

Loneliness in Childhood and Adolescence

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3 Understanding the Origins of Childhood Loneliness: Contributions of Attachment Theory

JUDE CASSIDY AND LISA J. BERLIN

Loneliness is a negative feeling, resulting from a belief that others are unavailable when desired. According to Bowlby's (1969/1982, 1973, 1980) attachment theory, children's early attachments to their parents contribute in important ways to children's beliefs about the availability of others. In this chapter, we consider the contributions of attachment theory and research to the understanding of early childhood loneliness. We begin by proposing ways in which attachment theory can contribute to the debate on the existence of loneliness in childhood. We then present a theoretical model of the connections between attachment and loneliness. We describe the ways in which children's attachment-related cognitive representations – of parents, of the self, of peers – may contribute directly to children's loneliness. Next, we describe more indirect pathways between attachment and loneliness: Attachment is viewed as contributing to loneliness through its influence on children's peer relations, and we review the empirical literature showing connections between attachment and peer relations. Finally, within a transactional framework, we consider the ways in which attachment and peer relations interact with a variety of additional factors to contribute to children's loneliness.

The Existence of Loneliness in Childhood

Any discussion of loneliness in childhood of necessity considers whether children experience loneliness. Earlier theorists suggested that it is not until adolescence that individuals experience loneliness. Sullivan (1953), for instance, described loneliness as a "phenomenon ordinarily encountered in preadolescence and afterward" (p. 261) when the need for intimacy in the context of a close friendship develops. Weiss (1973), similarly, argued that "loneliness proper becomes a possible experience only when in adolescence, parents are relinquished as attachment figures" and the individual can identify "unsatisfactory friendly acquaintances" (p. 90). Yet,

the very existence of this volume, *Loneliness in Childhood and Adolescence*, indicates consensual thinking that loneliness not only exists in childhood but also that it is an important phenomenon related to child and adolescent functioning. In this section, we first review research that challenges the notion that childhood loneliness does not exist by indicating that children can experience loneliness and by defining the social and psychological experiences of lonely children. We then discuss ways in which attachment theory contributes to an understanding of the existence of loneliness in children.

Empirical Studies of Children's Loneliness

The past decade has witnessed an explosion of research addressing loneliness in children (see Asher et al., 1990, for a review). This research has demonstrated not only the feasibility but also the importance of investigating childhood loneliness. A growing body of studies has illustrated that many children – including those as young as 5 – can demonstrate a sophisticated understanding of loneliness, that childhood loneliness can reliably be measured, and that individual differences in child loneliness relate in theoretically predictable ways to several components of peer relationships including peer group behavior and acceptance, quality and quantity of friendships, and representations of self and peers. Virtually all childhood loneliness research has been conducted in schools, a method that has facilitated studying large cohorts of children, and thus has strengthened the generalizability of findings.

Several studies have provided evidence that children understand the meaning of loneliness. Cassidy and Asher (1992, 1993) reported that 93% of kindergarten and first-grade children could generate pertinent responses when asked about the meaning of loneliness, defining loneliness as a predominantly negative state resulting not only from being in particular situations but also from one's interpretations. The degree of complexity in children's understanding also related to their sociometric status, with greater understanding characterizing popular children (Cassidy & Asher, 1993; see also Hymel, Tarulli, Hayden Thomson, & Terrell-Deutsch, this volume, and Williams & Asher, 1992).

The measurement of individual differences in childhood loneliness has relied largely on some version of the Loneliness and Social Dissatisfaction Scale for Children (Asher et al., 1984) – a 24-item self-report assessment. This questionnaire has proved a sound index of children's loneliness and social dissatisfaction in the peer context (Asher & Wheeler, 1985; see also Terrell-Deutsch, this volume). Evidence of this measure's validity has come from numerous studies linking childhood loneliness to a

host of early social troubles, including negative self-perceptions, withdrawal, submissiveness, low sociometric status, and fewer and lower quality friendships.

With regard to children's behavior and acceptance within the peer group, for example, assessments made by classmates, teachers, and independent observers are strikingly consistent in portraying lonely children as less well adjusted and less well liked than their peers. Concurrent and longitudinal relations have emerged between loneliness and isolation/withdrawal (Hymel, Rubin, Rowden, & LeMare, 1990; K. H. Rubin & Mills, 1988; Renshaw & Brown, 1993; K. H. Rubin, Hymel, & Mills, 1989). Studies of childhood loneliness have also revealed connections to sociometric status. Although measures of sociometric status have varied, children who report more loneliness have consistently been depicted as less accepted, less popular, or more likely to be classified as rejected by peers (Asher et al., 1984; Asher & Wheeler, 1985; Cassidy & Asher, 1992; Crick & Ladd, 1993; Hymel et al., 1990; Renshaw & Brown, 1993; K. H. Rubin & Mills, 1988; Rubin et al., 1989). Finally, loneliness has been associated with less harmonious interactions with a best friend (Youngblade, Berlin, & Belsky, this volume; Parker et al., this volume).

The study of childhood loneliness is becoming increasingly multidimensional as researchers have been considering simultaneously several aspects of peer relationships and their relation(s) to loneliness. For example, building on findings of studies indicating that it is the combination of withdrawal/submissiveness and peer rejection that distinguishes lonely children (e.g., Parkhurst & Asher, 1992; Williams & Asher, 1987), Boivin and Hymel (1997) developed and found support for a model, whereby peer status and treatment received from peers mediate associations between social behavior and loneliness (see also Boivin et al., 1995). Additionally, two studies have found that peer acceptance and quantity or quality of friendships contribute independently to child loneliness (Parker & Asher, 1993b; Renshaw & Brown, 1993; see also Parker & Seal, 1996). Finally, links between children's loneliness and children's representations of themselves and others have emerged from several inquiries. These studies have revealed both concurrent and longitudinal associations between loneliness and low perceived self-competence and self-worth (Hymel et al., 1990; K. H. Rubin & Mills, 1988; Rubin et al., 1989), as well as self-blaming attributional styles (Hymel, Franke, & Freigang, 1985; Renshaw & Brown, 1993; see also Crick & Ladd, 1993).

In summary, the research on childhood loneliness has offered compelling evidence of its place in early social development and, accordingly, its importance to developmentalists and educators. Consistent with the

propositions of Hymel et al. (1990) and Rubin and Lollis (1988), childhood loneliness appears to be part of a complex constellation of "internalizing" social difficulties that include not only troubled peer relationships but also negative self-perceptions and withdrawal.

Contributions of Attachment Theory

Given empirical evidence of the existence of loneliness in childhood, the question of why it is that children are capable of experiencing loneliness remains. In this section, we discuss the contributions that attachment theory can make to understanding this phenomenon. One problem with previous perspectives on the nature of childhood loneliness is that the proposition that loneliness emerges "only when in adolescence, parents are relinquished as attachment figures" (Weiss, 1973, p. 90) is based on the faulty assumption that adolescents relinquish their parents as attachment figures. Ainsworth (1989) and Bowlby (1988) stated that adolescents and adults remain attached to their parents throughout their lives, even though the nature and behavioral manifestations of these attachments change dramatically. Ainsworth (1990), for instance, proposed that formation of an attachment to a peer in adolescence does not mean "the cessation of attachments to parents, although it does imply change in such attachments in that they no longer penetrate as many aspects of the person's life as they did before" (p. 467). Several studies have shown that most adolescents describe their relationships with their parents in ways that indicate that they still serve as important attachment figures for them. For instance, most adolescents love their parents and feel loved and supported by their parents in return (Offer, Ostrov, & Howard, 1981). In fact, adolescents tend to value their parents' advice more than that of peers and to be more likely to share values with their parents than with peers (Conger, 1977; Curtis, 1975). One study revealed that college students felt as close to their parents as fourth-graders did (Hunter & Youniss, 1982). Another study revealed that 15- to 17-year-olds are more likely to protest separation from their parents than from peers and are more likely to use their parents as a secure base than to use their peers (Hazan & Zeifman, 1994). Thus, within the attachment perspective, it is proposed not that attachments to parents are replaced sequentially by attachments to peers but, rather, that relationships with parents and peers develop as parts of different "behavioral systems" from early infancy. This proposition has important implications for understanding the existence of loneliness in children.

Bowlby (1969/1982) borrowed the concept of the behavioral system from the ethologists to describe the organization of a species-specific set

of behaviors that leads to certain predictable outcomes, at least one of which offers clear survival advantage to the individual. Because individuals with a biologically based predisposition to behave in certain ways are thought to be more likely to survive to contribute to the gene pool, the concept of the behavioral system involves inherent motivation and there is no need to search for a more fundamental process or "drive." Behavioral systems important to many species include those governing food gathering, mating, sociability, giving care to young, attachment to parents, wariness of the unfamiliar, and exploration. Bowlby was principally interested in the attachment behavioral system – the system that, when activated, increased the likelihood of the individual gaining or maintaining proximity to an attachment figure. Yet, to understand the attachment behavioral system fully, Bowlby recognized the importance of examining the complex interplay among behavioral systems, whereby activation of one system may reduce the likelihood of activation of another (activation of the wariness system, for instance, may contribute to an activation of the attachment system and a reduction of the exploratory system).

Several researchers have proposed the existence of a "sociable" (or "affiliative") behavioral system that is distinct from the attachment behavioral system.¹ According to Ainsworth (1989), it is "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" (p. 713). Harlow and Harlow (1965) described the "peer affectional system through which infants and children interrelate... and develop persisting affection for each other" as an "affectional system" distinct from those involving infant and parents. Similarly, Bowlby wrote

"Affiliation" was introduced by Murray (1938): "Under this heading are classed all manifestations of friendliness and goodwill, of the desire to do things in company with others." As such it is a much broader concept than attachment and is not intended to cover behavior that is directed towards one or a few particular figures, which is the hallmark of attachment behavior. (1969/82, p. 229)

Bronson (1972) referred to affiliation as an "adaptive system" present in infancy and separate from attachment. Bretherton and Ainsworth (1974) examined the interplay among several behavior systems in infants,

¹ Following Greenberg and Marvin, 1982 (see also Ainsworth, 1989), we use the term *sociable system* rather than *affiliative system* throughout this chapter.

including the sociable and the attachment systems, and Greenberg and Marvin (1982) examined this interplay among preschool children. Hinde (1974) described nonhuman primate play with peers, which he identified as different from mother-child interaction, as "consum[ing] so much time and energy that it must be of crucial adaptive importance" (p. 227).

The sociable system, thus, is defined as the organization of the biologically based, survival-promoting tendency to be sociable with others. An important predictable outcome of activation of this system is that the individual is likely to spend at least part of his or her time in the company of others. For humans, when the species was first evolving, survival advantage was likely to have resulted because individuals who are in the company of others are much less likely to be killed by predators (Eisenberg, 1966).² The sociable system is likely to contribute to the individual's survival in other ways: Primates biologically predisposed to be sociable with others increase their ability to gather food, build shelter, and create warmth; and they learn about the environment more efficiently; and they gain access to a group of others with whom they may eventually mate (see Huntingford, 1984, for a review). Strong evidence of the importance of the sociable system for the development of young nonhuman primates comes from several studies, most notably that of Harlow (1969) in which monkeys reared with their mothers but without peers were seriously hindered in their social development and could not mate or parent effectively (i.e., reproduce; see also Miller, Caul, & Mirsky, 1967). The sociable system is most likely to be activated when the attachment system is not activated. According to Bowlby (1969/82),

A child seeks his attachment-figure when he is tired, hungry, ill, or alarmed and also when he is uncertain of that figure's whereabouts; when the attachment figure is found he wants to remain in proximity to him or her and may want also to be held or cuddled. By contrast, a child seeks a playmate when he is in good spirits and confident of the whereabouts of his attachment figure; when the playmate is found, moreover, the child wants to engage in playful interaction with him or her. If this analysis is right, the roles of attachment-figure and playmate are distinct. (p. 307)

According to Bowlby (1979), activation of many behavioral systems is accompanied by powerful feelings. For instance, joy is associated with maintenance of an attachment bond, anxiety with a threat to it, and

² It seems likely that association with peers arising from activation of the sociable system serves a protective function, even in contemporary society. Ladd and his colleagues, for instance, have provided evidence to suggest that children who have friends or playmates to be with during school (e.g., during recess) are less at risk for victimization-bullying by peers (see Burgess & Ladd, this volume).

sadness with its loss. Similarly, positive emotions are likely to be present when individuals are engaged in sociable interaction. Indeed, studies of infants interacting with a friendly adult woman show that most infants will smile repeatedly within a few minutes (Bretherton, 1978; Bretherton & Ainsworth, 1974; see also Bretherton, Stolberg, & Kreye, 1981). Studies of unfamiliar infant peer dyads show that infants smile at peers as early as 6 months (Vandell, 1980). Given the survival advantage derived from sociable behavior, the association of sad feelings with the lack of opportunity for social interaction would be adaptive. Individuals who feel lonely when lacking a social companion may be motivated to seek out others, thus increasing their likelihood of survival.

The signal function of lonely feelings may also be adaptive (cf. a functionalist approach to emotions; Barrett & Campos, 1987). Lonely feelings may signal to the individual that behavior to change the situation is called for and may signal to others that social interaction is desired. Thus, when a child is faced with the lack of social interaction, loneliness may be an adaptive response, from an evolutionary viewpoint as well as from a psychological viewpoint, because it increases the individual's likelihood of interaction with others. Weiss (1973) described the function of loneliness in similar terms: "Loneliness is a reaction to the absence of significant others based on mechanisms which may once have contributed to the survival of the species and which still are critical to the well-being of individuals" (p. 36).

The debate over the existence of loneliness in children may hinge on how loneliness is defined. In his discussion of adult loneliness, Weiss (1973, 1987) distinguished between "emotional loneliness" and "social loneliness," a distinction also useful in understanding loneliness in children. Weiss identified emotional loneliness as the absence of an attachment figure and social loneliness as the absence of a community (e.g., of friends, kin, and coworkers). A person who lacks an attachment figure cannot fill the void by getting more friends; nor can having an attachment figure compensate for the lack of friends. Evidence for the existence of these distinct forms of loneliness in adults comes from a study by Russell, Cutrona, Rose, and Yurko (1984). Within a behavioral systems approach, emotional loneliness is related to activation of the attachment system, and social loneliness is related to activation of the sociable system. Although these two behavioral systems are fundamentally distinct, there is an interplay between them. For example, when a man's wife is out of town for several weeks, he may feel emotional loneliness; he misses his attachment figure. An evening with a bowling companion may satisfy his desires for social companionship and may also distract him from his longing for his

attachment figure, but the two relationships are not interchangeable.³ Weiss (1973), although perhaps not interpreting the behaviors as we do, described what we consider to be, within the theoretical framework presented here, emotional and social loneliness in childhood:

The provisions of social integration are distinct from those of attachment in that neither can be substituted for the other. The small boy whose sniffles lead to his being kept in by his mother while the other boys are out sledding, or, even worse, who is told by older boys to go home and not bother them, will not find the presence of a maternal attachment figure to sustain his feelings of well-being. Nor can children be solaced for the protracted absence of parents by the attention of age mates. Children need both friends to play with and parents to care for them. Similarly, adolescents need both a social network to provide engagement and an attachment figure to provide security. (p. 148)

Weiss's (1973) claim that it is not until adolescence that loneliness is experienced seems more likely to be the case for emotional loneliness than for social loneliness. Little is known about changes in the attachment and sociable systems that occur during adolescence. Certainly adolescence is a transitional period and by early adulthood, most individuals view a sexual partner rather than a parent as their principal attachment figure. During this transition, when the adolescent is less satisfied with the parent as the principal attachment figure but has not yet established an attachment relationship with a new figure, he or she may be more vulnerable to feelings of emotional loneliness than previously. It is, however, important to remember that an adolescent with a steady dating partner serving as an attachment figure may nonetheless experience social loneliness if sociable relationships with other peers are lacking. Younger children too may feel social loneliness when lacking satisfying peer relations.

Furthermore, it is important to consider the quality of an individual's attachment when considering the existence of emotional loneliness. It is proposed here that it is not simply having a principal attachment figure that reduces the likelihood of emotional loneliness, but rather it is having a principal attachment figure to whom one is securely attached. It is worth noting that, for adults, simply having an attachment figure (e.g., being married) may not preclude emotional loneliness; the quality of the attachment relationship may play a role. Thus, adults with an insecure attachment (i.e., an unhappy marriage) may be more prone than happily

³ For data and more extensive discussion related to the interplay of the sociable system with other behavior systems, see thoughtful discussions in Ainsworth et al. (1978), Bretherton (1978), Bretherton and Ainsworth (1974), and Greenberg and Marvin (1982).

married adults to experience emotional loneliness and may even be as lonely as unmarried people. Similarly, it seems likely that younger children who lack a secure attachment relationship may also be vulnerable to feelings of emotional loneliness. Given that in most American middle-class samples approximately one fourth of infants are classified as insecurely attached to the mother (van IJzendoorn & Kroonenberg, 1988), emotional loneliness in children may not be an infrequent occurrence.

Asher et al. (1990) have taken a somewhat different view of emotional and social loneliness in children, suggesting that emotional loneliness may be related to the lack of close friendships and that social loneliness may be related to the lack of peer-group acceptance. These authors pointed out that when children (third through eighth graders) talk about loneliness, they use terms related both to intimate friendship ("no one to share your thoughts with") and to group acceptance ("feeling left out"; Hayden, Tarulli, & Hymel, 1988). There is increasing evidence that friendship and group acceptance are distinct components of children's peer relations and that each makes independent contributions to children's loneliness (Parker & Asher, 1993b; Parker et al., this volume). Strict adherence to Weiss's (1973, 1987) definitions, however, means that children's close friendships are not relevant to emotional loneliness because, according to Bowlby (1969/1982) and Ainsworth (1989), these relationships are not attachments. From the perspective of attachment theory, children's relationships with friends and with the larger peer group both serve the sociable system, although in different ways.⁴

In summary, the attachment system and the sociable system are best considered as two parallel systems, both biologically based and developing on parallel tracks from infancy. Observations of both humans and other primates clearly show differences between these two systems in what activates behavior, in what terminates behavior, and in the way behaviors are organized (Bretherton & Ainsworth, 1974; Harlow, 1969; Vandell, 1980). Lewis, Young, Brooks, and Michalson (1975), for instance, interpreted their observations of pairs of one-year-olds as follows:

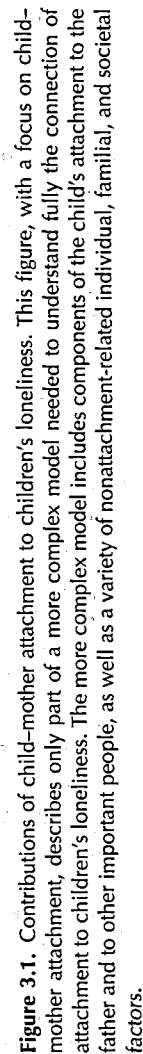
⁴ Just because certain relationship provisions are met within a relationship does not mean that the relationship is defined in those terms. For example, because a 1-year-old distressed about separation from his or her mother will direct his or her attachment behaviors to a friendly stranger does not mean the relationship with the stranger is an attachment relationship. Similarly, even though a mother may be a frequent playmate for her 5-year-old, it does not negate the fact that this relationship is essentially characterized as an attachment relationship. Thus, even though a child may at times turn to friends for comfort (Hazan & Zeifman, 1994), these friendships need not be essentially attachment relationships.

"Mothers are good for protection, peers for watching and playing with" (p. 56). Despite these differences (or perhaps because of them), it is clear that both peers and parents are important to children's happiness and that one cannot substitute for the other. An evolutionary perspective based on the notion of behavioral systems provides a theoretical framework that suggests that it is biologically adaptive that this should be so. Children who lack a secure relationship with an attachment figure may be prone to feelings of emotional loneliness from an early age. Even securely attached children may become more prone to emotional loneliness during adolescence as they shift from using the parent as the principal attachment figure and search for a peer to fill that role. Social loneliness, a phenomenon distinct from emotional loneliness, whereby children feel lonely because they lack sociable peers with whom to play and (later) talk, is also likely to be experienced starting in childhood.

Attachment, Representations, and Loneliness

Attachment theory makes a series of propositions about the ways in which individual differences in children's early attachments to parents affect their later abilities to form close, satisfying relationships. Among these propositions are several that suggest the possibility of links from child-parent attachment to children's loneliness, and in prior work we documented a link between attachment quality and loneliness. Specifically, in a longitudinal study of infant-mother attachment and loneliness in young children, we found that 5- to 7-year-olds who had been insecure-ambivalent in infancy reported the most loneliness, insecure-avoidant children reported the least loneliness, and secure children reported an intermediate level of loneliness (Berlin, Cassidy, & Belsky, 1995). We now present a model describing the different pathways through which attachment is expected to contribute to loneliness. All pathways are noted in Figure 3.1. In this section, we describe a set of pathways related to representations. In the following section, we describe a set of pathways related to peer relations.

Key to understanding the representation-related pathways between attachment and loneliness is the idea of internal representational models. According to Bowlby (1979), the development of a representational model begins during infancy when the child forms a model of the workings, properties, and characteristics of the parent. This model is thought to be strongly influenced by the child's repeated daily experiences in relation to attachment, "in fact far more strongly determined by a child's actual experience throughout childhood than was formerly supposed" (Bowlby,



Representational models are thought to define security or insecurity of attachment: A secure child, for instance, is defined as one who has a representation of the parent as generally available and sensitively responsive when needed. Several recent studies have examined attachment and representations. Studies examining the doll-story narratives of preschool children found that secure children, compared with insecure children, were more likely to have coherent representations of the parents as protective and empathic (Bretherton, Ridgeway, & Cassidy, 1990), of the relationship with the mother as important, warm, and serving as a secure base in times

of trouble (Cassidy, 1988), and of the child protagonist as having competent responses to separation (Main et al., 1985; Slough & Greenberg, 1990). The attachment-related representations of adults (their "current state of mind with regard to attachment") have been found in several studies to relate to parenting behavior (Crowell & Feldman, 1988, 1991; van IJzenendoorn, Kranenburg, Zwart-Woudstra, van Busschbach, & Lambermon, 1991), to affect regulation (Kobak & Sceery, 1988), and to affect the behavior and attachment quality of the adult's child (Ainsworth & Eichberg, 1991; Benoit & Parker, 1994; Crowell & Feldman, 1988, 1991; Fonagy, Steele, & Steele, 1991; Main et al., 1985; van IJzenendoorn et al., 1991). Furthermore, parents' attachment-related representations of their own children have also been found to relate to their children's representations of attachment and to the quality of their children's attachment to them (Benoit & Parker, 1994; Bretherton, Biringen, & Ridgeway, 1991; George & Solomon, 1996; Zeanah, Benoit, Hirschberg, Barton, & Regan, 1995).

For Bowlby (1973), the representational model of the attachment figure is inextricably intertwined with the representational model of the self (see also Sroufe, 1990). Over time, the child comes to believe that his or her parent will behave in certain predictable ways. On the basis of these experiences, the child simultaneously develops a complementary view of him- or herself. For example, if the child is loved and valued, he or she comes to feel lovable, valuable, and special. If, however, the child is neglected or rejected, he or she comes to feel worthless and of little value. According to Bowlby (1980),

[The secure child] is likely to possess a representational model of attachment figure(s) as being available, responsive and helpful and a complementary model of himself as at least a potentially lovable and valuable person. Those models will have been built up as a result of happy experiences during his childhood when his desires for love, comfort, and support will have been respected and met. (p. 242; Figure 3.1, Path b)

Empirical evidence of a connection between attachment and representations of the self has emerged from two studies. In the Minnesota Mother-Child Project (Sroufe, 1983), teachers rated the self-esteem of preschool children by using three measures and found that children who had been securely attached in infancy had higher self-esteem than children who had been insecurely attached in infancy. Cassidy (1988) reported a similar association between attachment and representations of the self in a sample of 6-year-olds.

Representational models of parents are thought to be closely linked not only to representational models of the self but also to representational

models of at least some other people. This linkage is thought to occur through a process whereby representations of parents generalize to representations of others (Figure 3.1, Path d; Bowlby, 1973; Hazan & Shaver, 1987; Waters, Wippman, & Sroufe, 1979). It is, in fact, this process of generalization that is thought to account for the influence of early child-parent relationships on later relationships. According to Bowlby (1973),

An unwanted child is likely not only to feel unwanted by his parents but to believe that he is essentially unwanted, namely unwanted by anyone. Conversely, a much-loved child may grow up to be not only confident of his parents' affection but confident that everyone will find him lovable too. Though logically indefensible, these crude overgeneralizations are none the less the rule. Once adapted, moreover, and woven into the fabric of working models, they are apt hence forward never to be seriously questioned. (pp. 204-205)

To the extent that generalization of representations does occur, a number of issues are important to consider. What is the connection of representations of specific people to generalized representations? In their earliest relationships, children are thought to have specific representations about the likely availability and responsiveness of a few specific people. That children have specific representations of how people will behave is surmized from the fact that attachment to the mother is not necessarily related to attachment to the father (Belsky & Rovine, 1987; Main & Weston, 1981). According to Ainsworth (1989), once these initial representations are formed, they then contribute to the formation of new representations. Does the child's representation of attachment to the mother generalize to all other types of relationships with all other people? Are there parameters to this generalization? It may be that attachment representations generalize only to representations of other attachment relationships. If so, then, these representations would not be related to peer relationships, as these are generally not considered to be attachment relationships (Ainsworth, 1989). Yet because peer relationships are important relationships for young children and are associated with considerable intimacy and strong emotions (see Asher & Parker, 1989, for a review), attachment researchers have proposed that peer relations are the type of relationship likely to be related to attachment relationships (Sroufe & Fleeson, 1986). The extent to which representations about attachment relationships are carried over to people with whom one has sociable and important but nonattachment relationships needs to be considered and explored. It may be that generalization is more related to certain dimensions of peer relations (e.g., close friendships) than to others (e.g., popular status within a large group).

Despite the central importance of the notion of generalization, relatively little has been written about the nature of this generalization and about how it occurs (see, however, Bretherton, 1990; Main et al., 1985). The cognitive processes through which, according to Piaget (1937/1954), existing structures contribute to the development of new structures are likely to be relevant. Main et al. have described the role that such processes as attention and memory may play. Future research about the influence of experience on brain functioning and the development of neural pathways (Cicchetti & Tucker, 1994; Edelman, 1987; Schore, 1994) will undoubtedly contribute to understanding the process of generalization of representations.

Although there is no evidence that generalization is the process through which the link occurs, there are data suggesting a link between attachment and representations of peers. In a sample of German 5-year-olds, children were shown drawings of stories in which a peer caused a negative incident. The peer's intent was clearly intentional, clearly accidental, or ambiguous, and children were asked whether the peer intended for the negative event to occur. Children who had been securely attached to mother as infants tended to have "realistic or well-meaning" representations of peer intent, whereas children who had been insecurely attached had "unrealistic or negative" representations (Suess, Grossmann, & Sroufe, 1992). In a series of three studies, Cassidy, Kirsh, Scolton, and Parke (1996) provided children at ages 3, 6, and 9 with ambiguous stories (based on stories by Dodge & Frame, 1982) in which the children were to imagine that a peer caused a clearly negative event to happen to them but that the circumstances of the event and the peer's intent were ambiguous. As predicted, representations that the peer's intent was positive were positively correlated with secure attachment for the 6-year-olds and with parental acceptance (thought to be a central component of secure attachment; e.g., Ainsworth, Blehar, Waters, & Wall, 1978) for the 9-year-olds.

Children's representations – of the attachment figure, of the self, and of others – may all relate directly to children's loneliness. First, a representational model of the attachment figure(s) as unavailable as a source of comfort and affection may leave the child with such an emotional void that the child comes to experience a nearly perpetual state of longing for something missing, a state that may leave the child with a fundamental sense of loneliness within all social relationships (Figure 3.1, Path c). Second, representational models of the self as unappealing or unworthy of care might also contribute directly to children's feelings of loneliness. Children who have been unable to elicit comfort and care from their attachment figure(s) are likely to develop a sense of themselves as incompetent in eliciting

caring from others as well (Waters & Sroufe, 1983). Ainsworth et al. (1978), having observed that the intense cries of some infants were ignored, proposed that these babies learned that their signals for care would not be responded to and learned that they were helpless in eliciting responses from others. A child with such a model may feel that he or she is not a person whom others (including peers) will like and will thus feel lonely (Figure 3.1, Path f). Finally, representational models characterizing others as more generally hostile, rejecting, or unavailable may contribute to a child's feelings that others are not likely to respond to his or her needs, one of which is for companionship (Figure 3.1, Path e). Bowlby (1988) has described extreme cases of attachment-related trauma as contributing to an increased likelihood that a child might "despair of ever having a secure or loving relationship with anyone" (p. 50). It is easy to imagine that such despair might contribute to pervasive feelings of loneliness. In summary, we propose that it is in part through children's representations of the attachment figure as unavailable, of the self as unworthy, or of others as rejecting that insecure attachment relates to children's loneliness.

Attachment, Peer Relations, and Loneliness

Starting with the initial studies of children's loneliness, researchers have proposed that the quality of children's peer relations would be associated with loneliness, and a sizable body of data has supported this proposition (Asher et al., 1984; Asher & Wheeler, 1985; Cassidy & Asher, 1992; Crick & Ladd, 1993; Hymel et al., 1990; Parker & Asher, 1993b; Renshaw & Brown, 1993; K. H. Rubin et al., 1989). Given these associations between peer relations and loneliness, any factors contributing to poor peer relations may also contribute to loneliness. In this section, we review evidence that children's attachments are associated with their peer relations and, thus indirectly, with children's loneliness.

In examining the connection between attachment and children's peer relations, we include in our model (see Figure 3.1) parts of models proposed by Dodge, Pettit, McClaskey, and Brown (1986) and by Boivin and Hymel (1997). The central components of this portion of the model are behavior with peers, peer-group acceptance and friendship, and treatment received from peers. According to Dodge et al., children's peer-related representations influence their behavior with peers, with more negative representations associated with more negative behavior (Path g; Dodge, Murphy, & Buchsbaum, 1984); negative behavior, in turn, contributes to being rejected by peers (Path h; Coie & Kupersmidt, 1983; Dodge, 1983); being rejected, in turn, increases the likelihood of receiving negative

behavior from peers (Path i; Dodge & Frame, 1982; Gottman, Gonso, & Rasmussen, 1975); and finally, given evidence that even young children use knowledge of behavior to build representations (Gnepp, Klayman, & Trabasso, 1982; Heller & Berndt, 1981), it seems likely that experiences of being poorly treated will, in turn, contribute to the child's negative representations of peers (Path j). As Boivin and Hymel proposed (a proposition for which they found empirical support), direct paths from each of these components to children's loneliness also exist (Paths s, r, and m).

In this section, we examine the connection of attachment to three components of this model – behavior with peers, peer-group acceptance and friendship, and treatment from peers – all of which have been linked to children's loneliness. The research reviewed is extensive and multifaceted: There exist contemporaneous and longitudinal investigations of toddlers, preschoolers, and school-aged children. Investigators have examined children's interactions and relationships with unfamiliar peers, familiar peers, and close friends, with data provided by mothers, teachers, independent observers, and peers themselves. Although the findings are by no means uniform, they are strikingly consistent in their illustration of a relation between secure child-mother attachment and more harmonious peer relationships.

Attachment and Relations With Peers

Relations between attachment quality and behavior with peers (Figure 3.1, Path o) first emerged in a series of investigations from the Minnesota Mother-Child Study (see Elicker, Englund, & Sroufe, 1992, for a review). In one inquiry, toddlers who had been classified as insecurely attached 6 months prior were less sociable and less positively oriented toward a secure peer during laboratory free play than toddlers who had been securely attached (Pastor, 1981; see, however, Jacobson & Wille, 1986, for a failure to replicate). Another study of 3½-year-olds reported greater peer competence in children who had been securely attached in infancy (Waters et al., 1979). In another preschool study, teachers rated 4- to 5-year-olds who had been securely attached as higher on ego-control and ego-resiliency than children who had been insecurely attached (Arend, Gove, & Sroufe, 1979). In still another preschool study, 4- to 5-year-olds who had been securely attached infants were rated by teachers as more socially competent than children who had been insecurely attached (LaFreniere & Sroufe, 1985).

Three additional preschool investigations were based on these same children. In one, securely attached children received higher empathy scores

than insecure-avoidant children (Kestenbaum, Farber, & Sroufe, 1989). In another inquiry, securely attached children were less likely than insecure children to act as "victimizers" (Troy & Sroufe, 1987). Finally, securely attached children were viewed by both teachers and observers as exhibiting fewer behavior problems than avoidant and/or ambivalent children (Erickson, Sroufe, & Egeland, 1985; see also Fagot & Kavanagh, 1990, for both parallel and contradictory findings). Findings paralleling those of Sroufe and his colleagues have emerged from a longitudinal inquiry conducted in Southern Germany (Suess et al., 1992) and from an intervention study with temperamentally irritable Dutch infants followed up at 3.5 years (van den Boom, 1995). Two European studies in which both attachment quality and preschool behavior were examined concurrently at age 4 (Turner, 1991) and at age 6 (Wartner, Grossmann, Fremmer-Bombik, & Suess, 1994) also revealed similar findings. Contradictory findings, however, have emerged from a recent longitudinal investigation of attachment quality and behavior with peers (Howes, Matheson, & Hamilton, 1994).

In addition to the generally consistent findings of a connection between attachment quality and behavior toward peers in preschoolers, several studies have revealed this connection in school-aged children. In one study, insecurely attached 6-year-old boys were regarded less favorably by both teachers and classmates than securely attached boys; no attachment group differences emerged for girls (Cohn, 1990). In an investigation focusing on teacher-rated behavior problems, 18-month (but not 12-month) attachment group differences emerged for boys, with boys who had been insecurely attached more likely than boys who had been securely attached to be classified aggressive or passive-withdrawn (Renken, Egeland, Marvinney, Mangelsdorf, & Sroufe, 1989). In another study, 11-year-olds who had been securely attached infants were rated by their summer camp counselors as more socially competent than those who had been insecurely attached (Elicker et al., 1992).

Similar associations have emerged in several studies of close friendships. One investigation revealed that children classified as securely attached at age 2 were rated higher on "social responsiveness" during play with a "best playmate" at ages 2 and 5 (Pierrehumbert, Iannotti, Cummings, & Zahn-Waxler, 1989). Another study found that best friendships consisting of two securely attached 4-year-olds were more harmonious than those made up of one secure and one insecure child (Park & Waters, 1989). Additionally, in a recent longitudinal investigation of infant-parent attachment and 6-year best friendship, children who had been securely attached were less likely to engage in negative interactions than children who had been insecurely attached; however, there were no

attachment group differences for positive interactions (Youngblade & Belsky, 1992). Finally, in Elicker et al.'s (1992) summer camp study, children who had been securely attached infants were more likely than other children to be judged by their counselors as having made at least one friend during camp (see also Lewis & Feiring, 1989).

Attachment, Peer Acceptance, and Treatment From Peers

In addition to illustrating associations between attachment quality and children's behavior with peers, research has documented links between attachment and two additional components of children's peer relationships that appear in our model: peer acceptance (Figure 3.1, Path p) and treatment received from peers (Figure 3.1, Path q). In LaFreniere and Sroufe's (1985) preschool study, securely attached children had higher sociometric status than insecurely attached children (see, however, Howes et al., 1994, for contradictory findings). In Cohn's (1990) investigation, secure 6-year-old boys were better liked by their classmates (see also Elicker et al., 1992). With regard to treatment received from peers, a study of unfamiliar toddler playmates found that children classified as securely attached were more positively responsive than playmates of children classified as insecurely attached (Jacobson & Wille, 1986). Similarly, in van den Boom's (1995) intervention follow-up, unfamiliar same-sex peers were more likely to make and maintain contact with a secure playmate than with an insecure playmate. Finally, in Troy and Sroufe's (1987) study of victimization, none of the preschoolers who had been classified secure in infancy was bullied.

Underlying Processes

What are the processes underlying the connection between attachment and these various components of peer relations? The role of cognitive representations was described in a previous section of this chapter. Several additional factors may be important. First, parents of secure children may provide their children with more opportunities to establish peer networks, which may in turn provide opportunities for practicing social skills and making friends. Some evidence for this supposition comes from a study of 3-year-olds: Attachment security was positively related to the quantity of these children's contacts with peers (Lieberman, 1977). Second, parents of securely attached children may teach their children to value relationships and may advise their children in such a way as to help them develop and maintain positive relationships. Third, secure children may be more likely to receive positive treatment from their parents and to observe their parents in harmonious interactions with their own adult peers. Then,

secure children may model their parents' positive social behaviors. These processes are not mutually exclusive.

A Broader View of Childhood Loneliness: Attachment and Peer Relations Considered Within a Transactional Framework

Although there are many reasons why attachment theory would lead one to expect connections between insecure attachment and loneliness, the theory does not necessarily predict these connections to be strong. Indeed, in the only study examining children's loneliness and attachment, the connection between the two, though significant, accounted for a small proportion of the variance (Berlin, Cassidy & Belsky, 1995). Attachment is not linked to children's loneliness in a vacuum. The model linking attachment and children's loneliness that we have presented is best viewed as existing within a larger transactional framework (Sameroff & Chandler, 1975). The transactional perspective, like Bowlby's (1973) developmental pathways approach, suggests that it is the interaction of many factors – some stressors and some protective factors – that contributes to children's social and emotional development. To understand fully the connection of attachment and loneliness, it is important to examine this connection within the context of a complex interplay of additional factors. In this section, we use a transactional framework to consider a number of factors that may interact with child-mother attachment to contribute to children's loneliness. In doing so, we raise questions and make suggestions for future research.

When considering the role of attachment in children's loneliness, it is important to remember that the mother is not the only person to whom the child is attached (Bowlby, 1958). Starting in the first year, the child is likely to be attached to other important figures, particularly the father and other familiar caregivers (Goosen & van IJzendoorn, 1990), and these attachments are likely to contribute to the child's relationships with peers (Howes et al., 1994; Oppenheim, Sagi, & Lamb, 1988). Are these additional attachments as influential as the attachment to the mother? Do different attachments influence the child in different ways? What happens when one attachment figure suggests that the child is lovable and valuable and another suggests that the child is of little value? Do these conflicted views become integrated into one representational model of the self and others? If so, through what process and when does this occur? Can secure attachment to one parent serve as a buffer (i.e., decrease the likelihood of loneliness) in light of an insecure attachment to the other parent? Are same sex relationships (i.e., father-son or mother-daughter) particularly important?

Moreover, it is important to remember that the attachment component of the parent-child relationship is not the only component of that relationship likely to influence children's peer relations and loneliness. The connections between attachment and nonattachment components of child-parent relationships are important to consider. The attachment component of the relationship deals specifically with the parent's serving as a secure base for the child. Parents, however, are not only attachment figures for their children. They are also playmates, teachers, disciplinarians, and care providers, and they influence their children in these roles (Ladd, 1992; Putallaz & Heflin, 1990). A parent's ability in one of these roles is at least somewhat independent of his or her abilities in the other roles. One child may be securely attached to a parent who is also a clever, fun playmate, whereas another child may be securely attached to a parent who is a rather staid and unimaginative playmate. Yet another child may be insecurely attached to a parent who is a good playmate. What are the implications of these different types of parenting? Which of these components of parenting would have greater influence on children's peer relations and loneliness? Would different components have different influences on different areas of children's peer relations (e.g., group popularity vs. close friendship)? The extent to which parents support and encourage their children's peer relations is also likely to be important (see Rotenberg, this volume). In summary, we need to learn more about how much the child's attachment-related experiences, as compared to the child's other experiences with the parent, influence peer relations and loneliness. Furthermore, components of parental behavior unrelated to the child directly (e.g., parents' social relationships with adult peers) are likely to be important. Children may imitate their parents' interest in and behaviors with their own adult peers, and this may interact with attachment to influence children's loneliness.

It is also important to consider the interaction of attachment with children's wider social network of relationships outside the family. To what extent does having a large social network buffer an insecurely attached child from loneliness? Does a securely attached child living in an isolated single-parent family bring to school feelings of isolation that contribute to a longing for companionship and thus an increased opportunity for feeling disappointed and lonely?

Experiences with peers may interact with attachment to influence children's loneliness. For instance, experiences with peers may contribute to representations of peers and may, in fact, override the influence of representations generalized from attachment-related representations of the parent. Thus, if peers truly have hostile intent, if peers truly are an aggressive, dangerous group, even securely attached children are likely

to have negative representations of them. Evidence that peer representations are influenced by relationships with peers comes from studies in which participants' representations varied as a function of beliefs about a specific peer (Rabiner & Coie, 1989; Waas, 1988). It may also be the case that insecure children with negative peer representations may develop more positive representations if they are well liked and well treated by peers. This scenario seems rather unlikely, however, given that children with negative representations may behave in ways that reduce the likelihood that they will become well treated and well liked. According to Main (1990), the likelihood of representations of peers separating from representations of parents – for instance, of the child realizing that the parent is rejecting but that not all others are – is more likely to occur with the coming of formal operations in adolescence than at younger ages.

Finally, attachment should be examined in conjunction with the child's individual biological characteristics (including temperament). A child may be temperamentally more aggressive or disruptive or withdrawn than others, and these behaviors might contribute to rejection and loneliness. A child's biologically based deficits may contribute to lower self-esteem that, in turn, may directly or indirectly effect his or her loneliness. Conversely, a child may become well liked for reasons that have nothing to do with attachment (e.g., if they are cute, smart, or athletic). A child, for instance, may be well liked for no reason other than the fact that he or she is a star baseball player. Because peers admire him or her and want to be around him or her, such a child may experience little loneliness, despite a relative lack of social skills. In fact, simply being with peers may increase the child's own social skills. Also, the positive treatment he or she receives from peers may serve to improve representations of peers and thus his or her own behavior toward them. There may also be temperamental differences in a child's proneness to feelings of loneliness when alone.

In summary, within a transactional framework, it is the interplay of a variety of individual, familial, social, and larger environmental factors that is important for understanding children's loneliness. Most empirical work examining children's loneliness has focused on a variety of aspects of peer relations, and findings that peer acceptance, friendship status, and friendship quality all make independent and additional contributions to children's loneliness (Parker & Asher, 1993b; Parker et al., this volume) underscore the likelihood of multiple influences on children's loneliness. We have outlined ways in which attachment may play a role, and we have suggested that the contribution of both attachment and peer relations to childhood loneliness must be considered within a broad context.