compelling and the person can use his or her base for exploration, increasing opportunities for new experiences and relationships. With Kelly, her faulty attachment experiences such as separation and threat of separation upset the balance between attachment and exploration. Thus, as an adult she withdrew from close relationships that made her feel vulnerable and afraid, and felt uneasy when away from home too long or moving about in strange areas alone. From an evolutionary standpoint, Kelly’s attachment style was a strategy to adapt to a dysfunctional family environment, resulting in what Gilbert (2001) calls an “evolutionary trade-off”.

This is an important attachment concept for understanding adult distress and also helping clients appreciate that their emotions are a product of evolution, serving the essential function of protection and survival. Applying an attachment orientation, I attempted to help Kelly understand that her feelings were a reasonable response to her real experiences, while also putting together a history of how they developed. Fonagy (2001) has explained that a child like Kelly can lock away unbearable thoughts and feelings, and that without someone with whom to remember and share them with, carry working models into adulthood that could distort a current experience.

Conclusion

Using an evolutionary perspective, Bowlby believed there was a biological imperative for attachment which stays with us throughout life. The concept of adult attachment is a theoretical attempt to capture the essence of this inherent need and how it leads individuals to form close and enduring bonds that can be counted on for both pleasure and protection. Though pair-bonds are the most common characterization of adult attachment (and are likely to also include caregiving and reproductive behavioral systems), research such as the Social Convoy diagram indicates there are a variety of relationships that can have the emotional “force” (Stern, 2000) of attachment. For instance, I (Sable, 2000) have proposed that pets provide a component of attachment which may explain situations like the refusal of people to abandon their pets following the Katrina disaster, even to the point of endangering their own lives. Although it is possible that elements of the caregiving behavioral system were involved, there were obviously powerful feelings which overcame imminent danger. This is less surprising when we see how research on companion animals, especially dogs, has found they promote both mental and physical health, reduce stress and loneliness, and have a calming effect.

The joy many people feel in living with pets points out another aspect of attachment theory: it is a positive theory, accentuating the evolutionary significance of meaningful affectional relationships. Moreover, as Bowlby (1980) wrote, these few specific ties are “the hub around which a person’s life revolves” (p. 442). Schore’s integrative work builds on this legacy of Bowlby’s by demonstrating that early attachment experiences actually impact brain development, later affect regulation and capacity to make these ties secure.

Despite the current popularity of attachment concepts and research, there is still much to learn about adult attachment. Both Kirkpatrick (2005) and Simpson (1999) allege that advances rest on completing integration of attachment theory into an evolutionary perspective. For example, Berlin and Cassidy (1999) suggest a need for research to further clarify whether the association between early attachment experiences and adult relationships is evolutionarily adaptive. Future research can address issues such as how adult attachments are established, how they are distinguished from non-attachments, and how attachment patterns change over time (Berlin and Cassidy 1999; Rholes and Simpson 2004). Animal studies on the neurobiology of bonding will have additional implications for understanding normative attachment in adults (Hazan et al. 2004). Furthermore, Eagle and Wolitzky (in press) state there is not yet one specific approach to individual adult treatment, and therefore, agree with Slade (1999) that, for now, attachment theory is best described as informing rather than defining clinical practice.

The ethological-evolutionary perspective is a paradigm shift which adds “something extra” (Harris 2004, p.204) to psychotherapy. For example, Harris (1997) suggests that the most important implication of attachment theory for treatment may be its tenet that attachment behavior is instinctive. Although we now know the “environment of evolutionary adaptedness” in which humans evolved was not as benign as Bowlby portrayed (Kirkpatrick 2005), our feelings remain tied to our evolutionary past and to our bodies. Understanding that attachment experiences, both present and past, can alter brain-body processes (Diamond 2003), Ogden (Ogden et al. 2006) and Orbach (2004) are two current clinicians who are devising techniques that use attachment concepts to treat symptoms as well as deal with physiological elements that are related to client difficulties. Diamond (2003) has said that this cutting edge approach actually brings an “emphasis back to the body” (p. 410). This going back refers to the origins of psychoanalysis, to Freud and Bruer’s work on hysteria and its relationship between mind and body (Orbach 2004). Bowlby’s evolutionary perspective may take us back, but it also takes us forward by presenting an innovative view of human nature that is more compatible with modern biology and neurophysiology. As it continues

to expand, the conceptual framework of attachment will continue to offer new possibilities for therapists to better understand their clients and how to help them make their emotional bonds happily enduring and increasingly secure.

References

- Ainsworth, M. D. S. (1991). An ethological approach to personality development. *American Psychologist*, 46(4), 333–341.
- Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: Assessed in the strange situation and at home*. Hillsdale, NJ: Lawrence Erlbaum.
- Antonucci, T. C. (1986). Social support networks: A hierarchical mapping technique. *Generations*, 10, 10–12.
- Antonucci, T. C. (1994). Attachment in adulthood, and aging. In M. B. Sperling, & W. H. Berman (Eds.), *Attachment in adults: Clinical and developmental perspectives* (pp. 256–272). New York: Guilford Press.
- Baylis, P. J. (2006). The neurobiology of affective interventions: A cross-theoretical model. *Clinical Social Work Journal*, 34(1), 61–81.
- 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 Press.
- Berscheid, E. (2006). Seasons of the heart. In M. Mikulincer, & G. S. Goodman (Eds.), *Dynamics of romantic love* (pp.404–422). New York: Guilford Press.
- Bettmann, J. E. (2006). Using attachment theory to understand treatment of adult depression. *Clinical Social Work Journal*, 39(4), 531–542.
- Bowlby, J. (1969). *Attachment and loss, Vol. 1. Attachment*. New York: Basic Books.
- Bowlby, J. (1973). *Attachment and loss, Vol. 2. Separation: Anxiety and anger*. New York: Basic Books.
- Bowlby, J. (1977). The making and breaking of affectional bonds. *British Journal of Psychiatry*, 130, 201–210, 421–431.
- Bowlby, J. (1979). On knowing what you are not supposed to know and feeling what you are not supposed to feel. *Canadian Journal of Psychiatry*, 24, 403–408.
- Bowlby, J. (1980). *Attachment and loss, Vol. 3. Loss: Sadness and depression*. New York: Basic Books.
- Bowlby, J. (1981). Psychoanalysis as a natural science. *International Review of Psycho-Analysis*, 8, 243–256.
- Bowlby, J. (1988). *A secure base*. New York: Basic Books.
- Bowlby, J. (1991). *Charles Darwin*. New York: W.W. Norton and Co.
- Bretherton, I. (1985). Attachment theory: Retrospect and Prospect. Monograph of the society for research in child development, serial number 209. In I. Bretherton & E. Waters (Eds.), *Growing points of attachment theory and research* (pp. 3–35).
- Brisch, K. H. (2002). *Treating attachment disorders*. New York: Guilford Press.
- Collins, N. L., Guichard, A. C., & Ford, M. B. (2006). Responding to need in intimate relationships: Normative processes, and individual differences. In M. Mikulincer, & G. S. Goodman (Eds.), *Dynamics of romantic love* (pp. 149–189). New York: Guilford Press.
- Crowell, J. A., Fraley, R. C., & Shaver, P. R. (1999). Measurement of individual differences in adolescent, and adult attachment. In J. Cassidy, & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research and clinical applications* (pp. 434–465). New York: Guilford Press.

- Diamond, N. (2003). Attachment, trauma, and the body. In M. Cortina & M. Marrone (Eds.), *Attachment theory and the psychoanalytic process* (pp. 409–429). Philadelphia: Whurr.
- Diamond, L. M. & Hicks, A. M. (2004). Psychological perspectives on attachment: Implications for health over the lifespan. In W. S. Rholes, & J. A. Simpson (Eds.), *Adult attachment: Theory, research, and clinical implications* (pp. 240–263). New York: Guilford Press.
- Diamond, N. & Marrone, M. (2003). *Attachment and intersubjectivity*. London and Philadelphia: Whurr.
- Eagle, M. (2003). Clinical implications of attachment theory. *Psychoanalytic Inquiry*, 23, 27–53.
- Eagle, M. (2006). Attachment, psychotherapy and assessment: A commentary. *Journal of Consulting and Clinical Psychology*, 74, 1086–1097.
- Eagle, M. & Wolitzky, D.L. (In press). The perspectives of attachment theory and psychoanalysis: Adult psychotherapy. In E. Berant & J.H. Obegi (Eds.), *Clinical applications of adult attachment*. New York: Guilford Press.
- Fonagy, P. (2001). *Attachment theory and psychoanalysis*. New York: Other Press.
- George, C., Kaplan, N., & Main, M. (1996). Adult attachment interview protocol (3rd ed.). Unpublished manuscript, University of California, Berkeley.
- Gilbert, P. (2001). Evolutionary approaches to psychopathology: The role of natural defenses. *Australian and New Zealand Journal of Psychiatry*, 35, 17–27.
- Grossman, K., Grossman, K. E., & Kindler, H. (2005). Early care and the roots of attachment and partnership representations: The Bielefeld and Regensburg Longitudinal Studies. In K. E. Grossman, K. Grossman, & E. Waters (Eds.), *Attachment from infancy to adulthood* (pp. 98–136). New York: Guilford Press.
- Harlow, H. F. & Zimmerman, R. R. (1959). Affectional responses in the infant monkey. *Science*, 130, 421.
- Harris, T. (1997). Adult attachment processes and psychotherapy: A commentary on Bartholomew and Birtchnell. *British Journal of Medical Psychology*, 70, 281–290.
- Harris, T. (2004). Chef or chemist? Practicing psychotherapy within the attachment paradigm. *Attachment and Human Development*, 6, 191–207.
- Hazan, C. & Shaver, P. R. (1987). Romantic love conceptualized as an attachment process. *Journal of personality and social psychology*, 52, 511–524.
- Hazan, C. & Zeifman, D. (1999). Pair bonds as attachments: Evaluating the evidence. In J. Cassidy, & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research and clinical applications* (pp. 336–354). New York: Guilford Press.
- Hazan, C., Gur-Yaish, N., & Campa, M. (2004). What does it mean to be attached? In W.S. Rholes & J. A. Simpson (Eds.), *Adult attachment: Theory, research, and clinical applications* (pp. 55–85). New York: Guilford Press.
- Hesse, E. (1999). The Adult Attachment Interview: Historical and current perspectives. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of Attachment: Theory, research and clinical applications* (pp. 395–433). New York: Guilford Press.
- Hofer, M. A. (1995). Hidden regulators: Implications for a new understanding of attachment, separation, and loss. In S. Goldberg, R. Muir, & J. Kerr (Eds.), *Attachment theory, social, developmental, and clinical perspectives* (pp. 203–230). Hillsdale, N.J.: Analytic Press.
- Holmes, J. (1995). “Something there is that doesn’t love a wall:” John Bowlby, attachment theory and psychoanalysis. In S. Goldberg, R. Muir, & J. Kerr (Eds.), *Attachment theory: social, developmental, and clinical perspectives* (pp. 19–43). Hillsdale, N.J.: Analytic Press.
- Issa, A., Rowe, W., Gauthier, S., & Meaney, M. (1991). Hypothalamic-pituitary-adrenal activity in aged, cognitively impaired and cognitively unimpaired rats. *Journal of Neuroscience*, 10, 3247.
- Kahn, R. L., & Antonucci, T. C. (1980). Convoys over the life cycle course: Attachment roles and social support. In P. B. Baltes & O. Brim (Eds.), *Lifespan development and behavior*, (Vol. 3, pp 253–286). New York: Academic Press.
- Karen, R. (1994). *Becoming attached*. New York: Warner.
- Kirkpatrick, L. A. (2005). *Attachment, evolution, and the psychology of religion*. New York: Guilford Press.
- Lashinger, B., Purnell, C., Schwartz, J., White, K., & Wingfield, R. (2004). Sexuality and attachment from a clinical point of view. *Attachment and Human Development*, 6(2), 151–164.
- Liu, D., Diorio, J., Tannenbaum, B., Caldji, C., Francis, D., Freedman, A., Sharma, S., Pearson, D., Plotsky, P. M., & Meaney, M. J. (1997). Maternal care, hippocampal glucocorticoid receptors, and hypothalamic-pituitary-adrenal responses to stress. *Science*, 277, 1659–1662.
- Lorenz, K. (1952). *King Solomon’s Ring*. London: Methuen.
- Main, M. (1999). Epilogue. Attachment theory: Eighteen points with suggestions for future studies. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 845–887). New York: Guilford Press.
- Marris, P. (1982). Attachment and society. In C. M. Parkes & J. Stevenson-Hinde (Eds.), *The place of attachment in human behavior* (pp. 185–201). New York: Basic Books.
- Marrone, M. (1998). *Attachment and interaction*. Philadelphia: Jessica Kingsley.
- Mikulincer, M., & Shaver, P. R. (2007). *Attachment in adulthood: Structure, dynamics and change*. New York: Guilford Press.
- Nelson, J. K. (2005). *Seeing through tears: Crying and attachment*. New York: Routledge.
- Ogden, P., Minton, K., & Pain, C. (2006). *Trauma and the body: A sensorimotor approach to psychotherapy*. New York: W.W. Norton and Co.
- Orbach, S. (2004). What can we learn from the therapist’s body? *Attachment and Human Development*, 6, 141–150.
- Park, J. (2004). Walking the tightrope: Developing an attachment-based relational curriculum for trainee psychotherapists. *Attachment and Human Development*, 6(2), 131–140.
- Parkes, C. M. (1991). Attachment, bonding and psychiatric problems after bereavement in adult life. In C. M. Parkes, J. Stevenson-Hinde, & P. Marris (Eds.), *Attachment across the life cycle* (pp. 268–292). New York: Tavistock/Routledge.
- Rholes, W. S., & Simpson, J. A. (2004). Attachment theory: Basic concepts and contemporary questions. In W. S. Rholes, & J. A. Simpson (Eds.), *Adult attachment: Theory, research, and clinical implications*. (pp. 3–14). New York: Guilford Press.
- Rothchild, B. (2000). *The body remembers*. New York: W.W. Norton and Co.
- Rutter, M. (1997). Clinical implications of attachment concepts: Retrospect and prospect. In L. Atkinson, & K. J. Zucker (Eds.), *Attachment and psychopathology* (pp. 17–46). New York: Guilford Press.
- Sable, P. (1983). Overcoming fears of attachment in an adult with a detached personality. *Psychotherapy: Research and Practice*, 20, 376–382.
- Sable, P. (1989). Attachment, anxiety and loss of husband. *American Journal of Orthopsychiatry*, 59, 550–556.
- Sable, P. (1995). Attachment theory and post-traumatic stress disorder. *Journal of Analytic Social Work*, 2, 89–109.
- Sable, P. (2000). *Attachment and adult psychotherapy*. Northvale, N. J.: Jason Aronson.
- Sapolsky, R. M. (1998). *Why zebras don’t get ulcers*. New York: W.H. Freeman.

- Schore, A. N. (1994). *Affect regulation and the origin of the self: The neurobiology of emotional development*. Hillsdale, NJ: Erlbaum.
- Schore, A.N. (2000). Foreword. In J. Bowlby, *Attachment and loss: Vol. I. Attachment* (Reissue). New York: Basic Books.
- Schore, A. N. (2003a). *Affect dysregulation and disorders of the self*. New York: W.W. Norton and Co.
- Schore, A. N. (2003b). *Affect regulation and the repair of the self*. New York: W.W. Norton and Co.
- Schwartz, J., & Pollard, J. (2004). Introduction to the special issue: Attachment-based psychoanalytic psychotherapy. *Attachment and Human Development*, 6(2), 113–115.
- Shilkret, C. J. (2005). Some clinical applications of attachment theory in adult psychotherapy. *Clinical Social Work Journal*, 33(1), 55–68.
- Siegel, D. J. (1999). *The developing mind: Toward a neurobiology of interpersonal experience*. New York: Guilford Press.
- 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 Press.
- Simpson, J. A., Rholes, S. W., & Phillips, D. (1996). Conflict in close relationships: An attachment perspective. *Journal of Personality and Social Psychology*, 71, 899–914.
- Slade, A. (1999). Attachment theory and research: Implications for the theory and practice of individual psychotherapy with adults. In J. Cassidy, & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research and clinical applications* (pp. 575–594). New York: Guilford Press.
- Stern, D. N. (1977). *The first relationship: Infant and mother*. Cambridge, MA.: Harvard University Press.
- Stern, D. N. (1985). *The interpersonal world of the infant*. New York: Basic Books.
- Stern, D. N. (2000). Foreword to “On the evolution of attachment-disordered behavior” by Helga Fischer-Mamblona. *Attachment and Human Development*, 2, 3–4.
- 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 Press.
- Tinbergen, N. (1951). *The study of instinct*. Oxford, England: Clarendon.
- Tronick, E. Z. (1989). Emotions and emotional communication in infants. *American Psychologist*, 44, 112–119.
- Tronick, E. (2007). *The neurobehavioral and social - emotional development of infants and children*. New York: W. W. Norton and Co.
- Weiss, R. (1982). Attachment in adult life. In C. M. Parkes, & J. Stevenson-Hinde (Eds.), *The place of attachment in human behavior* (pp. 171–184). New York: Basic Books.
- Weiss, R. (1988). Loss and recovery. *Journal of Social Issues*, 44, 37–52.
- Weiss, R. (1991). The attachment bond in childhood and adulthood. In C. M. Parkes, J. Stevenson-Hinde, & P. Marris (Eds.), *Attachment across the life cycle* (pp. 66–76). New York: Tavistock/Routledge.

Author Biography

Pat Sable is an adjunct professor at the University of Southern California, School of Social Work and has a private practice of psychotherapy in West Los Angeles. Dr. Sable has taught attachment theory for many years and published extensively in professional journals on application of attachment theory to clinical practice with adults. She is the author of the book, “Attachment and Adult Psychotherapy.”