
Attachments Beyond Infancy

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ABSTRACT: Attachment theory is extended to pertain to developmental changes in the nature of children's attachments to parents and surrogate figures during the years beyond infancy, and to the nature of other affectional bonds throughout the life cycle. Various types of affectional bonds are examined in terms of the behavioral systems characteristic of each and the ways in which these systems interact. Specifically, the following are discussed: (a) the caregiving system that underlies parents' bonds to their children, and a comparison of these bonds with children's attachments to their parents; (b) sexual pair-bonds and their basic components entailing the reproductive, attachment, and caregiving systems; (c) friendships both in childhood and adulthood, the behavioral systems underlying them, and under what circumstances they may become enduring bonds; and (d) kinship bonds (other than those linking parents and their children) and why they may be especially enduring.

My major contribution to psychological knowledge has focused on infants' attachment to their mothers. There were two chief aspects to this research: first, a normative account of the development of attachment during the first year of life, through direct observation of the behavior of infants and their mothers in the natural environment of the home, and second, an examination of individual differences in the qualitative nature of the attachment. The latter entailed identifying three major patterns of behavior in a laboratory situation at the end of the first year and relating these patterns to the nature of mother-infant interaction at home. It has been very gratifying to me that my work on individual differences engaged the interest of many able researchers who greatly expanded our knowledge of infant-parent attachment and in so doing did much to validate the concepts and findings that emerged from my own pioneer work.

So far, most of the research on attachments beyond infancy has been concerned with individual differences—and especially with the issue of the continuity of patterns of infant-parent attachments over time. For example, Sroufe (1983) and his able associates established the coherence in development of these patterns in regard to various aspects of cognitive and socioemotional development in the preschool years. Main and her associates (e.g., Main, Kaplan, & Cassidy, 1985; Main & Goldwyn, in press) developed several procedures for assessing attachment patterns in the sixth year and devised an adult attachment interview with procedures to classify adults according to their "state of mind in regard to attachment." This body of research already has provided strong

evidence of the continuity of patterns of attachment over time, and of cross-generational influences. However, no further detail about studies of individual differences beyond infancy can be given in the present article. It deals with theoretical issues regarding attachments and other affectional bonds beyond infancy to provide a normative context for an understanding of individual differences.

The great strength of attachment theory in guiding research is that it focuses on a basic system of behavior—the attachment behavioral system—that is biologically rooted and thus species-characteristic. This implies a search for basic processes of functioning that are universal in human nature, despite differences attributable to genetic constitution, cultural influences, and individual experience. We have made substantial progress toward understanding what these basic developmental processes relevant to attachment are in infancy; now we need to find out what they are throughout later phases of development. That is the first major topic of this article.

The second major topic concerns long-lasting interpersonal relationships that may involve affectional bonds. These include the attachments of the child to parents, the bonds of parents to a child, bonds with other kin, sexual pair bonds, and the bonds that may occur between friends. These classes of bond differ from one another in regard to the role played by the attachment system and its interplay with other basic behavioral systems.

Some Highlights of Attachment Theory

As a background for the discussion of these two major topics, I will first consider some relevant highlights of attachment theory (e.g., Bowlby, 1982), beginning with the concept of the behavioral system. The system underlying attachment behavior is one such system, and it is as fundamental a part of the equipment of many species as the systems underlying reproductive behavior, parental behavior, feeding, and exploratory behavior, even though it does not derive from any of these. It is manifested by behavior that has the predictable outcome of keeping the individual in proximity to one or a few significant others, who, in the case of an infant, are likely to be the principal caregiver and one or a few other secondary caregivers. Like other basic behavioral systems, attachment behavior is believed to have evolved through a process of natural selection because it yielded a survival advantage, in this case through increasing the chances of an infant being protected by those to whom he or she keeps proximity.

The behavioral system includes not only its outward manifestations but also an inner organization, presumably rooted in neurophysiological processes. This inner organization is subject to developmental change, not only

because it is under genetic guidance but also because it is sensitive to environmental influences. As the inner organization changes in the course of development, so do the outwardly observable behavioral manifestations and the situations in which they are evoked.

At birth, the infant is equipped with a repertoire of species-characteristic behaviors that promote proximity to a caregiver. Most conspicuous among these are signaling behaviors, such as crying, that operate to activate caregiving behavior, attracting the caregiver to come near. At first, these attachment behaviors are simply emitted, rather than being directed toward any specific person, but gradually the baby begins to discriminate one person from another and to direct attachment behavior differentially.

At about the middle of the infant's first year, a new phase of development may be identified. A number of important changes occur more or less simultaneously. These include the emergence of locomotion and directed reaching and grasping, which enable proximity-keeping behavior to become more active, effective, and "goal-corrected." Furthermore, the baby forms his or her first inner representation of the principal caregiver, having attained some capacity for believing that the caregiver exists even when not present to perception, and with this achievement comes the onset of separation distress when the caregiver leaves the infant. At this point, the baby is capable of attachment and is very likely to have become attached not only to his or her mother figure, but to one or a few other familiar persons as well.

Throughout the first year, the infant gradually builds up expectations of regularities in what happens to him or her. At first these are primitive, as the infant's sleep-wake and other cycles become adapted to caregiving rhythms, but at some stage, not yet pinpointed, the infant begins to organize these expectations internally into what Bowlby (1982) has termed "working models" of the physical environment, attachment figures, and himself or herself.

Attachment of the Child to Parents Beyond Infancy

Here I am concerned with the normative shifts in the nature of a child's attachment to parent figures beyond infancy. At some time between the child's third and fourth birthdays, he or she becomes capable of what Bowlby (1982) termed a "goal-corrected partnership." He suggested that this developmental phase was triggered by certain cognitive advances, which Marvin (1977; Marvin & Greenberg, 1982) promptly began to investigate and elaborate. The onset of simple cognitive perspective-taking enables the child to begin to grasp something of the parents' motivations and plans, and thus the child becomes more able than before to induce parents to change their plans so that they more closely agree with the child's own plans. Although language began to develop in the previous phase, now the further improvement of the child's language skills helps both the child and parents better communicate their plans and wishes to each other and thus

to facilitate their negotiation of mutually acceptable plans. Confidence in the stability of this mutual understanding becomes built into the child's working model of his or her relationship with the mother figure,¹ and enables him or her to tolerate separation from that figure for longer periods and with less distress. Meanwhile, the child has achieved a qualitative advance in locomotion, from uncertain toddling to assured walking and running, presumably contingent on neurological development. This enables the child to venture farther away from his or her secure base to explore an expanded world and to connect with playmates and generally with a wider variety of people, including strangers.

It seems certain that another major shift takes place with the onset of adolescence, ushered in by hormonal changes. This development leads the young person to begin a search for a partnership with an age peer, usually of the opposite sex—a relationship in which the reproductive and caregiving systems, as well as the attachment system, are involved. Much more research is required before we have a good understanding of the normative changes implicit in adolescence, or indeed of other important developmental shifts before it. In this, one must be alert to the fact that key changes in the nature of attachment may be occasioned by hormonal, neurophysiological, and cognitive changes and not merely by socioemotional experience.

Child-Parent Attachment During Adulthood

There is reason to believe that a sense of autonomy from parents is normally achieved early in adulthood, presumably as a result of processes that operate gradually from infancy onward through adolescence. However, research into such developmental processes beyond the preschool years is as yet sadly lacking. On the other hand, there is good reason to believe that even an optimum degree of autonomy does not imply cessation of attachments to parent figures. Even though the individual is likely to have found a new principal attachment figure when a sexual pair bond is eventually established, this does not mean that attachment to parents has disappeared. Most adults continue a meaningful association with their parents, regardless of the fact that the parents penetrate fewer aspects of their lives than they did before. Moreover, a person's response to the death of a parent usually dem-

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¹ By the term *mother figure*, I mean the person who has been the child's principal caregiver and thus has become his or her principal attachment figure, whether this is the mother, the father, or a parent surrogate.

onstrates that the attachment bond has endured. Even after mourning has been resolved, internal models of the lost figure continue to be an influence. However, there is little systematic knowledge of the nature of these continuing attachments to parents.

Thus, for example, we do not know to what extent a parent and an adult child can enter into a symmetrical relationship in which each, in some ways and at some times, views the other as stronger and wiser, so that each can gain security in the relationship and can give care to the other. Or do old dispositions persist for parents to feel themselves stronger and wiser than their children and/or to be so viewed by them? It is generally believed to be malfunctional for the parent of a young child to reverse roles and to seek care, support, and security from the child, but it seems likely that some role reversal might be healthy should a parent become impaired through illness or old age. Systematic research into such issues is needed.

Another issue involves children's relationships to parent surrogates to whom they may become attached and who may play an important role in their lives, especially in the case of children who find in such relationships the security they could not attain with their own parents. Such surrogates might include an older sibling, another relative such as a grandparent, an especially perceptive and understanding teacher or athletic coach, and so on. As potential attachment figures, these deserve research attention. In the case of older persons, attachment figures cast in the parental mold might include mentors, priests or pastors, or therapists. Bowlby (e.g., 1988) held that in psychotherapy the therapist should assume the role of an attachment figure, who by inspiring trust can provide a secure base from which patients may confidently explore and reassess their working models of attachment figures and of themselves.

These secondary or supplementary attachments may differ from primary attachments in their longevity, that is, in their continuing pervasiveness in the life of a person. The therapeutic relationship is a case in point. It may be very influential for a limited period in a person's life, but when therapy has been terminated, the active relationship usually ceases. To be sure, the therapist and his or her influence may continue to be valued, and the representational model of the relationship may persist. In that sense the attachment continues, even if the active connection has ceased.

Other Affectional Bonds Throughout the Life Span

Now I will consider affectional bonds other than attachments to parents and surrogate parent figures and will focus on types of bonds that are likely to be represented in all cultures, namely, those that are species-characteristic and may be assumed to have evolved because they yielded survival advantage.

Affectional bonds are not synonymous with relationships. They differ from relationships in three ways. First, affectional bonds are, by definition, relatively long-lasting; relationships may or may not endure. Second,

relationships are dyadic. Affectional bonds are characteristic of the individual, not the dyad, and entail representation in the internal organization of the individual person. Third, as Hinde (e.g., 1976) has pointed out, the nature of a relationship between two individuals grows out of the total history of their interaction. This interaction is likely to be varied, involving a number of categories of content. Thus, a relationship is likely to have a number of components, some of which may be irrelevant to what makes for an attachment or indeed any kind of affectional bond.

I define an "affectional bond" as a relatively long-enduring tie in which the partner is important as a unique individual and is interchangeable with none other. In an affectional bond, there is a desire to maintain closeness to the partner. In older children and adults, that closeness may to some extent be sustained over time and distance and during absences, but nevertheless there is at least an intermittent desire to reestablish proximity and interaction, and pleasure—often joy—upon reunion. Inexplicable separation tends to cause distress, and permanent loss would cause grief.

An "attachment" is an affectional bond, and hence an attachment figure is never wholly interchangeable with or replaceable by another, even though there may be others to whom one is also attached. In attachments, as in other affectional bonds, there is a need to maintain proximity, distress upon inexplicable separation, pleasure or joy upon reunion, and grief at loss. There is, however, one criterion of attachment that is not necessarily present in other affectional bonds. This is the experience of security and comfort obtained from the relationship with the partner, and yet the ability to move off from the secure base provided by the partner, with confidence to engage in other activities. Because not all attachments are secure, this criterion should be modified to imply a seeking of the closeness that, if found, would result in feeling secure and comfortable in relation to the partner.

The Bond of Mother to Infant

It is obvious that the core component of this bond is the caregiving system. Klaus and Kennell (e.g., 1982) and their associates have highlighted the phenomenon of delight and intimacy manifested by a mother who has an opportunity immediately postpartum to hold her baby in close bodily contact and to interact with him or her. They have amassed evidence that suggests that mothers who had this sort of experience turned out to have better maternal care practices than those who had the usual hospital delivery experience, and that their children exhibited better development and tended to have fewer later indications of difficulty. At first, beguiled by the ethological literature, they proposed that there was a critical period immediately after birth during which contact with the baby effected the bonding of mother to child. Thus, they inadvertently implied that the caregiving system could only be activated by such an immediate postpartum experience and that in its absence bonding could not take place. The impact of these studies has been great indeed,

having led to a revolution in obstetrical ward practices that was perhaps long overdue. On the other hand, there was a well-grounded protest that many mothers do indeed become bonded to their babies in the absence of immediate postpartum contact—a fact that Klaus and Kennell readily acknowledged.

Nevertheless, there is much in the animal research literature that supports their original proposition of a sensitive period. In some species, if a mother is separated from her infant for a brief period immediately postpartum, she will subsequently reject it. However, if she has even a short period with the infant following delivery she bonds to it rapidly, and later separation does not lead to rejection. Rosenblatt's research with rat mothers (e.g., Rosenblatt, Siegel, & Meyer, 1979) suggests that the most potent factor in evoking and sustaining maternal behavior is the presence, appearance, and behavior of the young themselves, that the capacity for caregiving wanes rapidly if the young are removed, and that this capacity cannot be fully restored even though they are returned after a brief separation. Such evidence is not to be shrugged off. Anecdotal and clinical evidence suggests that some human mothers who are separated from their babies soon after birth and are not reunited with them until substantially later do indeed have difficulty in experiencing the same tenderness and commitment that others feel who have not been separated.

However, in humans one must also reckon with representational models. Some women undoubtedly have formed a model of themselves in relation to an infant perhaps even long before the infant is conceived. Such women are primed to bond to their infants even under difficult circumstances.

A mother is said to have a *bond* to her child. This usage is tacitly in agreement with those who hold that this is not an attachment because a mother does not normally base her security in her relationship with her child, however eager she may be to give care and nurturance. However, despite recent research into mother–infant bonding, remarkably little is known about the processes involved in the formation and maintenance of the bond, or even of the criteria that mark its establishment. Klaus and Kennell (1982) suggested criteria, but these emerge as essentially the same as those characteristic of a responsive and accessible mother who is likely to foster secure attachment in her baby (e.g., Ainsworth, Blehar, Waters, & Wall, 1978). Not all babies become securely attached to their mothers, however, and certainly not all mothers who become bonded to their babies approximate the suggested criteria. As Crittenden (1983) has made clear, mothers who maltreat their children desperately want to keep them from being removed to foster homes. They are bonded in their own ways—ways that we do not know yet how to identify before the threat of separation intrudes. Clearly, more research is needed.

The Bond of Father to Child

Despite the rich testimony from history and literature that fathers can have strong commitment to their off-

spring, the tendency has been to consider the bond of father to child as somehow less deeply rooted than the bond of mother to child. During the past 10 years or so, however, there has been active research into father–infant interaction that suggests that fathers can and sometimes do perform a caregiving role and presumably become bonded to their infants.

Does paternal behavior have the same kind of biological underpinning as maternal behavior? Consideration of other species is instructive. In a number of species of birds and mammals, paternal sharing in the care of offspring is clearly built in, and the same holds for a few nonhuman primate species with sexual pair-bonding. However, with other primate species, such as baboons, macaque monkeys, and chimpanzees, mating seems to be promiscuous, and males appear at best to play an indirect role in protecting the young, mainly through fending off predators that generally threaten the troop.

In a longitudinal field study of olive baboons, however, Smuts (1983a, 1983b) observed special long-term male–female relationships in which the partners seek to be together, and indeed sleep together, and in which the male is active in protecting the female and her offspring when they are threatened by danger. The male himself is likely to improve his chances of reproductive success through such a relationship, either because he had indeed sired the infant whom he is protecting, or because the female is more likely to mate with him when she comes into estrus.

Even in the rat, a species conspicuous for the absence of caregiving by the male, caregiving behavior may be induced under special conditions. Thus, Rosenblatt, Siegel, and Meyer (1979) demonstrated that a male rat will manifest caregiving behavior if he is confined in the company of newborn rat pups for a long enough period of time. This suggests that caregiving behavior is built into even the male of this species, although it is less readily evoked than in the female. Although it is unjustified to make a direct extrapolation from one species to another, it nevertheless seems likely that when circumstances ensure that a human male has sufficient exposure to a young child, he will be a caregiver.

In our society, individual differences in male and female roles and commitments are indeed great. In some families, the father may spend so little time with his young children that he scarcely has a chance to become bonded to them or they to him. In other families, as Parke and Sawin (1976) have shown, fathers are capable of effective caregiving when they undertake it.

So far, research into father–child interaction has been conducted on samples in which fathers were particularly interested in such interaction. We need much more representative samples of families before we can achieve a clearer picture of the range of paternal involvement even in our own society.

Sexual Pair Bonds

Three basic behavioral systems are involved in sexual pair bonds: the reproductive, attachment, and caregiving

systems. The latter is involved in two ways—giving care to the partner and sharing with the partner caregiving for the young. I will consider each of these in turn.

Sexual pair bonding is not characteristic of all species. The reproductive system may achieve its functional outcome without an enduring bond between the partners ensuing. In species in which pair bonding does occur, the caregiving system seems to be involved, usually with the male concerned with the care and protection of offspring either directly or indirectly through care and protection of his mate, or both. In the human case, it is obvious that mating can occur without the formation of a bond, but on the other hand, various human societies tend to foster enduring bonds through marriage customs, whether monogamous or polygynous, thus backing up biological predispositions to ensure that young are cared for and not merely produced. In the course of a long-term sexual relationship, whether in customary marriage or not, attachment of each partner to the other also tends to be built up, and the attachment and caregiving components interact to make for a reciprocal give-and-take relationship. Typically, each partner at some times and in some ways looks to the other as stronger and wiser, and the other reciprocates by providing care, comfort, and reassurance, thus promoting feelings of security.

Although sexual attraction may be the most important component at the start of a relationship, those relationships that depend entirely on the sexual component are likely to be short-lived. As the relationship persists, the caregiving and attachment components are likely to become important also and tend to sustain the bond even in cases in which sexual interest has waned. Much of the research into human sexual pair bonds has focused on the break-up of the relationship and on separation or divorce and the subsequent adjustment. It is clear that the attachment component is long lasting, tending to persist long after the pair has been parted, even when the parting was much desired. There is a tendency to miss the partner and to feel lonely (e.g., Weiss, 1979).

In some marriages, caregiving and attachment components may not be symmetrical and reciprocal as I suggested earlier but rather complementary. For example, some may resemble the relationship between parent and child, in which one partner is essentially the child who seeks protection and care from the other, who is viewed as stronger and wiser and whose satisfaction comes through giving care and feeling needed. Such relationships may not be ideally secure, but they may be enduring nevertheless.

In many marriages, there are components other than the three fundamental biologically based components I have emphasized so far. For example, spouses may be professional or business partners, or they may spend more than the usual time together because they enjoy sharing the same leisure time interests and activities. These and other components of the relationship with the partner in a marriage or quasi-marriage are not essential, however, and may or may not contribute to its persistence over time.

It is assumed that bonds similar to heterosexual pair

bonds may be formed with same-sex partners, despite the fact that the sexual component cannot fulfill its biological function of reproduction. Such bonds may be more difficult to sustain, however, for the partners may experience social custom as a divisive influence rather than a force supporting continuation of the bond, as in the case of marriage.

Friends, Companions, and Intimates

Next I will consider the question of whether relationships with friends or other companions may entail affectional bonds. If so, are such bonds rooted in the attachment system or in some other basic behavioral system that functions to give a survival advantage? Harlow and Harlow (1965) identified a number of affectional systems characteristic of rhesus monkeys, including a peer-peer affectional system, that led infant monkeys to approach and to interact with their age-peers. They reported evidence that experience in relations with peers played an essential role in normal development.

In all social species that have been observed in their natural environment, it is clear that the group itself possesses a protective function for the individuals that comprise it. Studies of predators and their prey suggest that those who stray from the group are most likely to become victims. Thus, it is advantageous for individuals to keep company with other members of the group. Furthermore, in many social species it is apparent that in some activities, such as hunting, cooperative enterprise is more likely to be successful than individual efforts.

It is thus reasonable to believe that there is some basic behavioral system that has evolved in social species that leads individuals to seek to maintain proximity to conspecifics, even to those to whom they are not attached or otherwise bonded, and despite the fact that wariness is likely to be evoked by those who are unfamiliar. Some have suggested the term *affiliative* for such a system, despite the fact that it suggests a child-parent relationship. It seems better to use another term; Marvin (e.g., Greenberg & Marvin, 1982) has suggested that it be called the "sociable" system. That such a system exists in humans and may conflict with the fear/wariness system is suggested by the work of Bretherton and Ainsworth (1974) with one-year-olds encountering a stranger in a strange situation. Most infants they observed showed a mixture of wary and sociable behavior on first encountering an adult stranger when the mother was present; very few showed only wariness or only sociability. There is also evidence to suggest that infants and young children are much more likely to be sociable than wary when encountering unfamiliar age peers and that wariness aroused by friendly adult strangers may disappear rapidly as they become more familiar.

If the sociable system leads to the establishment of a more or less enduring relationship with conspecifics that has a survival function, is this a relationship to the group as a whole, or is it a matter of dyadic relationships with other individuals, or both? There are instances in which coherence to a group is valued by an individual,

for example, the teenager who belongs to a gang of age-peers. He or she may or may not have a special relationship with one or more members of the group, but it is the group as a whole that is most important. However, I submit that one cannot say that the teenager is attached to the group, or even that he or she has an affectional bond to it because, by definition, affectional bonds, including attachments, pertain to the individual in a dyadic relationship with another specific person. Important though identification with a group may be, I will confine my discussion to dyadic relationships.

Friendship can connote a wide range of dyadic relationships, including relationships with acquaintances with whom one has occasional pleasant interaction, relationships with congenial companions with whom one spends quite a great deal of time in activities of mutual concern or interest, and close, intimate relationships with one or a few particularly valued persons whose company one seeks intermittently. It seems likely that some of these relationships are sufficiently close and enduring to be characterized as affectional bonds, in which the partner is felt to be a uniquely valued person, not interchangeable with anyone else who might play a similar role.

Weiss (1982) suggested that such bonds often exist between army buddies and that these bonds may be identified as attachments. Indeed, there seem to be both attachment and caregiving components in such bonds. The partners seek proximity to each other; they give care and protection to each other; each feels more secure when with the other; separation or threat of separation occasions anxiety, and loss would certainly cause grief. That such a relationship is likely to be fostered under hazardous conditions seems entirely reasonable.

There are many studies of children's relations with age peers, but relatively few deal specifically with friendships. Of these, I will discuss one by Youniss (1980), who interviewed children of three different age levels about their view of friendship. The youngest group (aged 6 to 8) emphasized playmate relations and sharing. The middle group (aged 9 to 11) tended to give more attention to the kind of reciprocity implicit in mutual attachment relationships—the kind of help that friends could give to each other and being able to depend on that help, including companionship when lonely. The oldest group (aged 12 to 14) thought of close friendship as a symmetrical relationship, stressing cooperation, reciprocity, and trust, in which one could reveal one's feelings, negotiate differences, and feel understood. However, they also stressed that recognition of congeniality of interests and activities was important in beginning and in maintaining a friendship—a feature that enhances any relationship but that is not a fundamental feature of an attachment.

In view of the fact that most four-year-olds have developed enough capacity for cognitive perspective taking and communication to establish goal-corrected partnerships with attachment figures, it is interesting that 6- to 8-year-olds seem not to have done so with friends. However, such a capacity may be masked by the fact that metacognitive ability is not sufficiently developed in chil-

dren under about the age of 12 to enable them to reflect about relationships in an interview and actually to put into words subtle feelings and attitudes that have been implicit since a much younger age.

Thus, there is reason to believe that some, but not all, friendships have an attachment component, and some, but not all, constitute enduring affectional bonds. Many are short lived and entirely context specific, whereas others endure despite circumstances that make proximity keeping difficult. It is the capacity of humans to form representational models of another and of themselves in relationship to the other that enables them to sustain a bond across time and distance. However, this does not help us understand why some relationships achieve this transcendent quality, but others do not.

Bonds With Siblings and Other Kin

Older siblings may, on occasion, play a parental, caregiving role with one or more of their younger siblings and thus may become supplementary attachment figures for them. When two or more siblings are separated from their principal attachment figure and are cared for in the same setting, the distress of each may be somewhat diminished by interaction with the other (e.g., Heinicke & Westheimer, 1965). When a child's parent dies, the child's feelings of grief and abandonment may be alleviated by the care he or she receives from an older sibling who plays a protective, caregiving role. Indeed this role may actually help the older sibling to feel more secure himself or herself, whether because caregiving makes the older sibling feel less helpless or because it diverts the sibling from his or her own feelings of distress or grief.

Ainsworth and Eichberg (in press) found evidence that both feelings of responsibility in caring for others in the family and/or a sense of family solidarity were important factors in successful resolution of mourning the loss of a family member. Further, in many societies (and in some families in our own society) it is common for older siblings to be expected to assume some responsibility as caregivers for their younger brothers or sisters, even when there has been no loss or major separation (e.g., Konner, 1976). However, there has been little systematic research into siblings as attachment figures.

Among the few studies that have been done is one by Stewart (1983), who reported that approximately half of his sample of three- and four-year-old children acted to provide reassurance, comfort, and care to their younger siblings when their mothers left them alone together in a waiting room setting. He later confirmed this finding in a study (Stewart & Marvin, 1984), in which the separation from the mother took place in a modified "strange situation." Whether the older sibling displayed caregiving behavior to the younger was found to be strongly related to the older sibling's conceptual perspective-taking ability, and this in turn was related to the younger sibling's use of the older one as a secure base from which to explore the unfamiliar situation. Thus, even a child of preschool age may serve as an attachment figure to a younger sibling.

Siblings close in age may also be playmates, es-

pecially when both are beyond infancy, and some of these may become friends, perhaps best friends, with the same sort of symmetrical, cooperative, reciprocal, mutually trusting relationship earlier described as characteristic of close friendships. This implies a secure attachment component to such sibling friendships.

On the other hand, many sibling relationships are characterized by ambivalent feelings rather than mutual cooperation and trust, and yet are likely to constitute enduring affectional bonds. Whereas friends who had once been close may drift apart as their interests shift and they become less congenial, bonds with kin tend to be much more persistent, even though they may be more ambivalent. One may account for the longevity of kinship bonds in various ways—sociological, biological, and psychological.

Cultural practices tend to regulate relations among kin in such a way as to foster in the individual a sense that he or she can rely on kin as allies or for substantial help when needed, as Weiss (1974) implied. Indeed many people feel that they can ask material help from kin that they would hesitate to seek from friends, however close and congenial. In turn, they feel morally obliged to provide such help to kin when it is demanded. Such attitudes make kin especially important in a person's social network.

The biological explanation is based on the principle that the key dynamic of evolution is neither individual survival nor even species survival, but gene survival. Thus, an individual organism, which shares half of its genes with each of its offspring, promotes the survival of its genes by promoting the welfare of its offspring, and in this regard stands to gain more than by supporting the welfare of others who are more distantly related or not related at all. Siblings, who also share a relatively large proportion of genes, tend to promote the survival of their genes by promoting each other's welfare (and thus survival), and so on, to a lesser extent with kin less closely related.

Another, more psychological, explanation of kinship bonds rests on a shared background of experience within the family or other kinship group. Thus, despite current differences in activities and interests and despite rivalries or other causes of ambivalence, siblings have a background of shared experience over a relatively long period of time, which not only promotes similarities in their perception of situations and in value systems that influence their decisions, but also promotes mutual understanding, without necessarily requiring explicit communication. By extension, these same dynamics may also hold with other kin less closely related.

Indeed, the sharing of experience over a long period of time is important not only in kinship bonds but also may play a role in all affectional bonds that are especially lasting. In enduring marriages, shared experiences are pleasant to talk about and connote a basis of mutual understanding that, in turn, contributes to security and mutual trust. Even after a husband and wife have agreed to divorce, they may still find themselves tied by a long his-

tory of shared experiences in which they find pleasure, despite mutual hostility, divergent aims, disparate interests, and new bonds that compete with the old. Like congeniality of interests and activities, shared experiences with friends contribute to the feelings of understanding and being understood that are so focal to close friendships.

Conclusion

This has been a largely theoretical article sketching how attachment theory, which was initially directed toward understanding the attachment of infant to mother, can be useful in understanding attachments and other kinds of affectional bonds beyond infancy. However, the major function of attachment theory is to guide further research, which in turn will extend and refine our theoretical understanding. Throughout this article, I have stressed the need for further research in areas such as the following: (a) how attachments to parents and surrogate figures develop throughout the life cycle; (b) the caregiving system, the nature of the affectional bonds of parents to the child, and the interaction of these bonds with the attachments of the child to the parents; (c) sexual pair-bonds and their complex components; (d) the behavioral systems underlying friendships, how they develop from childhood onward, under what circumstances they become enduring bonds, and how such bonds resemble and differ from other affectional bonds; (e) kinship bonds, and the reasons why they are likely to be especially long lasting, even though they are often ambivalent.

Observational research in the natural environment is essential in the study of attachments and other affectional bonds beyond infancy—as it was essential as a first step in the study of attachments in infancy. From it, we could infer how the attachment system is internally organized. Indeed, individual differences in overt behavior, both at home and in the laboratory, could be viewed as signifying different patterns of internal organization. So far, the significance of individual differences at various ages beyond infancy has rested on inferences from infant patterns of attachment, despite obvious differences in their behavioral manifestations in older children and adults.

Increasingly across the years of childhood verbal behavior rivals nonverbal behavior as a basis for inferences about inner organization. Linguists know that there is more information to be gained from verbal behavior than the manifest content of what is conveyed in words. The latent content of what is conveyed in the form and context of discourse is important also—often more important than manifest content. This is pertinent to studies of adolescents and adults, in which the interview may be a useful adjunct to naturalistic observation especially if it is considered as discourse between the interviewer and interviewee. Both researchers and funding agencies are strongly urged to turn their attention both to naturalistic observation and to the latent content of verbal behavior in discourse and the use of the interview in studies of various kinds of affectional bonds beyond infancy.

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