

CHAPTER 12

Peer Relationships, Child Development, and Adjustment: A Developmental Psychopathology Perspective

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It is a measure of the persuasiveness of the cumulative body of research on children's peer relationships that it has become trite to claim that peer experiences significantly shape development and the development of psychopathology. Few contemporary psychologists—and few laypersons, for that matter—doubt that children come to know themselves at least partly from how they are treated by peers; that relationships with peers provide rich opportunities for learning cooperation, gaining support, or developing interpersonal skills; or that persistent difficulties in getting along with childhood peers are likely to portend difficulties with others later in life and, in the extreme, clinically significant behavioral and affective disorders.

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This has not always been the case. When we introduced this chapter a decade ago, we noted its timeliness by observing that it coincided with what appeared to be a nascent and important shift away from "regarded variations in children's experiences with peers as derivative of broader achievements or failings of personality development and without developmental consequences of their own" (Parker, Rubin, Price, & DeRosier, 1995, p. 96).

Even as the developmental significance of peer experiences has become less disputable, understanding the roots and consequences of peer experiences has grown more complex and arguably less tractable. To begin with, it is more difficult now than a decade ago to understand which children

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are experiencing difficulties with their peer relationships. The past decade has witnessed unprecedented advances in the development and refinement of methods for studying adjustment with peers (e.g., see Bukowski & Cillessen, 1998), so much so that space considerations now prevent us from treating assessment issues as comprehensively as we did a decade ago. If advances in assessments have made unprecedented progress, why is it so much harder today than a decade ago to represent children's peer difficulties?

The paradox lies in the growing appreciation for the great diversity of ways in which success or failure with peers may be played out in life and represented in assessments. A decade ago, the effort to conceptualize and assess individual differences in children's adjustment with peers was dominated by a focus on sociometric status in school classrooms and grades. A watershed in interest in peer group acceptance and rejection may have been reached in the early 1990s beginning with the publication of a landmark volume edited by Asher and Coie (1990), but research on this construct remains a dominate focus today (e.g., Cillessen & Bukowski, 2000; Furman, 1996).

Today, evidence has slowly mounted to suggest that gauging adjustment with peers is not as simple as understanding the degree to which individuals are accepted or rejected by significant peer groups. Instead, steady progress has been made, especially recently, in understanding that other dimensions of adjustment also exist and carry weight. For example, researchers have suggested that being well liked or popular in a peer group may be something altogether distinct from being perceived by other children as popular (Lease, Kennedy, & Axelrod, 2002; Lease, Musgrove, & Axelrod, 2002). Some children are perceived by peers to be popular, although more objective assessments indicate that they are not. When compared to children who are well liked by others, children perceived to be popular appear to have some personal characteristics that are more usually associated with rejection (Buskirk, Rubin, Burgess, Booth-LaForce, & Rose-Krasnor, 2004; LaFontana & Cillessen, 1999; Parkhurst & Hopmeyer, 1998). Another element of complication derives from recent research on friendship. Friendship and acceptance are connected in important ways (e.g., George & Hartmann, 1996; Newcomb, Bukowski, & Bagwell, 1999; Sabongui, Bukowski, & Newcomb, 1998). However, friendships appear to play different functions in children's development than does group acceptance; moreover, group acceptance neither guarantees nor precludes successful friendship experiences (Asher, Parker, & Walker, 1996; Bigelow, Tesson, & Lewko, 1996; Brendgen, Little, & Krappmann, 2000; Hoza, Molina, Bukowski, & Sippola,

1995; Ladd, Kochenderfer, & Coleman, 1997; Parker, Saxon, Asher, & Kovacs, 1999). Yet another element of complication is the recent discovery that children develop enemies somewhat independently of their group standing and success with friends (Abecassis, 2003; Parker & Gamm, 2003). We have only a beginning understanding of the developmental significance of such mutual antipathies, but we can conclude safely at this early stage that the presence of these relationships challenges our understanding of social competence and what it means to be successful with age-mates (Hodges & Card, 2003).

An additional challenge stems from recent recognition that many ostensibly positive peer experiences may also encourage maladjustment. For example, decades of research have documented the social difficulties of aggressive children, but new evidence suggests that, in specific circumstances, individuals who are "mean" can be attractive to others (Farmer, Estell, Bishop, O'Neil, & Cairns, 2003; Hawley, 2005; Rodkin, Farmer, Pearl, & Van Acker, 2000). Conversely, while appropriately celebrated for their positive influence on children's satisfaction and development, recent evidence suggests that friendships can also be a source of tension, and friends can deeply disappoint their partners. Children often value their friends because they provide opportunities for emotional support and self-disclosure, and researchers have typically assumed that self-disclosure in friendship indicates healthy functioning. However, some friendships are characterized by aggressive behavior (e.g., Crick & Nelson, 2002; Poulin & Boivin, 2000) and other recent evidence suggests that children who discuss deviance in their disclosures with friends are at increased risk for deviance themselves (e.g., Brendgen, Vitaro, & Bukowski, 2000; Dishion, Andrews, & Crosby, 1995; Dishion, Spracklen, Andrews, & Patterson, 1996; Keenan, Loeber, Zhang, Stouthamer-Loeber, & Van Kammen, 1995; Poulin, Dishion, & Haas, 1999; Urberg, Degirmencioglu, & Pilgrim, 1997) and discussions of personal problems among friends that become preoccupying can increase rather than decrease children's risk of internalizing disorders (Rose, 2002). Likewise, having multiple friends is usually and rightly considered a positive sign of adjustment with peers. Yet, in specific friendships, feelings of jealousy can arise in one member if their friend's interest in, or activities with, an outsider highlights their own shortcomings in important areas or is perceived as an infringement on the quality or sovereignty of the relationship. There is evidence that feelings of jealousy, an emotional experience born from closeness, can damage children's intrapersonal adjustment and result in negative behavior

(Parker, Low, Walker, & Gamm, 2005). Romantic relationships, too, can be characterized by intense conflict and feelings of insecurity, exploitation, and sadness (Joyner & Udry, 2000; Richards, Crowe, Larson, & Swarr, 1998). The double-edged nature of these bonds, as it were, make it more risky now than a decade ago to make assumptions about the protective factors associated with various positive indicators of adjustment with peers or the risks associated with markers that appeared uniformly negative.

Finally, a discernable and natural progression has taken place in the balance of simple descriptive versus process-oriented studies in this area. This is perhaps most readily apparent in the evolution of research on children's rejection by the peer group. When closing our chapter a decade ago, we lamented that insufficient attention had been paid to the processes underlying sociometric classification and categorization in the study of peer rejection. Instead, researchers appeared content to conduct study after study comparing rejected children to other children on variable after variable. We noted (Parker et al., 1995, p. 144): "Few data exist, for example, on the frequency with which peer rejected children are excluded from playground games, experience teasing and taunts, or are otherwise victimized by other children." Our concern at the time was that sociometric status researchers were elevating the traditional categories of popular, rejected, neglected, and controversial to social address variables (Bronfenbrenner & Crouter, 1983) and might be losing sight of whether and how they were grounded in the day-to-day experiences of children. Without such an understanding, little progress seemed possible in understanding the processes by which sociometric status groups arise and how they influence individuals, dyads, and groups.

The circumstances today are different. Although the classification and comparison of children of differing sociometric status remains an important field of inquiry, many of these same investigators have begun to study bullied and victimized children (see Juvonen & Graham, 2001; Ladd & Burgess, 1999; Rodkin & Hodges, 2003). Peer rejection and peer victimization are distinct constructs but overlap in important ways. However, by formulating their questions in terms of a specific type of interpersonal process (peer victimization and bullying), this newer tradition requires a smaller leap from description to process. However, as Bronfenbrenner and Crouter (1983) also pointed out, process-oriented accounts of social experience seldom provide the same satisfying generalizations about individuals that social address models appear to. Instead, they demand close attention to the moderating effects of person- and context-level variables. Thus, as our understanding of

peer victimization has grown, it has become apparent that the developmental significance of this experience is not simple (Boulton, Trueman, Chau, Whitehand, & Amatya, 1999; Graham & Juvonen, 2001; Hanish & Guerra, 2004; Hodges, Boivin, Vitaro, & Bukowski, 1999; Juvonen & Graham, 2001; Kochenderfer & Ladd, 1997; Olweus, 1993; Salmivalli, Huttunen, & Lagerspetz, 1997; Salmivalli & Voeten, 2004). Whether and in what way victimization affects children appears to depend on the context in which it occurs. For example, is the child a member of a numerically larger subgroup or perhaps a member of a minority ethnic group? Is aggression otherwise normative for the group in which victimization occurred? Is the perpetrator a dominant or submissive individual in terms of status in the relevant peer group? What are children's attributions for why a particular aggressive act occurs? Is the victimized child also a perpetrator at other times? What are the child's social resources (e.g., Does the child have friends)? Is the perpetrator or the victim socially skilled? What about the self-esteem and gender of the perpetrator or victim? Was the abuse of a physical, verbal, direct, or indirect nature? Our task has become complicated indeed.

ORGANIZATION OF THE CHAPTER

Normative developmental trends in children's peer experiences provide a foundation for understanding peer relationships from a developmental psychopathology perspective. Thus, in the first section, we trace peer experiences and relationships from their building blocks in infancy and early childhood through their advances in adolescence when increasingly stable and intimate friendships are formed and romantic relationships take shape.

Following this, we discuss the major theoretical frameworks that have guided thinking and research on the importance and impact of peer relationships. The study of children's adjustment with peers sits at the juncture of a number of different scientific frameworks, but is the central focus of none. As such, we review how several theoretical perspectives have been insightful and provocative in particular respects. As will be apparent, in some formulations, peer experiences are suggested to contribute to development in ways that are unique from children's experiences with adults; in others, peer experiences offer an important countervailing influence to the influence of adults; in still others, peer experiences and adult influences are seen to share many similarities. Further, in

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some cases, the implications of unsuccessful adjustment with peers are drawn out explicitly, though in others they are only implied.

In the next section, we illustrate some of the many dimensions along which children's peer experiences may differ. This discussion emphasizes that even within the broad domains of friendship and peer acceptance, the potential for individual differences in peer experiences are numerous.

In the following sections, we tackle the implications of problematic peer relationships. The possibility that children with problematic peer relationships are at increased risk for later adjustment difficulties has attracted clinicians, epidemiologists, and others to the study of peer adjustment in the hopes of improving the early identification and prevention of adolescent and adult mental health disturbances. Studies in this area form an important interface between the sciences of developmental psychology, child clinical psychology, and developmental psychopathology. Our review turns initially to the question of the interface of peer relationship difficulties and psychological disorders. Next, relying heavily on the principles of developmental psychopathology, we take a longitudinal perspective and discuss developmental pathways and transactional models to illuminate the links between early peer problems and maladjustment later in life.

Following this, we review research pertaining to reciprocal influences between children and their peers to support a model of the processes underlying peer maladjustment. This model specifies the reciprocal roles of child social cognition and behavior and peer appraisals and responses in the unfolding of peer adjustment or maladjustment, with attention to the emerging understanding of emotion in this process.

Finally, we use child social anxiety to illustrate how the principles of developmental psychopathology may guide our understanding of peer maladjustment and end our chapter with some discussion of directions for future research.

DEVELOPMENTAL TRENDS IN CHILDREN'S PEER INTERACTION AND RELATIONSHIPS

As with any class of complex behavior, understanding children's behavior with peers requires an appreciation of the child's developmental status and the dynamic organization of the behavior over time (Cairns, 1979; Cicchetti, 1990). Although the argument that one must consider development when considering the meaning of behavior for actors and recipients seems obvious, in fact, the study of social development has been decidedly nondevelopmental for most of

its history (Cairns, 1979; Sroufe & Jacobvitz, 1989). Moreover, an understanding of the major mileposts and transformations in peer experiences that occur with age is necessary to recognize and understand individual patterns of adaptation and maladaptation with peers (Cicchetti, 1993; Selman & Schultz, 1990; Sroufe & Rutter, 1984). Deviations, delays, or distortions in the development of peer relationships derive their meaning only through consideration of the timing, nature, and course of peer experiences in the average or expectable instance.

In this section, we examine children's peer experiences and relationships from infancy through adolescence. Our concern is with the general developmental changes in the quantity, quality, and context of children's peer contacts and relationships. These normative patterns then provide a framework for considering the role of peer experiences in development and the considerable variation existing among individual children in the success of their adjustment with peers.

Infancy and Early Childhood

Infants have obvious motor, cognitive, and verbal limitations that restrict their capabilities for, and interest in, peer interaction in the first 3 to 4 months of life. However, smiling, vocalizing, and reaching toward peers appears toward the end of the first half year of life and infants begin to coordinate their interactions with other children shortly thereafter (D. F. Hay, Pederson, & Nash, 1982; Vandell, Wilson, & Buchanan, 1980). These initial exchanges are short, two-turn reciprocal chains, typically involving an infant exhibiting a social behavior, such as pointing or vocalizing toward another baby, and the other baby's responding in kind. Agonistic acts and object-centered activities are rare at this age. Interestingly, even at these early ages, considerable variability in interactive behavior is evident; some infants repeatedly direct social acts toward other children, whereas other infants do so very rarely (National Institute of Child Health and Human Development-Early Child Care Research Network, 2001).

Growing Reciprocities

The social exchanges of older infants and toddlers are more predictable, complex, coordinated, and lengthier (Dishion, Andrews, & Crosby, 1995; Eckerman, 1993; Eckerman & Didow, 1996; Eckerman & Peterman, 2001; Ross, 1982). Around the time of the first birthday, children become capable of shared activity with peers (Howes, 1996). Initially, these activities center primarily on ob-

jects (Mueller & Brenner, 1977). Divisive struggles over objects are common, but so, too, are more integrative exchanges, such as imitation of other infants' behaviors toward objects, particularly as children reach the age of 20 to 24 months. An age-mate makes an ideal model of what to do with objects, and toddlers' imitations of one another and other exchanges around objects mark the emergence of the earliest forms of cooperative and coordinated activity (Eckerman & Peterman, 2001).

The object-centeredness of children's peer interchanges declines from the beginning to the end of the 2nd year of life (Mueller & Brenner, 1977). Mueller and Silverman (1989) suggest that this signals a subtle but significant transformation in peer relationships in that it marks a transition from a focus on activities to a focus on the social relationship itself.

The period from 16 or 18 months to about 3 years is marked by social interaction that is increasing socially oriented and more truly complementary and coordinated (e.g., Eckerman & Peterman, 2001; Ross, 1982). The consolidation of locomotion and, especially, the emergence of the ability to communicate meaning through language, play significant roles in this transformation (e.g., Dunn, 1988; Howes, 1992). It is during this period that lighthearted and playful games can first be identified in toddlers' interactive exchanges (Ross, 1982). Eckerman and Peterman (2001) outline a developmental progression of toddlers' cooperative and coordinated action over this period. In their model, at around 16 months of age, toddlers participate in ritualized coordinated action, usually with familiar and older peers. From 20 to 24 months, nonritualized coordinated action with peers emerges, primarily through nonverbal imitative acts. Nonverbal imitative activity during this period promotes shared understanding of social interaction, which sets the stage for verbal means of achieving coordinated action. Finally, from 28 to 32 months, toddlers integrate verbal and nonverbal means of achieving coordinated action.

Fantasy Play

Social pretend play permits young children to successfully work through fears and other emotional issues (Parker & Gottman, 1989; Rubin, Fein, & Vandenberg, 1983; Sawyer, 1997). In addition, even very young children use pretend play to establish and maintain social relationships with peers (Eckerman, 1996; Gottman, 1983). Howes (1992) describes the gradually unfolding sequence that takes place over the span from 16 months to 3 years in the growth of children's skills at communicating meaning in the context of social pretense. At the beginning of this period, chil-

dren's play and games have a complementary and reciprocal structure (e.g., run-chase). Thus, their play is built on familiar and well-learned scripts or routines, permitting the children to play cooperatively with little need to communicate meaning. Social pretense at this point consists of little more than one child's imitation of the isolated pretense acts of another.

As language and symbolic capacity matures, however, social pretense undergoes regular, sequential changes. From 16 to 20 months, children's pretense becomes more abstract and distant from their actions. Children will not only match or imitate the pretend acts of other children but also attempt to recruit the partner to join their pretend play. These efforts are not routinely successful, but it is clear that children are beginning to understand that nonliteral meanings can be shared by partners.

From 21 to 24 months, children engage in similar pretend actions in the context of broader joint activity. Attempts to recruit others into pretense are more frequent and more successful. Although children organize materials for sociodramatic play, there is little or no joint organization of the pretend play itself. Scripted joint play emerges from 25 to 30 months, and the assignment of social roles in play (e.g., doctor, mother, father, police officer) emerges shortly thereafter, from 31 to 36 months. At this point, children understand that nonliteral meaning can be shared and they can communicate these meanings effectively during pretense with partners.

Early Friendships

The formation of specific friendships begins to be observed during the period from 18 to 36 months (Schneider, 2000). These friendships are indexed by mutual interaction preference, shared affect, scripted regularities in play, and differentially sophisticated play between peers (see Howes, 1996). Indeed, the percentage of children at these ages without friends is very small, at least among children in child care settings (Howes, 1983, 1988).

Because toddlers' concepts of a friend and friendship are limited (Selman, 1980), it is sometimes assumed that these early friendships are of marginal importance to children of this age. However, children with friends acquire social skills as a result of their participation in these relationships, especially if these relationships are maintained over time (Howes, 1996). Howes and Phillipsen (1998) reported that the complexity of children's social play during the toddler years predicted increased prosocial behavior and decreased social withdrawal during the preschool years, as well as decreased social withdrawal and aggression at 9 years of age. Moreover, toddlers regularly and

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spontaneously discuss their friendship interactions with their parents at home, suggesting the salience of these relationships to even very young children (Krawczyk, 1985). Howes and Phillipsen (1992) found that 80% of friendships among toddlers who remained in the same child care setting lasted for 3 years. Nevertheless, friendships at this age are less stable than friendships formed after 3 years of age (see Schneider, 2000).

Mileposts of the Preschool Years

Peer interaction after the 3rd year and over the course of the remaining years preceding formal schooling continues to change in frequency and quality (Dunn, 1993). Children direct increasing amounts of attention to peers, and spend increasing amounts of time with peers, especially if they are enrolled in child care settings (Hartup, 1983; Schindler, Moely, & Frank, 1987).

Conflict

As might be expected from the increased contact and interest, conflict between age-mates increases in frequency and intensity over this period (D. Chen, Fein, & Tam, 2001; Vaughn, Vollenwieder, Bost, Azria-Evans, & Snider, 2003). In comparison to older children, preschoolers' conflicts are more likely to involve struggles over objects (Killen, 1991). Object struggles are not strictly pragmatic disputes, however, and probably involve disputes over moral issues and elements of social control as well (see D. F. Hay & Ross, 1982; Killen, 1991). For example, disputes over objects may arise from the demands on children to protect their interactive space (Corsaro, 1985). According to Corsaro, preschoolers' social interaction is especially fragile, in that intrusions by other peers can lead interactive episodes to terminate quickly without formal marking or opportunity for negotiation. Realization of this fact leads children to resist others' attempts to join in play, sometimes through claims and counterclaims of friendship. Regardless of its source, conflict exchanges during the preschool years may provide important opportunities for social-cognitive development and learning to manage conflict (Shantz & Hartup, 1992; Vaughn et al., 2003). Indeed, Vaughn et al. found that about one-third of preschool children with high observed social competence were also high on observational ratings of both dominance and prosocial behavior.

Overall, however, the proportion of conflict or aggressive interactions to friendly interaction declines across the preschool period as increasing language, self-regulation, and social-cognitive capacities allow children to resolve conflicts of interest in more prosocial ways (Coie & Dodge,

1998; Hartup, Laursen, Stewart, & Eastenson, 1988; D. F. Hay, Castle, & Davies, 2000). Conversely, prosocial behavior (e.g., helping, sharing, empathy) increases from the toddler years to the early preschool years (e.g., Eisenberg & Fabes, 1998; D. F. Hay, Castle, Davies, Demetriou, & Stimson, 1999) and is linked with peer acceptance during this period (e.g., Bierman & Erath, in press).

Play

Children's play also increases in social complexity during the preschool period; the most notable changes occur with respect to sociodramatic play, which increases notably over this period (Goncu, Patt, & Kouba, 2002; Rubin et al., 1983; Sawyer, 1997). Howes, Matheson, and Wu (1992) explored the role of complex social pretend play, which consisted not only of pretend play with defined roles (i.e., social pretend play), but also of meta-communication about pretend play (e.g., explicitly assigning roles, proposing a play script, prompting the other child). Complex social pretend play began to emerge around 36 months and increased through 60 months.

The skills of communicating meaning in social pretense are largely mastered by 3 years of age; thus, preschoolers' spontaneous social pretense is more likely to serve broader developmental functions (Howes & Phillipsen, 1998). Spontaneous fantasy play is especially critical to the establishment and maintenance of friendships in preschool (see Corsaro, 1985; Gottman & Parkhurst, 1980; Howes, 1992; Parker & Gottman, 1989). In addition, it provides preschool children with a vehicle for working through major concerns and fears (see Corsaro, 1985; Howes, 1992; Kramer & Gottman, 1992; Parker & Gottman, 1989). Not surprisingly, then, spontaneous pretend play during the preschool ages, especially between best friends, is more frequent and elaborate than at any other point in development (e.g., Corsaro, 1985; Forbes, Katz, & Paul, 1986; Howes, 1992).

Gender Differentiation

Normative gender differences in peer interaction also begin to emerge during the preschool years. Around the age of 3, children begin to show a strong preference for interacting with same-sex peers (Fabes, Martin, & Hanish, 2003; Maccoby, 1998; Powlishta, Serbin, & Moller, 1993). Although play is the primary form of social interaction for both sexes during early childhood (Maccoby, 1998), the type of play typical among groups of boys and girls shows distinctive features. For example, beginning in preschool, boys more often choose to interact with peers in larger groups that emphasize competition, hero and rescue themes, and rough-

and-tumble play, whereas girls more often play in smaller groups and emphasize conversation, cooperation, and relationship themes (Benenson, Apostoleris, & Parnass, 1997; Maccoby, 1998). Boys also display higher levels of activity, aggression, and positive emotionality, whereas girls engage in more frequent play in the proximity of adults (Fabes et al., 2003; Martin & Fabes, 2001). Interestingly, sex-differentiated play appears to be amplified by exposure to same-sex peers during the preschool years (Martin & Fabes, 2001), perhaps because both boys and girls make more positive overtures and responses to same-sex peers and to play behavior consistent with the preferences of their own sex (Fagot, 1985; Maccoby, 1998).

Developments in Later Childhood

The period of middle to late childhood, covering roughly the period from 6 years to 11 or 12 years, is characterized by a great deal of change and growth in interpersonal skills and in the context and quality of children's peer relationships.

Diversity and Differentiation

Positive peer experiences and friendships in preschool contribute to a smoother and more positive transition to formal schooling (Ladd, Kochenderfer, & Coleman, 1996). However, entry into formal schooling in turn greatly transforms peer experiences by increasing the size of the sphere of children's peer contacts. In addition, children's involvement in extracurricular and other forms of youth sports during middle childhood provides opportunities to develop friendships and affiliations outside of school. In fact, descriptive research suggests that the possibility of positive peer experiences is an important motive that attracts youth to organized sports activities (see M. R. Weiss & Smith, 1999; M. R. Weiss, Smith, & Theeboom, 1996).

However, in addition to an increase in the number of available peers, children entering middle and later childhood are likely to encounter unprecedented variability in the ascribed (e.g., sex, race, ethnicity) characteristics and personalities of their peers, especially in school contexts. These differences contribute to discernible hierarchies of power and popularity (McHale, Dariotis, & Kauh, 2003), to salient similarities among playmates or friends (e.g., Kupersmidt, DeRosier, & Patterson, 1995; Newcomb et al., 1999), and to groups that are rigidly segregated along various lines (e.g., Abrams, Rutland, & Cameron, 2003; Horn, 2003).

Sex segregation is the most noticeable. The earlier trend toward a sex-segregated friendship group intensifies during this period, such that peer interactions and close

friendships occur almost exclusively with same-sex peers during middle childhood (D. M. Kovacs, Parker, & Hoffman, 1996; Sroufe, Bennett, Englund, & Urban, 1993). Indeed, at this age children who buck this imperative and have friendships primarily with members of the opposite sex tend to be children who are less well-liked by peers, less socially skilled, and more aggressive than children who form primarily same-sex friendships (D. M. Kovacs et al., 1996).

However, sex is not the only social category that divides children's groups beginning in early childhood. Children's recognition of race and ethnic differences also begins in the preschool period (e.g., Aboud, 1988). Preschoolers' sorting and labeling of others based on race or ethnicity is neither as accurate nor as comprehensive as it will become in middle childhood, however. Further, it is largely not until the middle childhood years that children begin to hold negative views about the categories to which they do not belong (Killen, Lee-Kim, McGlothlin, Stangor, 2002; Powlishta, Serbin, Doyle, & White, 1994). The rapidity with which children recognize and use social categories leaves an impression of a broad, qualitative, and domain-general developmental change in reasoning. However, recent research suggests that this is an oversimplification (Killen & Stangor, 2001; Killen, Stangor, Horn, & Sechrist, 2004). Children who are prejudiced in one domain (e.g., toward the opposite sex) are not necessarily prejudiced in other domains (e.g., toward another race) and evidence suggests that the recognition, use, and abuse of social categories develops from a complex interplay of environmental support, attitudes toward others, and a growing self-understanding (Liben & Bigler, 2002; Powlishta et al., 1994). Moreover, after a period of initial intensification, prejudicial attitudes decline across later childhood (Powlishta et al., 1994). Further, children show important developmental changes in their judgments of in-group and out-group members from age 5 years to 16 years (Abrams et al., 2003). In particular, with age, children attend not solely to a target individual's social category or group membership status, but also to the extent to which his or her personal characteristics conform versus deviate from those typical of the category. For example, children of all ages show bias in favor of in-group members over out-group members. With age, however, children become sensitive to differences among members within (versus between) groups—in both their in-groups and out-groups (Killen, Lee-Kim, et al., 2002). Among older children, then, typical in- and out-group biases can be erased or even reversed in the right circumstances. For example, older children during this period, but not younger children, show evidence of

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sensitivity to so-called “black sheep” (Abrams et al., 2003). That is, with older children, members of out-groups who are not especially prototypical of the groups may be preferred over members of the in-group who are deviant from the in group norms.

Play

Whereas preschoolers’ play involves a great deal of spontaneous and unstructured fantasy and pretense, this type of play declines steadily across middle childhood, to the point of being almost entirely absent by the end of this period (Baumeister & Senders, 1989; Rubin et al., 1983). Simple roughhousing, or rough-and-tumble play, also declines with age, although it does not disappear entirely, at least among boys (Boulton, 1996; Pellegrini, 2002; Pellegrini & Smith, 1998). Instead, the cooperative play of elementary school-age children increasingly involves adult-organized activities (e.g., playing sports) or games with formal (e.g., dodgeball, kickball, board games) or informal (e.g., tag, king-of-the-mountain, hide-and-seek) rules. A common aspect of these activities, and one which sets them apart from earlier peer activities, is that they involve increasingly greater divisions of labor, differentiation of roles and status, teamwork, and leadership (Rubin et al., 1983).

Aggression, Conflict, and Gossip

As noted, the preschool years appear to be critical years for learning to regulate aggression (Tremblay et al., 2005). Accordingly, most children who show elevated levels of physical aggression in preschool or kindergarten typically show important reductions of those behaviors as they enter the period of middle childhood and formal schooling. Children who do not display this expected decrease in aggression appear to be at increased risk for antisocial and aggressive behavior later throughout this period and even into adolescence and adulthood (e.g., NICHD Early Child Care Research Network, 2004; Tremblay et al., 2005). It is highly unusual, in fact, to identify aggressive children in middle childhood who do not have a history of aggressiveness extending backward to the preschool years (Brody et al., 2003). In addition, along with a general decline there is a change in the nature of aggression from preschool to later childhood such that verbal aggression (insults, derogation, threats) gradually replaces direct physical aggression over this period (Bierman, 2004; Underwood, 2003). Further, relative to early childhood, aggressive behavior in middle childhood is less instrumental (directed toward possessing objects or occupying specific space) and more specifically hostile toward others. Social-cognitive advances during middle childhood allow children to recognize the hostile

nature of some aggressive acts, which in turn may instigate increased retaliatory aggression (Coie & Dodge, 1998). Social-cognitive developments during middle childhood may also contribute to increased indirect or relational aggression, which involves attempts to harm others through relationship processes such as gossip and exclusion (Crick & Grotpeter, 1995; Underwood, 2003). Children who continue to exhibit high levels of verbal or physical aggression during the middle childhood years face a high risk of peer rejection (Bierman, 2004).

Gossip, especially humorous gossip, increases in salience and frequency among friends at this time (Parker & Gottman, 1989). Like those of adults, the spontaneous conversations of preadolescents ordinarily contain many references to the personal qualities, behaviors, and affairs of others (Eder & Enke, 1991; Gottman & Mettetal, 1986; Parker, Teasley, Meissner, & McClellan, 1994). In everyday usage, the term *gossip* may be mistakenly used in a restricted way to apply only to derisive comments made about outside others (Fine & Rosnow, 1977). Gossip technically encompasses all evaluative comments or conversations about third parties. Hence, admiring as well as pejorative statements made by children about others represent gossip (Fine & Rosnow, 1978; Gottman & Mettetal, 1986; Parker et al., 1994). A shared property of all gossip, however, is that the target or targets of discussion are not present, and thereby are not directly party to the conversation (Eder & Enke, 1991). This behind-the-back quality lends gossip some of its most distinctive and important interpersonal features, and distinguishes it from other significant forms of evaluative talk, such as self-disclosure or public ridicule.

As a form of speech, gossip has attracted intermittent scholarly attention over the years for its presumed roles in children’s groups, relationships, and individual development (e.g., Eder & Enke, 1991; Gottman & Mettetal, 1986; Suls, 1977). In groups, for example, gossip may increase cohesion by clarifying and enforcing behavioral norms. Further, differential access to gossip among members has been shown to correlate with group social standing and acceptance (Parker & Seal, 1996). In relationships, participating in gossip about others may bring partners’ understanding of social events and norms into closer agreement, contributing to a sense of similarity (Gottman, 1983). Observational studies suggest that children find gossip with their friends highly entertaining and use gossip as a basis for building solidarity against others through self-disclosure (Gottman, 1983; Gottman & Mettetal, 1986; Parker & Gottman, 1989; Rysman, 1977). Finally, for individuals, gossip is a form of self-expression. By gossiping about others, individuals may enhance their self-understanding through social com-

parison, and discrediting others publicly may help children project and maintain a positive self-image in areas of private concern (Fine, 1981; Fine & Rosnow, 1978; Suls, 1977).

At the beginning of middle childhood, children appear to possess a healthy skepticism of gossip, at least in the absence of clear evidence attesting to the veracity of the gossipers' claims (Kuttler, Parker, & LaGreca, 2002). With age, however, this skepticism appears to wane somewhat, even in the face of evidence that the gossipier may harbor ulterior motives (Kuttler et al., 2002). Ironically, then, even as they appreciate the potential unreliability of rumors, older children express less skepticism surrounding this information than do younger children. Perhaps older children are less concerned than younger children with the accuracy of the content of gossip than with using gossip to reaffirm group membership, reveal peer group attitudes, and manipulate others' inclusion in or exclusion from the group (Eder & Enke, 1991).

Prosocial Behavior

Reliable age trends have not been observed across middle childhood in children's general disposition to behave in a cooperative, helpful, or generous way toward peers. Many researchers note that prosocial behavior toward peers generally increases with age over this period (see Fabes et al., 1999, for a review). Others, however, note that older children may actually help and share less than preschoolers (e.g., Radke-Yarrow, Zahn Waxler, & Chapman, 1983). Increased concerns with self-interest, fairness, autonomy, relationship obligations and other factors may enter into older children's decisions regarding sharing and helping (Bigelow et al., 1996). Thus, a better description of the pattern of growth and maturation in this connection is one of increasing complexity, flexibility, and responsiveness to situational, intrapersonal, and interpersonal exigencies (Bigelow et al., 1996). The development of prosocial intentions and behavior over this age span does not appear to reflect a single unfolding skill. Rather it appears to reflect a complex confluence of developmental changes.

Friendships

Middle childhood spans a period of considerable transformation in children's understanding of friendship. These changes have been charted by Selman (e.g., 1980; Selman & Schultz, 1990), among others (e.g., Berndt & Perry, 1986, 1990; Bigelow et al., 1996; Damon, 1977; Youniss, 1980). Selman's framework is perhaps the best articulated, although interested readers are encouraged to consult the notable work of Bigelow et al. as well. According to Sel-

man, prior to middle childhood, children's understanding of friendship is little more than the concept of momentary playmate. Chief among the constraints in preschoolers' thinking about friendship are difficulties they have in distinguishing their own perspectives from those of others, and in appreciating the distinction between the psychological versus manifest basis for people's behavior.

As they move into middle childhood, children's discussion of friendship and friendship issues begins to indicate a maturing appreciation that feelings and intentions, not just manifest actions, keep friends together or drive them apart. Children also begin to appreciate that others' thoughts and feelings concerning social events may differ from their own. Even in the face of this advance in perspective-taking, however, children of this age for a time remain unilaterally concerned with their own, not their partner's, subjective experiences in the relationship. This unilateral perspective subsides eventually, however, and children begin to express an understanding that both parties in a relationship must coordinate and adjust their needs and actions to one another in mutually satisfying ways. But their understanding of friendship does not include an expectation that friendships can weather specific arguments or negative events. By the close of middle childhood, however, most children understand that friendship is an affective bond with continuity over time, space, and events.

Changes in children's understanding of friendship are accompanied by changes in the patterns and nature of children's involvement in friendships across middle childhood (Denton & Zarbatany, 1996; Hartup & Stevens, 1997; Newcomb & Bagwell, 1995). The number of selections of close friends that children make has been reported to increase with age up to about 11 years of age, after which it begins to decline (see Epstein, 1986). Moreover, friendship choices are more stable and more likely to be reciprocated in middle childhood than at earlier ages, although it is not clear that either the reciprocity or stability of friendships increases across the period of middle childhood itself (Schneider, 2000). Studies in which elementary school-age children have been asked to describe their expectations in friendships also indicate that children draw sharper distinctions between the supportiveness of friends and nonfriends with age (Berndt & Perry, 1986; Bigelow et al., 1996). Moreover, children's descriptions of their friendships indicate that loyalty, self-disclosure, and trust increase with age (e.g., see Berndt & Hanna, 1995; Buhrmester & Prager, 1995; Newcomb & Bagwell, 1995 for reviews).

Many authors (e.g., Golombok & Fivush, 1994; MacCoby, 1990) have suggested that same-sex friendships

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among females in middle childhood are closer than those among males and some authors are, as a result, dismissive of the importance of friendships to males (e.g., Benenson & Christakos, 2003). Developmental studies have documented numerous gender differences in children's friendships (see Golombok & Fivush, 1994; Maccoby, 1990, for reviews). Some studies suggest, for example, girls tend to self-disclose and provide greater emotional support to friends than do boys (Berndt & Perry, 1986, 1990; Buhmester & Furman, 1987; Buhmester & Prager, 1995; Rose & Asher, 2000; Rubin, Dwyer, et al., 2004; Zarbatany, McDougall, & Hymel, 2000). Girls also report more intimacy in their friendships than do boys (e.g., Buhmester & Prager, 1995; Parker & Asher, 1993; Prager, 1995; Rubin, Dwyer, et al., 2004) and spend more time thinking about their friends when their friends are not around (Richards et al., 1998). However, reliable differences in the longevity of boys and girls friendships have not been consistently observed (e.g., Parker & Seal, 1996) and boys and girls spend equal amounts of time with friends (Richards et al., 1998). Also, sex differences in friendship intimacy do not always emerge, sometimes are in the reverse direction, and, when significant, are not large (Berndt & Hanna, 1995). These and other lines of reasoning lead some to suggest that sex differences in friendship may be exaggerated at the expense of recognizing the many similarities in closeness, importance, loyalty, and enjoyment that exist across male and female same-sex friendships (e.g., Bigelow et al., 1996; Lansford & Parker, 1996). Further, echoing concerns of others (e.g., Gottman, 1983; Lansford & Parker, 1996; Prager, 1995), Hartup and Stevens (1997) note that closeness and intimacy in studies of friendship at this age are commonly defined in a feminizing manner (i.e., emphasis on exclusivity, self-disclosure, communal motives). This operationalization may dismiss agentic behaviors that may also underlie closeness and could provide a more balanced vision of closeness among males.

Cliques and Groups

Stable, polydyadic social groups, or cliques, also emerge in middle childhood and generally increase with age, at least through early adolescence (Cairns, Xie, & Leung, 1998; Henrich, Kuperminc, Sack, Blatt, & Leadbeater, 2000). Cliques are voluntary and friendship-based groups, and stand in contrast to the activity or work groups to which children can be assigned by circumstance or by adults. Cliques generally range in size from 3 to 10 members, and are almost always same sex (Brown & Klute, 2003). The

prevalence of cliques has generally not been investigated among children younger than 10 or 11 years of age. By 11 years of age, however, children report that most of their peer interaction takes place in the context of the clique, and nearly all children report being a member of a clique (X. Chen, Chang, & He, 2003; Kindermann, McCollom, & Gibson, 1995). Cliques appear to function, in part, as sources of definition and support for identity development during the preadolescent and adolescent years (Brown & Klute, 2003; Newman & Newman, 2001).

Vulnerabilities

We have so far highlighted the many advances in positive social interaction and relationships that mark middle childhood. But peer involvement at this age also has a less adaptive side in the appearance of more or less novel intra- and interpersonal attitudes and behaviors that are distressing, problematic, or difficult.

First, because group leaders invite some individuals and exclude others, the rise of cliques in middle childhood contributes to intergroup biases and exacerbates preadolescents' insecurity about their social position and acceptance (Adler & Adler, 1995). As a result, children of this age expend a good deal of their energy, thought, and conversation with friends buttressing their social status and guarding against rejection (Eder, 1985; Fine, 1987; Parker & Gottman, 1989). Children's desire to gain acceptance and avoid rejection is consistent with broader human motives of belonging (see Baumeister & Leary, 1995). Thus, the heightened concern with acceptance that children of this age display is understandable and may have adaptive elements. However, in certain vulnerable children, typical concern with acceptance is replaced by an excessive sensitivity to rejection (Downey, Lebolt, Rincon, & Freitas, 1998). Children with excessive sensitivity to rejection by peers readily perceive intentional rejection in minor or imagined insensitivities and disappointments and overreact in ways that compromise their group standing and social relationships. By contributing to interpersonal difficulties, sensitivity to rejection may contribute in turn to increases in internalizing and externalizing problems in these vulnerable individuals.

Second, vagaries in the reliability of social acceptance also appear to contribute to heightened self-consciousness and declines in self-esteem toward the end of this period and the start of adolescence, especially among girls (e.g., Eccles et al., 1993). In particular, perceptions of one's physical appearance grow especially central to broader self-esteem (Harter, 1999) and increasingly coupled to expecta-

tions of popularity and attractiveness to the opposite sex (Eccles, Barber, Jozefowicz, Malenchuk, & Vida, 1999). This confluence of factors, in turn, appear to increasingly compromise the self-esteem of those individuals who are not or do not feel sufficiently attractive. The self-esteem of early maturing girls during this period may also be compromised by sexual harassment by boys (Craig, Pepler, Connolly, & Henderson, 2001; Murnen & Smolak, 2000).

Third, despite a broad decline in aggression over the middle to late childhood, the risk of being bullied, appears to move in the opposite developmental direction (e.g., Espelage, Bosworth, & Simon, 2000; Espelage, Holt, & Henkel, 2003; Kochenderfer-Ladd, 2003; Kochenderfer-Ladd & Wardrop, 2001; Snyder et al., 2003). Bullying is characterized by the chronic victimization of a specifically selected target who is generally disadvantaged with respect to the balance of power (see Juvonen & Graham, 2001; Olweus, 1978, 1993). Unlike most acts of broader aggression, bullying often involves the cooperation of several more powerful individuals to victimize a less powerful one (Salmivalli, 2001). For the most part, reliable data on bullying among school-age children has only recently become available. The majority of epidemiologically oriented studies have been conducted in Europe and Australia. These studies have documented considerable variability in the prevalence of bullying, ranging from 15% to 20% in some countries to a high of 70% in others (King, Wold, Tudor-Smith, & Harel, 1996). Bullying behaviors among U.S. youth are less well understood. Recently, however, Nansel et al. (2001) conducted an analysis of data from a representative sample of 15,686 students in grades 6 through 10 in U.S. public and private schools who answered questions about bullying in the context of a World Health Organization's health behavior survey (1992). Approximately 30% of youth reported significant involvement in bullying as a bully (13%), victim (10.6%), or both (6.3%), rates in line with those reported by studies with smaller and less representative samples (see Juvonen & Graham, 2001). Bullying appeared to peak during grades 6 through 8, and declined thereafter. Bullying was more prevalent among boys than girls and the forms of bullying varied somewhat with sex. Both males and females reported that the most common form of bullying involved verbal belittling over looks or speech. Males reported being hit, slapped, or pushed more frequently than did females. Females more frequently reported being bullied through rumors and being the target of sexual comments. Taunting others about their religion or race was uncommon. Finally, consistent with other research (see Juvonen & Graham,

2001), being victimized by peers through bullying was associated with a sweeping range of psychosocial difficulties, including school difficulties, problem behavior, and loneliness.

Fourth, the rise in cliques and other nested arrangements of friendships present children in later childhood with novel interpersonal quandaries and sources of stress. Specifically, most children in middle childhood have several friends and are aware that their specific friends like or have friendships with other, outside children (Epstein & Karweit, 1983; George & Hartmann, 1996; Parker & Seal, 1996). Children's social adjustment may be facilitated by having many friends (Newcomb et al., 1999) or when one's friends are well connected socially (Sabongui et al., 1998). However, social life is also more complex in these circumstances. For example, the presence of outsiders may preempt opportunities for frank discussion between friends and coordination of social activities may be more complicated in groups larger than two (Benenson, Maiese, et al., 2002; Benenson, Nicholson, Waite, Roy, & Simpson, 2001; Lansford & Parker, 1999). In addition, outsiders will be sources of tension and conflict for friends if partners are squeezed between their loyalty to their friend and the obligations to others (Asher et al., 1996; Selman, 1980). Even when such dilemmas can be avoided, the time and emotional commitments that partners make to outside peers may still create problems for friends in the middle years. In particular, if young adolescents perceive outsiders as threatening the quality, uniqueness, or survival of their friendships, feelings of jealousy can arise and pose challenges to the partner, the perceived interloper, and the encompassing peer group (Parker, Low, Walker, & Gamm, 2005). Indeed, recent research suggests that jealousy over friends accounts for a good deal of the aggression and victimization in peer groups that occurs at this age and that individuals with low self-esteem are particularly vulnerable to this experience (Parker et al., 2005).

Finally, emerging evidence suggests that, along with enormous growth in positive peer relationships, later childhood also marks the period of growth in mutual antipathies, or so-called enemy relationships (see Hodges & Card, 2003). Very little is known about the prevalence of mutual antipathies among children and adolescents or when, precisely, these relationships emerge. Although some estimates indicate that these types of relationships are rare (e.g., Abecassis, 2003; Abecassis, Hartup, Hase-lager, Scholte, & Van Lieshout, 2002), evidence from several recent studies suggests that they may be quite commonplace, affecting from one to two out of every three

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children (Parker & Gamm, 2003; Rodkin, Pearl, Farmer, & Van Acker, 2003). Enemy relations between two children tend to be short-lived relationships and children who are not well accepted generally or who have negative behavioral profiles tend to be involved more often in enemy relationships. However, enemy relationships are also quite personal. Parker and Gamm (2003), for example, examined how enemies viewed one another and compared partners' perceptions to how these children were viewed by the larger peer group. Not surprisingly, children viewed their enemies negatively. However, children seemed to have uniquely negative perceptions of their enemies, views not necessarily shared by the wider group. Although these perceptions might be due to cognitive bias, other evidence suggested that they reflected a uniquely negative interaction history between the individuals who disliked one another. Children were especially likely to view their enemies as jealous and possessive over friends, even when those individuals did not have a reputation for jealousy more widely. Finally, the importance of enemy relationships for adjustment is indicated by evidence that children who are more involved in enemy relationships experience greater loneliness and dissatisfaction, even after controlling for their adjustment with friends and broader acceptance or rejection in the peer group (Parker & Gamm, 2003).

Developments in Adolescence

Many developments in peer relationships during adolescence continue trends begun in middle childhood, others reverse earlier trends, or otherwise represent developmental discontinuities. For example, the trend in middle childhood toward spending increasingly substantial amounts of time with peers continues in adolescence. This fact is readily apparent to anyone familiar with adolescents, but the results of formal assessments can be quite startling. For example, Csikszentmihalyi and Larson (1984) had adolescents indicate their activities, moods, and companions at random intervals across a 1-week period. They calculated that during a typical week, even discounting time spent in classroom instruction, high school students spend almost a third (29%) of their waking hours with peers. This is an amount more than double the amount spent with parents and other adults (13%). Moreover, adolescent peer interaction takes place with less adult guidance and control than peer interaction in middle childhood. Adolescents feel an especially strong imperative to be out with peers on the weekend, and high school teens who are alone

on Friday or Saturday nights may be extremely lonely (Larson & Richards, 1998).

Friendship Advances

Adolescents have been reported to have fewer friends on average than children in middle childhood (Epstein, 1986). Nonetheless, same-sex friends account for an increasingly larger proportion of adolescents' perceived primary social network, and friends equal or surpass parents as sources of support and advice to adolescents in many significant domains (see Van Lieshout, Cillessen, & Haselager, 1999). In a review of developmental trends in friendship selection, Epstein (1986) concluded that the stability of adolescent friendships is generally low, but increases with age. Subsequent research by Berndt and his colleagues (Berndt, Hawkins, & Hoyle, 1986; Berndt & Hoyle, 1985), however, indicates that most adolescent friendships are stable over the school year, and any developmental trend toward increasing stability is slight. School transitions, such as at entry to middle school, junior high school, and high school can disrupt the maintenance of friendships (Berndt, 1999; Berndt, Hawkins, & Jiao, 1999; Hardy, Bukowski, & Sippola, 2002; Wargo Aikins, Bierman, & Parker, 2005). As with transitions at younger ages, youth who have the skills to form friendships prior to a major adolescent transition, such as to junior high, are more likely to be able to develop positive relationships the next year than youth whose friendship skills are less well developed. In turn, youth with high-quality friendships, marked by greater intimacy, openness, and warmth, are more likely to maintain these relationships over the transition (Wargo Aikins et al., 2005).

One hallmark of friendship in adolescence is an increased emphasis on intimacy and self-disclosure (Van Lieshout et al., 1999; Zabatany et al., 2000). Interviews and self-report assessments with adolescents consistently indicate that adolescents report greater levels of intimacy in their friendships than do younger children (Furman & Buhrmester, 1985; Sharabany, Gershoni, & Hofman, 1981; Youniss & Smoller, 1985). Further, observations of adolescent friends indicate that intimate self-disclosure becomes a salient feature of friendship interaction at this age (Gottman & Metettal, 1986; Parker & Gottman, 1989). Parker and Gottman (1989) speculated that salience of self-disclosure in friendship at this age is proportionate to the role it plays in assisting adolescents' efforts to understand themselves and their own and others' significant relationships. These authors noted that self-disclosure is sometimes apparent in the interactions of younger friends. However, in adolescent friendships, unlike at earlier ages,

self-disclosure prompts lengthy and sometimes emotionally laden, psychological discussions about the nature of the personal problems and possible avenues to their resolution.

Adolescence also heralds a final and key advance in the individual's abstract understanding of friendship (Selman & Schultz, 1990). Preadolescents understand a great deal about the reciprocal operations and obligations of friendship, about the potential of friendships to withstand conflict, and about the psychological motives that motivate friends' behavior. But preadolescents' understanding of issues such as trust and jealousy in friendship is very narrowly tied to their perceptions of loyalty and friendship exclusivity. In particular, preadolescents tend to view friendships in overly exclusive terms. They regard relationships with third parties as inimical to the basic nature of friendship commitment. The significant change at adolescence, however, is that individuals begin to accept the other's need to establish relationships with others and to grow through such experiences. In particular, adolescents recognize an obligation to grant friends a certain degree of autonomy and independence. Thus, their discussions of friendship and friendship issues display more concern with how the relationship helps the partners enhance their respective self-identities and jealousy over friends declines across adolescence (Parker et al., 2005).

Cliques and Crowds

As in middle childhood, cliques are readily observed in adolescence, and membership in cliques is related to adolescents' psychological well-being and ability to cope with stress (Hansell, 1981). Brown (1990) argued that structural features of the transition to high school may account for some portion of the attraction of early adolescents to cliques, and the tendency for cliques to become increasingly heterosexual with age. Brown noted that the size of high schools and the fact that students are no longer assigned to self-contained classrooms mean that children of this age must confront a large and constantly shifting array of peers, many of whom are strangers. "Securing one's place in a clique prevents a student from having to confront this sea of unfamiliar faces alone. Including members of the opposite sex in one's circle of friends ensures participation in the heterosexually oriented series of school-sponsored social activities (mixers, proms)" (p. 181).

Whether attraction to cliques declines into late adolescence is not clear, however. In sociometric analyses of the clique structure of a large school, Shrum and Cheek (1987) found a sharp decline from 11 to 18 years of age in the proportion of students who were definitely clique members,

and a corresponding increase with age in the proportion of children who had ties to many cliques or children whose primary ties were to other children who existed at the margins of one or more cliques. This pattern would appear to fit with data suggesting that both the importance of belonging to a group and the extent of intergroup antagonism decline steadily across the high school years (see McLellan & Pugh, 1999). However, not all studies are supportive of such a trend (see Cairns et al., 1998). Age related changes must also be considered in relation to context. Montemayor and Von Komen (1985) found few age-related changes across the teen years in size of in-school groups. However, out-of-school group size increased as children grew older.

Whereas cliques represent small groups of individuals linked by friendship selections, the concept of peer subcultures, or crowds (Brown, 1990; Brown & Klute, 2003), is a more encompassing organizational framework for segmenting adolescent peer social life. A *crowd* is a reputation-based collective of similarly stereotyped individuals who may or may not spend much time together (Brown, 1990; Brown & Klute, 2003). Crowds are defined by the primary attitudes or activities their members share. Thus, crowd affiliation is assigned through the consensus of peer group, not selected by the adolescents themselves. Brown (1990) lists the following as common crowd labels among high school students: jocks, brains, loners, rogues, druggies, populars, and nerds (see also Strouse, 1999). Crowds place important restrictions on children's social contacts and relationships with peers (Brown, 1989; Eder, 1985), channeling adolescents toward certain friendships and away from others (Brown & Klute, 2003). For example, cliques are generally formed within (versus across) crowds, and adolescents report that most of their close friends come from their crowd (Brown & Klute, 2003). Crowd labels may also constrain children's ability to change their lifestyle or explore new identities (Kinney, 1999). For their part, however, many adolescents identify with the crowds to which they are assigned (Pugh & Hart, 1999) and are mindful of the social stimulus value of certain crowd memberships (e.g., deviant crowds) and actively use crowd affiliations to manage their public social identity (Kinney, 1999). Also, considerable mobility is present in crowd membership across the high school years (Strouse, 1999).

Crowd membership is an especially salient feature of social life to adolescents, and children's perceptions of crowds change in important ways with age. For example, the prototypicality and exhaustiveness of crowd labels wax and wane with development. O'Brien and Bierman (1987) reported a general shift from 13 to 16 years in the basis by

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which students identify and describe the crowds and other significant groups in their school. Whereas preadolescents and young adolescents focus on group members' specific behavioral proclivities, older adolescents focus on members' dispositional characteristics and values. Brown and Clasen (1986) found that, when students were asked to name the major crowds in their school, the proportion of responses that fell into typical crowd categories rose from 80% in 6th grade to 95% in 9th grade, and then fell steadily through 12th grade. The average number of crowds named increased across development, from just under 8 at 11 years to over 10 by 18 years. Adolescence also marks the appearance of crowd types (e.g., druggies, brains, punkers) that are rarely mentioned by younger children. Finally, the percentage of students who are able to correctly identify their peer-rated crowd membership increases with age (Brown & Klute, 2003).

Romantic Relationships

Romantic relationships flourish during the adolescent years, evolving from shorter-term "experiments" to longer-term alliances based on personal and relational values (Collins, 2003; Collins, Henninghausen, Schmit, & Sroufe, 1997). Reports of dating involvement among adolescents increase from 25% at age 12 to 75% at age 18 (Carver, Joyner, & Udry, 2003). The duration of romantic relationships also increases during the adolescent years, with 35% of 14- to 15-year-olds and 55% of those 16 or older reporting relationships that lasted for 11 months or more (Carver et al., 2003).

Brown (1999) outlined the progression of adolescent romantic relationships from a developmental-contextual perspective. According to Brown's model, the evolution of adolescent romantic involvement is highly sensitive to the peer context and corresponds with the course of individual identity development. During the initiation phase, concern with the quality of romantic relationships is overridden by attempts to establish a sense of efficacy as a participant in the emerging romantic culture. Adolescents realize that their romantic relationships are closely tied to their social image during the status phase, and thus their selection of romantic partners is increasingly driven by peer perception. During the affection phase, romantic relationships become more personal and less susceptible to the influence of the peer group. Adolescents in the affection phase experience heightened emotional intensity in their romantic relationships as they seek greater intimacy with their partners. Finally, pragmatic concerns about the possibility of long-term commitment supplement the emotional intensity of the affection phase during the bonding phase.

Although romantic relationships seem to appear out of the blue during the preadolescent and adolescent years, important connections between early peer experiences and adolescent romantic relationships exist (e.g., Connolly, Craig, Goldberg, & Pepler, 2004; Connolly & Goldberg, 1999; Shulman, Levy-Shiff, Kedem, & Alon, 1997). For instance, experiences of intimacy with friends and discussions about romantic involvement among friends shape adolescent romantic expectations and readiness. Peer groups also establish norms and provide guidance and support for romantic relationships, and the progression from single-sex to heterosexual peer groups during the preadolescent and adolescent years creates access to potential romantic partners. In turn, adolescent romantic relationships impact existing same-sex peer relationships and friendships. Indeed, romantic relationships promote intimate self-disclosure and elicit support among friends (Connolly & Goldberg, 1999).

Vulnerabilities

Peer experiences play an essential role in adolescents' identity development. Through their involvement in friendships and group activities, adolescents are exposed to norms and values that differ from those in their homes. Discussions with peers and friends, in particular, assist adolescents with understanding themselves and their values (Parker & Gottman, 1989). Friends in adolescence probably have no greater intrinsic influence over one another than at earlier ages (Berndt, 1999). Nonetheless, there exists concern that adolescents' involvement in peer groups contributes to a sharp and unhealthy increase in conformity and decline in autonomy. Concern has particularly been expressed that adolescents promote risk taking and other compromising behaviors in one another (e.g., Fisher & Bauman, 1988; Urberg, Cheng, & Shyu, 1991).

Evidence does support the idea that adolescents are less behaviorally autonomous of their friends than they were at younger ages and less autonomous of friends than of their parents (Fuligni, Eccles, Barber, & Clements, 2001). Further, time use data collected in a North American sample suggest that alcohol and drug use, especially on weekends, are inseparable from companionship with friends for a substantial proportion of adolescents and that partying with groups of friends on Friday and Saturday nights is a peak time for high risk behavior (Larson & Richards, 1998). Additionally, a large number of studies document similarity among members of friendship groups in behaviors such as delinquency, substance use, and early or unsafe sexual intercourse (e.g., Dishion, Capaldi, Spracklen, & Li, 1995; Keenan et al., 1995; Poulin et al., 1999). These studies have

been interpreted as evidence of peer pressure toward deviant behavior in adolescence.

Berndt (1999) cautions that similarities in deviant behavior in friendship dyads or groups partly reflect selection influences, such that individuals with deviant or aggressive tendencies tend to seek out and prefer one another. Moreover, as Berndt notes, friends have a stronger influence over one another's positive or neutral behaviors than antisocial behavior and for the most part adolescents do not anticipate that their friends will react negatively if they resist friends' invitations to engage in deviant activities. Nonetheless, convincing work by Dishion and his colleagues (Dishion et al., 1995, 1996) supports the view that social processes in friendship groups are associated with an escalation of problem behavior in vulnerable adolescents. Specifically, observations of friendship dyads indicate that relationships composed of antisocial teens respond more positively to and reinforce conversation related to rule breaking and deviant behavior than do dyads of nondeviant teens. In turn, involvement in these so-called deviancy training conversations with friends at younger ages is associated with an increase likelihood of escalating deviant behavior and rule breaking in dyad members over ensuing years (see also Keenen et al., 1995).

Apart from the brief occasions during school hours when they are involved in unstructured time with friends, adolescents generally report negative moods during weekdays at school (Csikszentmihalyi & Larson, 1984). In contrast to younger ages, time with peers on weekend evenings emerges as the emotional high point of the adolescent week. These changes in the emotional rhythms of the week are consistent with unprecedented interest and priority that adolescents ascribe to relationships with friends and romantic partners. Not all individual adolescents are able or willing to devote unprecedented time to peer activities on weekends, however, and adolescents who fall short of their own or others' expectations for social involvement may experience unprecedented and acutely negative emotions and loneliness. In their study of time use and mood during this period, for example, Larson and Richards (1998) noted that, while being alone is not generally more aversive to adolescents than to younger children, being alone on a Friday or Saturday night specifically is. Adolescents see Friday and Saturday nights as a time of the week when the most exciting peer group events happen and being alone during this time is especially painful.

Finally, although participation in dating and other forms of romantic involvement with peers of the opposite sex is a significant and welcomed developmental milestone for most heterosexual adolescents (Collins et al., 1997; Collins &

Sroufe, 1999), the emergence of this new form of relating in adolescence is neither sudden nor smooth (e.g., Davila, Steinberg, Kachadourian, Cobb, & Fincham, 2004). Instead, as noted, participation in dating and romantic relationships occurs gradually in the context of networks of same-sex friendships (Brown, 1999; Connolly & Goldberg, 1999). The addition of dating partners to an existing network of friends is fraught with social challenges, and in specific friendships, the onset of dating can create a complex social triangle of potential tension (Clark-Lempers, Lempers, & Ho, 1991; Larson & Richards, 1991). As individuals begin spending more time engaged in activities with their dating partners, their time available for activities with existing friends may diminish noticeably. As a result, existing friends, especially those who have not yet begun dating themselves, may regard themselves as neglected and feel lonely (Roth & Parker, 2001). Even where established levels of contact are maintained, existing friends may resent the perceived encroachment into previously sovereign aspects of their partner's life (e.g., serving in the role of confidant). For their part, dating individuals, notwithstanding their excitement over their romantic involvements, may perceive themselves as less similar to their friends than previously or experience guilt over their neglect of existing friends. In the extreme, dating individuals may come to see their friends' frustration and impatience with them as unfair, misdirected, and motivated by petty envy (Roth & Parker, 2001).

Comment

Progress in peer relationships is not a simple unfolding developmental sequence, but, rather, a complex braiding of developmental changes across many levels of description, including the intrapersonal (changes in social understanding and concerns), the interpersonal (changes in the frequency or forms of specific behaviors), the dyadic (changes in qualities of friendships or patterns of involvement in friendships), and the group (changes in configurations of and involvement in cliques and crowds). What is more, development must be described as interlocking across levels. For example, we discussed developmental changes in how children view their behavior, their friendships, and the salient peer groups in their schools. And friendship experiences change children's expectations of friends; but changing friendship expectations lead children to change friends or to take existing friendships in new directions.

In addition, the history of the study of social development has been one of allegiance to dispositional rather than situational explanations of developmental change (Higgins

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& Parsons, 1983). In other words, it has been common to assume that the impetus for major developmental change rests in facets of individual development (cognitive growth, physical maturation, etc.) rather than in the regularities of the organizational features of the social-cultural matrix within which the individual is embedded. Our review makes the limitations of this assumption apparent. Organizational features of the environment help to define the timetable for many developments in peer relationships. Were status hierarchies not such a salient structural feature of social life in middle childhood, it is doubtful that children of this age would express as much concern over this issue, and that gossip would play as central a role in their conversations as it does (Parker & Gottman, 1989). Likewise, as Brown (1990) noted, somewhat facetiously, that for too long the tendency has been to regard adolescents' interest in and allegiance to cliques and crowds as a collective expression of a biologically timed herding instinct, rather than recognize that the depersonalized and complex routine of high school can operate to increase young teenagers' motivations for this form of involvement with peers. Without attention to the social-cultural matrix underlying development, our understanding of many of the major mileposts in the development of peer relationships would be hopelessly handicapped.

PEER INTERACTION IN DEVELOPMENT AND SOCIALIZATION

The role of peer interaction in development and socialization has been discussed in many contexts and from a diverse range of theoretical perspectives. No single framework has emerged for organizing this eclectic array of theoretical and other lines of argument, any more than a single framework exists for describing the influence of mothers, fathers, siblings, grandparents, teachers, schools, communities, and the like on development. Indeed, different authors and traditions have tended to emphasize different aspects of the process and outcome of peer interaction and relationships. However, several broad perspectives seem especially important to recognize, both for their influence on scholarship in this area and for their contrasting views of the significance of children's peer experiences.

Perspectives from Personality Theory

The study of personality, with its emphasis on how and why one individual differs from another, would seem to be a natural venue for discussion of the role of peer in social-

ization and, indeed, children's peer experiences have surfaced from time to time as an important socialization context in several grand theories of personality development.

Psychoanalytic and Neo-Psychoanalytic Views

Childhood peer experiences do not figure prominently in most psychoanalytically inspired grand theories of personality development. Sigmund Freud, Erikson, Fromm, Mahler, Horney, Adler, and Jung, for example, devoted only tangential attention to children's friendships and peer experiences. Instead, these theorists focused primarily on the contributions of parents to children's healthy self-perceptions and behavioral functioning and tended to dismiss the importance of peer relationships or downplay their significance. Whereas the individual who begins life with adequate relationships with parents is assumed to succeed in peer relationships, the peer experiences themselves are not seen as central to adaptive or maladaptive personality development (Adelson & Doehrmann, 1980; Grunebaum & Solomon, 1987; Youniss & Smoller, 1985).

An exception to this general trend is the attention devoted in the psychoanalytic framework to peer experiences at adolescence. Psychoanalytic authors have supposed that adolescents are drawn to friendships and peer groups in reaction to intrapsychic turmoil (see Blos, 1979; Douvan & Adelson, 1966; A. Freud, 1952). As articulated principally in the work of Anna Freud (1952) and Blos (1962), hormonal changes at puberty repotentiate sexual and aggressive drives to such an extent that children's earlier, hastily constructed defenses against Oedipal feelings are seriously compromised and threatened. As refuge from these reawakened drives, children seek the companionship of peers at this time (Douvan & Adelson, 1966).

Blos (1979), in particular, has suggested that changes at adolescence precipitate a second individuation process (the first, described by Mahler, 1952, occurring in very early childhood) or severing of parental identifications and internalizations. According to Blos, adolescents must shed their family dependencies and loosen their infantile object ties to parents to become members of the adult world. Within Blos's widely accepted framework, attachment to peers and identification with peer groups can play an important role in this process for several reasons:

- Because peers can serve as important sounding boards without arousing anxiety or guilt, adolescents can use discussions with peers to resolve internal conflicts.
- The peer group respects competencies, allowing the adolescent to develop an identity based on personal skills, especially athletic and social ones.

- The peer group provides practical and personal guidance in social situations, especially in heterosexual relationships and behavior.
- The peer group provides honest and critical evaluative feedback about the individual's behavior and personality attributes.

In Blos's view, because adolescents cannot find sexual gratification in the family, and in order to sever family dependencies, they turn to the peer group for support and security. Other psychoanalytic authors are less sanguine about the shift in dependency to peers at adolescence, though no less convinced of its necessity. Douvan and Adelson (1966) worried that in an attempt to free themselves from the control and restrictions of parents, adolescents may fall prey to the tyranny of a peer group, which requires conformity in return for security.

Whatever their specific merits, the claims of theorists such as Douvan, Adelson, Anna Freud, and Blos rest in an important way on assumptions about adolescents' intrapsychic turmoil and emotional lability. These assumptions have been difficult to substantiate, and, indeed, have been challenged in many instances or in specific ways (e.g., Csikszentmihalyi & Larson, 1984; Eccles et al., 1993; Offer, Ostrov, & Howard, 1981). That adolescence heralds a dramatic increase in children's interest in and attachment to peers seems undeniable, as we have discussed.

Sullivan's Psychiatry of Interpersonal Relationships

The psychiatrist Sullivan's (1953) views on children's and adolescents' peer relationships and friendships are similar in some ways, and sharply contrasting in others, to those of classic psychoanalysts, and have received a great deal of recent attention (e.g., Bigelow et al., 1999). Sullivan's formal theory of personality development is fraught with fanciful and arcane constructs, but his observations on the growth of human social motives and relationships have proved surprisingly trenchant. Like Sigmund Freud, Sullivan accepted that underlying biological drives motivate much of human behavior. In contrast to Sigmund Freud, however, Sullivan assumed that anxiety is unavoidable, always has an interpersonal context, interferes with need fulfillment, and leads individuals to construct elaborate security operations to minimize the experience. An important construct in Sullivan's theory is that of personifications, or mental representations of self and others based upon one's accumulated experiences interacting in personal relationships. Sullivan's construct of personifications is quite close to

Bowlby's (1982) better-known hypothesized internal working models, and may have influenced Bowlby's views (Bretherton, 1991).

Sullivan also described the emergence of five basic social needs across the period from infancy to adolescence: tenderness, co-participation in playful activity, acceptance by others, interpersonal intimacy, and sexual contact. According to Sullivan, these needs were fulfilled by specific individuals—parents, peers, same-sex best friends, and opposite-sex partners—in both a sequential and cumulative fashion. Of interest, the period of late childhood or the juvenile era (ages 6 to 9 years) is marked by the increase in the need for acceptance by peers and the development of compeer relationships founded along lines of egalitarian exchange. Somewhat later, during the period of preadolescence (ages 9 to 12 years), children's needs shift from a more general need for group approval to a need for a close, intimate tie to a specific other same-sex peer, or chum. *Chumships* are true intimate relationships, prototypical of later love and other collaborative relationships; chumships revolve around the expression of consensual validation of one another's viewpoints and self.

In addition to offering a general age/stage descriptive framework, Sullivan speculated on the many positive and negative interpersonal and intrapersonal consequences of peer experiences for children. For example, he considered the development of skills for cooperation and compromise, then competition and perspective-taking, empathy, and altruism to emerge from peer experiences in the juvenile and preadolescent eras, respectively. He also emphasized the role of peer experiences in constructing and correcting children's perceptions of self through consensual validation. And, along lines similar to the concept of a developmental deviation in developmental psychopathology, Sullivan offered speculations about malevolent transformations that might accompany developmental arrests of one form or another at specific periods of childhood. Children showing forms of developmental arrest included the malevolent child, the isolated child, the disparaging child, and the ostracized child.

Sullivan had a particularly deep interest in, and concern with, the affective consequences of peer experiences for children. For example, he offered many speculations as to the motivational origins of loneliness, its relation to estrangement in peer relationships, and its role in development and psychopathology. Sullivan defined loneliness as "the exceedingly unpleasant and driving experience connected with the inadequate discharge of the need for human intimacy, for interpersonal intimacy" (p. 290). He felt that intimacy and loneliness defined reciprocal sides of the

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same developmental-motivational coin, the need for interpersonal integration. According to Sullivan, loneliness “so terrible that it practically baffles recall” (p. 261) ordinarily was not experienced until after preadolescence, although precursors of loneliness could be found throughout development. In preadolescence, the potential of the loneliness experience becomes “really intimidating” (p. 261). At this age, loneliness arises out of “the need for intimate exchange with a fellow being, whom we may identify as a chum, a friend, or a loved one—that is, the need for the most intimate type of exchange with respects to satisfaction and security” (p. 261). In Sullivan’s view, loneliness rather than anxiety was the motivational force behind most significant distortions of development.

Finally, Sullivan also stressed the therapeutic potential of peer experiences. He believed that the supportive atmosphere of childhood friendships could wholly or partially ameliorate certain developmental arrests resulting from earlier disturbances in relationships with parents and peers. Buhrmester and Furman (1986, p. 50) note in this connection: “It is difficult to overestimate the importance Sullivan gave to the therapeutic potential of chumships. In fact, his innovative treatment for Schizophrenia involved a form of milieu therapy in which the aim was to recreate preadolescent chumships.”

Research generally supports Sullivan’s claim that intimacy becomes salient during preadolescence, primarily within the context of same-sex friendships and his prediction regarding the role of close friendships in loneliness, the development of social perspective-taking skills, and prosocial orientations (e.g., see Hartup & Stevens, 1997). Children’s perceptions of their competence with peers also become more central to their self-definition and self-esteem in preadolescence (Harter, 1999) as Sullivan predicted. Sullivan’s provocative thesis about the therapeutic potential of friendships seems to have received less attention than other aspects of his theory, unfortunately. Nevertheless, the work of Selman and his colleagues (e.g., Selman & Schultz, 1990), though only partly motivated by Sullivan’s views, is worth citing in this connection. In Selman’s pair therapy, two young adolescents with socioemotional and interpersonal difficulties are paired, along with a therapist, for long-term therapy. The dyad is encouraged to play together and the partners are asked to reflect on their interaction together and their relationship. The aim is to achieve a restructuring of the children’s immature interpersonal functioning and understanding, improving their individual and joint capacities for engaging in productive interaction with each other and other children. Thus, a legacy of Sulli-

van’s theory can be identified in recent, productive clinical interventions.

Havighurst’s Developmental Task Approach

Havighurst (1953) drew early attention to the significance of adjustment with peers for children’s well-being and personality development. He argued that adaptation to peers can be viewed as one of many important “tasks” in development. According to Havighurst (1953, p. 2), developmental tasks are “those things a person is to learn if he is to be judged and to judge himself to be a reasonably happy and successful person.” They are tasks in the sense that “successful achievement . . . leads to [an individual’s] happiness and success with later tasks, while failure leads to unhappiness in the individual, disapproval by the society, and difficulty with later tasks” (p. 2). They are developmental in the sense that each has a period of ascendance and is subject to arrest. Each “arises at or about a certain period in the life of the individual” (p. 2) and “if the task is not achieved at the proper time it will not be achieved well, and failure in this task will cause partial or complete failure in the achievement of other tasks yet to come” (p. 3).

According to Havighurst (1953), developmental tasks have multiple origins. Some tasks, such as learning to walk, arise mainly from physical maturation. Tasks arising from physical maturation are more universal than other tasks. Other tasks, such as learning to read, arise primarily from cultural pressure. Such tasks are culturally or subculturally relative. The expectations, values, and aspirations of the individual represent the third source of developmental tasks. Like cultural tasks, these vary with the historical cultural context of the individual.

Havighurst (1953) placed considerable emphasis on peer relationships as a task of childhood. Getting along with peers, Havighurst felt, was important in its own right, as well as for its role in helping children attain other tasks in middle childhood, including (1) the development of social skills, a rational conscience, and a scale of values; (2) the learning of appropriate social attitudes; and (3) the achievement of personal independence. He suggested that getting along with peers was a primary task in middle childhood; but he recognized that this challenge was, in a very real sense, a lifelong one. Indeed, he anticipated considerable continuity in adaptation over development, speculating: “The nine or ten year old already shows what he will be like, socially, at fifty” (p. 31). In this way, Havighurst anticipated the contemporary interest in the long-term adjustment of children with peer relationships difficulties (see Rubin, Bukowski, & Parker, 1998 for a review).

Ultimately, Havighurst's concept of developmental tasks had limited influence on human development research. However, this concept is represented in most of its essential elements, including its focus on the significance of peer relationships, in contemporary organizational or adaptational accounts of development (Sroufe, 1995). Organizational theorists, however, disagree with Havighurst's characterization of development as a series of unfolding tasks that need to be accomplished and then decrease in importance. Instead, organizational theorists stress that most developmental tasks, upon emergence, remain critical to the child's continual adaptation.

Developmental Constructivist Approaches

Besides contributing to a view of children as actively engaged in efforts to interpret, organize, and use information from the environment, developmental constructivists such as Piaget (1932) and Vygotsky (1978) have stressed how structural features of interpersonal relationships influence the development of knowledge, language, social problem-solving skills, and moral behavior. An important distinction in this framework involves the differential affordances of adult-child and child-child interpersonal exchanges, a distinction that Hartup (1989, p. 120) characterized as the distinction between horizontal versus vertical relationships:

[Children's vertical attachments are] attachments to individuals who have greater knowledge and social power than they do. These relationships, most commonly involving children and adults, encompass a wide variety of interactions among which complementary exchanges are especially salient. For example, adult actions toward children consist mainly of nurturance and controlling behaviors, whereas children's actions toward adults consist mainly of submission and appeals for succorance (Youniss, 1980). [Children's horizontal attachments are] relationships with individuals who have the same amount of social power as themselves. Ordinarily, these relationships involve other children and are marked by reciprocity and egalitarian expectations.

The concept of the differential socialization opportunities in horizontal (peer) versus vertical (adult) interpersonal contexts has been especially influential in the domains of cognitive and moral development.

Cognitive Development

Constructivist approaches to cognitive development have been reviewed in a number of connections recently (e.g., Azmitia, Lippman, & Ittel, 1999; Hogan & Tudge, 1999; Rogoff, 1997). These reviews generally conclude

that under specific circumstances, including many that occur frequently and spontaneously in the course of peer interaction, conversation with other children can promote children's perspective-taking skills, problem solving, language skills, academic achievement, scientific and logical reasoning, and a host of other important cognitive and social-cognitive accomplishments.

Piaget's (1932) influential proposal was that peers promote the advancement of one another's cognitive development through attempts to resolve discrepancies deriving from the differences in their perspectives on a problem. As children interact with other children, they become aware of the contradictions between their own view of a problem and that of their partner. This conflict provokes disequilibrium that can propel children to newer and higher levels of reasoning. Importantly, in Piaget's view it was not so much the simple exposure to the new or better problem-solving strategies of the partner, as the opportunity to confront one's own thinking that was critical; unless children appreciated the inefficiency of their old cognitive strategies they were unlikely to abandon them. According to Piaget, this type of real conceptual advance was not likely to happen in discussion with adults or others with greater status, because children were likely to unilaterally accept the conclusions of higher status individuals.

Whereas Piaget emphasized the contribution of symmetric relationships (i.e., friends, children of similar social and cognitive status), Vygotsky (1978) emphasized the contribution of asymmetric (i.e., parent-child, sibling-child, expert child-novice child) relationships to cognitive development. Thus, Vygotsky also saw peers as important to cognitive development, though by comparison to Piaget, less uniquely so.

The ideas of Piaget and Vygotsky have been explored in a great many experimental and other studies (see Gauvain, 2001). A review of this work suggests:

- In line with both Piaget's and Vygotsky's assertions, children working together can solve problems that neither child is capable of solving alone. Further, children working with other children show real cognitive advances from pre- to posttesting and these advances are stable and in most circumstances generalize to other problems.
- It is important that the partners bring conflicting perspectives to the problem; when two children share an understanding of the problem, little cognitive advance is noted.
- In line especially with Vygotsky's thinking, children also make cognitive gains when they work with partners who have a superior understanding of a problem (though this is not a prerequisite for advancement).

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- Children with less advanced partners sometimes show a regression in their thinking about a task. Thus, peer collaboration is not always uniformly facilitative or even neutral. An important interactional constraint seems to be children's certainty of the correctness of their own thinking. When children are more certain of the correctness of their thinking, or the task permits children to be more certain, they are more likely to influence their partners.
- Certain types of conflicts are more likely to promote growth than others. Especially critical are "transactive" discussions—discussions that involve noticing and resolving contradictions in one's partner's logic rather than one's own logic.
- Collaborations with friends may foster greater developmental change than collaborations with nonfriends, at least when the task is a complex one requiring metacommunication skills. Friends seem more inclined to take the important steps of anticipating their partner's confusions and spontaneously justifying and elaborating their own thinking and rationales.

Overall, it appears that the research literature generally supports many of the theoretical assertions of Piaget and Vygotsky regarding the importance of peers in children's cognitive development, even as it suggests some qualifications.

Moral Development

Disputes over objects, distributions of resources, personal norms, customs and rules, respecting others, loyalty, and personal rights are all common features of peer interaction. So, too, are acts of cooperation, forgiveness, kindness, concern, respect, and altruism. In view of the ubiquity of such events, it should not be terribly surprising that peer relationships are an important context for moral development and socialization.

Psychoanalytic and social learning socialization theories have traditionally viewed moral development as children's internalization of adults' skills, knowledge, and conventions. Peer experiences generally have not figured prominently in these formulations, although social learning theorists have recognized the importance of peers as social models and reinforcers of prosocial and antisocial behavior.

Developmental constructivists such as Piaget (1932) and Kohlberg (1969) present a contrasting view. On this view, peer interaction is uniquely suited to the promotion of higher moral reasoning (and presumably behavior). Indeed, Piaget was dismissive of the ability of parents to affect any

real, meaningful change in children's development in this area. In *The Moral Judgment of the Child*, Piaget (1932) suggested that parent-child relationships were a poor context for moral development because they are marked by unilateral authority or constraint. Although children obey their parents, they do so unreflectively. As a result, the moral issues behind rules parents establish are shrouded from and necessarily mysterious to children. With peers, on the other hand, the child is aware that both participants have equal knowledge and authority. When a conflict of interest arises, the child is led to recognize that others have perspectives that differ from his or her own. Because neither of these perspectives have special authority, both children's views have an equal claim to validity, and children are motivated to use discussion, debate, negotiation, and compromise to integrate their conflicting views. The morality of peer interaction is a morality of reciprocity and mutual respect.

As might be imagined, Piaget's hypotheses about the special significance of peer interaction in moral socialization are difficult to evaluate; disentangling the contribution of peer experiences from others' influences on moral judgment is an exceedingly challenging task. However, a number of studies, reviewed by Schlaefli, Rest, and Thoma (1985) and Walker (1986), indicate that peer debate can, in fact, encourage higher levels of moral reasoning in children. In one of the best known of these studies, Damon and Killen (1982) videotaped 5- to 9-year old children in triads during discussion of a distributive justice problem. Pre- and posttests established that the children who participated in these discussions were more likely to advance in their moral reasoning than were children who discussed a similar justice problem with an adult or children who were merely exposed to the pre- and posttests. Similarly, Arbutnot (1975) found that dyads who debated moral dilemmas toward consensus showed more change in moral reasoning than dyads who passively heard arguments about the dilemmas or who performed extraneous tasks.

These studies and others further suggest, in line with Piaget's thinking, that a crucial impetus to developmental change in the context of peer discussion is the process of transactive discussion. Transactive exchanges are exchanges in which each discussant performs mental operations on the reasoning of his or her partner (e.g., critiques, refinements, extensions, paraphrases of the partner's ideas). Children have been found to employ more transactive statements in the discussions of moral issues with peers than their discussions with mothers (Kruger & Tomasello, 1986), and the use of transactive statements has been found to be an important

condition for moral developmental change through peer interaction (e.g., Damon & Killen, 1982).

Cognitive-Social Learning Perspectives

Writers influenced by cognitive-social learning theory have emphasized the ways in which peers extend, elaborate, and alter children's social skills, behavioral tendencies, and self-attributions. According to social learning theory, children generate internal rules linking social behaviors to consequences (praise, criticism, rebuke, rejection) and guide their behavior according to these rules. In part, these rules are learned through direct experience of peer punishment and reinforcement; very simply, children tend to repeat behaviors their peers approve of, and they learn to inhibit actions that peers discourage. In addition, much learning is presumably also vicarious; that is, children learn through observation of other children's behavior and the consequences that other children receive for performing various behaviors. Observation of peers introduces children to new modes of behavior and to the situational and other exigencies governing their performance.

Increasingly, social learning theorists have also stressed that much behavior is controlled by self-generated consequences, concerns, and expectations as well as external forces. Children set standards of achievement for themselves, and self-administer reinforcement when those standards are met and punishment when they are not. The intensity of children's self-reinforcement or self-punishment is governed by many features, but one important factor is social comparison to peers, or the child's assessment of how well his or her behavior compares to that of other children. Bandura (1989) proposed that when children wish to estimate their competence at an activity they tend to compare their performance to that of their peers, especially children who are similar or slightly higher in ability than themselves.

Social learning theory has also emphasized the role of social comparison, and hence peers, in the development of attitudes of personal agency or self-efficacy (Bandura, 1989). Children's beliefs about their abilities, characteristics, and vulnerabilities guide their behavior by determining what actions they attempt and how much effort and persistence they invest in these.

Within the social learning framework, peers influence the developing child according to the same laws of social learning that apply to other socialization agents, including parents, teachers, and television. However, owing to the special features and challenges of membership in peer

groups, the content of what children learn from their peers is assumed to be very different in many instances from what they learn from adults. For instance, many authors note that peer experiences have powerful emotional concomitants, suggesting that children develop important emotion regulation competencies in this context (Calkins, Gill, Johnson, & Smith, 1999; Eisenberg, 2002; Eisenberg et al., 2001; Saarni, 1998, 1999; von Salisch, 2000). Observations of preschoolers, for example, suggest that friendship interaction has the implicit goal of maximizing the level of children's enjoyment during play (Parker & Gottman, 1989). For this to occur, friends must be successful in coordinating their behavior; this, in turn, necessitates that children learn skills for inhibiting action and maintaining organized behavior and attention in the face of arousal, excitement, and frustration. Other authors (e.g., Fine, 1981; Hartup, 1983) have noted the especially strong influence of peers on the amount of specific information about sex learned in early adolescence.

Particular progress has been made in the application of cognitive-social learning concepts to the study of the development of aggressive (see for example McCord, 1995; Moffitt, 1993; Nagin & Tremblay, 1999; Poulin & Boivin, 2000; Schwartz, Dodge, Pettit, & Bates, 2000; Tremblay, Mâsse, Vitaro, & Dobkin, 1995; Vernberg, Jacobs, & Hershberger, 1999; Vitaro, Brendgen, & Tremblay, 2000) and prosocial (Masters & Furman, 1981; Ollendick & Schmidt, 1987) tendencies, and to the development of sex-typed behavior (Huston & Alvarez, 1990; Moller, Hymel, & Rubin, 1992). In the last instance, for example, a great deal of research suggests preschool children reward sex-appropriate and punish sex-inappropriate behavior and toy choices (e.g., Eisenberg, Tryon, & Cameron, 1984; Moller et al., 1992). In addition to such direct influences, many authors have noted that the *de facto* gender segregation of children's play groups during most of childhood and adolescence suggests that boys and girls inhabit almost entirely separate worlds in childhood, with important implications for their social learning (e.g., Zarbatany, Hartmann, & Rankin, 1990). Indeed, it has been suggested that one consequence of growing up in separate worlds is that as children learn a style of interaction that works well with same-sex peers, they become progressively less effective with opposite-sex peers (Leaper, 1994; Maccoby, 1990).

Finally, social learning perspectives have played an important role in understanding how marital distress and conflict in the home may be linked to poor social outcomes in children, including friendship difficulties and

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child behaviors related to peer rejection (e.g., Du Rocher Schudlich, Shamir, & Cummings, 2004, for reviews). From a cognitive-social learning perspective, marital distress and conflict is thought to exert its negative impact on children's social adjustment indirectly, through the spillover of negative affect and behavior from the marital dyad to the parent-child dyad (Erel & Burman, 1995). Marital conflict and dissatisfaction predict negative attitudes about child rearing as well as insensitive, inconsistent, and harsh treatment of children (Wilson & Gottman, 2002). If children model these behaviors with peers, they are likely to experience rejection. Additionally spousal conflict and hostility can affect children directly by contributing to self-blame and expectations of threat (Grych & Fincham, 1990) and emotional insecurity (Davies, Harold, Goeke-Morey, & Cummings, 2002), and by providing them with models of coercive interpersonal behavior (Webster-Stratton & Hammond, 1999). Indeed, destructive and aggressive marital conflict has been linked with immediate child emotional distress and aggressive behavior; furthermore, children's negative emotional reactivity and aggressive behavior in the home and lab have been linked to internalizing and externalizing problems (Cummings, Goeke-Morey, & Papp, 2003, 2004).

Social Psychology

Because much of the core of the discipline of social psychology is dedicated to understanding the behaviors and attitudes of individuals in their groups and relationships, it might be supposed that the study of children's peer group and friendship experiences represents a rich and long-standing interface between that discipline and the discipline of developmental psychology. In fact, less deliberate cross-fertilization has occurred between these disciplines than might be supposed and appropriate (Durkin, 1995). There are signs that this is changing. For example, there have been several attempts recently to explore the developmental roots of relationship phenomena that are better understood by social psychologists focusing on adult relationships. Examples include research on children's forgiveness (e.g., Enright, Gassin, & Wu, 1992; Enright & the Human Development Study Group, 1991), sensitivity to rejection (Downey & Feldman, 1996), understanding of exclusion and black-sheep individuals who deviate from group norms (Abrams et al., 2003; Killen, Lee-Jim, et al., 2002), and jealousy (Parker et al., 2005). However, the primary exception remains the study of the features and processes of social support in childhood and adolescent friendships.

Interest in social support and its relation to mental health, physical health, and responses to stress has a long-and-storied history in social psychology. Indeed, a large body of empirical work in this tradition indicates that receiving social support, or feeling confident that support will be available when one needs it, helps adults cope more effectively with stressful events and appears to have short-term and long-term benefits for health and psychological well-being (see Cunningham & Barbee, 2000; Pierce, Lakey, Sarason, & Sarason, 1997). Adults commonly name their spouses as the person most likely to provide support during times of need (e.g., Dakof & Taylor, 1990). However, most adults also include friends as a primary source of support (Fehr, 2000). Interestingly, an individual's subjective belief that support is available is generally a better predictor of major outcomes, such as mental and physical health, than are assessments of objective support, such as indices of the size of a person's interpersonal network (see Cunningham & Barbee, 2000). Some investigators have also argued that adults' general perceptions of the availability of social support provide better buffering effects against risk than do the actual specific supportive behaviors provided by partners. The objective aspects of social support networks are affected by social skills that contribute to the development and maintenance of a broad, dense, and reliable network. However, the perception of and satisfaction with social support appears to be influenced by individuals' personality factors, such as attachment style, emotional stability, and extraversion (Von Dras & Siegler, 1997).

Drawing upon this literature, several authors have offered taxonomies of the supportive dimensions of childhood friendships (e.g., Asher et al., 1996). Although these formulations differ in specific ways, there appears to be a broad consensus concerning the dimensions that make up friendship support and the overall significance of these dimensions to children's adjustment and development (see Furman, 1996; Rose & Asher, 2000). In all, at least five major features of friendships and categories of social support have been discussed with some regularity.

A first important supportive feature of children's friendships is self-esteem enhancement and self-evaluation; that is, friendships help children develop and maintain an image of themselves as competent, attractive, and worthwhile. Because friends compliment one another, express care and concern over one another's problems, and boast to others about one another's accomplishments, friendships are thought to play an especially important role in children's self-esteem and self-image. The self-

esteem enhancing and self-validating properties of friendships have been hypothesized to be especially important when children are going through normative changes such as school transitions or puberty or undergoing stress (Sandler, Miller, Short, & Wolchik, 1989), but they are undoubtedly important at other times as well. Moreover, friendships may represent significant contexts for social comparison and hence personal understanding (Berndt, 1999).

A second important function of friendship is the provision of emotional security in novel or threatening situations. Even the simple presence of a friend may boost children's reassurance and confidence. This can have important implications for whether children are willing to explore new environments, try new behaviors, or take the kind of small and large risks often associated with growth.

Third, friendships are important nonfamilial contexts for intimacy and affection. The expression of caring, concern, and affection for one's partner have been rightly identified as important, perhaps even defining, characteristics of children's friendships. As they get older, children increasingly emphasize intimacy, self-disclosure, openness, and affection as components of friendship, both in their general beliefs about friendships and in their descriptions of their actual friendships (see Newcomb, Bukowski, & Bagwell, 1999).

Fourth, friends provide informational or instrumental assistance to one another. Like adults, children count on their friends' physical assistance with difficult or time-consuming tasks and look to their friends to provide constructive criticism, counsel, and information.

Finally, friends provide one another with companionship and stimulation. As Asher et al. (1996) note, the companionship aspects of childhood friendship provide some of the most enduring and romantic images of childhood friendship. Friends of all ages emphasize the enjoyment they derive from one another and from the activities they undertake jointly, although the nature of friendship companionship changes developmentally, of course. Successful and stimulating shared experiences contribute to a sense of shared history, joint fate, and a perception of investment in the relationship.

To date, the number of studies of children focusing on friendship support, stress, and adjustment is limited. The question of whether friendship support in childhood can offer the same strong-stress buffering role that is so celebrated in adulthood has not therefore been fully answered. The available evidence, however, supports the conclusion that friendship support among children functions similarly to that

among adults insofar as it contributes to children's ability to cope with life stressors of many types (see Belle, 1989; Compas, 1987; Dubow, Tisak, Causey, Hryshko, & Ried, 1991; Kramer & Gottman, 1992; Wentzel, McNamara-Barry, & Caldwell, 2004). How and under what circumstances supportive friendships are beneficial in helping children and adolescents weather stress is less clear. In an insightful analysis of this problem, Berndt (1989) offers the following hypotheses and conclusions, however:

- Friendships do not buffer children from stress if the friendships themselves do not survive the stressor. In other words, evidence for an inoculating effect of positive friendships is weak. Children with better friendships do not endure stressful events better than children with less adequate friendships if the stressful event separates children from their friends. School transitions and family relocations are good examples of stressful events that increase the mortality of friendships (e.g., Wargo Aikins et al., 2005). Further, the loss of important friendships under these circumstances is, in all likelihood, itself a stressful event for children.
- Supportive friendships have the greatest influence on children's adjustment when they offer the specific type of support needed to deal with a particular stressor. For example, "when a child needs help with homework, a friend who answers questions about the assignment . . . may render more effective support than a friend who simply tries to make the child feel better about his or her abilities" (Berndt, 1989, p. 318). Indeed, support that does not match the stressor may under some circumstances be less productive than no support at all.
- Finally, the child must access or take advantage of the support that is available to him or her under the stressful circumstances. In many instances, this must be an active, purposeful process. As Asher et al. (1996) note, to do so effectively, children must recognize that a problem exists, and understand the seriousness of the problem, the problem details, and the specific emotions associated with the problem. And they must ensure that their affection and advice is perceived and received as selflessly motivated and genuine.

Likewise, recent research by Rose (2002) also sounds a cautionary note. She argues that while opportunities for self-disclosure and interpersonal support within friendships have generally positive benefits for members, in some instances these discussions dominate friends' conversation and interaction together, a process labeled *co-rumination*.

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Co-ruminating friends endlessly discuss and revisit problems, speculate on solutions and hypothetical outcomes, and focus on negative feelings. Rose's (2002) data indicate that, while friends, especially boys, who co-ruminate may become closer, they may also place themselves at risk for internalizing difficulties including depression.

Cooley, Mead, and the Symbolic Interaction View

The idea that children's experiences with peers contribute to the development of their self-concepts seems an especially attractive one. This proposal is at the heart of symbolic interaction theories, and, as Bukowski and Hoza (1989) noted, can in fact, be traced back to the earliest days of American psychology. One of the first authors to emphasize this point was Cooley (1902), whose ideas were later extended by Mead (1934; see Corsaro, 1985). Mead, like Cooley before him, suggested that children experience themselves indirectly through the responses of other members of their significant peer groups. Mead suggested that the ability to reflect on the self developed gradually over the early years of life, first through imitation of peers (and adults) and later primarily as a function of peer play and games. Mead argued that participation in rule-governed games and activities with peers led children to understand and coordinate the perspectives of others in relation to the self. Thus, perspective-taking experiences resulted in an understanding of the generalized other or the organized perspective of the social group. This development, in turn, led to the emergence of an organized sense of self. Therefore, to Mead, peer interaction was essential for the development, not only of perspective-taking skills, but also for the development of self-system.

Authors influenced by this perspective have emphasized the contributions of peer relationships to specific social skills and, particularly, to children's self-presentational or impression management skills for positioning oneself effectively and adaptively in social situations (e.g., Denzin, 1977; Fine, 1981, 1987). Fine (1981), for example, has argued that childhood peer relationships, especially friendships, are important arenas for testing the bounds of acceptable behavior and developing poise under stress. He noted that within the bounds of friendship, inadequate displays will typically be ignored or corrected without loss of face. In this connection, Grunebaum and Solomon (1987) observed that:

Much childhood play takes the form of deliberately perpetuating a loss of poise. Children everywhere play pranks, induce dizziness, trip one another, disarrange clothing, kid or

tease one another. In peer relations these tests of social poise help prepare the child for the maintenance of identity and self control later in life. (p. 480)

Interpretive Approaches to Peer Culture and Child Socialization

Interpretive writers have been highly critical of psychoanalytic, social learning, and other conceptualizations of socialization that describe socialization as the private and unilateral internalization of adult skills and knowledge (see Corsaro & Miller, 1992; Corsaro & Rizzo, 1988; Rizzo, 1989). In common with symbolic interaction and developmental constructivist authors, they stress children's proclivity to interpret, organize, and exploit information from the environment and thereby shape their own socialization experiences and outcomes. However, the interpretive approach extends the constructivist one by stressing that the "environment" itself is a social construction—a world of habitual interactive routines and shared understandings that permit children to participate further in social activity. In development, "children enter into a social system and, by interacting and negotiating with others, establish understandings that become fundamental social knowledge on which they continually build" (Corsaro & Rizzo, 1988, p. 880).

Interaction with peers plays an indispensable role in this process: By interacting with playmates in organized play groups and schools, children produce the first in a series of peer cultures in which childhood knowledge and practices are gradually transformed into the knowledge and skills necessary to participate in the adult world (Corsaro & Rizzo, 1988).

An especially valuable aspect of the interpretive approach to children's peer interaction is the stress placed on documenting the socially shared and culturally relevant meaning behind many of the recurrent and predictable interaction routines that make up much of the day-to-day social life of children with their peers. Corsaro (1985), for example, has described the shared concerns underlying the common spontaneous themes in preschooler's social fantasy play. More generally, interpretive authors have emphasized how children are frequently exposed to social knowledge in adult-child interaction they do not fully grasp. Such ambiguities will often go unresolved in that context because the orderly nature of adult-child interaction does not demand their resolution. However, these uncertainties may be readdressed later in the interaction routines that make up peer culture. Contrariwise, children also seem to appropriate certain elements of the adult culture to deal with practical problems in the peer culture. In such reciprocal fashion, children pro-

duce and reproduce their culture through their socialization experiences in the peer group.

Ethological and Evolutionary Insights

The application of ethological and evolutionary principles and methods to understanding children's peer experiences has waxed and waned over the decades. Excellent early historical examples include work by Blurton-Jones (1972b), Konner (1975), Rosenblum, Coe, and Bromley (1975), Savin-Williams (1979), and Suomi and Harlow (1975), among others. Ethologists Robert Cairns (1979) and Robert Hinde (1979), in particular, deserve singular credit for their efforts to bring broader attention to insights from evolution, social ethology, and developmental psychobiology to the hearth of the growing science of children's peer experiences. Work in this tradition declined over the ensuing decades, although evidence exists that this trend is reversing (e.g., Hawley, 2002, 2003). Complete treatment of the insights into peer experiences left by these perspectives are beyond the scope of this chapter and have been summarized by others to some degree (e.g., Rubin, Hastings, et al., 1998). A few footprints of this perspective bear mentioning however.

Animal Studies of Peer Deprivation

Because experiments involving social deprivation are possible with nonhuman primates, comparative social ethology has provided compelling, albeit isolated, illustrations of the necessity of experiences with age-mates for adequate adjustment. A series of classic studies by Harlow, Suomi, and associates (see Suomi, 1979; Suomi & Harlow, 1975), for example, established that rhesus monkeys reared with adequate adult but impoverished peer contact displayed inappropriate social, sexual, and aggressive behavior. Moreover, the longer such monkeys were denied the opportunity to interact with peers, the more glaring their social inadequacies. For obvious reasons there are no parallel studies with humans, but a study by Hollos and Cowan (1973) of children with extensive contact with their parents but grow up virtually without age-mates on isolated farms in Norway suggested that, compared to controls, social role-taking skills are impaired but tasks involving nonsocial logical cognitive operations are not. In other words, the problems that the peer isolated children displayed were specifically social.

Descriptive Studies of Child Behavior

A commitment to providing a detailed descriptive account of the behavioral repertoire of a species is a common

focus to all ethological work (Blurton-Jones, 1972b; Cairns, 1979; Strayer & Strayer, 1976). Over the years, then, ethologically inspired work has provided almost an encyclopedia wealth of data on children's behavior with age-mates. Much of this work was largely atheoretical. Early, classic examples include studies of sociability and social participation (Parten, 1932; Thomas, Loomis, & Arrington, 1933), assertiveness (Dawe, 1934), sympathetic and altruistic behaviors (Murphy, 1937), and aggression (Goodenough, 1931). Representative of this tradition is early work by Blurton-Jones (1972a). Blurton-Jones (1972a) observed the 25 oldest and youngest members of preschool group for over 2 hours each in 5 minute blocks using a rich taxonomy of codes built up over time and from experience. The detail apparent in Blurton-Jones's (1972a) codes are instructive. His codes included: get red face, cry, pucker, take, fixate, low frown, take-tug-grab, hit, jump, run, slap laugh, smile, watch, give, to name only a few. Factor analyses reveal at least three broad classes of purposeful behavior with peers; play versus work, aggression, and general social behavior. More detailed analysis of the associations among these behaviors produced further interesting observations. For example, toy use played an important role in precipitating aggression in the youngest children and therefore children who were not strongly attracted to toys were involved in fewer conflicts with their peers than other children.

Most contemporary efforts, however, have drawn more directly upon a priori theoretical premises based in ethological or evolutionary principles. An example is recent interest in rough-and-tumble play, or play fighting (e.g., Boulton, 1996; Pellegrini, 2003). Although rough-and-tumble play is a form of aggression, its playful tenor signals that the aggressive intent of the behavior should be discounted. Work by Pellegrini (2003), however, suggests a more complicated picture. Pellegrini reasoned that play fighting among males helps establish and preserve the broader social order, whereas male-female play fighting represents early sexual interest and courtship rituals. Consistent with this hypothesis, male-male play fighting preceded male-female play fighting during the transition to 6th grade. Moreover, careful observation of boys' rough-and-tumble play indicated that boys' and girls' understanding of this behavior depends on their experience with it. Whereas, while boys with less experience with play fighting tend to discount its hostile intent, boys with more experience better appreciate that the surface structure of play fighting can mask underlying subtle efforts at dominance and intimidation. Girls with greater direct experience with rough-and-tumble play, however, were more likely to see it

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as playful than their counterparts with no experience with this form of behavior.

Ethological Insights into Social Organization

The application of ethological principles to understanding social organization has a long history and continues to yield productive findings. As an example, building on early ethological work on social dominance, Hawley (e.g., Hawley, 1999) reinterpreted and reintroduced the concept of social dominance and made a case for its relevance for the development of personality and social functioning. Her evolutionary approach led her to focus first on the *function* of behavior (competition) over the *structure* of behavior. Consequently, she views structurally distinct behaviors (e.g., prosociality and coercion) to be functionally similar (i.e., resource control strategies); resources can be won via cooperation and forging friendly alliances or aggression. This perspective challenges us to view prosociality and antisociality to be two sides of the same coin rather than opposite ends of a single dimension.

In her studies, Hawley and colleagues have demonstrated the social and adjustment implications of resource control attempts and strategy employment. Relative social dominance ranking, for example, impacts play patterns and, thus, who attends to, defers to, or imitates who as early as the toddler years (Hawley & Little, 1999). Dominant children thus not only profit from material rewards but also their competitive competence wins social prestige not enjoyed by subordinate children. According to Hawley, the social esteem of superior competitors is not a quirk of early childhood, but is maintained over the life span. Her work with adolescents has shown that the most effective resource controllers continue to be admired (and liked) by the peer group, even though they are highly aggressive. These so-called bistrategic individuals employ both prosocial and coercive strategies in ways that (1) make them extremely effective at goal attainment, (2) earn them a reputation for aggression (both overt and relational), and (3) reveal they are at the same time highly socially skilled (Hawley, 2003; Hawley, Little, & Pasupathi, 2002). In contrast to these aggressive powerholders, noncontrollers (those who make no resource control attempts) appear to be the most at risk. Even though they are very low on aggression, they are rejected and victimized by their peers, and experience the highest levels of ill-being (Hawley et al., 2002).

Insights from Attachment Theory

As Furman (1999, p. 135) has noted, "Human beings are predisposed to affiliate with known others. We are social

animals, and have been throughout the course of evolution. Natural groups are characteristic of all humans (Foley, 1987)." Bowlby's attachment theory was formulated to account for human infants' attraction to and dependence on others and to specify how early experiences with significant others, particularly adult caregivers, are carried forward in development (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1982; Bretherton, 1990; Sroufe, 1983). As expressed by Sroufe and Fleeson (1986, p. 52), one of the basic premises of attachment theory is that "The young child seeks and explores new relationships within the framework of expectations for self and others that emerges from the primary relationship." In most instances, infants' most significant earliest relationship is that with their mothers. Thus, according to the theory, the early mother-child relationship lays the groundwork for the children's understanding of and participation in subsequent familial and extra-familial relationships. Because the quality of infants' attachments with their mothers varies, children's later social outlook and success with peers is expected to vary as well.

In the case of children with secure attachment histories, an internalized or working model of relationships is built up; that is, comprised of the belief that the parent is available and responsive to one's need for protection, nurturance, and physical care. In a reciprocal fashion, the child with a secure attachment history is also expected to come to regard him- or herself as competent and worthy of parental love and nurturance. In particular, attachment theory predicts at least three specific, salutary influences on children's internal working models and ultimate success with peers. First, a secure attachment relationship with the primary caregiver promotes positive social expectations. Children are disposed to engage other children, and expect peer interaction to be rewarding. Second, their experience with a responsive and empathic caregiver builds the rudiments of a social understanding of reciprocity. Finally, through a history of responsive care and support for autonomy within the relationship, the child develops a sense of self-worth and efficacy. This internal outlook is thought to be important to promoting curiosity, enthusiasm, and positive affect, characteristics that other children find attractive.

Alternatively, when parental insensitivity contributes to the development of an insecure primary attachment, children are thought to develop an internal working model of relationships that stress their unpredictable nature, and images of themselves as unworthy and ineffectual. According to Bowlby an attachment relationship that provides neither

comfort nor support is likely to arouse anxiety and anger. This may lead to the insecure child's behaving in the peer group "by shrinking from it or doing battle with it" (Bowlby, 1973, p. 208). Children who "shrink" anxiously away from peers preclude themselves from the positive outcomes associated with exploration and peer play. Children who do battle with their peers likely engage in inappropriate exploration and play, thereby leading to rejection and isolation by the peer group.

Attachment theory, then, suggests a number of hypothesis concerning aspects of the quality of children's attachment with caregivers and children's later relationships, including those with peers and romantic partners (e.g., Furman, Simon, Shaffer, & Bouchey, 2002; Kerns, Contreras, & Neal-Barnett, 2000). And indeed, recent research generally supports many of these predictions. A number of studies, for example, have examined the general social orientation and specific social skills of young children with secure and insecure attachment histories. For example, evidence suggests that infants with secure attachment histories are later more popular and socially competent in the peer group during preschool and elementary school than their insecurely attached counterparts (Allen, Moore, Kuperminc, & Bell, 1998; Booth, Rubin, Rose-Krasnor, & Burgess, 2004; Clark & Ladd, 2000; Kerns, Cole, & Andrews, 1998; Schneider, Atkinson, & Tardif, 2001; Simon, Paternite, & Shore, 2001; Sroufe, 1995). Furthermore, there appears to be a contemporaneous association between the security of parent-child attachment, social competence, and peer popularity (Allen et al., 1998; Booth, Rose-Krasnor, McKinnon, & Rubin, 1994; Granot & Mayseless, 2001; Kerns, Klepac, & Cole, 1996). Likewise, research also suggests an association between children's attachment histories and qualities of their contemporaneous and later best friendships and romantic partners (Booth et al., 2004; Freitag, Belsky, Grossmann, Grossmann, & Scheurer-Englisch, 1996; Furman et al., 2002; Hodges, Finnegan, & Perry, 1999; Lieberman, Doyle, & Markiewicz, 1999; Rubin, Dwyer, et al., 2004).

Dimensions of Individual Differences in Adjustment to Peers

Peer social experiences differ in an almost bewildering array of ways across individual children. Elsewhere (Parker et al., 1995; Rubin, Parker, & Bukowski, 1998) we have argued that most attempts to conceptualize variability in children experiences fall into either efforts to repre-

sent children's friendship success, on the one hand, and group acceptance versus rejection, on the other. Although a comprehensive treatment of this issue is beyond the scope of this chapter (see Bierman, 2004; Rose & Asher, 2000; Rubin et al., 1998), a brief overview of the conceptual underpinnings and assessment options in these areas is warranted.

It is important at the outset to acknowledge the distinction between not getting along with peers and displaying troublesome behavior such as aggressiveness toward peers and social withdrawal. Behavioral assessment is one of the oldest traditions of differential child psychology (see, for example, pioneering studies of character by Buhler, 1931; Hartshorne & May, 1929), but behavioral assessments are only indirect assessments of difficulties with peers. As Parker and Asher (1987) proposed a number of years ago, this issue should be understood as the issue of whether measures of *what* the child is like with peers can substitute for measures of *whether* the child is liked by peers. In general, they cannot. Whether peers like a child is manifestly a question about that child's adjustment with peers. Although issues arise about how best to address this question, its status as a question about adjustment with peers is unsalvageable. Alternatively, whether what a child is like—or how the child behaves—measures adjustment with peers depends partly on the focus of the assessment. Some dimensions of behavioral differences, of course, are irrelevant or presumably only very indirectly indicative of success or failure with peers. Behavior directed toward adults or that is very academically oriented may fall in this category. By contrast, it is difficult to argue that behaviors such as aggressiveness and social withdrawal are not signs of social failure with peers. Even so, the relation between what a child is like and whether a child is liked is an imperfect one, and the task of deciding which behaviors, if any, should be taken as signs of adjustment or maladjustment with peers is a thorny one.

Additionally, a distinction needs to be made between the objective circumstances of children's experiences with peers and children's subjective appraisals, such as their social outlook, motivational orientation to social participation, and attitudes and affect surrounding groups and relationships (Bierman, 2004). Children with objective peer difficulties experience subjective distress over their circumstances. However, children's views of their social success can be widely disparate from their objective circumstances (see Bierman, 2004). Targeting children on the basis of their interpersonal outlook is an important and potentially profitable pursuit in its own right, but should not

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be confused with the task of identifying children with objective peer difficulties.

Friendship

Friendship is a subjective relationship and an inherently dyadic construct. Children perceive their friendship partners in particularized rather than role-related ways. They stress the uniqueness of the relationship and reject efforts to treat particular friendship partners as interchangeable with others. Researchers and other observers may note commonalities in personalities or behavioral tendencies across the friendships of a focal child, but the focal child is likely to be impressed by the distinctions and diversity among his or her individual partners and relationships.

These subjective and reciprocal properties are challenges to understanding and require special caution in assessment. For example, to gauge children's group acceptance, other children's affection for the target must be obtained by polling pertinent group members. Conclusions will be misleading if the number of polled members is too small or not representative. But they are not negatively affected by the inadvertent or unavoidable omission of an isolated and particular group member's opinion. Moreover, the focal child need not participate in this assessment. In the assessment of friendship, however, the focal child's perceptions of his or her circle of friends *must* be sought and aligned with independent evidence of reciprocity of affection obtained directly or indirectly from each of these implicated individuals (Asher et al., 1996). Moreover, evidence of reciprocity of affection alone is usually insufficient to presume or substantiate claims of friendship. Children may enjoy each other's company in school but never spend time together outside of school or in other ways have experiences together that lead them to think of each other as friends. Indeed, sometimes children have only limited direct contact with other children they report liking. For example, children can admire another child from a distance, can be grateful to someone who is only an acquaintance, or have affection for someone whose leadership facilitates the group's functioning (Parker et al., 1999). Yet, friendship generally implies that the individuals involved in the relationship not only like or admire one another, but have labeled their relationship a friendship, have some shared history together, are committed to one another, and are comfortable being perceived as a pair of friends by others. Normally, friendship cannot be presumed unless children have been expressly asked whether the relationship in question is a friendship.

There are many diverse, yet nonredundant ways of representing dimensions of differences in friendship experiences among individuals. These include distinctions among individuals in the size and organization of their friendship networks and distinctions among individuals in types of relationship properties that are typical of their friendships.

Friendship Network Size, Density, and Durability

Differences among individuals in friendship network size can be easily and reliably quantified by several techniques (see Bukowski & Cillessen, 1998; Parker et al., 1995). In early childhood, it is common to ask parents or teachers to identify how many friends a child has and perhaps who those partners are (e.g., Gottman, 1983; Howes, 1988). Typically, researchers do not give these informants specific criteria by which the presence of a friendship should be determined. Instead, it is often simply assumed that these informants share the researcher's definition of friendship, which may or may not always be the case. With older children, researchers rely primarily on reciprocal sociometric nomination procedures to assess children's involvement in friendships. Typically, children are presented with a roster or a set of pictures of their same-sex classmates (or some other functionally similar group) and asked to circle or otherwise indicate which members are their best or close friends. The pattern of choices is then examined to identify children who nominate one another. Less often, investigators have used reciprocated high ratings as an index of friendship, either alone or in conjunction with friendship nominations (e.g., Berndt & Hoyle, 1985; Bukowski, Hoza, & Newcomb, 1994). Both procedures are consistent with the requirement that friendship needs reciprocity and is predicated upon affection concerns rather than instrumental issues. When nomination measures explicitly refer to friendship (e.g., "Who are your three best friends?"), they further assure the nominations that surface do so specifically because children have recognized friendship relationships with these individuals (versus some other reason for mutual liking).

Many personal and behavioral traits of children have been reported to be correlated with the size of children's friendship networks (see Parker et al., 1999). Thus, it would appear that the differences children show in the size of their social networks are not haphazard or accidental; instead, size differences appear to reflect differences in individual children's social competence, or, in the very least, differences across children in their preferred manner of relating to others. In most instances, it is the subgroup of children who are friendless that appears to be responsible for these associations (Parker et al., 1999). It is less

clear that children's personal dispositions are the primary determinant of whether children have only a few versus many friends.

A related issue is whether children accrue emotional benefits from participation in many versus only a few friendships. As Parker et al. (1999) point out, it seems unlikely that having one friend would provide children with all of their relationship needs. On the one hand, a child may derive companionship from one friendship and derive intimacy from another friendship. Thus, additional friends should help children meet their interpersonal needs more completely, thereby reducing their loneliness. On the other hand, large friendship networks increase not only the opportunities for social support but also the responsibilities and work necessary to maintain one's relationships (Rook, 1988). Furthermore, large friendship networks may increase opportunities for conflict, jealousy, and rivalry among members of the network. Very limited research exists on this point. Parker and Seal (1996) examined this issue in connection with children's feelings of loneliness. In a study of the evolution of children's social relationships over the course of a month-long summer camp, Parker and Seal assessed the reciprocal friendships of 215 8- to 10-year-old children at several time points. At every point of assessment in the study, children with more friends were less lonely than children with fewer friends. However, when children who were chronically friendless were removed from these analyses, number of friends was not significantly related to children's feelings of loneliness. These results suggest that the ability to predict loneliness from number of friends is largely a function of the distinction between children without friends and children with one or more friends and do not support the commonsense notion that more friends is always better.

In addition to size, children's friendship networks can vary in terms of how close the members are with one another. In dense networks, all of a child's friends are also friends with each other. In less dense networks, particular friendships tend to be isolated from other friendship pairs. To date, research in this area has rarely used network density as an individual-difference variable. Nonetheless, some existing research (e.g., Benenson, 1994; Parker & Seal, 1996) demonstrates that individual children do tend to show reliable differences in the density of their friendship networks. The psychological significance of network density is still an open question, however. Intuitively, a relatively connected, or dense, social network may reduce children's vulnerability to loneliness by fostering a greater sense of community, a greater sense of belonging, and a stronger feeling of security than

a less dense one that pulls children in different, and perhaps competing, directions. Of course, just the opposite may also be the case. It is possible that density contributes to loneliness by heightening the tensions, rivalries, and jealousy of network members. To date, density has been investigated so infrequently that firm conclusions are lacking (Parker et al., 1999).

Finally, some children's friendships tend to be short-lived, whereas other children are clearly capable of sustaining friendships over even very long periods of time. Instability in a network may be reflected in its size, at least when viewed over time. Children's network size can grow over time as new friends are added. Conversely, children who have made many friends may find themselves friendless at some future point if they have difficulty keeping these relationships and difficulty forming new friendships. Accordingly, the trajectory of children's friendship network size over time can augment information that is available through a one-time measurement of size alone (Parker & Seal, 1996).

Friendship Quality

Considering the wide variations in individual characteristics that children bring with them to their friendships, it is reasonable to expect that not all friendships will be alike. Such differences are likely to be related to children's subsequent adjustment, and thus investigators have sought to develop procedures for reliably and validly assessing them. The most common approach involves assessing the features of children's friendships through children's own reports (see Furman, 1996). Assessments of this type are usually conducted with questionnaires or interview procedures, and are predicated on the belief that a child's impression of a relationship is the best index of the quality of this relationship for the child (Furman, 1996).

Although less frequent than self-reports, observational techniques can also be used to study children's relationships with friends. Part of the reluctance of researchers to use observational approaches may stem from the formidable task of isolating the contributions of individual members to the observed patterns of dyadic interaction (Hinde & Stevenson-Hinde, 1976, 1987). This is a very real concern, but some promising observational methods for describing inter-dyad variation have appeared (e.g., Dunn, Cutting, & Fisher, 2002; Lansford & Parker, 1999; Simpkins & Parke, 2002; Youngblade, Park, & Belsky, 1993). Presumably, any interpersonal behavior between friends may be amenable to observational assessments. Researchers have generally been interested in dimensions of

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behavior that relate to the putative functions of friendship (e.g., provision of companionship, level of intimate disclosure, degree of helpful advice) or address the affective properties of the relationship (e.g., the affective bonds between friends). Children's conflict and disagreement with friends have also been of interest.

Acceptance versus Rejection in the Peer Group

Children who are liked by most members of a particular group enjoy acceptance in that group. Most children in the group have come to feel that there are many more things to like than dislike about these individuals, and this favorable perception is the prevalent attitude among the members of the group as a whole (Parker et al., 1999). Conversely, when a group rejects children, a consensus has formed among members that a particular child is undesirable, unsuitable, or uninteresting. For their part, children seek affiliation with and develop allegiances to both formal and informal peer groups because inclusion in a group provides a sense of belonging and permits avenues to self-expression and identity development that are not and cannot be cultivated in the context of even the most successful dyadic friendships (Newman & Newman, 2001).

Parker et al. (1999), among others (see Bigelow et al., 1996; Bukowski & Hoza, 1989; Rubin, Bukowski, & Parker, 1998), have stressed the importance of distinguishing friendship success from broader group acceptance. Many members of the group may hold a very positive attitude toward a particular child, but not all may consider that child a friend. Children may enjoy each other's company in school but never spend time together outside of school or in other ways have experiences together that lead them to think of each other as friends. Indeed, sometimes children have only limited direct contact with other children they report liking. For example, children can admire another child from a distance, can be grateful to someone who is only an acquaintance, or may look up to someone for their leadership and facilitation of the group's functioning. Thus, the dimension of group liking/disliking, or group acceptance/rejection specifies the *relation* of a child to a group of peers, but not the child's *relationships* with specific others. Nonetheless, children are no less keenly concerned with status of their relation to significant peer groups than they are with the state of their close friendships.

A wide variety of techniques is available for conceptualizing and assessing children's group acceptance versus rejection status, but far and away the most common procedure

involves sociometric assessment to obtain group members' ratings or nominations of liked and disliked others (see Bierman, 2004; Cillessen & Bukowski, 2000; Parker et al., 1995). Sociometric assessments of group acceptance date at least as far back as Moreno (1934), who pioneered the technique of asking children to nominate liked and disliked other individuals and used the tallies from these surveys to graph sociograms that readily depicted the interpersonal structure of a groups as well as which individuals were popular and which were marginalized or rejected. Moreno's (1934) interest in group dynamics and structure did not leave the same lasting legacy as his interest in the identification of popular and unpopular individuals (but see Bukowski & Cillessen, 1998). Today, Moreno's legacy is most apparent in contemporary assessments of *sociometric status classification* particularly the version formulated and validated by Coie, Dodge, and Coppotelli (1983).

In this procedure, children in a specified group, usually a classroom, are asked to name the 3 to 5 other members they like most and like least. Based on this polling, tallies of the number of positive and negative nominations each member of the group received from all other members are obtained and combined in specific ways to categorized individuals in one of several mutually exclusive and exhaustive status categories. Broadly: Children who receive many "like" and few "dislike" nominations are labeled popular, those who receive many "like" and many "dislike" nominations are controversial. The other categories are rejected (liked by few and disliked by many), neglected (liked by few and disliked by few), and average (often, but not always, all the remaining unclassified children). Recent improvements on this approach, among other things, include efforts to enhance the classification strength of the specific categories (DeRosier & Thomas, 2003).

An alternative sociometric procedure, the *roster-and-rating* rating scale technique (Singleton & Asher, 1977), requires children to rate each of their classmates on a Likert-type scale, according to how much they like or would like to play with the child. Scale points usually range from *Not at all* (1) at the low end to "very much" or "A lot" (5) at the high end. By averaging the ratings that a specific child receives from his or her classmates, the researcher obtains a direct summary measure of the child's acceptance in the group. Researchers also often standardize these ratings within sex and classroom to correct for biases that may exist when children are asked to rate opposite sex classmates and to facilitate the aggregation of data across classrooms (see Bukowski, Sippola, Hoza, & Newcomb, 2000). Sociometric rating assessments offer an especially

attractive alternative to nomination-based procedures with children in middle school or junior high, where it is impractical or inappropriate to define a referent group (such as circumscribed classroom) on which to base social preference and impact scores (e.g., Parker et al., 2005).

Experience with sociometric assessments of acceptance and rejection has led to the conclusion that peer group status is relatively stable over time (e.g., Cillessen, Bukowski, & Haselager, 2000; Hardy et al., 2000; Newcomb & Bukowski, 1984). For example, regardless of the particular sociometric classification system employed, popular children tend to remain popular, whereas rejected children remain rejected (e.g., Brendgen, Vitaro, Bukowski, Doyle, & Markiewicz, 2001). It has been demonstrated consistently that the neglect and controversial categories are the least stable (DeRosier & Thomas, 2003). When changes do occur it is usually from popular to average and vice-versa or from neglected to average. Rarely do popular children become rejected, and even more rarely do rejected children become popular. What is more, the available evidence supports the assertion that an individual's sociometric status classification is not only stable over time in existing groups, but consistent from one group setting to another (see Bierman, 2004).

Stability in group acceptance and rejection is important as it supports researchers' assumptions about why individual children receive the group status they do; namely, that group acceptance or rejection status reflects the social skills and other characteristics of the individual child rather than whimsical or idiosyncratic aspects of the groups in which they find themselves. Nonetheless, progress has been made recently in understanding context, reputation, and other group factors that dictate which children are rejected versus accepted in groups (e.g., Abrams et al., 2003) and it is a mistake to underestimate the role that group level factors play in status emergence and maintenance. Relatedly, researchers have sometimes asked children to nominate peers they *believe* to be popular or rejected in the group. This procedure, then, taps the peer group's *perception* of who is accepted and rejected not their actual acceptance or rejection status. Available evidence cautions against confusing these constructs. Sociometrically and peer-perceived popular individuals are almost wholly distinct groups of individuals (Buskirk et al., 2004; LaFontana & Cillessen, 1999; Parkhurst & Hopmeyer, 1998). Children perceived as popular often are not uniformly positively regarded, and might best be described as controversial (Buskirk et al., 2004; Parkhurst & Hopmeyer, 1998; see also LaFontana & Cillessen, 1999).

DIFFICULTIES WITH PEERS: SHORT- AND LONG-TERM CLINICAL SIGNIFICANCE

Given the many roles that group acceptance and friendship experiences are thought to play in development, it is not surprising that questions of whether and how children's development and well-being are compromised by persistent difficulties with peers. Questions concerning the contributions of peer interaction and friendships to development and those involving the consequences of rejection by peers or other forms of negative peer experiences are obviously related. The better we understand the roles peer experiences play in development the more prescience we can have regarding which children are likely to be at risk for broader adjustment difficulties and which areas of adjustment are likely to be compromised in these children. In actuality, however, studies of the functions of peer experiences in development and studies of the short- and long-term risks associated with peer difficulties have not often been closely connected. Instead, as a rule, clinical child psychologists and psychiatrists are vastly more familiar with the literature on parent-child relationships than the literature on child-peer relationships. Nonetheless, it is probably the case that skilled clinicians are familiar with and, at least intuitively, attentive to disturbances of childhood peer relationships owing to the close connections between difficulties with peers and clinical disorders and subclinical disturbances that bring children to the attention of clinicians. Whether they translate this awareness of peer issues into part of the actual treatment plan would be important to ascertain.

In this section, we consider evidence bearing on the clinical significance of poor peer relationships and children's adjustment. Our treatment here is necessarily brief however and interested readers are directed to our earlier version of this chapter (Parker et al., 1995) as well as a review by Deater-Deckard (2001) for fuller treatments.

Rates of Clinical Referral for Disturbances in Peer Relationships

Estimates of the rates of psychiatric or other referrals specifically for disturbances in peer relationships are difficult to come by. These unknown rates are partly due to the fact that peer problems often accompany other identified problems (e.g., ADHD, disruptive behavior and conduct disorders, anxiety, depression). Nevertheless, the available evidence suggests that poor peer relationships are common reasons for referrals to child specialists. Achenbach and Edelbrock (1981) reported that 30% to 75% of

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children (depending on age) referred to child guidance clinics are reported by their mothers to experience peer difficulties (e.g., poor social skills, aggression). Peer difficulties are roughly twice as common among clinic children as among nonreferred children. Similarly, Hutton (1985) examined the records of 215 students referred to school psychologists by teachers in five different school districts. The most common reason for referral for both boys and girls was poor peer relationships. Poor peer relationships were cited as the basis of referral in 26.5% of the children. Moreover, problems of peer adjustment were implied (but not explicit) in other reasons for referral. For example, fighting and shy/withdrawn made up an additional 13.8% and 14.4% of the reasons for referral, respectively.

In an interesting analysis of this issue, Janes, Hesselbrock, and Schechtman (1980) divided a sample of 298 boys and 98 girls seen at a child guidance clinic over a period of years into those with and without poor peer relationships according to assessments obtained from teachers. Because of the way the assessments were conducted, Janes et al. could examine the role that poor peer relationships played in prompting the original clinic referral. Although children having difficulty getting along with peers were sometimes referred to the clinic for this reason, they were more likely to be referred for poor school achievement and behavioral problems at home and school. In other words, difficulties with peers were not likely to prompt a clinic referral unless they were accompanied by other behavior that was (presumably) more worrisome, bothersome, and disruptive to teachers/classrooms and parents. Indeed, only one in eight children identified by teachers as having difficulties with peers was seen at the clinic primarily for that reason. Janes et al.'s findings suggest that clinic referrals may grossly underestimate the prevalence of difficulties with peers unless those difficulties are combined with other difficulties that pose more problems for teachers and parents. Unless peer relationship disturbance comes to be labeled as a separate disorder with its own diagnostic category, these problems will continue to be perceived and conceptualized as secondary in nature.

Comorbidity and Co-Occurrence with Childhood Psychiatric Disorders

Disturbances in peer relationships have traditionally played little formal role in differential diagnosis and psychiatric classification. Notably, there is no formal diagnostic category for disturbed peer relationships in childhood in either the American Psychiatric Association's multi-axial diagnostic taxonomy (*Diagnostic and Statistical Manual, fourth edi-*

tion [DSM-IV], American Psychiatric Association, 1994) or the *Manual of the International Statistical Classification of Diseases* (World Health Organization, 1992).

However, as the *DSM* has been revised, peer relationships gained importance in diagnosing individuals with disorders. For example, in the *DSM-IV*, Axis IV has been restructured so that the clinician records the presence of stress in separate specific classes of stressors rather than giving a global estimate of stress across all possible stressors. Thus, in *DSM-IV*, stressors for social relationships outside the family (e.g., loss of a friend or inadequate social support) are explicitly considered in the diagnostic taxonomy. Peer relationships continue to play a role in specific disorders in a similar manner to that of *DSM-III-R*. However, it is interesting to note that the Pervasive Developmental Disorders have been expanded to include three new classifications of disorders where a primary symptom is the child's inability to engage in appropriate social interaction (i.e., Rett's Disorder, Asperger's Disorder, and Childhood Disintegrative Disorder; see *DSM-IV*). Of particular interest is Asperger's Disorder for which chronic, severe impairment in social interaction, communication, and behavior (without the language, cognitive, and self-help skill delays seen in Autism) are the essential diagnostic features.

Problems of peer adjustment also appear prominently in the makeup of most dimensions of maladjustment arising from the behavioral assessment approach. Some measures contain subscales or content, which attends to the child's success or failure in the interpersonal realm. For example, the Child Behavior Checklist (CBCL; Achenbach & Edelbrock, 1986) identifies two broad dimensions of child functioning—internalizing problems (inhibition, shy-anxious behavior) and externalizing problems (acting out, aggressive behavior)—as well as several more specific (i.e., narrow) dimensions of functioning (e.g., anxiousness, schizoid behavior, sleep disturbances, aggressiveness). Peer relationship problems are reflected in several of the items (e.g., "poor peer relations," "bad friends") that make up both the broad-band and narrow-band subscales of this measure. The New York Teacher Rating Scale (NYTRS; Miller et al., 1995), which assesses oppositional defiant disorder and conduct disorder, includes a peer relations subscale. This subscale includes items such as "helpful to others" and "has at least one good friend." A high score on this subscale reflects better functioning. The Autism Diagnostic Interview-Revised (ADI-R; Lord, Rutter, & LeCouteur, 1994), the Children's Depression Inventory (CDI; M. Kovacs, 1981), Reynolds Adolescent Depression Scale (RADS; Reynolds, 1986), and Anxiety Disorders Interview

Schedule for *DSM-IV-Child* Version (ADIS-IV-C; Silverman & Nelles, 1988) all contain content that assesses interpersonal relationships.

The Peer Relationships of Children with Psychiatric Disorders

Though peer problems clearly play a role in the diagnosis of psychiatric disorders, the peer relationships of children with specific psychiatric disorders have received substantially less interest compared to normal and distressed, but subclinical, populations of children. Therefore, relatively little is known about the type and quality of peer interactions and the impact of those interactions on the emergence and maintenance of psychiatric/psychological disorders. Prospective studies of psychiatric disorders with low prevalence rates are difficult to achieve and costly, particularly in light of the fact that sociometric assessments are the most common and most defensible methodologies for assessing adjustment with peers, and these techniques require large numbers of informants (e.g., most peers within the same grade at school)—clearly a method that is impractical for clinical settings. The use of clinical samples is more feasible, but because the disorder has emerged, this research is limited in its ability to assess premorbid developmental trends. With this in mind, several specific psychiatric disorders of childhood and adolescence are discussed next in relation to their association with peer relationship problems.

Attention Deficit/Hyperactivity Disorder

The diagnosis for Attention Deficit/Hyperactivity Disorder (ADHD) does not include problematic peer relationships as an essential symptom; however, some researchers have argued that interpersonal difficulties should serve as a defining characteristic (Landau & Moore, 1991; Whalen & Henker, 1991). Almost half of ADHD children have significant peer relationship problems (Guevremont & Dumas, 1994). Children with ADHD display large social skills deficits, often seen as intrusive, loud, annoying, and generally aversive by their peers (see Landau & Moore, 1991). In addition, there is evidence that the social reasoning of ADHD children may be more negative. For example, Whalen and Henker (1991) compared 25 ADHD and 14 normal boys ages 6 to 12 and found that the ADHD boys saw their peers in a more negative way, identifying more undesirable behaviors in peers than did the non-ADHD boys. Overall, ADHD children have been found to be more likely to experience disturbed peer relationships and rejection by peers (Landau & Moore, 1991).

A further complicating factor is the high degree of comorbidity of ADHD with other psychiatric diagnoses, particularly the other Disruptive Behavior Disorders (i.e., Conduct Disorder and Oppositional and Defiant Disorder; August, Ostrander, & Bloomquist, 1992; Barkley, Anastopoulos, Guevremont, & Fletcher, 1991) and Learning Disorders (LD; Flicek, 1992). This comorbidity may additionally contribute to peer disturbances. For example, in a study of 249 2nd through 6th graders, Flicek (1992) found that children with both ADHD and LD were most likely to be rejected and displayed the most disturbed social behavior compared to all other children.

Children with ADHD are frequently treated with stimulant medication, particularly methylphenidate (Ritalin). Results indicate that treatment with Ritalin improves the social interactions, through decreasing aversive behavior, and enhances the social status of children with ADHD (Whalen & Henker, 1991).

Conduct Disorder

As with ADHD, children with Conduct Disorder (CD) tend to have very problematic peer relationships and to be highly disliked or rejected by their peers (e.g., Hinshaw & Lee, 2003). However, unlike ADHD, the primary peer difficulty in CD tends to be aggression. Rather than being simply intrusive, irritating, and overbearing to peers, CD children tend to bully and otherwise aggress toward peers, to intimidate and victimize peers, and to violate the rights of peers (e.g., steal, lie, or destroy property).

It is hypothesized that CD children experience early maladaptive patterns of reinforcement for aggressive behavior as well as exposure to hostile role models, resulting in a hostile, self-defensive view of the world; so that, in the end, aggression becomes the response of choice to deal with interpersonal situations (Dishion & Kavanagh, 2003). Aggression can be a very effective tool for achieving goals and for controlling the behavior of others, but it also increases the likelihood that others will reciprocate the aggression. This pattern develops into a self-perpetuating negative cycle between the child and the social context whereby both the child's aggressive behavior and his or her self-defensive view of the world are continually reinforced and maintained (Coie & Dodge, 1998).

In longitudinal studies, peer rejection in early and middle childhood predicts conduct problems in late childhood and adolescence (Coie, Terry, Lenox, Lochman, & Hyman, 1995; Kraatz-Keiley, Bates, Dodge, & Pettit, 2000; Miller-Johnson, Coie, Maumary-Gremaud, Bierman, & Conduct Problems Prevention Research Group, 2002), and there is some evidence that peer rejection may

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play a causal role in the development of CD (Patterson, Capaldi, & Bank, 1991). When aggressive children are rejected from the broader peer group, they tend to associate with other aggressive and rejected peers (Espelage et al., 2000, 2003; Gest, Farmer, Carins, & Xie, 2003; Kiesner, Poulin, & Nicotra, 2003; Xie, Cairns, & Cairns, 1999). Involvement in a deviant peer group exposes them further to deviant models and restricts their opportunities to interact with nondeviant peers. Furthermore, deviant peers may reinforce delinquent acts through their positive responses to deviant behavior (Bagwell & Coie, 2004; Dishion, Eddy, Haas, Li, & Spracklen, 1997; Dishion et al., 1996; Dishion, McCord, & Poulin, 1999). Involvement in deviant peer groups has been found to be predictive of adolescent substance use, disruptive behavior, and delinquency (Dishion, Capaldi, & Yoerger, 1999; Dishion & Owen, 2002; Keenan et al., 1995) as well as early school dropout (Cairns, Cairns, & Neckerman, 1989). Thus, peer rejection may set in motion an escalating cycle toward conduct disorder.

In *DSM-IV* (1994), there are two subtypes of CD: Childhood Onset Type (i.e., before age 10) and Adolescent Onset Type (i.e., between ages 10 and 18). Children with Childhood Onset CD experience more disturbed peer relationships and are more likely to have persistent CD throughout adolescence and develop Antisocial Personality Disorder in adulthood (*DSM-IV*, 1994; Hinshaw, Lahey, & Hart, 1993; Hinshaw & Lee, 2003). In contrast, children with Adolescent Onset CD tend to display less aggressive behavior and to have more normative peer relationships (*DSM-IV*, 1994; Hinshaw et al., 1993).

Pervasive Developmental Disorders: Autism, Rett's, Childhood Disintegrative, and Aspergers

Unlike the previous two disorders, the primary symptom related to peer relationships for the Pervasive Developmental Disorders (PDD) is social functioning impairment (Barnhill, 2001). Autism and Asperger's Syndrome are, in large part, defined by the child's inability to engage in age appropriate social interactions (*DSM-IV*, 1994). Rett's and Child Disintegrative Disorder include a loss of social engagement and social skills from a previously normal developmental level and are associated with severe or profound mental retardation. Children with Autism and Asperger's Syndrome prefer solitary activities and have great difficulty forming and maintaining friendships. They may be completely unresponsive to and detached from social relationships, interacting with others in a nonemotional, instrumental way. In addition, their social sensitivity or

awareness of the thoughts and feelings of others may be severely limited.

Asperger's children are aloof and have aggressive tendencies (Barnhill, 2001). Research has suggested that the reason children with Asperger's Syndrome act aggressively is that they have trouble interpreting social intentions, encoding conflicts and cues, and choosing problem-solving strategies (Carothers & Taylor, 2004).

Children with Autism (but not Asperger's Syndrome) also have language (delay or absent), communication (e.g., difficulty initiating a conversation), and cognitive impairments (e.g., approximately 75% of children with Autism also have Mental Retardation; *DSM-IV*, 1994). Their language is often repetitive, stereotyped, and idiosyncratic. Research indicates that when children with Autism avoid social interaction, this avoidance predicts subsequent peer avoidance and language use (Ingersoll, Schreibman, & Stahmer, 2001).

Recent research has addressed the peer interactions of children with Autism. For example, they tend to make fewer social initiations even when compared with peers who have other developmental disabilities (Sigman & Ruskin, 1999). Very few children with Autism have friendships with same-age peers (Orsmond, Krauss, & Seltzer, 2004). Those who do have friends report a lower quality of companionship in those friendships (Bauminger & Kasari, 2000).

Anxiety Disorders

Anxiety disorders are among the most common psychological disorders of childhood and adolescence (Albano, Chorpita, & Barlow, 2003; Beidel, 1991). Children who are anxious tend to remain anxious through adolescence and adulthood, even though they may no longer meet the diagnostic criteria for an anxiety disorder (Ialongo, Edelsohn, Werthamer-Larsson, Crockett, & Kellam, 1995; Last, Perrin, Hersen, & Kazdin, 1992). Although several anxiety disorders are associated with impaired peer relationships, developmental models of social anxiety, in particular, have implicated limited social interaction and poor peer relationships (Rubin & Burgess, 2001). For example, young children with certain temperamental vulnerabilities, such as behavioral inhibition, experience psychological and physiological discomfort in social situations, which may place them at risk for the development of social anxiety. Withdrawal from social interaction during early childhood limits important socialization opportunities, and thereby may impede the development of social skills. Social skill deficits may then elicit negative peer reactions, which, in turn, perpetuate further social withdrawal and increase so-

cial anxiety (Rubin & Burgess, 2001; Rubin, Burgess, Kennedy, & Stewart, 2003). This cycle may be sustained and strengthened if anxiety decreases as a result of social avoidance because such negative reinforcement increases the likelihood of subsequent avoidance and withdrawal (Rubin, Burgess, & Coplan, 2002).

The majority of shy, withdrawn, and anxious children report having mutual friendships (Schneider, 1999; Wojslawowicz, Rubin, Burgess, Rose-Krasnor, & Booth, in press). However, the friendships of these children are relatively lacking in fun, intimacy, helpfulness and guidance, and validation and caring (Rubin, Wojslawowicz, Burgess, Rose-Krasnor, & Booth, 2004; Wojslawowicz et al., in press). Other studies indicate that social anxiety is associated with peer rejection (Inderbitzen et al., 1997) and peer victimization (Craig, 1998; Vernberg, Abwender, Ewell, & Beery, 1992). Several other anxiety disorders and multidimensional measures of anxiety have also been linked with peer problems (e.g., Grills & Ollendick, 2002).

Depression

Although deficiencies in social relationships are not required for the diagnosis of depression, current conceptualizations of the etiology and maintenance of depressive symptoms emphasize the role of social skills and dysfunctional interpersonal behavior (e.g., Joiner, Coyne, & Blalock, 1999). Children lacking in social support are believed to be at an increased risk for depression (Windle, 1992). The absence of involvement in friendship undermines self-esteem and deprives children of important pleasurable experiences, contributing to the development of depressive symptomology. Because friends also may be important in buffering children against stress, the presence of close satisfying relationships with friends could be expected to protect children from depressive affect in connection with stress (Windle, 1992). Peer relationships have been found to protect adolescents against depressive symptoms more than parental relationships (I. Hay & Ashman, 2003).

The available literature is generally supportive of a link between depression and difficulties with peers (e.g., Craig, 1998; DiFilippo & Overholser, 2000; Hammen & Rudolph, 2003; Kistner, Balthazor, Risi, & Burton, 1999; Prinstein, Boergers, Spirito, Little, & Grapentine, 2000; Vernberg, 1990). In an interesting study of this issue, Vernberg, for example, found that among young adolescents, less closeness with a best friend, infrequent contact with friends, and more experiences of victimization by peers contributed to increases over time in depressive affect. Likewise, in a 5-

year longitudinal study of young boys, Cillessen, Van Lieshout, and Haselager (1992) found the experience of peer rejection led to higher levels of loneliness, which in turn increased the risk for developing depression. In their meta-analysis, Hawker and Boulton (2000) also reported links between peer victimization and several internalizing problems, including depression, anxiety, loneliness, and poor self-esteem. Depressed children tend to perceive their own status more negatively than their peers do (Cole, Martin, Peeke, Seroczynski, & Hoffman, 1998), view themselves as less accepted by their peers (Brendgen, Vitaro, Turgeon, & Poulin, 2002), and report a lower friendship quality with their best friends (Brendgen et al., 2000) compared with nondepressed children.

On the other hand, there is also support for the view that depressive affect contributes to problems with peer relationships (Joiner et al., 1999), possibly because peers make unflattering generalizations about other children's behavioral characteristics in the face of evidence of depressive affect (Peterson, Mullins, & Ridley-Johnson, 1985). A number of other factors provide further explanation for depressed children/adolescents' problematic peer relationships, including depressed children's difficulty handling conflict with peers, more emotional dysregulation during stressful peer interactions, and depressed youths' tendency to seek excessive reassurance from peers (Hammen & Rudolph, 2003).

Less evidence is available concerning the protective role of friendships in relation to depression. Based on their review of the literature, Peterson et al. (1993) concluded that good peer relationships in early adolescence do not appear to provide a protective influence; later in adolescence, close peer relationships do appear to be protective, particularly when parent relationships are impaired in some way (Peterson, Sarigiani, & Kennedy, 1991). However, depressed children with high-quality friendships may also be at risk. Recent research indicates that close friends who spent excessive amounts of time ruminating over problems (called co-rumination) are at risk for greater internalizing symptoms like depression (Rose, 2002). Girls reported more co-rumination than did boys. These findings may help explain why girls report higher levels of depressive symptoms.

Eating Disorders

The *DSM-IV* identifies Anorexia Nervosa, Bulimia Nervosa, and eating disorder not otherwise specified (EDNOS) as eating disorders. Few young children meet the *DSM* guidelines for diagnosis of an eating disorder, but many children present subclinical variations of them

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(Bryant-Waugh & Lask, 1995). Children who participate in activities in which weight is a main focal point (i.e., ballet, wrestling, gymnastics) may be especially prone to developing eating disorders (Garner, Rosen, & Barry, 1998).

Recent work focusing on how children and adolescents develop disturbances in their body image and eating-related concerns has found that peers may play an important role. Oliver and Thelen (1996) examined eating concerns in children in 3rd through 5th grade. They found that children's perceptions of peer influence were associated with their eating and body image concerns. Girls were more likely than boys to believe that being thin would increase their likeability among peers, although both boys and girls viewed appearance as being related to their peer acceptance. Phares, Steinberg, and Thompson (2004) also found that girls were more concerned with eating and body image than boys. In their sample of elementary school children, they found that both boys and girls who expressed higher levels of dissatisfaction with their bodies also reported higher levels of depressive symptoms and lower levels of self-worth. Furthermore, they found that girls were more active in attempts to become or remain thin.

Loneliness and Subjective Distress

As noted, Sullivan (1953) attached considerable significance to loneliness as a motivational force in development and adjustment. At the same time, Sullivan was pessimistic about the promise of measuring loneliness with any precision:

Now loneliness is possibly most distinguished, among the experiences of human beings, by the toneless quality of the things said about it. . . . I, in common apparently with all denizens of the English-speaking world, feel inadequate to communicate a really clear impression of the experience of loneliness in its quintessential force. (pp. 260–261)

His own pessimism notwithstanding, research does suggest that loneliness is tractable to scientific study and supports Sullivan's claims about the circumstances that give rise to loneliness and its significance as a motivational force in development (see Rotenberg & Hymel, 1999). Of particular interest, research supports an association between difficulties with peers and children's feelings of loneliness. Most research, to date, has focused on loneliness and children's group acceptance. Problematic group acceptance appears robustly associated with loneliness. This is true whether acceptance is measured with a sociometric rating-scale measure (e.g., Parker & Asher,

1993; Parker & Seal, 1996; Quay, 1992; Renshaw & Brown, 1993) or with sociometric nominations that classify children into different sociometric status groups. In the latter case, the evidence shows that rejected sociometric status is associated with greater feelings of loneliness and social dissatisfaction in early adolescence (Boivin & Hymel, 1997; Boivin, Hymel, & Bukowski, 1995; Boivin, Poulin, & Vitaro, 1994; Crick & Ladd, 1993; Parkhurst & Asher, 1992; Sanderson & Siegal, 1995; Sletta, Valas, Skaalvik, & Sobstad, 1996), during middle childhood (e.g., Crick & Ladd, 1993), and during early childhood (Cassidy & Asher, 1992). Neglected sociometric status has not been found to be associated with risk for loneliness. Furthermore, this pattern has been found not only in school contexts (the context that characterizes virtually all research conducted in this area) but in a summer camp context as well (Parker & Seal, 1996). In addition, this relation has now been obtained in several countries (e.g., Australia, Canada, the Netherlands, Norway, and the United States). Also, loneliness does not appear to be an experience that unpopular children can easily shed by changing their activities or social settings. Asher et al. (1996) queried children about their loneliness in a variety of school contexts (i.e., the classroom, physical education, lunchroom, and recess on the playground); Regardless of the activity context they were asked to consider, rejected children reported greater levels of loneliness than better accepted children. Finally, Cillessen, van Ijzendoorn, Van Lieshout, and Hartup (1992) reported that the links between the experience of peer rejection and levels of loneliness hold up longitudinally, and may be implicated in the development of depression. Importantly, it has been found that rejected/withdrawn children report more loneliness and social detachment than popular children or children who are rejected but aggressive (e.g., Gazelle & Ladd, 2003). These relations have been reported throughout childhood and early adolescence (e.g., Crick & Ladd, 1993; Parkhurst & Asher, 1992). Further, one can find a consistent link between peer victimization and loneliness (Boulton & Underwood, 1992; Kochenderfer & Ladd, 1996). Indeed, abusive peer interactions have been found to be antecedent to children's loneliness rather than a concomitant or consequence (Kochenderfer & Ladd, 1996).

Focusing on friendship indices rather than sociometric status, Parker and Asher (1993) reported that elementary school-age children without friends are lonelier than other children. Interestingly, this relation between loneliness and having a friend held for children at all levels of group acceptance, suggesting that popularity and involvement in

friendships contribute additively rather than interactively to feelings of loneliness (see also Nangle, Erdley, Newman, Mason, & Carpenter, 2003). Parker and Asher also examined the relation between loneliness and six qualitative features of children's closest friendships—levels of companionship, conflict, conflict resolution, intimate disclosure, help and guidance, and personal validation. Loneliness was found to be strongly, albeit redundantly, associated with each of these six aspects of friendships. Once again, these effects were independent of the contributions of peer acceptance. For young children as well, the evidence thus far indicates that the quantity (large friendship network) and quality of friendships decrease feelings of loneliness and subjective distress due to the supportive provisions offered by this peer relationship (Burgess et al., 2005).

Poor Childhood Peer Relationships and Later Adult Adjustment

Interest in the implications of problematic relationships with peers for children's long-term behavioral and psychological adjustment dates to the earliest days of research on children's peer relationships. Indeed, the premise that children with relationship problems are at risk for later life difficulties is one of the most widely shared professional and popular beliefs about development and psychopathology and has played an important role in motivating research on children's adjustment with peers. In this section, we offer a brief overview of the basis for this conclusion. Readers interested in a more complete treatment are referred to our earlier version of this chapter (Parker et al., 1995), and reviews by Bierman (2004), Hawker and Bolton (2000), Rubin, Hastings, Chen, Stewart, and McNichol (1998), Nangle and Erdley (2001), Schneider (2000), and Deater-Deckard (2001). Further, while the existence of such long-term linkages has enjoyed almost universal acceptance, opinions diverge surrounding the causal basis of this presumed association (e.g., Vernberg, 1990). We return to this question in the following section.

In general, available data do provide compelling evidence of a link between problematic peer experiences in childhood and children's risk for subsequent mental health difficulties (e.g., Booth et al., 1994; Brendgen et al., 2001; Burks, Dodge, & Price, 1995; Cairns et al., 1989; Coie, Lochman, Terry, & Hyman, 1992; Coie et al., 1992; DeRosier, Kupersmidt, & Patterson, 1994; Kochendorfer-Ladd & Waldrop, 2001; Kupersmidt & Coie, 1990; Ladd & Burgess, 2001; Ladd & Troop-Gordon, 2003; Olweus,

1993). This conclusion rests in part on numerous studies that document differences in the peer relationship histories of disordered versus nondisordered adults. Illustrative of this approach and general finding is a series of pioneering studies by Roff published in the late 1950s and early 1960s (Roff, 1957, 1960, 1961, 1963). Roff searched military service records to locate servicemen who, in middle childhood, had been referred to one of two guidance clinics in Minnesota and who later showed problematic military adjustment in the form of either a diagnosis by military psychiatrists as neurotic (Roff, 1957, 1960) or psychotic (Roff, 1961) or received a dishonorable discharge for antisocial conduct (Roff, 1963). The child clinic records of these servicemen were then reviewed for evidence of earlier difficulties with peers (e.g., dislike by the general peer group, inability to keep friends, and being regarded as odd, peculiar, or queer by other children) and compared with those of former clinic patients who had exemplary later military service records. Results indicated a strong association between disorder and poor childhood peer relationships. Specifically, about half of all neurotic servicemen had shown poor peer adjustment when seen at the clinic in childhood compared to only one in eight normal servicemen. Similarly, about two-thirds of the psychotics, but only one-fourth of the normals, had shown poor peer adjustment. Finally, twice as many of the servicemen dismissed for antisocial conduct had shown poor peer adjustment as control servicemen (54% versus 24%, respectively). In short, depending on the psychiatric or behavioral disorder, disordered servicemen were anywhere from 2 to 4 times as likely as nondisordered servicemen to have had a history of poor peer relationships.

Roff's findings are consistent with those of other researchers employing this type of case-control or follow-back design in which child guidance clinic files or other archival data are reviewed for groups of adults who are known to be psychiatrically disordered versus nondisordered. Moreover, this pattern is not limited to adults with serious psychiatric disorders, but is also characteristic of juvenile delinquents, dropouts, and high school students who do poorly academically and socially. Further, this finding is relatively unaffected by changes in methods of collecting childhood peer data because it occurs in studies that use retrospective interviews, studies that abstract guidance clinic records, and studies that use school records. Childhood peer adjustment variables under some circumstances may even distinguish disordered from nondisordered adults when many other intellectual and demographic variables do not (e.g., Cowen et al., 1973).

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Despite the consistency of their conclusions, as a group the results of these studies have raised concern owing to their reliance on follow-back designs. Case-control or follow-back studies are useful for suggesting connections between adult symptoms and childhood behavior, but cannot provide data interpretable in terms of predictive risk. That is, case-control approaches do not address whether children with a certain level of type of acceptance, when compared with others with higher or more adaptive types of acceptance, have an increased likelihood of experiencing later maladjustment. Such probabilistic prediction is possible only from cohort prospective studies that first identify samples of peer adjusted and nonadjusted children and then follow these children over time to determine the proportion in each of these two groups who subsequently develop disorder. This reduces the possibility of overestimating the importance of a particular childhood characteristic (such as peer rejection) in the etiology of a subsequent disorder.

Follow-up studies are expensive, inflexible, and may require decades to complete. Moreover, to ensure that a sufficiently large number of individuals later develop some specific disorder, peer adjustment data must ideally be gathered on a large number of individuals in childhood. For these and other reasons, there are fewer prospective than case-control studies linking early peer adjustment to later outcomes. Like their counterparts, however, these studies provide compelling evidence of a link between problematic peer experiences in childhood and children's risk for subsequent mental health difficulties (e.g., Ladd & Burgess, 2001; Ollendick, Weist, Borden, & Greene, 1992; Woodward & Fergusson, 1999). Research indicates, for example, that peer relationship problems, especially peer rejection, are associated with increased rates of internalizing symptoms, such as anxiety and depressive symptoms (e.g., Coie et al., 1995; Gazelle & Ladd, 2003; Kraatz-Keiley et al., 2000). Links have also been found between early peer relationship difficulties and various forms of externalizing difficulties, including involvement in juvenile and adult criminal behavior. For example, Woodward and Fergusson (1999) found that children (age 9) with peer relationship problems were at increased risk for later criminal behavior, substance abuse, and suicidal behavior by age 18, although they were not at increased risk for depression or anxiety disorders.

As another example, Ollendick et al. (1992) identified sociometrically rejected, neglected, popular, controversial, and average status in a large sample ($n = 600$) of 9-year-old children and followed them for 5 years, documenting the incidence of subsequent academic, delinquent, behavioral, and

psychological disturbance. Ollendick et al.'s findings strongly supported the risk status of rejected children. At 5-year follow-up, rejected children were perceived by their peers as less likable and more aggressive than popular children. Rejected children were also perceived by their teachers as having more conduct problems, aggression, motor excesses, and attention problems than their popular counterparts. Moreover, rejected children reported a more external locus of control and higher levels of conduct disturbance and substance abuse, performed less well academically, failed more grades, and were more likely to drop out of school and to commit delinquent offenses than the popular children. Clearly, rejected children were at risk when compared with popular children. Furthermore, rejected children differed from average children on most of these same measures, including failed grades, dropping out of school, and commission of delinquent offenses. Thus, it cannot be said that they differed only from a very well accepted group; rather, they also differed from the average child in the class. A similar pattern was evident for controversial children. Controversial children differed from popular and average children on most of the academic, behavioral, and social measures. In fact, they were similar to rejected children on most measures. For example, a similar number of controversial children (27.3%) as rejected children (33.3%) failed at least one grade and the children in the two groups committed similar numbers of delinquent offenses. Neglected children did not differ from average children on any measure and differed from popular children only on the locus of control and peer evaluation measures.

Overall, the pattern of findings from studies using both follow-back and prospective designs are consistent with the conclusion that early difficulties with peers place children at risk for subsequent, sometimes serious, disorders. This finding emerges not only from studies employing clinic samples, but also from studies of school samples as well. Further, peer difficulties have been implicated in risk for a wide range of significant outcomes, including general mental health problems, externalizing and internalizing symptoms, juvenile and adult criminality, substance abuse, school difficulties and dropping out, and severe psychopathology. We turn next to the presumed causal basis of this association.

Understanding the Link between Poor Peer Relationships and Later Adjustment Problems

Our review indicates considerable support for a link between early difficulty with peers and maladjustment later in life. How can this link be understood?

Simple Incidental and Causal Explanations

Previously, we (Parker et al., 1995) offered a characterization and critique of two alternative interpretations of the link between poor peer relationships and later personal adjustment. Both positions represent attempts to understand the links over time between deviant behaviors and problems relating to peers, with subsequent academic, behavioral, and psychiatric disturbances. The interpretations differ, however, in the extent to which they view problems in adjustment to peers as tangentially or centrally (i.e., causally) involved in the etiology of the later difficulties.

The first, or incidental, interpretation makes no assumption that problems with peers cause the interpersonal and intrapersonal difficulties they later predict. Instead, an association between these variables exists because behavioral precursors and subclinical symptoms of later disorders and deviancies perturbed peer relationships early on. As we have seen, there is considerable comorbidity between mental health disturbances and maladjustment with peers in childhood, and children respond negatively to the flat affect and social withdrawal that characterizes depressed children, for example. Disturbances in peer relationships may make particularly good red flags for later disorder, but there is no assumption that poor peer relationships make any independent contribution to later maladjustment and no reason to suspect that children who are rejected by peers for reasons other than underlying disorder will have later maladjustment.

A schematic representation of the extreme incidental view of peer disturbances and later maladjusted outcomes is shown in Figure 12.1. The model presupposes an underlying disposition to later psychopathology. This disposition may be constitutional (e.g., a biological diathesis) or derive from early environmental influences (e.g., poor early parenting or maltreatment resulting in insecure attachment) or some process of coacting constitutional and environmental factors—

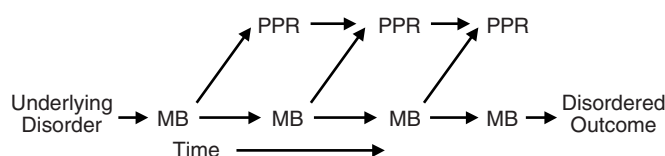


Figure 12.1 Simple incidental model of the link between peer relationship problems and later disorder. *Notes:* PPR = Problems in peer relationships; MB = Maladaptive behavior toward peers. Adapted from “Peer Relations and Later Personal Adjustment: Are Low-Accepted Children at Risk?” by J. G. Parker and S. R. Asher, 1987, *Psychological Bulletin*, 102, pp. 357–389.

its origins need not concern us here. The important feature is that this pathogenic process unfolds over time, resulting eventually in disordered outcome. The child’s peer relationships are disrupted along the way (upward arrows) by the negative behavioral manifestations of the underlying pathogenic process. One might suppose that, because of reputation or other factors, these disruptions make it less likely for children to establish satisfactory peer relationships over time. However, the important influence is the underlying pathogenic process that disrupts behavior, and the peer disruptions themselves are epiphenomenal to the later maladjustment.

The alternative extreme position attributes later disturbance directly to the experience of earlier disruptions in peer relationships. Owing much to the developmental task framework, this causal position holds that many later disturbances can be traced to children’s failure to establish effective and positive relationships with peers in childhood and adolescence. Because they are deprived of the important socialization experiences that positive peer interaction affords, and because they lack important sources of social support, children with peer difficulties experience more stress, have less mature and flexible social and cognitive skills, have less well-developed moral reasoning and less commitment to conventional behavior, are less socialized generally, and have more idiosyncratic patterns of thought and behavior. These factors leave them less capable of meeting social responsibilities and expectations; less able to form subsequent, satisfactory interpersonal relationships; and more vulnerable to stress and breakdown.

A schematic representation of the extreme causal position appears in Figure 12.2. Again, some hypothetical representative time points appear along the X-axis, and the relations among problems with peers, behavioral problems, and later maladjusted outcome are shown. In this instance, maladjustment is shown as the result of the cumulative

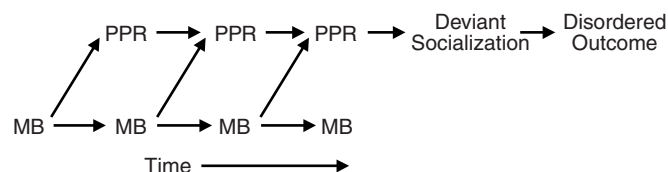


Figure 12.2 Simple causal model of the link between peer relationships problems and later disorder. *Notes:* MB = Maladaptive behavior toward peers; PPR = Problems in peer relationships. Adapted from “Peer Relations and Later Personal Adjustment: Are Low-Accepted Children at Risk?” by J. G. Parker and S. R. Asher, 1987, *Psychological Bulletin*, 102, pp. 357–389.

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experience of peer ostracism and failure rather than as the unfolding of an underlying pathogenic process. Note that the process of disruption begins with signs of maladaptive behavior with peers. The model is silent on the issue of the origins of this maladaptive behavior, although it is not incompatible with the argument that unspecified constitutional and early experiential factors contribute to original behavioral problems that, in turn, contribute to the development of problems with peers. Otherwise, like the incidental model, the causal model assumes that problematic behavior influences and maintains problems with peers at all ages (upward arrows) and has its own momentum (horizontal arrows).

Few studies have directly pitted causal and incidental explanations in the prediction of later maladjustment, and, indeed, because of the complexity of each explanation, it seems unlikely that any single study could do so effectively. An important prerequisite for accepting a causal model is evidence that poor peer relationships have a significant, negative impact on later maladjustment beyond the influence of child characteristics, such as behavioral style. In recent years, covariance multivariate models and cross-lagged stability models have been exploited to examine this issue, and indeed this work indicates that peer rejection contributes uniquely to multiple forms of later adjustment problems, including internalizing and externalizing symptomatology and declines in academic performance (Ladd & Burgess, 2001; Miller-Johnson, Coie, Maumary-Gremaud, Bierman, & Conduct Problems Prevention Research, 2002; Miller-Johnson, Coie, Maumary-Gremaud, Lochman, & Terry, 1999; Wentzel, 2003). Insofar as these findings suggest that peer problems are not simply a marker of a pathogenic process, a strictly incidental explanation for these linkages seems inadequate.

Interactional and Transactional Interpretations

Incidental and causal views are caricatures and not likely to be steadfastly held by many actual authors. Even so, these models have exerted an influence on how researchers conduct and interpret longitudinal research on the long-term sequelae of early problems (see Parker & Asher, 1987). Importantly, neither view is likely to prove satisfactory to explain the link between problems with peers and later adjustment. As Parker and Asher (p. 379) observed:

The extreme incidental model seemingly denies the very real possibility that the experience of peer rejection, especially prolonged peer rejection, leads a child to view the world and him- or herself negatively. . . . Ongoing rejection by peers must negatively affect many aspects of the child's social, aca-

dem, affective, and moral development. . . . Alternatively, an extreme causal view ignores the fact that factors that antedate poor interpersonal relationships continue to play a role in subsequent outcomes. It seems likely that factors that contribute to poor peer adjustment also continue to shape the course and nature of subsequent adjustment.

More generally, students of developmental models will recognize the incidental and causal views above as specific instances of main effects models emphasizing the contributions of the child or environment, respectively (Sameroff & MacKenzie, 2003). According to the incidental model, information concerning the child's constitutional nature is sufficient to accurately predict later outcomes. Likewise, the causal model implies that, while characteristics of the child, such as aggressive or withdrawn behavioral styles, may contribute initially to peer rejection, subsequent peer interactions and socialization processes are responsible for later maladjustment. Missing from both models is any appreciable attention to (1) how characteristics of the child might condition the impact of ostracism by peers and (2) how rejection by peers contributes to what is characteristic of the child.

In other areas of psychology, interactional models have proven useful for understanding the conditional impact of environmental events on development (Sameroff & MacKenzie, 2003; Wachs, 1992). The diathesis-stress model is an example of an interactional model that is frequently drawn on in the study of developmental psychopathology (Garmezy, 1974). In this view, every child has a particular genotypic profile that defines its constitutional vulnerability to disorder. However, this genotypic vulnerability has to be activated by an environmental stressor in order for the disorder to be manifested. The impact of a particular stressor is not invariant across individuals. Rather, whether a stressor produces maladjustment depends on the child's particular constitutional make-up. A low level of stress may produce disorder for children whose genotypic vulnerability is high, but not for other children. Similarly, an extremely stressful event may produce disorder in almost all children, except those with a very low level of vulnerability. Thus, an interactional model, such as the diathesis-stress model, states that developmental outcomes can be predicted only when the interaction between child and environmental influences are taken into account.

As we noted earlier, in the study of peer relationships, very little longitudinal work has examined whether the combination of child characteristics, such as behavioral or social-cognitive style, and peer rejection places children at differential risk for later maladjustment. Several lines

of research suggest, however, that there are considerable differences in the behavioral and social-cognitive profiles of low-accepted children and that considering both child and social influences may greatly enhance the predictability of disorder, both in general and of specific types (e.g., Bierman, Smoot, & Aumiller, 1993; Kupersmidt & Coie, 1990). For example, in a classic study of 95 6- to 12-year-old boys, Bierman and colleagues found that peer-rejected children who also displayed excessive aggressive behavior were most likely to exhibit severe conduct problems, whereas children who were rejected but not aggressive were most likely to exhibit passivity.

Although an interactional interpretation addresses the need for a more conditional understanding of the impact of poor peer relationships on later adjustment, it falls short of being a comprehensive model of this process, one which allows for feedback among the causes of problems with peers, the consequences of poor peer relationships, and the course of later maladjustment. In other words, we are lacking a transactional model (Sameroff & MacKenzie, 2003) of the link between difficulties with peers and later adjustment. Transactional models have been extremely helpful for conceptualizing and understanding a variety of phenomena in other areas, including Schizophrenia (Barocas & Sameroff, 1982), community violence, child maltreatment (Cicchetti & Lynch, 1993), externalizing problem behavior (Ladd & Burgess, 1999), the effects of deviant friends on delinquency and aggression (Keenan, Shaw, & Delliquadri, 1998; Kraatz-Keiley et al, 2000); and parent-child relationships (Sroufe, 1995). The basic tenets of transactional models have been cogently described by Sameroff (1995; Sameroff & MacKenzie, 2003). Within transactional systems, development is viewed as a dynamic process wherein characteristics of the child and characteristics of the environment undergo continual change through processes of mutual influence over time. The influence of any element of the

system is complex, and always bidirectional. The organism (child) in a transactional model is actively involved in attempts to organize and alter his or her environment. Changes in the environment as a result of a child's actions, on the other hand, subsequently function to produce changes in the child:

The child is in a perpetual state of active reorganization and cannot properly be regarded as maintaining inborn characteristics as static qualities. In this view, the constants in development are not some set of traits, but rather the processes by which these traits are maintained in the transactions between organism and environment. (Sameroff, 1975, p. 281)

From a transactional perspective, the development of psychopathology is neither a product of the child nor of the environment, but rather the result of child-environmental transactions that reinforce and sustain maladaptive patterns over time.

Figure 12.3 presents one possible way of representing the link between poor peer relationships in childhood and later disordered outcomes as a transactional developmental process. As in the earlier models, Figure 12.3 begins with the assumption that biogenetic and early experiential factors combine to contribute to a behavioral style that is maladaptive to forming friendships and interacting successfully in a peer group. The specific nature of this predisposing process is left unspecific and need not concern us here. It is also explicit in Figure 12.3 that these early experiences influence not only the child's initial maladaptive behavior toward peers (MB₁ in the model) but also the child's self-perceptions and social outlook, social motivation, and social attributions (NSOC₁ in the model). These self-other cognitive processes, in turn, also contribute to initial behavior toward peers. Importantly, as with the other two models, children's behavior toward peers is suggested to

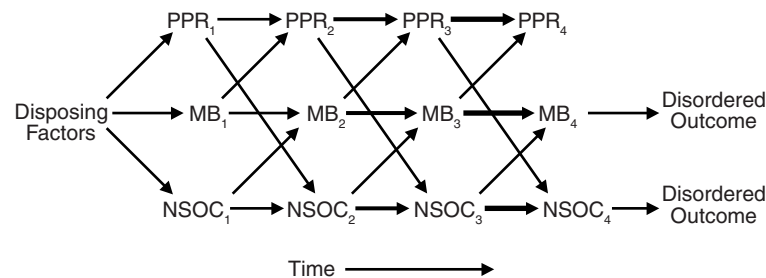


Figure 12.3 A transactional model of the link between peer relationships problems and later disorder. Note: PPR = Problems in peer relationships; MB = Maladaptive behavior toward peers; NSOC = Negative self- and other-cognitions.

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contribute (upward arrows) to initial difficulties forming friendships and peer rejection (PPR_1 in the model).

At this point the model departs notably from the other two models. Whereas the incidental and causal models attribute the development of disorder from this point to either processes in place in the child or stable processes set off by the environmental rejection, the transactional model in Figure 12.3 posits the operation of a dynamic pattern of continuous and reciprocal influence of children's behavior toward peers, problems in peer relationships, and children's negative self- and other cognitions. Thus, peer rejection negatively influences children's perceptions of self and others. This, in turn, influences them to behave in further maladaptive ways toward peers, which, in turn, negatively influences peers' attitudes and behavior toward them, and so on, in a spiraling fashion. One iteration of this spiraling cycle of cognition-behavior-rejection-cognition is represented by the pathway $NSOC_1 \rightarrow MB_2 \rightarrow PPR_3 \rightarrow NSOC_4$, and this feature of the hypothesized model is discussed at greater length in the next section. The end point of this model indicates two, rather than one, sets of disordered outcomes. This duplication is deliberate, and intended to emphasize that most disorders have cognitive/affective as well as behavioral/symptom referents.

Several specific elements of the model require further mention. First, a path from each point of difficulty with peers to each successive point of difficulty with peers is articulated, and these paths are indicated with increasing thickness. This convention is adopted to recognize that, once in place, reputational and other factors contribute momentum to peer rejection, adding coherence to the process over time (LaFontana & Cillessen, 1999, 2002).

A similar convention is adapted from each point of behavior toward peers to each subsequent point of behavior toward peers (see Figure 12.3). This pattern is included as a means to represent the increasing canalization of behavior that results from the transactional operation of this cycle over time (Sameroff, 1987). Likewise the increasingly thick pathways from each point of self- and other-cognition to each subsequent point of self- and other-cognition is intended to recognize that these internal processes are somewhat self-perpetuating and have their own coherence over time, as we will discuss.

The elements in the model in Figure 12.3 have discrete subscripts at each hypothetical time point. This convention is adopted to highlight an important point about the transactional model: Even as they retain a certain lawful coherence over time, the elements of this model can be expected to change over time as a function of their participation in

the recursive cycles of influence (Sameroff, 1987). For example, initially active and aggressive children may, upon experience of peer rejection, appear sullen, withdrawn, and avoidant of peers later (Rubin, Burgess, & Coplan, 2002). As another example, children who behave unskillfully with peers may experience peer-group rejection initially, but not necessarily problems forming one or two same-sex friendships (Parker & Asher, 1993). Friendship problems may follow later, and, still later, problems relating to cross-sex others and romantic partners (Coie, 1990). Presumably, system-exogenous factors, such as how opportunities for cross-sex interaction are structured in the broader culture, partly dictate the specific nature of each element at a given time point. The broader point intended by the subscripts in Figure 12.3 is that the elements in the model should not be expected to stay constant—or even show homotypic similarity—over time (see Sroufe, 1995).

Transactional-like explanatory models have been increasingly invoked within the literature on children's peer relationships (Coie, 1990; Crick & Dodge, 1994). One illustration is the discussion by Rubin, Hastings, et al. (1998; Rubin & Burgess, 2002). Noting that a broad distinction is often drawn between internalizing and externalizing disordered outcomes, Rubin and colleagues describe the transactional pathways leading to these disparate eventual outcomes, and the complicity of peer rejection in these processes. Rubin et al. note that the distinction between externalizing and internalizing disordered outcomes parallels in certain respects the distinction between two types of at-risk infants: infants with difficult temperaments (negatively emotional, difficult to sooth, fussy, overactive) and inhibited infants with low thresholds for stimulation and arousal. Rubin et al. argue that this correspondence was not coincidental, and describe two hypothetical transactional pathways that might respectively link difficult temperament to later externalizing disorders and early inhibition to later internalizing disorder. Both pathways start with the assumption that when children with problematic temperaments are born into early risky caretaking environments (e.g., poverty, poor-parenting skills), the result is often a disruption in early parent-child attachment. In the instance of an infant with a difficult/fussy temperament, the result is often the creation of an avoidant-insecure attachment and a pattern of subsequent parenting that is authoritarian, hostile, and shows little concern for developing social competence. As a result, as preschoolers, these children behave more aggressively than other children, and hold less positive and trusting attitudes toward their peers. In this latter regard, we see the beginnings of social information processing deficits and biases. Because peers reject these chil-

dren, their cognitions and feelings toward peers become even more hostile, and their behavior toward peers becomes even more aggressive. Teachers label these children as problematic, and the parents of these children respond by becoming even more controlling and autocratic. Alternatively, some parents begin to view their children's problems as being dispositionally based; the result is a parental mindset that "there is little I can do to alter my child's aggressiveness." Parental hopelessness, permissiveness, or neglect may follow (Rubin & Burgess, 2002). Powerful reputation biases in the peer group are also set in motion, which make it even less likely for these children to be accepted by peers (LaFontana & Cillessen, 1999, 2002). Over time, this reciprocal cycle of peer rejection-negative cognitions and emotions-aggressive behavior-hostile parenting-peer rejection leads to the full exclusion and isolation of these children from the peer group. Indeed, by the end of elementary school, these initially aggressive children may even begin displaying higher-than-normal rates of social isolation as a reaction to the group exclusion. Rubin et al. suggest that the eventual prognosis for children who follow this pathway is the development of externalizing disorders (e.g., delinquency).

The pathway for children with initially inhibited temperaments is very different, however (Rubin, Burgess, & Coplan, 2002). When early caretaking circumstances exacerbate these children's difficulties, they will be prone to show difficulties characteristic of resistant-insecure attachment. They will be reluctant to explore their environment, will have less well-developed social and cognitive skills, and will show anxious, inhibited behavior with peers and high rates of nonsocial play as preschoolers. Even in early childhood, these children's social overtures to peers may be ignored or refused. The upshot of this early, *in vivo*, rejection is an exacerbation of social anxiety and withdrawal. Rubin et al. suggest that, for a variety of reasons, the parents of these children may react to their children's social difficulties by viewing them as vulnerable and in need of overprotection, thereby exacerbating their children's sense of insecurity (Rubin & Burgess, 2002). Rubin et al. suggest that, initially, during early childhood, researchers may not find a link with sociometric rejection; however, the transactional process between negative peer response and negative self-regard has already been set into place. Eventually, these socially wary children are viewed by peers as easy marks for teasing and victimization. As they move into elementary school, the children recognize the solidity of social failure and develop even more negative self-perceptions. Eventually, too, peers regard these children as socially awkward, atypical, and not worthy of social contact. As their rejection

by peers increases, Rubin et al. predict that these children react by becoming depressed and lonely, and eventually by showing internalizing disorders and difficulties relating to others as young adults. Importantly, Rubin and colleagues also note that the two trajectories involve children being involved in friendships that serve to exacerbate their difficulties. In the case of the first trajectory described above, the aggressive child finds himself or herself in the company of friends with whom deviancy training occurs. In the case of the latter trajectory, the anxious withdrawn child finds himself or herself in the company of friends with whom co-rumination occurs.

Transactional models such as the ones offered by Rubin and colleagues present formidable research challenges. Children's peer relationships, behavior, social-cognition, and adjustment are not expected to remain constant over time, and patterns of change over time must be used to predict subsequent changes and organism states. Progress in this area has been helped by the development of statistical techniques (e.g., structural equation modeling, growth curve analyses, survival analyses) for examining bidirectional and reciprocal influences in multivariate longitudinal data sets, but the number of investigations incorporating these techniques is still very limited.

In summary, investigators have offered simple main effects, interactional, and transactional explanations for why research has shown a link between early difficulties with peers and later maladjustment. Main effects explanations differ in the extent to which they view early difficulties with peers as involved in the etiology of the later disorders, with the incidental and causal being two extreme models. Such simple linear models seem insufficient explanations on the whole, however. Interaction models recognize that any attempt to specify how difficulties with peers affect later adjustment must consider aspects of the child, such as his or her preferred behavioral style and internal attributions and understandings. Interaction models, however, are still static characterizations. Recently, dynamic, transactional models have begun to influence how authors conceptualize and analyze the link between early peer difficulties and later adjustment. These transactional models offer many advantages over other explanations because they recognize that the child and the peer group form a dynamic, interacting system that changes over time. A significant element of this system includes the mechanisms of reciprocal influence among the child's cognitions of the self and others, the child's behavior toward peers, and the peer group's collective appraisal of and behavior toward the child. This element is the focus of the next section.

PROCESSES OF RECIPROCAL BEHAVIOR AND SOCIAL COGNITION IN PEER GROUP ADJUSTMENT

In the preceding discussion of transactional models, we described a hypothetical spiraling cycle of influence, wherein children and their peers form impressions and perceptions of one another that guide their behavioral responses toward each other and determine the nature of their relationships. The components of this process included the child's cognitions about him- or herself, the child's characteristic behavior toward peers, the influence of the child's behavior on the peer group's collective appraisal and acceptance of the child, and the resulting influence of these attitudes on the peer group's collective behavior toward the child. Although this reciprocal process was presented abstractly earlier, in fact a great deal is already known about many of these variables and pathways of influence. Indeed, theory and research on the mechanisms that govern adult social interaction has a long history (e.g., Kelly, 1955) and continues to flourish (e.g., Fletcher & Fincham, 1991), while several models of the mechanisms that govern the social interaction of children have also been presented (e.g., Crick & Dodge, 1994; Lemerise & Arsenio, 2000; Rubin, Hastings, et al., 1998). Also, as we have reviewed, the study of the behavioral correlates of difficulties with peers is one of the oldest traditions within the literature on children's peer relationships. Interestingly, it was the empirical evidence indicating that children who experience peer difficulties are at risk for both concurrent and later maladjustment that served as the major impetus for what is now a substantial body of research focusing on the social-cognitive and behavioral processes underlying peer difficulties.

Our purpose in this section is to flesh out this emerging general model of how children's cognitions, emotions, and behavior affect the establishment of negative reputations among peers and peer group rejection by reviewing the existing research bearing on its key components and pathways. Before beginning, it merits noting that in several respects the research in this area has followed a developmental psychopathological perspective. First, there is an implicit understanding that the study of social maladjustment is linked with the study of normal social development. One of the major tenets of developmental psychopathology is that our understanding of risk and pathology can be enhanced by knowledge about normal development. Likewise, our understanding of normal development is expanded by knowledge about deviations in development (Cicchetti, 2002). Much of the research on the social-cognitive and behavioral correlates of peer difficulties has involved identi-

fying children who are experiencing social difficulties (e.g., children who are rejected, withdrawn, or friendless), assessing their social-cognition or behavioral orientations, and then comparing their orientations to those of children who are functioning successfully within their peer groups. As a consequence, a great deal has been learned about the social-cognitive and behavioral processes underlying both successful and unsuccessful peer relationships.

Second, there is the recognition by researchers in this area that there are likely to be different pathways by which children come to experience peer difficulties. The view that the same developmental outcome may be achieved through different avenues is a position advocated by developmental psychopathologists. For example, whereas some children can become rejected because they behave aggressively and disruptively, others may become rejected because they withdraw from peers and engage in developmentally inappropriate play (Rubin, Hastings, et al., 1998).

Finally, there is the realization, as there is in developmental psychopathology, that there are multiple mechanisms and processes involved in determining a particular maladaptive outcome. Consequently, a variety of cognitive, emotional, and behavioral mechanisms and processes have been examined, including the social-cognitive and behavioral characteristics of children who are experiencing social difficulties, as well as the social-cognitive and behavioral responses of the peers with whom the child interacts.

Although the general outline of the process we wish to describe was embedded in Figure 12.3, this process is shown in a different and clearer form in Figure 12.4. The cycle shown in Figure 12.4 is one in which the processing of social cues, the regulation of emotion and emotion processing, and the social behavior of both the target child and the members of the peer group contribute to difficulties in peer relationships or peer rejection. Figure 12.4 is a representation of the conclusions of recent research and theorizing in this area, including models offered by Coie (1990), Crick and Dodge (1994), Deater-Deckard (2001), Howes (1988), Lemerise and Arsenio (2000), and Rubin and Rose-Krasnor (1992), among others. The model in Figure 12.4 is guided by several assumptions. First, it is assumed that each individual brings into the interactive context broad representations of him- or herself and his or her relationships. These representations guide children's expectations for interaction and direct them to pursue some social goals but not others. They also influence how children interpret the behavioral cues of their interactive partners and how children evaluate alternative response options.

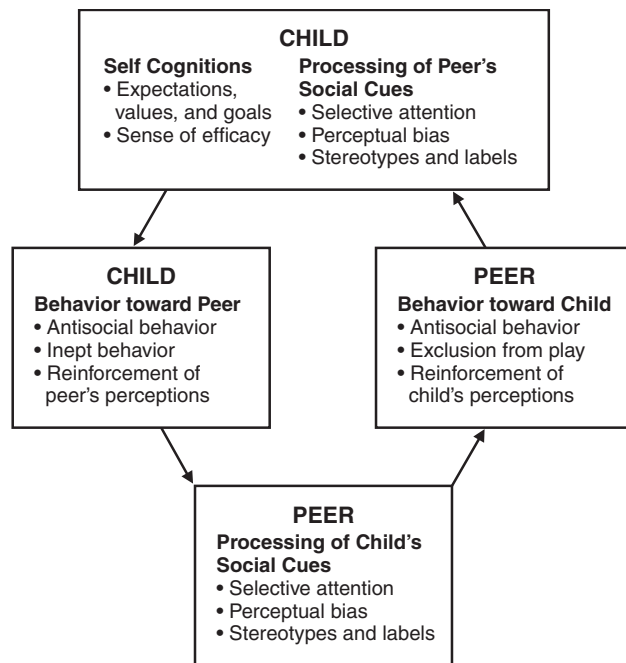


Figure 12.4 Processes of reciprocal influence in peer transactions involving children with poor adjustment with peers. Adapted from "Peers' Contribution to Children's Social Maladjustment: Description and Intervention" (pp. 341–370), by J. M. Price and K. A. Dodge, 1989, in *Peer Relations in Child Development*, T. J. Berndt & G. W. Ladd (Eds.), New York: Wiley.

Second, the model assumes that from the earliest periods of interaction, participants form specific expectations and representations of their particular partner. These representations may include the behavioral characteristics of the other, as well as emotional reactions that were experienced at the time the representation was formed. These person representations are integrated into previously existing knowledge structures, and in concert with these structures, guide each participant's behavioral responses. The valence of these person representations is extremely important. If primarily positive, then future interaction with the partner is welcomed and pursued. If, however, the valence of the behavioral and affective features of the representation of the other are primarily negative, then further interaction with that particular individual might be avoided. This process of forming person perceptions is considered to be dynamic rather than static. As long as two individuals are continuing to have contact with one another, there is the potential for the modification of existing representations and perceptions.

Finally, and consequently, the model assumes that the social outcomes of interactions (e.g., the degree to which the individuals like one another or whether they become friends) follow from the person perceptions that are formed

during the course of interaction. We turn next to some of the specific components of the model in Figure 12.4.

The Child's Self and Social Cognitions

The first component of interaction consists of the child's self, social cognitions, and emotions. When a child interacts with a peer, he or she applies a set of knowledge structures about the self, about relationships in general, and, if there has been prior experience with a particular peer, specific knowledge and memories about that peer. He or she also applies a set of specific social goals and expectations for the interaction. These goals and expectations also reflect beliefs about his or her personal and emotional efficacy in relationships in general and in the specific relationship at hand. It is hypothesized that during social interaction, these knowledge structures, emotions, and expectancies influence how the individual processes the social information available (Crick & Dodge, 1994; Deater-Deckard, 2001; Lemerise & Arsenio, 2000; Rubin & Rose-Krasnor, 1992; Saarni, 1999). In turn, the manner in which this information is processed serves to guide the child's behavior during interaction with the peer. Thus, positive views and expectations of self and relationships, along with accurate processing of information and positive emotions, should be conducive to the formation of positive and supportive relationships with peers. Conversely, negative views and expectations of self and others, along with processing biases and deficits and negative emotions, should lead to social difficulties with peers.

Self Cognitions

Children's self regard and self appraisals of their social competencies should have an important bearing on the ways they initiate and maintain social exchanges with peers (X. Chen et al., 2004; Sandstrom, Cillessen, & Eisenhower, 2003; Sandstrom & Coie, 1999). Positive self appraisals are likely to prove advantageous for the initiation of social interaction; negative self evaluations may prove disadvantageous in promoting social exchange. The dialectic between self-regard and social interaction tendencies is an area that requires serious inquiry. At present, what is known is that popular children tend to view themselves as more socially competent than their less popular age-mates, with the association between acceptance and self appraisal increasing with age (Bukowski & Hoza, 1989; Ladd & Price, 1986; Sandstrom et al., 2003; Sandstrom & Coie, 1999). Peer rejection, on the other hand, is associated with negative thoughts and feelings about the self. Unpopular or

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rejected children are more likely than their popular counterparts to express a less positive self-concept in the social and they are also more likely to perceive social situations as difficult (Sandstrom et al., 2003; Sandstrom & Coie, 1999). Unpopular children are more likely to report greater anxiety in social situations (Flanagan, 2005; Hymel & Franke, 1985; La Greca et al., 1988).

Although these findings suggest the general conclusion that children already experiencing difficulties with peers approach social situations feeling poorly about their social relationships and social skills, it is important to note that not all children with poor peer relationships approach social situations in this negatively disposed way. Studies of sociometrically rejected children indicate that one subset of these children, those who behave aggressively, do not report thinking poorly about their social relationships with peers (Zakriski & Coie, 1996). Rejected children who are anxious and socially reticent do, however (Hymel, Bowker, & Woody, 1993). These findings are in keeping with the results of studies concerning extremely withdrawn and extremely aggressive children; it is only the former group that reports having difficulty with their social skills and peer relationships (Boivin & Hymel, 1997; Rubin, Chen, & Hymel, 1993).

Furthermore, children who are victimized by their peers, particularly those children who self-report themselves as victimized, are more likely than their nonvictimized peers to blame themselves for their social difficulties, to report anxiety, and to indicate low feelings of overall self-worth (Graham & Juvonen, 1998).

Social Cognitions

In addition to perspectives on the self, cognitions about others and relationships are expected to be associated with, and predictive of, social difficulties with peers. Although little is known about the role of latent knowledge structures in children's social adjustment, considerable information exists on the relation between social information processing patterns of children and social outcomes (e.g., Brendgen, Bowen, Rondeau, & Vitaro, 1999; Burks, Laird, Dodge, Pettit, & Bates, 1999; Dodge, Lochman, Harnish, Bates, & Pettit, 1997; Orobio de Castro, Veerman, Koops, Bosch, & Monshouwer, 2002; Rose & Asher, 2004). To date, several theoretical models of the link between social information processing and behavior have been formulated. For example, in the social information processing model described by Rubin and Krasnor (1986), when children face an interpersonal dilemma (e.g., making new friends or acquiring an object from someone else), their thinking follows a particular

sequence. First, children may select a social goal. This entails the establishment of a representation of the desired end state of the problem-solving process. Second, they examine the task environment; this involves reading and interpreting all the relevant social cues. For example, boys and girls are likely to produce different solutions when faced with a social dilemma involving same-sex as opposed to opposite-sex peers (Rubin & Krasnor, 1983). As well, the social status, familiarity, and age of the participants in the task environment are likely to influence the child's goal and strategy selection (Krasnor & Rubin, 1983). Third, they access and select strategies; this process involves generating possible plans of action for achieving the perceived social goal, and choosing the most appropriate one for the specific situation (Burgess et al., 2005; Rabiner & Gordon, 1992; Rose & Asher, 2004). Fourth, they implement the chosen strategy. Finally, it is proposed that children evaluate the outcome of the strategy; this involves assessing the situation to determine the relative success of the chosen course of action in achieving the social goal. If the initial strategy is unsuccessful, the child may repeat it or she or he may select and enact a new strategy, or abandon the situation entirely.

In an initial attempt to understand the production of aggression in children, Dodge (1986) proposed a similar model of social information processing. This model was later revised by Crick and Dodge (1994) and then by Lemerise and Arsenio (2001), and has been applied to many different groups of children, including different types of aggressive children and nonaggressive children (Crick & Dodge, 1996), children of different sociometric status (Crick & Werner, 1998), and children experiencing depression and anxiety (Bell-Dolan, Foster, & Christopher, 1995; Garber, Keiley, & Martin, 2002; Quiggle, Garber, Panak, & Dodge, 1992). The Crick and Dodge (1994) model consists of six stages, namely, (1) the encoding of social cues; (2) the interpretation of encoded cues; (3) the clarification of social goals; (4) the accessing and generation of potential responses; (5) the evaluation and selection of responses; and (6) the enactment of the chosen response. An additional component of this model is a "database" comprised of biologically determined capabilities and cognitive structures acquired from past experiences, such as social schemas, scripts, and knowledge, which are thought to directly influence each information processing step (Crick & Dodge, 1994).

Children who have difficulties in their peer relationships demonstrate characteristic deficits or qualitative differences in thinking at various steps of these models. Several types of deficits or differences have been identified:

- Children with problems in peer relationships have difficulty discriminating a peer's social intentions. Dodge, Murphy, and Buchsbaum (1984), for example, found that popular children are better than other children at discriminating a peer's intentions, whereas rejected children are significantly worse. The importance of attending to relevant social cues is that these cues are then used to interpret another's intentions.
- Rejected children, particularly rejected children who are aggressive, are more likely than their more popular counterparts to assume malevolent intent when they are faced with negative circumstances, especially when the social cues are ambiguous (e.g., Dodge et al., 2003; see Orobio de Castro et al., 2002, for a recent review). Moreover, socially accepted (popular) children tend to attribute social successes to internal causes and expect success to continue in the future (Sobol & Earn, 1985). They also view social outcomes as more controllable than do socially unaccepted children. Alternately, children experiencing social difficulties tend to perceive their social successes as unstable and externally caused and to perceive their social failures as stable and internally caused (e.g., Dill, Vernberg, & Fonagy, 2004; Rubin & Krasnor, 1986; Wichmann, Coplan, & Daniels, 2004).
- Accepted and unaccepted children differ in their social problem-solving skills. Children who are well liked are likely to generate competent and effective solutions to interpersonal dilemmas, whereas disliked children are likely to generate incompetent or aggressive solutions (e.g., Asarnow & Callan, 1985; Ladd & Oden, 1979; Pakaslahti, Karjalainen, & Keltikangas-Jaervinen, 2002; Rubin & Daniels-Beirness, 1983), especially if they view the other's intentions as hostile (Dodge, 1980).
- Socially accepted children differ from disliked children in the manner they evaluate the probable outcomes for their behavior. In general, well-liked children are more accurate in their evaluations of the outcomes of their behavior. Disliked children, however, expect that positive outcomes will accrue if they act aggressively and that less-positive outcomes will result from nonaggressive solutions (Perry & Rasmussen, 1986). Also, compared to nonaggressive children, aggressive children are more likely to believe that an aggressive response is appropriate, and are more likely to expect positive outcomes from an aggressive response (Guerra, Huesmann, & Splinder, 2003; Huesmann & Guerra, 1997).

Complementing this research on the link between social cognition and peer difficulties is research on the relation

between social information-processing and behavior. Results from research with both extreme and normal samples indicate that the manner in which children process information is related to their actual behavior, particularly when aggregated assessments of processing are conducted (e.g., Erdley & Asher, 1998; Orobio de Castro et al., 2002; Orobio de Castro, Bosch, Veerman, & Koops, 2003). Moreover, a recent study found that social information-processing mediated the association between early peer rejection and later aggressive behavior (Dodge et al., 2003). Thus, there is empirical evidence that children's social cognitions serve to guide their behavioral orientations and responses with peers.

Finally, there are experimental data supporting the link between a child's social cognitions and his social behavior and adjustment. In a novel experiment by Rabiner and Coie (1989), rejected participants were given the assignment of entering a room to initiate play with a group of peers with whom they were unacquainted. Half the boys were told that the peers liked them and wanted them to play with them. The other half was not given any kind of expectation. Consistent with evidence presented in this section, relative to the boys not given an expectation, rejected boys who expected to be liked came to be liked more by the peers. Presumably, a child's expectations of being liked led him to behave in ways that led the peers to like him.

Emotions

Recent research has demonstrated that children's emotions are associated with their peer experiences. Such research stems from the work of Saarni (1998, 1999) on emotional competence, and from a recent reformulation of Crick and Dodge's (1994) model by Lemerise and Arsenio (2000) that places emphasis on emotion processes and cognitions. Specifically, Lemerise and Arsenio argue that emotional processes should be considered at each stage of Crick and Dodge's social information processing model. For example, a child's negative emotionality or reactivity and emotion regulatory skills, in addition to the affect component of a child's representations of past experiences, should be included in the "database" that each child brings to a social situation. Also, the ways in which children encode and interpret cues may be affected by a child's mood, emotions, and arousal, and may be influenced by other peers' own affective states and emotions. For example, an offending peer with a visibly happy face may dissuade a child from assigning blame. Similarly, Lemerise and Arsenio posit that other peers' affective states and cues may influence the type (positive or negative) of goals that children

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choose. Furthermore, the emotional ties that children have with others might influence the ways in which children generate, evaluate, and choose a response in a social situation. Presumably, if a child has a close, intimate relationship with another, the child will process the social information positively, and choose responses that will be likely to promote maintenance of the relationship (e.g., Burgess et al., 2005).

There is some evidence that children's expressions of emotions are related to sociometric status. Compared to average-status children, Hubbard (2001) found that rejected children expressed more anger and nonverbal unhappiness. Moreover, children's emotional competence (a composite of emotional expressiveness, emotion regulation, and emotion knowledge) in 3- and 4-year-olds is concurrently and predictively associated with social competence (Denham et al., 2003). Importantly, an intervention study conducted with aggressive boys revealed that emotion regulation may influence social-information processing (Orobio de Castro et al., 2003). In this study, when aggressive boys were asked to monitor and regulate their emotions, and also to consider the emotions of the peer instigator, the children generated behavioral responses that were less aggressive in nature. The study of the influence of emotion processes on social information-processing represents an exciting new research direction that will further our understanding of social information processing, and may in turn, improve our attempts to intervene with children who experience difficulties with peers.

Child's Behavior toward Peers

The second component of the reciprocal influence model is the behavior the individual displays toward other children. Children's behavior toward other children is presumed to be driven by their self- and social cognitions. In turn, children's behavior is expected to influence the perceptions that other children develop of the child (see Figure 12.4).

A considerable body of research suggests that, although children are sometimes rejected by peers for nonbehavioral reasons such as physical stigmata, behavior plays a substantial, if not overriding, role. Many studies have documented behavioral differences between socially successful children and children experiencing difficulties in their relationships with peers (see Bierman, 2004). Much of this work is based on cross-sectional research designs utilizing existing peer groups. Such studies are open to the alternative interpretation that the behavioral differences are the result of rather than responsible for children's difficulties

with peers. Children's behavior is undoubtedly affected by being rejected by peers, however, enough research now exists to safely conclude that how children behave shapes their reception by the peer group in the first place. A set of classic longitudinal studies and studies utilizing artificial play groups, for example, show that behavioral assessments made before or during the earliest stages of acquaintanceship predict children's subsequent social acceptance (e.g., Coie & Kupersmidt, 1983; Dodge, 1983; Putallaz, 1983). More importantly, intervention studies designed to reduce children's negative behaviors or increase their repertoire of social skills have shown increases in acceptance by peers as a results of behavioral changes (see Bierman, 2004, for a recent review).

Which behaviors matter? Most research has focused on the behavioral basis of peer acceptance or rejection. Research on the behavioral correlates of sociometric standing is a several-decades-old tradition, and many lawful associations between specific behaviors and rejection by the peer group have been documented (see Rubin, Bukowski, et al., 1998, for a review). One broad class of behavior that has proven to be especially significant is aggressive behavior. Aggressive behavior has been found to correlate with rejection by peers regardless of whether peer evaluations, teacher ratings, or direct observations (Crick, Casas, & Mosher, 1997; Haselager, Cillessen, Van Lieshout, Riksen-Walraven, & Hartup, 2002; McNeille-Choque, Hart, Robinson, Nelson, & Olsen, 1996) are used to assess children's social behavior. Furthermore, both physical and relational forms of aggression have been linked with peer rejection (Crick & Grotpeter, 1995; Underwood, 2003).

However, recent research indicates that rejection and victimization by peers may hinge, in part, on the behaviors concomitant with aggression, rather than aggression per se. Aggressive behaviors appear to place children at highest risk for peer rejection when they occur along with a broad pattern of emotionally reactive, disruptive, and unskilled behavior (Bierman, 2004). For instance, "ineffectual" and "effectual" aggressors have been distinguished on the basis of their behavior in conflict situations and on their peer experiences (Perry, Perry, & Kennedy, 1992). Ineffectual aggressors prolong and escalate conflicts, exhibit exaggerated displays of negative emotion, and eventually "lose" in conflict situations. These children are at high risk for peer rejection and victimization. In contrast, effectual aggressors behave aggressively in the service of instrumental goals and to establish dominance, and they do not prolong conflicts or exhibit heightened emotion. These children encounter little resistance from peers and are rarely victim-

ized by peers (Perry et al., 1992). According to the results of a 2-year longitudinal study, aggressive-rejected children are more likely to experience stable elevations in aggressive behavior and peer rejection than aggressive-nonrejected and nonaggressive-rejected children (Bierman & Wargo, 1995). Importantly, research indicates that aggression may not lead to rejection if it is balanced by a set of positive qualities (e.g., social skill) that facilitate links with other children (Farmer et al., 2003).

In addition, extremely withdrawn children have been found to be more lonely and disliked and victimized by peers than are their more sociable age-mates, especially during the mid-to-late years of childhood (see Rubin, Burgess, & Coplan, 2002, for a review).

On the other hand, observational studies also suggest that children who engage in high rates of positive social behavior (e.g., conversation, smiling, prosocial sharing, and helping), who make efforts to initiate contact with others, who join ongoing play in a fluid and natural way, who cooperate, and who respect peer norms, are likely to receive more positive behavioral responses from peers and to have higher peer sociometric rating and nomination scores than other children (see Coie, 1990; Eisenberg & Fabes, 1998; Newcomb, Bukowski, & Pattee, 1993). Similarly, children who are described by their peers as helpful, supportive, cooperative, friendly, nice, calm, understanding, good at games, and good leaders are more likely to receive high sociometric ratings and many positive and few negative sociometric nominations (see Rubin, 2002). Thus, the presence of positive social skills as well as the absence of aggressive or extremely withdrawn behavior seems critical to acceptance by peers (Bierman, 2004). Bierman (2004) identified seven social skills domains that are frequently selected for social skills training on the basis of their empirical association with peer acceptance. These skill domains include social participation, emotional understanding, prosocial behavior, self-control, communication skills, fair-play skills, and social problem-solving skills.

Recent research has also emphasized the affective dimension of socially competent behavior. Halberstadt, Denham, and Dunsmore (2001) identified sending affective messages, receiving affective messages, and experiencing affect as three integrated components of affective social competence. Sending affective messages involves awareness of the need to send such a message, identification of which message to send, sending a message consistent with the demands of the situation, and managing the delivery of the affective message. Children who are more positively expressive and more adept at sending affective messages

are better liked by peers than children who are negatively expressive (Halberstadt et al., 2001). The emergence of the affective social competence model is consistent with recent conceptualizations of social competence. Eliciting positive peer responses requires not only a repertoire of appropriate behaviors, but also emotion regulation and social-cognitive skills which foster behavior that is appropriate and responsive to social and situational demands (Bierman, 2004; Sroufe, 1996).

Although the correlates of acceptance and rejection appear to be similar across age groups, Coie (1990) points out a few developmental differences that have been identified. For example, as children enter into elementary school, both athletic and academic competence becomes increasingly important determinants of social adjustment in the peer group. Children who display competence in either one or both of these domains are better liked by their peers who are less competent. In addition, with age, disruptiveness in the classroom and social withdrawal become increasingly important contributors to social rejection. Recently, Cillessen and Mayeux (2004) found that relational aggression was increasingly predictive of perceived popularity but decreasingly predictive of peer liking (i.e., sociometric popularity) from middle childhood to early adolescence; physical aggression was increasingly less disliked by peers and decreasingly predictive of perceived popularity. And, although much less is known about this issue, it appears that the behavioral correlates of peer acceptance and rejection also differ somewhat for children of different genders and from different socioeconomic circumstances (see Bierman, 2004).

Specific behaviors have also been shown to be related to the development and maintenance of friendships, although much less is known about this process (Berndt, 2002, 2004). It has been demonstrated that among children who are "hitting it off," communication becomes increasingly connected, conflicts that arise are successfully resolved, and play activities are coordinated (Gottman, 1983). As the relationship progresses, communication clarity and self-disclosure become increasingly important. Once friendships are established, cooperation and reciprocity become key elements of successful relationships (see Hartup & Stevens, 1997). Thus, the child's ability to engage in joint communication and cooperative activities with a peer as well as successfully resolve conflicts with that peer, appear to be important behavioral skills for friendships (Laursen, 1993; Laursen, Finkelstein, & Betts, 2001; Parker & Seal, 1996). On the negative side, children's behavioral orientations also have been found to contribute to the development

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of less desirable relationships, such as antagonistic, conflicted relationships and bully/victim relationships (Hartup & Abecassis, 2002). For example, Dodge, Price, Coie, and Christopoulos (1990) identified high-conflict, low-conflict, asymmetric (bully/victim relationships), and low-interaction dyads that developed in small play groups. Their results indicated that the rate of aggressing toward a peer was positively correlated with the rate of being the object of the peer's aggression. These aggressive exchanges contributed to the development of stable high-conflict relationships. Once developed, participants of high-conflict dyads were more aggressive toward one another and engaged in less prosocial behavior than other dyads. Not surprisingly, participants of these relationships came to dislike each other. Recent research indicates that dyadic relationship factors contribute more variance to boys' reactive aggression and hostile attributions within dyads than do actor or partner factors; furthermore, social cognitions that predict reactive aggression within dyads seem to be best explained at the dyadic level (Coie et al., 1999; Hubbard, Dodge, Cillessen, Coie, & Schwartz, 2001). That is, although general social-cognitive tendencies impact dyadic reactive aggression, social-cognitive biases that contribute to reactive aggression seem to be somewhat specific to dyadic relationships (Hubbard et al., 2001).

Obviously, a vast array of positive and negative behaviors has been linked to the development of successful and unsuccessful relationships with peers. Indeed, any attempt to catalogue the hundreds of specific behaviors that have been studied in relation to various social outcomes quickly becomes unwieldy. In an effort to impose some conceptual organization on the existing litany of behavioral correlates and to identify areas of relative neglect, Asher and Williams (1987) suggested a useful framework for considering the kinds of behaviors that should relate to adjustment with peers.

According to Asher and Williams (1987), when considering the kinds of behavior that are likely to contribute to adjustment with peers it is helpful to consider how children come to a conclusion about whether they like or dislike another child. These authors suggest that children pose a set of six metaphoric questions to themselves. The core issues for children are: (1) whether they find the partner entertaining, (2) whether they feel that they can trust the partner, (3) whether they find that the partner influences them in ways that they find acceptable, (4) whether they find that the partner facilitates rather than undermines their personal goals, (5) whether the partner makes them feel good about themselves, and (6) whether they can conclude that the partner shares their fundamental values and priorities.

Asher and Williams (1987) suggest that by considering these core issues for children, one can better understand which behaviors should and should not be expected to be related to success with peers, and why some behaviors are more robust correlates of social success than others. Behaviors that simultaneously address several core issues for children are expected to be stronger correlates of social success than behaviors that address only one concern. This argument, for example, would explain why aggression is such a strong correlate of adjustment with peers: Children who are aggressive are not fun to be around (issue A), humiliate others (issue E), are unpredictable (issue B), disrupt activities (issue D), and generate resentment (issue C). A further important element of Asher and Williams' framework is that it is the configuration of children's behavioral assets and liabilities that is most important, not the presence or absence of any single specific behavioral tendency. Thus, aggressive children who nonetheless possess skills for behaving in ways that leave others feeling good about themselves or to find them entertaining, trustworthy, persuasive, and so on, are not expected to run the same risk of peer rejection as aggressive children without these additional social skills (see Bierman, 2004). The significance of particular negative behaviors such as aggressiveness or social withdrawal, therefore, depends partly on whether child also possesses offsetting social skills. In the following section, peers' perception of the child will be explored in greater detail.

Peers' Social Cognitions

One of the basic propositions of the social interaction model is that from their initial encounter, social partners are forming representations and perceptions of one another. These cognitive processes are depicted in the third component of Figure 12.4. As is supported by the research reviewed in the previous section, children's representations and perceptions of one another are, at least in part, based on the behaviors they direct to one another. There is also evidence that children's memories and perceptions of one another are influenced by their own behavioral reputation, level of peer status, age, and liking for the peer target; situational factors (e.g., the levels of aggression within the peer group; and the peer target's gender, age, and sociometric status; Bierman, 2004; LaFontana & Cillessen, 1999, 2002).

Once children's perceptions of one another are formed, they appear to remain moderately stable over time (LaFontana & Cillessen, 1999, 2002). Thus, the impressions that are formed of a child within a particular peer group

are likely to be maintained over time. One explanation for the stability of person perceptions is that the structure of social cognitive processes appears to be favorable to the maintenance of the perceptions and impressions.

To begin, there is evidence that individuals selectively attend to certain types of behavior displayed by their interactive partner, depending on their attitudes and perceptions of that particular partner. Relevant information (i.e., information that is either consistent or inconsistent with the knowledge structure) is attended to whereas irrelevant or neutral information is not. Thus, when interacting with a child, the types of behavioral displays that are likely to be attended to will be based, at least in part, on the peer's perceptions of the child. If the child is perceived to be friendly or is liked by peers, then prosocial or cooperative behavior may be a part of the peers' scheme for the child. These behaviors would be attended to. If, however, the child was perceived as aggressive or was disliked, then antisocial behaviors would be a part of the peers' schema, and as a consequence, future aggression would be likely to be attended to. In both scenarios, peers' original perceptions and representations of the child would be reinforced.

Attribution processes also appear to be oriented toward the maintenance of previously developed person perceptions. According to social information processing theorists, attributions primarily occur at an unconscious, automatic level, unless the individual behaves in an unexpected manner, is highly negative, or there is some kind of affective arousal (the peer threatens the child). These particular conditions are hypothesized to trigger explicit, conscious processing (Dodge, 1986; Rubin & Rose-Krasnor, 1992), which may lead to a modification of the original representations of the child. Thus, when interacting with a child, a peer will consciously engage in attributions only when the child is particularly negative or acts in a manner inconsistent with the peer's perceptions or schema for the child.

The automation of attributions also appears to be guided by a number of biases. Research with adults indicates that when interpreting another's behavior, individuals tend to show a bias toward confirming rather than disconfirming their existing perceptions (Fiske, 2004). Thus, unless the behaviors displayed by the partner are so highly inconsistent with developed person perceptions as to lead to conscious processing, behavioral displays are interpreted as being consistent with person perceptions (Hymel, 1986). For example, children will be more likely to attribute hostile intentions to a child they know as aggressive than to a child known to be nonaggressive. Likewise, Burgess et al. (2005) recently reported that children are *less* likely to attribute hostile intentions to a best friend than to a stranger.

Finally, Hymel (1986) found that children's explanations of a child's behavior varied as a function of both affect toward the child and the valence of the child's behavior. For liked children, positive behaviors were attributed to stable causes (e.g., traits), whereas for disliked children, negative behaviors were attributed to stable causes.

Peers' Behavior toward Child

The final component in the model of children's social interactions as depicted in Figure 12.4, is the behavioral responses directed toward the child by the peer group. Once formed, children's reputations guide other children's behavior toward them (Zeller, Vannatta, Schafer, & Noll, 2003). For example, in a classic and persuasive study, Dodge (1980) presented children with hypothetical stories about classmates with differing reputations for aggressiveness with peers. Dodge found that children were more likely to retaliate aggressively when an act was performed by a classmate with a reputation for aggressiveness, than when the same act was performed by a nonaggressive classmate.

The reputation frames that guide children's behavior toward a specific child are important, as they may entice the child who is the object of a negative reputation to behave, in turn, in ways that affirm this reputation. Indeed, research with adults indicates that when an individual expects another individual to behave in a certain way (e.g., to be friendly or unfriendly; hostile or nonhostile), his or her partner's behavior may indeed fall in line with these expectations. Thus, when an individual is led to expect unfriendly behavior from a partner, his or her behavior may indeed inspire unfriendly behavior from partners. In addition, research with adults (e.g., Fiske, 2004) indicates that individuals sometimes make inferences about other people's characteristics by referencing his or her own behavior. In a similar fashion, to the extent that children reference his or her own behavior to make inferences about another child, and their own behavior is motivated by reputation, those reputations may be strengthened. In this way, the spiraling cycle of child's cognition—child's behavior—peers' cognitions—peers' behavior is reinforced.

Illustrating the Developmental Psychopathological Approach to Peer Adjustment: The Example of Social Anxiety with Peers

In this section, we illustrate how principles of developmental psychopathology may be applied to illuminate the etiology,

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nature, course, and treatment of child social anxiety. Interest and research pertaining to social anxiety in children has flourished in recent years, in part, due to documentation that social anxiety places individuals at risk for problematic developmental outcomes and, in part, due to broader increased interest in the interface between emotion, cognition, and behavior. Evidence suggests, for instance, that social anxiety is linked concurrently with depressed mood, other anxiety disorders, and school maladjustment (Beidel & Turner, 1998; Morris, 2001; see Crozier & Alden, 2001, for recent reviews). In addition, social anxiety places children and adolescents at risk for social and psychological maladjustment in adulthood, including the development of other anxiety disorders, major depression, substance use disorders, and impaired occupational functioning (Beidel & Turner, 1998).

Social anxiety may be conceptualized in several alternative ways, but it is especially fruitful to view social anxiety as a form of peer maladjustment. Indeed, a growing body of research provides evidence for an association between child social anxiety and peer maladjustment. For example, cross-sectional studies with both normative and clinical child populations indicate that social anxiety is linked with self-reports of limited and low quality friendships and loneliness (Beidel & Turner, 1998; Flanagan, 2005; LaGreca & Lopez, 1998; Vernberg et al., 1992). Social anxiety has also been linked with sociometric ratings of low peer group acceptance and victimization by peers (Flanagan, 2005; Inderbitzen et al., 1997; La Greca & Stone, 1993). In addition, in retrospective accounts, socially anxious adults report fewer friends during childhood than nonanxious adults (Rapee & Heimberg, 1997) and they identify negative social experiences as contributing to the onset of social anxiety (Stemberger et al., 1995).

These associations are significant in their own right but they become of further interest as we consider the ways in which they might illustrate important principles of developmental psychopathology. For example, developmental models suggest that social anxiety emerges, in part, as a result of reciprocal transactions between individual characteristics and the social context. Rubin and colleagues have advanced a developmental model in which behavioral inhibition and social reticence in early childhood increase the risk for social skill deficits and social anxiety (e.g., Rubin, Burgess, Kennedy, et al., 2003). Rubin et al. contend that children with temperamental vulnerabilities, such as behavioral inhibition, initially experience psychological and physiological discomfort in social situations, which leads them to avoid social interaction (Rubin, Burgess, & Hast-

ings, 2002). Avoiding social interaction during early childhood limits important socialization opportunities, which in turn, impedes the normative development of social cognition and social skills in these children. These children's social skill deficits then elicit negative peer reactions which, in turn, perpetuate further social withdrawal and intensify social anxiety (e.g., Nelson, Rubin, & Fox, *in press*). Further, inhibited and reticent behavior may mark socially anxious children as easy targets of overt rejection and victimization by peers attempting to establish social power and dominance (Hodges, Malone, & Perry, 1997). It is easy to imagine how peer victimization would exacerbate the social avoidance and anxious affect that may have invited victimization in the first place. This apparent reciprocal cycle of characterologic vulnerability, negative peer experiences, and problematic behavior is an excellent example of an important principle of developmental psychopathology, namely, that maladjustment is an outcome of reciprocal transactions between individuals and their social-ecological contexts (Cicchetti, 2002; Sameroff, 1995).

Likewise, an additional principle of developmental psychopathology is that normal and abnormal developmental processes are mutually informative. Rates of social anxiety increase markedly during the late childhood and early adolescent years (Beidel & Turner, 1998), with an average age of onset around 12 years (D. D. Weiss & Last, 2001). What accounts for this normative increase in this form of problematic behavior? It is possible that diagnostic or other more prosaic factors account for this developmental trend, but we find it interesting to speculate that the patterns of prevalence of social anxiety may be linked to exaggerations or distortions in normative developmental processes. Consider first that important developmental shifts take place in social cognition during the same developmental period that many children begin encountering significant difficulties with social anxiety for the first time. It is during this same period of time, for example, that children increasingly evaluate themselves in comparison to other children rather than to absolute standards (Parker et al., 1995). Likewise, developments in abstract thinking and perspective taking at this age heighten children's awareness of peer evaluation and alter their appreciation for the content and valence of peer perceptions (Crozier & Burnham, 1990). These social cognitive developments are important developmental mileposts that typically serve children well in the long run, even if they contribute to the reasonable self-consciousness that most children show at this age. But, in view of evidence that distorted and negatively biased self views are implicated in the social anxiety, it is tempting to conclude that these same normative changes also contribute to a rising

tide of more problematic social anxiety when they occur within vulnerable individuals.

Along with being an era of normative changes in social and self-cognition, the period for heightened identification of social anxiety is also a period of heightened pressure for social participation with peers. As discussed earlier, it is during the period in which social anxiety becomes prevalent that children begin spending substantial amounts of time away from their families with peers. Most children initiate this re-orientation themselves and desire and welcome it. But it also is anticipated and encouraged by parents, teachers, and others, and thus does not occur entirely voluntarily. Moreover, the nature of peer participation changes developmentally at the time, becoming more complex. The task of making friends and avoiding peer rebuff may be complicated by the dynamics of the early adolescent social climate (Bukowski & Sippola, 2001). In particular, hierarchical social networks and emerging social cliques leave many children either alienated or insecure about their social position (Parker et al., 1995). Almost one-third of 11-year-olds reported losing a friend over the course of the school year (e.g., Wojlawowicz, Rubin, Burgess, Rose-Krasnor, & Booth, in press) and almost two-thirds reported being teased by peers in the previous month (Kanner, Feldman, Weinberg, & Ford, 1987). Ethnographic studies indicate that even popular children and members of cliques experience insecurities about maintaining their reputations and social statuses (Adler & Adler, 1995; Eder, 1985). If children are already vulnerable to social anxiety for other reasons, including distortions in their social cognitions, the inevitable complexity of these normative changes peer experiences may for the first time overwhelm them and make them casualties to social anxiety.

A third principle of developmental psychopathology is that heterogeneity exists across individuals in the nature, precursors, and subsequent course of psychological disorders. Anxiety disorders appear to be consistent with this model of heterogeneity (see Vasey & Dadds, 2001, for relevant reviews). Indeed, the social functioning and peer experiences of children at risk for social anxiety may be characterized by substantial heterogeneity. Thus, whereas compelling evidence links social anxiety and peer maladjustment, not all socially anxious children experience low levels of peer acceptance or suffer victimization by peers. Indeed, the findings of several studies offer evidence for variability in peer adjustment of children with social anxiety. For example, one study of elementary school children found that rejected children were no more socially anxious than average children, and that rejected and average children were more socially anxious than neglected children

(Crick & Ladd, 1993), suggesting that a significant subgroup of socially anxious children may attain average peer status despite their social concerns. Chansky and Kendall (1997) found that anxious children were just as likely to have a best friend as were controls, though they had fewer friends overall.

In addition to the available empirical evidence, there are at least two other reasons to expect heterogeneity in the peer adjustment of socially anxious children. First, socially anxious children as a group may be more motivated than others to gain acceptance and be evaluated positively by peers. The desire for acceptance and belonging is universal (Leary, 2000), but socially anxious children may elevate this desire until it becomes overbearing emotionally. Socially anxious children who are better able to manage emotion in evaluative situations may behave more adaptively than those who cannot, contributing to heterogeneity in vulnerability and outcomes. Relatedly, socially anxious children who possess better social skills, or who are somehow spared salient and humiliating victimization by peers, may weather their vulnerable years with less negative impact than those who lack the behavioral skills to bootstrap themselves out of vulnerable situations or who are somehow spared the most traumatizing forms of peer rebuff.

The concept of *equifinality* is also a point at which the literature on social anxiety may intersect with principles drawn from developmental psychopathology. Equifinality refers to the fact that diverse pathways may lead to the same ostensible outcome. Models of Conduct Disorder that emphasize differences between early- and late-starters are nice illustrations of the principle of equifinality and it is of interest to speculate as to whether parallels exist in the pathways to social anxiety. For example, some children exhibit dispositional and behavioral vulnerabilities from an early age, and thereby reach social anxiety through a long history of continuity. For other children, social anxiety may emerge after a history of positive peer relationships. The onset of social anxiety for the latter but not the former group may be more closely tied to unexpected challenges these children encountered locating a social niche and friendship network following the transition to a new school. Alternatively, some popular children may find themselves overwhelmed with the task of protecting their exalted social status. Thus, it is possible that at least two routes to social anxiety exist: one through a history of temperamental vulnerability, social skill deficits, and peer problems, and another in the absence of such negative developmental canalization. To our knowledge, different developmental models of social anxiety have not been examined empirically, despite the fact that different

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courses may have important implications for the stability and treatment of social anxiety.

The principle of *multifinality* suggests that similar conditions at one point in time may lead to different outcomes. Likewise, different responses to social anxiety may also predict different developmental outcomes. In early childhood, those socially wary and inhibited toddlers whose mothers (and fathers) are overprotective and intrusive are observed to be socially anxious and reticent in the peer group as preschoolers; those toddlers whose mothers (and fathers) encourage independence, provide warmth and responsiveness do not appear socially fearful and reticent (e.g., Rubin, Burgess, & Hastings, 2002; Rubin, Cheah, & Fox, 2001). The adolescent and adult outcomes of children with social anxiety may be contingent upon certain responses and coping strategies that promote further decline or resilience. For example, some socially anxious children may be able to manage their negative cognitions and organize their social behavior in a way that minimizes the external visibility and negative social impact of their anxious feelings. For example, by prompting themselves to focus on the conversation rather than themselves during social interaction, some children may reduce self-focused fears of negative evaluation and display more sensitive social interaction skills. Alternatively, by asking questions, socially anxious children may simultaneously validate their partner and remove social-evaluative pressure from themselves.

Finally, the interplay between developmental research and intervention is another well-established feature of developmental psychopathology. Understanding the social functioning and coping strategies of socially impaired and nonimpaired socially anxious children may inform developmental research and intervention. For instance, the social-cognitive and social-behavioral characteristics of children who establish friendships and gain acceptance despite elevated levels of social anxiety may effectively inform intervention for socially anxious children with peer problems. That is, the social-behavioral and social-cognitive characteristics of socially anxious children without significant social impairment may be particularly suitable intervention targets.

FUTURE DIRECTIONS FOR THEORY AND RESEARCH ON CHILDREN'S PEER EXPERIENCES

Developmental psychopathologists have clearly recognized the importance of adjustment with peers in childhood, and have emphasized some of the negative consequences for children of cumulative peer rejection or friendship difficul-

ties. Even so, it can be argued that developmental psychopathologists have not taken full advantage of many of the insights of researchers who have studied children's peer relationships from outside that framework. Yet, research on children's peer relationships can in some ways be seen as paradigmatic of the developmental psychopathology approach. For example, one of the guiding propositions underlying a developmental psychopathology perspective is that individuals develop both toward increasing flexibility and increasing organization (Cicchetti, 1990; Sroufe & Rutter, 1984). This proposition aptly characterizes the pattern of development in several areas of children's peer relationships, such as the growth of children's conceptions of friendship and the developmental patterns in very young children's play. Another example is the concept of directedness, encompassing the idea that individuals selectively receive, respond to, and create experience based on past experiences and cognitive frameworks and biases. As we reviewed, much attention within the literature on children's peer relationships has been directed toward the biases and inappropriately selective social information processing of children with peer relations difficulties; we are beginning to learn how such biases contribute to individual differences in peer interaction and exacerbate the problems of certain children with budding peer relationship difficulties. As a final example, the evidence that we reviewed presented a convincing case for viewing disturbed adjustment to peers as a condition of risk. However, peer rejection has very seldom been included among the litany of illustrative risk conditions (e.g., Down's syndrome, maltreatment, failure-to-thrive, insecure attachment, depression) that are commonly cited by developmental psychopathologists (cf., Cicchetti, Lynch, Shonk, & Manly, 1992).

For their part, investigators seeking to understand children's relationships with peers have not often done so explicitly within a developmental psychopathology framework. There are signs this is changing (Cicchetti & Bukowski, 1995). For example, in 1995 a special issue of the journal *Development and Psychopathology* was devoted to exploring this interface and featured, among many other notable topics, reports on the peer experiences of children with Attention-Deficit Hyperactivity Disorder (Hinshaw & Melnick, 1995) or Autism (Lord & Maggill-Evans, 1995); the predictive outcomes of social withdrawal (Rubin, Chen, McDougall, Bowker, & McKinnon, 1995), and reports on the longitudinal stability of aggression and peer rejection (Bierman & Wargo, 1995; Burks et al., 1995; Coie et al., 1995). Another encouraging exception is emerging work on the peer experiences of maltreated children (e.g., Bolger & Patterson, 2001a, 2001b; Levendosky, Okun, & Parker,

1995; Parker & Herrera, 1996; Rogosch, Cicchetti, & Aber, 1995). Many features of maltreating families are believed to inhibit the development of competent peer relationships in abused children. A better understanding of maltreated children's peer experiences can provide developmental psychopathologists with insights into how such a profound disturbance in parent-child relationships affects the cognitive, affective, and behavioral systems of abused children. For peer relationships researchers, however, the study of maltreated children's friendships and other peer experiences can, among other things, be used as test assumptions about the role of specific skills or formative experiences in adaptive peer interaction or the development of successful friendships. Notwithstanding these encouraging exceptions, most work on children's adjustment with peers has remained somewhat disconnected from the interpretive framework and tenets of developmental psychopathology. In our view, the framework of developmental psychopathology can sharpen our understanding of some of the new and well-established findings in this area, as well as reveal directions for future work.

Accordingly, we close with several suggestions for directions for future research inspired by our reading of the state of the literature on children's peer adjustment and relationships.

Giving Context Its Due

The literature on children's and adolescents' peer adjustment remains a literature dominated by a focus on the dispositions and behavioral inclinations of individuals. For example, most of the normative developmental changes we described are assumed to have been driven by age-linked advances in individuals' language, social-cognition, and emotion regulation skills. This is the case, for example, concerning the growth children display over the early years in the complexity of their play. For the most part, cognitive, language, and affective achievements in individuals have been assumed to be responsible for the appearance of novel and more advanced forms of play with age. The bias toward dispositional explanations is not limited to normative changes however. We saw it repeatedly in the representation of individual differences, where the pervasive assumption is that differences in temperament, social cognitive and affective skills, and behavioral tendencies account for why some children are more readily rejected by peers and remains so over time.

Dispositional assumptions have contributed greatly to our understanding of the nature of developmental changes and individual variability in peer experiences. However, echoing sentiment expressed by earlier authors (e.g., Fer-

guson & Cillessen, 1993; Higgins & Parsons, 1983), our hope is that future research in this area will balance this dispositional approach with a better understanding of the organization and nature of contextual factors. As a simple start, greater attention should be devoted to documenting the contexts in which children and adolescents interact with their peers outside of school (e.g., Mahoney, Larson, & Eccles, 2005). Our understanding of children's peer experiences has been heavily shaped thus far by studies of children in school settings. Notable exceptions include efforts to understand the "subjective landscape" of adolescent activities (e.g., Kirshner, O'Donoghue, & McLaughlin, 2002; Laursen & Koplas, 1995; Morrissey & Werner-Wilson, 2005; Richards et al., 1998), the interaction opportunities afforded by different activity contexts (Benenson, Maiese, et al., 2002; Beneson, Markovits, Roy, & Denko, 2003; Beneson, Markovits, et al., 2002; Mahoney, Larson, & Eccles, 2005; Zabatany et al., 1990), and the formal and informal sources of interpersonal support available to children in their neighborhoods (Bryant, 1985). A more complete catalogue of the settings in which children interact with peers at different points in development is essential to understanding the social challenges facing children, how peer experiences influence children, and why some children are more successful with their peers than are others.

There are other ways in which the field will benefit from fuller treatment of context, however. One of the most important would be increased understanding of the emergence, maintenance, and consequences of victimization and rejection by peers. Differences in group expectations and norms influence to a powerful extent the acceptability of specific behaviors (Boivin, Dodge, & Coie, 1995; Bukowski & Sippola, 2001; Salmivalli, 2001). For example, the general conclusion that aggression is strongly linked to group rejection masks some important contextual variability. In particular, because peer attitudes toward specific behavior are affected by group norms, some evidence suggests that aggression is less strongly linked with group rejection in group contexts where aggression is more normative (e.g., Boivin et al., 1995; Stormshak, Bierman, Bruschi, Dodge, Coie, & the Conduct Problems Prevention Research Group, 1999; Wright, Giammarino, & Parad, 1986).

Additionally, earlier we noted the self-perpetuating nature of children's reputations with peers, stressing that, once in place, group reputations tend to become self-fulfilling in that they elicit from children behavior consistent with peer expectations. Group reputations, then, are important contextual factors in behavior. Yet, to date, because the emphasis has been so heavily focused on child characteristics (e.g.,

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social problem-solving skills, emotion regulation difficulties, attribution biases) group expectations rarely appear in our models of the determinants of behavior.

The context of behavior also includes the relationship history between individuals; The incorporation of relationship histories into models of behavior would also represent a significant advance. This type of approach is already yielding dividends, albeit to date in largely isolated corners of the literature (e.g., Parker & Herrera, 1996; Roy & Benenson, 2002). For example, the identification of aggressive children is a cornerstone of research in children's peer adjustment and a great many conceptual models have been offered as to why some children are more aggressive with peers than are others. It is widely recognized but only seldom acknowledged in these models that individuals are not indiscriminately aggressive. Instead, the social histories between any particular pair of children appears to play an important role in whether they are aggressive toward one another and relational histories account for much of the aggression that occurs within groups (Burgess et al., 2005; Coie et al., 1999; Hubbard et al., 2001). Likewise, the development of mutual animosity between specific peers appears to depend more on their specific disagreeable history together than on either individual's tendency to be disagreeable in general (Parker & Gamm, 2003). As these examples illustrate, without attention to the relational context, it may be difficult to understand individual behavior (Hinde, 1987, 1995).

Consideration of context also begs the question of culture. It is probably the case that in some cultures, the construct of popularity has little meaning; Rather than being well liked, the respect of peers may carry much of the weight in determining later outcomes. Furthermore, those who are disrespectful of adults (and peers) may be the individuals, in collectivistic cultures, who prove most shameful to their families and friends; and it may be that these disrespectful children (e.g., those who do not demonstrate "hyo" or filial piety in Asian cultures) are the ones at greatest risk for later negative outcomes (Rubin, in press). Insights into issues of this type have been occurring (e.g., Casiglia, Lo Coco, & Zappulla, 1998; X. Chen et al., 1995, 2004; Deater-Deckard & Dodge, 1997; Hamm, 2000; Khatri & Kupersmidt, 2003; Killen, Crystal, & Watanabe, 2002), but progress lags.

As a final example, we draw attention to the potential moderating role that context may play in judging the consequences of group rejection and victimization. Earlier we reviewed evidence suggesting that victimization by peers is associated with subjective distress in victims. This find-

ing has received wide and well-deserved attention and many authors point to it as the basis for justification of intervention on behalf of victimized children. Without disputing the general conclusion, however, it is worth noting that this relation is less robust than might first appear. In particular, there is evidence that the social context of victimization plays an important role in moderating the extent to which victimization is accompanied by distress. Bellmore, Witkow, Graham, and Juvonen (2004), for example, have shown that victimization is associated with the highest levels of personal distress in classroom contexts in which the victim shares the ethnicity of many of his or her classmates. Mitigation of personal distress appears to occur in classroom contexts in which the victim is in the ethnic minority, presumably because the victim is able to dismiss the victimization by peers as racially rather than personally motivated.

Expanding the Scope of Focal Outcomes

The premise that children with relationship problems are at risk for later life difficulties is a widely shared professional and popular belief and has played an important role in motivating research on children's adjustment with peers. Evidence in support of this premise is not easy to obtain, but, as we have reviewed, it is mounting and persuasive (see also Nangle & Erdley, 2001). Even a cursory appraisal of this literature, however, reveals some narrowness, insofar as the outcomes of primary interest largely include subsequent school failure, later involvement in delinquent or adult criminal behavior, and a variety of indications of later mental illness and psychopathology. Problems in these areas are significant and are the focus of considerable public, private, and institutional concern. Thus, an effort to examine whether early negative experiences with peers can place individuals at risk for such significant disturbances is wholly appropriate and merits continuing. At the same time, we suggest that the opportunity exists for expanding the scope of the search for the later implications of earlier successful versus unsuccessful peer experiences. In particular, we suggest that the field would be well served by future research designed to uncover logical continuities in the interpersonal adjustment of individuals during the periods from childhood to emerging and later adulthood.

In many instances, this search will direct attention to outcome variables that are far more subtle than the dramatic, psychopathological outcomes so prevalent in past work. As an example, we reviewed evidence that has emerged recently suggesting that certain, vulnerable chil-

dren display undue and unwarranted jealousy surrounding their best friends (Parker et al., 2005). Friendship jealousy is a source of considerable personal distress for these children and other evidence suggests that it is also at the root of a good deal of the aggression and victimization that occurs within peer groups. Jealousy, of course, is a more familiar topic in the study of adults in romantic contexts, where it is recognized as a major contributor to relationship dissatisfaction (e.g., Anderson, Eloy, Guerrero, & Spitzberg, 1995) and relationship violence (Hansen, 1991; Stets & Pirog-Good, 1987). In view of evidence that the disposition to jealousy is rooted in distorted perceptions of the self and others (see Parker et al., 2005), it would not be surprising if future research revealed that the children who display jealousy surrounding friends in middle childhood are also the individuals responsible for the bulk of the jealousy in adult romantic contexts. In addition to being of predictive and applied significance, confirmation of this longitudinal relation could also contribute to broader debates concerning the nature of the link between the friendship and romantic interpersonal contexts (e.g., Connolly, Furman, & Konarski, 2000; Furman, 1999; Furman et al., 2002; Laursen & Williams, 1997; Seiffge-Krenke, 2003). Other possible areas in which continuities seem likely include links to occupational adjustment and advancement, marital adjustment, difficulties of affect regulation, to name only a few.

Last, many, if not most of the longitudinal research on children's peer relationships has focused on negative outcomes. There has been very little work on the predictors of adaptive, functional outcomes in adolescence and adulthood.

Revisiting Competence and Incompetence

In much the same way that the search for the outcomes of negative peer experiences has focused on the dramatic, it is also the case that researchers have focused on "big-ticket" constructs in their search for the interpersonal behaviors that contribute to peer rejection and other negative peer experiences. But impulsive behavior, aggression, and social withdrawal are not the only predictors and concomitant correlates of peer rejection. More subtle contributors to peer experiences deserve attention as well. Indeed, almost all behaviors that cannot be considered normative to particular groups, contexts, and cultures, should be considered candidate behaviors for study in those contexts. An important direction for the future is to design studies that permit us to learn whether these subtler behaviors are also competencies and are as likely to predict, not only peer rejection,

but also more extensive maladaptive developmental trajectories as the "big ticket" items that have been the focus in the past (Rubin, in press).

Further Exploration of Family-to-Peers Linkages

Research concerning the family processes that contribute to adjustment in the peer group has blossomed conspicuously recently, so much so that this area of inquiry should surely be counted among the handful of areas demonstrating the most significant inroads in the decade since our last review. We did not review this literature here, but comprehensive reviews are available (Ladd & Pettit, 2002; Parke & O'Neill, 1999; Rubin & Burgess, 2002). In our view, however, some unevenness in progress is evident in this area. In particular, we appear to know more about those family experiences leading to aggression, withdrawal, and peer rejection than we do about family processes that lead to social competence, peer acceptance, and the ability to form and keep qualitatively rich friendships. How children come to develop the abilities to join others in play; make friends; engage in cooperative group endeavors; mentor younger peers; demonstrate loyalty to friends; learn how, when, and to whom one should self-disclose; forgive those who have purposely or inadvertently harmed them; and so on, are topics that do not leave a lengthy trail of published developmental products. Especially lacking are process approaches to the study of parent-child linkages. Most research is organized around the outcomes of such negative parenting practices as harsh punishment, intrusiveness, over-directiveness, and over-control, and guilt induction. And almost all research on family links to peer interaction, relationship, and group endeavors is drawn from studies carried out in prototypically "western" cultures. This is certainly an area in need of attention. Once again, it behooves researchers to consider how social competencies and adaptation develops; to do so would allow strong conclusions to be drawn on how incompetencies and maladaptation become manifest.

Toward an Integrated Representation of Adjustment with Peers

At the outset, we noted that the past decade has been one of unprecedented advances in the development and refinement of methods for studying adjustment with peers. Whereas this rapid expansion has increased the range of methodological options available to researchers seeking to represent

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children's adjustment with peers, it has not produced an overarching framework for considering when specific measures are preferable to others or how multiple measures are related. We noted that adjustment with peers appears to have at least two primary dimensions of individual differences—success with friends and acceptance by the peer group. A wide array of measurement options are available within each of these ways of representing peer experiences. Yet, for the most part, very little is confidently known about how these broad dimensions should be integrated or how the measurement options available within each dimension relate to one another or across dimensions.

Increased recognition of the links between friendship and group experiences appears to us to be an especially important direction for future research. Group level processes, such as those that dictate which individuals are central versus peripheral members can exert important constraints on the possibilities for friendships among members of groups. At the same time, the bonds of friendship also provide children with access to membership in selected groups (see Sabongui et al., 1998). Likewise, by serving as the broader context in which friendship experiences unfold, groups and social networks presumably shape children's experiences within friendships in significant ways. On the one hand, outsiders can have a positive influence on friendships (see Milardo & Helms-Erikson, 2000). For example, group interaction is more enjoyable in certain ways than dyadic interaction and third parties can act as mediators to resolve disputes between friends. Nonetheless, outsiders can also be significant sources of trouble for friends (Asher et al., 1996). For example, outsiders may preempt opportunities for frank discussion between friends and coordination of social activities may be more complicated and less satisfying in groups larger than two (Benenson et al., 2001; Benenson, Maiese, et al., 2002; Lansford & Parker, 1999). In addition, tension and conflict can arise between friends if participants are squeezed between their loyalty to their friend and the obligations to others (Asher et al., 1996; Selman, 1980).

To some extent, answers to how measures might be integrated should come as researchers gain more experience with data sets that include many alternative assessments and permit examination of their interrelations. But we also encourage future researchers to think conceptually concerning this issue. Hinde (1979), as one example, has encouraged researchers to consider dyadic-level assessments, such as those that identify friendships, and group-level assessments—such as those that can give rise to appraisals of acceptance or rejection—as bearing a hierarchical, and mutually influential relation to one another.

CONCLUSIONS

After initial experiences with parents and siblings, children enter into increasingly complex relationships with peers. In this chapter, we have reviewed evidence that children's experiences with other children are significant to their growth and adjustment. We have reviewed some of the ways in which peer experiences complement children's experiences with family members, particularly parents, and some of the ways in which peer experiences may be unique experiences in development.

Much of the chapter was devoted to considering the wide individual variability in children's peer experiences, which we suggested could be organized powerfully along two basic dimensions—success with friends and acceptance by the peer group. Consideration of friendship adjustment suggested both qualitative and quantitative aspects that may be linked to developmental processes and outcomes. At the acceptance level, we considered especially the child's membership in sociometrically identifiable status groups. Evidence was found for the validity of parsing children's social world into such categories; members of different sociometric groups show distinct behavioral profiles, for example. Additionally, we devoted attention to the reciprocal intrapersonal and interpersonal processes that give rise to variability in peer adjustment and to the implications of peer adjustment for short-term and long-term psychopathology. Finally, we concluded by suggesting several areas that could be prosperous areas of future research. These topics suggested themselves to us from our perspective of considering how far and in what directions the decade of research since our last review has taken us. As this discussion makes abundantly clear, there are sufficient challenges remaining in the study of children's peer experiences to keep researchers and theorists busy well beyond a further decade.

ACKNOWLEDGMENTS

We gratefully acknowledge the contributions to this chapter of our many wonderful collaborators and coauthors over the years. We are also grateful to Dante Cicchetti for this opportunity and for his instructive feedback and patience concerning the original as well as this revised version of the chapter. Finally, we are indebted to Sarah Kollat for her invaluable assistance identifying and locating pertinent literature and to Corrine Farinola for her tireless assistance tracking and typing references.

REFERENCES

- Abecassis, M. (2003). I hate you just the way you are: Exploring the formation, maintenance, and needs for enemies. In E. V. E. Hodges & N. A. Card (Eds.), *Enemies and the darker side of peer relations* (pp. 5–22). San Francisco: Jossey-Bass.
- Abecassis, M., Hartup, W. W., Haselager, G. J. T., Scholte, R. H. J., & Van Lieshout, C. F. M. (2002). Mutual antipathies and their significance in middle childhood and adolescence. *Child Development*, 73, 1543–1556.
- Aboud, F. E. (1988). *Children and prejudice*. New York: Basil Blackwell.
- Abrams, D., Rutland, A., & Cameron, L. (2003). The development of subjective group dynamics: Children's judgments of normative and deviant in-group and out-group individuals. *Child Development*, 74, 184–1856.
- Achenbach, T. M., & Edelbrock, C. S. (1981). Behavioral problems and competencies reported by parents of normal and disturbed children aged four through sixteen. *Monographs of the Society for Research in Child Development*, 46(1, Serial No. 188).
- Adelson, J., & Doehrman, M. J. (1980). The psychodynamic approach of adolescence. In J. Adelson (Ed.), *Handbook of adolescent psychiatry* (pp. 99–116). New York: Wiley.
- Adler, P. A., & Adler, P. (1995). Dynamics of inclusion and exclusion in preadolescent cliques. *Social Psychology Quarterly*, 58, 145–162.
- Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of Attachment*. Hillsdale, NJ: Erlbaum.
- Albano, A. M., Chorpita, B. F., & Barlow, D. H. (2003). Childhood anxiety disorders. In R. A. Barkley & E. J. Mash (Eds.), *Child Psychopathology* (pp. 279–329). New York: Guilford Press.
- Allen, J. D., Moore, C., Kuperminc, G., & Bell, K. (1998). Attachment and adolescent psychosocial functioning. *Child Development*, 69, 1406–1419.
- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4th ed.). Washington, DC: Author.
- Anderson, P. A., Eloy, S. V., Guerrero, L. K., & Spitzberg, B. H. (1995). Romantic jealousy and relational satisfaction: A look at the impact of jealousy experience and expression. *Communication Reports*, 8(2), 77–85.
- Arbuthnot, J. (1975). Modification of moral development through role playing. *Developmental Psychology*, 11, 319–324.
- Asarnow, J. R., & Callan, J. W. (1985). Boys with peer adjustment problems: Social cognitive processes. *Journal of Consulting and Clinical Psychology*, 53, 80–87.
- Asher, S. R., & Coie, J. D. (1990). *Peer rejections in childhood*. New York: Cambridge University Press.
- Asher, S. R., Parker, J. G., & Walker, D. L. (1996). Distinguishing friendship from acceptance: Implications for intervention and assessment. In W. M. Bukowski, A. F. Newcomb, & W. W. Hartup (Eds.), *The company they keep: Friendship during childhood and adolescence* (pp. 366–405). New York: Cambridge University Press.
- Asher, S. R., & Williams, G. A. (1987). *Helping children without friends in home and school contexts*. In *Children's Social Development: Information for Teachers and Parents* (pp. 1–26). Urbana, IL: ERIC Clearinghouse on Elementary and Early Childhood Education.
- Atlas, R., & Pepler, D. J. (1998). Observations of bullying in the classroom. *Journal of Educational Research*, 92(2), 86–99.
- August, G. J., Ostrander, R., & Bloomquist, M. J. (1992). Attention deficit hyperactivity disorder: An epidemiological screening method. *American Journal of Orthopsychiatry*, 62, 387–396.
- Azmitia, M., Lippman, D. N., & Ittel, A. (1999). On the relation of personal experience to early adolescents' reasoning about best friendship deterioration. *Social Development*, 8, 275–291.
- Bagwell, C. L., & Coie, J. D. (2004). The best friendships of aggressive boys: Relationship quality, conflict management, and rule-breaking behavior. *Journal of Experimental Child Psychology*, 88(1), 5–24.
- Bandura, A. (1989). Social cognitive theory. In R. Vasta (Ed.), *Annals of child development: Six theories of child development-Revised formulations and current issues* (Vol. 6, pp. 1–60). Greenwich, CT: JAI Press.
- Barocas, R., & Sameroff, A. J. (1982). Social class, maternal psychopathology, and mediational processes in young children. *Advances in Child Behavioral Analysis and Therapy*, 2, 4–77.
- Barkley, R. A., Anastopoulos, A. D., Guevremont, D. C., & Fletcher, K. E. (1991). Adolescents with ADHD: Patterns of behavioral adjustment, academic functioning, and treatment utilization. *Journal of the American Academy of Child and Adolescent Psychiatry*, 30, 752–761.
- Barnhill, G. P. (2001). Social attributions and depression in adolescents with Asperger syndrome. *Focus on Autism and Other Developmental Disabilities*, 16, 46–53.
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117, 497–529.
- Baumeister, R. F., & Senders, P. S. (1989). Identity development and the role of structure of children's games. *Journal of Genetic Psychology*, 150, 19–37.
- Bauminger, N., & Kasari, C. (2000). Loneliness and friendship in high-functioning children with Autism. *Child Development*, 71, 447–456.
- Beidel, D. C. (1991). Social phobia and overanxious disorder in school-age children. *Journal of the American Academy of Child and Adolescent Psychiatry*, 30, 545–552.
- Beidel, D. C., & Turner, S. M. (1998). *Shy children, phobic adults: Nature and treatment of social phobia*. Washington, DC: American Psychological Association.
- Beidel, D. C., Turner, S. M., & Morris, T. L. (1999). Psychopathology of childhood social phobia. *Journal of the American Academy of Child and Adolescent Psychiatry*, 38(6), 643–650.
- Belle, D. (1989). *Children's social networks and social supports*. New York: Wiley.
- Bell-Dolan, D. J., Foster, S. L., & Christopher, J. S. (1995). Girls' peer relations and internalizing problems: Are socially neglected, rejected, and withdrawn girls at risk? *Journal of Clinical Child Psychology*, 24, 463–473.
- Bellmore, A. D., Witkow, M. R., Graham, S., & Juvonen, J. (2004). Beyond the Individual: The Impact of Ethnic Context and Classroom Behavioral Norms on Victims' Adjustment. *Developmental Psychology*, 40(6), 1159–1172.
- Benenson, J. F. (1994). Ages four to six years: Changes in the structures of play networks of girls and boys. *Merrill-Palmer Quarterly*, 40, 478–487.
- Benenson, J. F., Apostoleris, N. H., & Parnass, J. (1997). Age and sex differences in dyadic and group interaction. *Developmental Psychology*, 33, 538–543.
- Benenson, J. F., & Christakos, A. (2003). The greater fragility of female's versus male's closest same-sex friendships. *Child Development*, 74, 1123–1129.
- Benenson, J. F., Maiese, R., Dolensky, E., Dolensky, N., Sinclair, N., & Simpson, A. (2002). Group size regulates self-assertive versus self-deprecating responses to interpersonal competition. *Child Development*, 73, 1818–1829.
- Benenson, J. F., Markovits, H., Roy, R., & Denko, P. (2003). Behavioural rules underlying learning to share: Effects of development and context. *International Journal of Behavioural Development*, 27, 116–121.
- Benenson, J. F., Nicholson, C., Waite, A., Roy, R., & Simpson, A. (2001). The influence of group size on children's competitive behavior. *Child Development*, 72, 921–928.

478 Peer Relationships, Child Development, and Adjustment: A Developmental Psychopathology Perspective

- Berndt, T. J. (1989). Obtaining support from friends in childhood and adolescence. In D. Belle (Ed.), *The social support needs of school-aged children*. New York: Wiley.
- Berndt, T. J. (1996). Friendship quality affects adolescents' self-esteem and social behavior. In W. M. Bukowski, A. F. Newcomb, & W. W. Hartup (Eds.), *The company they keep: Friendship during childhood and adolescence* (pp. 346–365). New York: Cambridge University Press.
- Berndt, T. J. (1999). Friends' influence on children's adjustment to school. In W. A. Collins & B. Laursen (Eds.), *Minnesota Symposia on Child Psychology: Vol. 30. Relationships as developmental contexts* (pp. 85–108). Mahwah, NJ: Erlbaum.
- Berndt, T. J. (2002). Friendship quality and social development. *Current Directions in Psychological Science*, 11, 7–10.
- Berndt, T. J. (2004). Children's friendships: Shifts over a half-century in perspectives on their development and their effects. *Merrill-Palmer Quarterly*, 50, 206–223.
- Berndt, T. J., & Hanna, N. A. (1995). Intimacy and self-disclosure in friendships. In K. J. Rotenberg (Ed.), *Disclosure processes in children and adolescents* (pp. 57–77). New York: Cambridge University Press.
- Berndt, T. J., Hawkins, J. A., & Hoyle, S. G. (1986). Changes in friendship during a school year: Effects on children's and adolescents' impressions of friendship and sharing with friends. *Child Development*, 57, 1284–1297.
- Berndt, T. J., Hawkins, J. A., & Jiao, Z. (1999). Influences of friends and friendships on adjustment to junior high school. *Merrill-Palmer Quarterly*, 45, 13–41.
- Berndt, T. J., & Hoyle, S. G. (1985). Stability and change in childhood and adolescent friendships. *Developmental Psychology*, 21, 1007–1015.
- Berndt, T. J., & Perry, T. B. (1986). Children's perceptions of friendships as supportive relationships. *Developmental Psychology*, 22, 640–648.
- Berndt, T., & Perry, T. B. (1990). Distinctive features and effects of early adolescent friendships. In R. Montemayor, G. R. Adams, & T. P. Gullotta (Eds.), *From childhood to adolescence: A transitional period?* (Vol. 2, pp. 269–287). Thousand Oaks, CA: Sage.
- Bierman, K. L. (2004). *Peer rejection: Developmental processes and intervention*. New York: Guilford Press.
- Bierman, K. L., & Erath, S. A. (in press). Promoting social competence in early childhood: Prevention and early intervention programs. In K. McCartney & D. Phillips (Eds.), *Handbook of early child development*. Malden, MA: Blackwell.
- Bierman, K. L., Smoot, D. L., & Aumiller, K. (1993). Characteristics of aggressive-rejected, aggressive (nonrejected), and rejected (nonaggressive) boys. *Child Development*, 64, 139–151.
- Bierman, K. L., & Wargo, J. B. (1995). Predicting the longitudinal course associated with aggressive-rejected, aggressive (nonrejected), and rejected (nonaggressive) status. *Development and Psychopathology*, 7, 669–682.
- Bigelow, B. J., Tesson, G., & Lewko, J. H. (1996). *Learning the rules: The anatomy of children's relationships*. New York: Guilford Press.
- Bigelow, B. J., Tesson, G., & Lewko, J. H. (1999). The contextual influences of sibling and dating relations on adolescents' personal relations with their close friends, dating partners, and parents: The Sullivan-Piaget-Hartup Hypothesis considered. In J. A. McLellan & M. J. V. Pugh (Eds.), *The role of peer groups in adolescent social identity: Exploring the importance of stability and change* (pp. 71–86). San Francisco: Jossey-Bass.
- Blos, P. (1962). *On adolescence: A psychoanalytic interpretation*. New York: Free Press.
- Blos, P. (1979). The second individuation process of adolescence. In P. Blos, *The adolescent passage: Developmental issues*. New York: International University Press.
- Blurton-Jones, N. (1972a). Categories of child-child interaction. In N. Blurton-Jones (Ed.), *Ethological studies of child behavior* (pp. 65–98). New York: Cambridge University Press.
- Blurton-Jones, N. (Ed.). (1972b). *Ethological studies of child behavior*. New York: Cambridge University Press.
- Boivin, M., Dodge, K. A., & Coie, J. D. (1995). Individual-group behavioral similarity and peer status in experimental play groups of boys: The social misfit revisited. *Journal of Personality and Social Psychology*, 69, 269–279.
- Boivin, M., & Hymel, S. (1997). Peer experiences and social self-perceptions: A sequential model. *Developmental Psychology*, 33, 135–145.
- Boivin, M., Hymel, S., & Bukowski, W. M. (1995). The roles of social withdrawal, peer rejection, and victimization by peers in predicting loneliness and depressed mood in childhood. *Development and Psychopathology*, 7, 765–785.
- Boivin, M., Poulin, F., & Vitaro, F. (1994). Depressed mood and peer rejection in childhood. *Development and Psychopathology*, 6, 483–498.
- Bolger, K. E., & Patterson, C. J. (2001a). Developmental pathways from child maltreatment to peer rejection. *Child Development*, 72(2), 549–568.
- Bolger, K. E., & Patterson, C. J. (2001b). Pathways from child maltreatment to internalizing problems: Perceptions of control as mediators and moderators. *Development and Psychopathology*, 13(4), 913–940.
- Booth, C. L., Rose-Krasnor, L., McKinnon, J., & Rubin, K. H. (1994). Predicting social adjustment in middle childhood: The role of preschool attachment security and maternal style. *Social Development*, 3, 189–204.
- Booth, C. L., Rubin, K. H., Rose-Krasnor, L., & Burgess, K. (2004). Attachment and friendship predictors of psychosocial functioning in middle childhood and the mediating roles of social support and self-worth. In K. Kerns & Richardson, R. A. (Eds.), *Attachment in middle childhood* (pp. 47–62). New York: Guilford Press.
- Boulton, M. J. (1996). A comparison of 8- and 11-year-old girls' and boys' participation in specific types of rough-and-tumble play and aggressive fighting: Implications for functional hypotheses. *Aggressive Behavior*, 22, 271–287.
- Boulton, M. J., Trueman, M., Chau, C., Whitehand, C., & Amatya, K. (1999). Concurrent and longitudinal links between friendships and peer victimization: Implications for befriending interventions. *Journal of Adolescence*, 22, 461–466.
- Boulton, M. J., & Underwood, K. (1992). Bully/victim problems among middle school children. *British Journal of Educational Psychology*, 62, 73–87.
- Bowlby, J. (1973). *Attachment and loss: Vol. 2. Separation, anxiety and anger*. New York: Basic Books.
- Bowlby, J. (1982). *Attachment and loss: Vol. 1. Attachment*. New York: Basic Books. (Original work published 1969)
- Brendgen, M., Bowen, F., Rondeau, N., & Vitaro, F. (1999). Effects of friends' characteristics on children's social cognitions. *Social Development*, 8, 41–51.
- Brendgen, M., Little, T. D., & Krappmann, L. (2000). Rejected children and their friends: A shared evaluation of friendship quality? *Merrill-Palmer Quarterly*, 46(1), 45–70.
- Brendgen, M., Vitaro, F., & Bukowski, W. M. (2000). Deviant friends and early adolescents' emotional and behavioral adjustment. *Journal of Research on Adolescence*, 10(2), 173–189.

- Brendgen, M., Vitaro, F., Bukowski, W. M., Doyle, A. B., & Markiewicz, D. (2001). Developmental profiles of peer social preference over the course of elementary school: Associations with trajectories of externalizing and internalizing behavior. *Developmental Psychology*, 37, 308–320.
- Brendgen, M., Vitaro, F., Doyle, A. B., Markiewicz, D., & Bukowski, W. M. (2002). Same-sex peer relations and romantic relationships during early adolescence: Interactive links to emotional, behavioral, and academic adjustment. *Merrill-Palmer Quarterly*, 48, 77–103.
- Brendgen, M., Vitaro, F., Turgeon, L., & Poulin, F. (2002). Assessing aggressive and depressed children's social relations with classmates and friends: A matter of perspective. *Journal of Abnormal Psychology*, 111, 609–624.
- Bretherton, I. (1991). The roots and growing points of attachment theory. In J. Stevenson-Hinde & C. M. Parkes (Eds.), *Attachment across the life cycle* (pp. 9–32). New York: Tavistock-Routledge.
- Brody, L. M., Nagin, D. S., Tremblay, R. E., Bates, J. E., Brame, B., Dodge, K., et al. (2003). Developmental trajectories of childhood disruptive behaviors and adolescent delinquency: A six-site, cross-national study. *Developmental Psychology*, 39, 222–245.
- Bronfenbrenner, U., & Crouter, A. C. (1983). The evolution of environmental models in developmental research. In P. H. Mussen (Series Ed.) & W. Kessen (Vol. Ed.), *Handbook of child psychology: Vol. 1. History, theory, and methods* (4th ed., pp. 357–414). New York: Wiley.
- Brown, B. B. (1989). The role of peer groups in adolescents' adjustment to secondary school. In T. J. Berndt & G. W. Ladd (Eds.), *Peer relationships in child development* (pp. 188–216). New York: Wiley.
- Brown, B. B. (1990). Peer groups and peer cultures. In S. S. Feldman & G. R. Elliott (Eds.), *At the threshold* (pp. 171–196). Cambridge, MA: Harvard University Press.
- Brown, B. B. (1999). "You're going out with who?": Peer group influences on adolescent romantic relationships. In B. B. Brown & W. Furman (Eds.), *The development of romantic relationships in adolescence* (pp. 291–329). New York: Cambridge University Press.
- Brown, B. B., & Clasen, D. R. (1986, March). *Developmental changes in adolescents' conceptions of peer groups*. Paper presented at the biennial meeting of the Society for Research in Adolescence, Madison, WI.
- Brown, B. B., & Klute, C. (2003). Friends, cliques, and crowds. In G. R. Adams & M. D. Berzonsky (Eds.), *Blackwell handbook of adolescence* (pp. 330–348). Malden, MA: Blackwell.
- Bryant, B. K. (1985). The neighborhood walk: Sources of support in middle childhood. *Monographs of the Society for Research in Child Development*, 50(3), 122.
- Bryant-Waugh, R., & Lask, B. (1995). Eating disorders in children. *Journal of Child Psychology and Psychiatry*, 36, 191–202.
- Buhrmester, D., & Furman, W. (1986). The changing functions of friends in childhood: A neo-Sullivan perspective. In V. J. Derlega & B. A. Winstead (Eds.), *Friendship and social interaction* (pp. 41–62). New York: Springer-Verlag.
- Buhrmester, D., & Furman, W. (1987). The development of companionship and intimacy. *Child Development*, 58, 1101–1103.
- Buhrmester, D., & Prager, K. (1995). In K. J. Rotenberg (Ed.), *Disclosure processes in children and adolescents* (pp. 10–56). New York: Cambridge University Press.
- Bukowski, W. M., & Cillessen, A. H. (1998). *Sociometry then and now: Building on six decades of measuring children's experiences with the peer group*. San Francisco: Jossey-Bass.
- Bukowski, W. M., & Hoza, B. (1989). Popularity and friendship: Issues in theory, measurement, and outcome. In T. J. Berndt & G. W. Ladd (Eds.), *Peer relations in child development* (pp. 15–45). New York: Wiley.
- Bukowski, W. M., Hoza, B., & Boivin, M. (1994). Measuring friendship quality during pre- and early adolescence: The development and psychometric properties of the Friendship Qualities Scale. *Journal of Social and Personal Relationships*, 11, 471–484.
- Bukowski, W. M., Hoza, B., & Newcomb, A. F. (1994). Using rating scale and nomination techniques to measure friendships and popularity. *Journal of Social and Personal Relationships*, 11, 485–488.
- Bukowski, W. M., & Sippola, L. K. (2001). Groups, individuals, and victimization: A view of the peer system. In J. Juvonen & S. Graham (Eds.), *Peer harassment in school: The plight of the vulnerable and victimized* (pp. 355–377). New York: Guilford Press.
- Bukowski, W. M., Sippola, L., Hoza, B., & Newcomb, A. F. (2000). Pages from a sociometric notebook: An analysis of nomination and rating scale measures of acceptance, rejection, and social preference. In A. Cillessen & W. Bukowski (Eds.), *Recent advances in the measurement of acceptance and rejection in the peer system* (pp. 11–26). San Francisco: Jossey-Bass.
- Burgess, K. B., Rubin, K. H., Wojslawowicz, J. C., Rose-Krasnor, L., & Booth-LaForce, C. (2005). *Social information processing and coping styles of shy/withdrawn and aggressive children: Does friendship matter?* Manuscript under review.
- Burks, V. S., Dodge, K. A., & Price, J. M. (1995). Models of internalizing outcomes of early rejection. *Development and Psychopathology*, 7, 683–696.
- Burks, V. S., Laird, R. D., Dodge, K. A., Pettit, G. S., & Bates, J. E. (1999). Knowledge structures, social information processing, and children's aggressive behavior. *Social Development*, 8, 220–236.
- Buskirk, A. A., Rubin, K. H., Burgess, K., Booth-LaForce, C. L., & Rose-Krasnor, L. (2004, March). *Loved, hated . . . but never ignored: Evidence for two types of popularity*. Paper presented as part of a symposium, The Many Faces of Popularity, at the biennial meeting of the Society for Research in Adolescence, Baltimore.
- Cairns, R. B. (1979). *Social development: The origins and plasticity of interchanges*. San Francisco: Freeman.
- Cairns, R. B., Cairns, B. D., & Neckerman, H. J. (1989). Early school dropout: Configurations and determinants. *Child Development*, 60, 1437–1452.
- Cairns, R. B., Xie, H., & Leung, M. C. (1998). The popularity of friendship and the neglect of social networks: Toward a new balance. In W. M. Bukowski & A. H. Cillessen (Eds.), *Sociometry then and now: Building on six decades of measuring children's experiences with the peer group* (pp. 25–54). San Francisco: Jossey-Bass.
- Calkins, S. D., Gill, K. L., Johnson, M. C., & Smith, C. L. (1999). Emotional reactivity and emotional regulation strategies as predictors of social behavior with peers during toddlerhood. *Social Development*, 8(3), 310–334.
- Carothers, D. E., & Taylor, R. L. (2004). Social cognitive processing in elementary school children with Asperger syndrome. *Education and Training in Developmental Disabilities*, 16, 46–53.
- Carver, K., Joyner, K., & Udry, J. R. (2003). National estimates of adolescent romantic relationships. In P. Florsheim (Ed.), *Adolescent romantic relations and sexual behavior: Theory, research, and practical implications* (pp. 23–56). Mahwah, NJ: Erlbaum.
- Casiglia, A. C., Lo Coco, A., & Zappulla, C. (1998). Aspects of social reputation and peer relationships in Italian children: A cross-cultural perspective. *Developmental Psychology*, 34, 723–730.
- Cassidy, J., & Asher, S. R. (1992). Loneliness and peer relations in young children. *Child Development*, 63, 350–365.
- Chansky, T. E., & Kendall, P. C. (1997). Social expectations and self-perceptions in anxiety-disordered children. *Journal of Anxiety Disorders*, 11, 347–363.

480 Peer Relationships, Child Development, and Adjustment: A Developmental Psychopathology Perspective

- Chen, D. W., Fein, G., & Tam, H. P. (2001). Peer conflicts of preschool children: Issues, resolution, incidence, and age-related patterns. *Early Education and Development, 12*, 523–544.
- Chen, X., Chang, L., & He, Y. (2003). The peer group as a context: Mediating and moderating effects on the relations between academic achievement and social functioning in Chinese children. *Child Development, 74*, 710–727.
- Chen, X., Rubin, K. H., & Li, B. (1995). Social and school adjustment of shy and aggressive children in China. *Development and Psychopathology, 7*, 337–349.
- Chen, X., Zappulla, C., Lo Coco, A., Schneider, B., Kaspar, V., de Oliveira, A. M., et al. (2004). Self-perceptions of competence in Brazilian, Canadian, Chinese, and Italian children: Relations with social and school adjustment. *International Journal of Behavioural Development, 28*, 129–138.
- Cicchetti, D. (1990). A historical perspective on the discipline of developmental psychopathology. In A. S. Masten & J. E. Rolf (Eds.), *Risk and protective factors in the development of psychopathology* (pp. 2–28). New York: Cambridge University Press.
- Cicchetti, D. (1993). Developmental psychopathology: Reactions, reflections, projections. *Developmental Review, 13*, 471–502.
- Cicchetti, D. (2002). How a child builds a brain: Insights from normality and psychopathology. In R. A. Weinberg & W. Hartup (Eds.), *Child psychology in retrospect and prospect: In celebration of the 75th anniversary of the Institute of Child Development* (pp. 23–71). Mahwah, NJ: Erlbaum.
- Cicchetti, D., & Bukowski, W. M. (1995). Developmental processes in peer relations and psychopathology. *Development and Psychopathology, 7*(4), 587–589.
- Cicchetti, D., & Lynch, M. (1993). Toward an ecological/transactional model of community violence and child maltreatment: Consequences for children's development. *Psychiatry: Interpersonal and Biological Processes, 56*, 96–118.
- Cicchetti, D., Lynch, M., Shonk, S., & Manly, J. T. (1992). An organizational perspective on peer relations in maltreated children. In R. D. Parke & G. W. Ladd (Eds.), *Family-peer relationships: Modes of linkage* (pp. 345–384). Hillsdale, NJ: Erlbaum.
- Cicchetti, D., & Schneider-Rosen, K. (1984). Toward a transactional model of child depression. *New Directions of Child Development, 26*, 5–27.
- Cillessen, A., & Bukowski, W. (1998). *Sociometry then and now: Building on six decades of measuring children's experiences with the peer group*. San Francisco: Jossey-Bass.
- Cillessen, A. H., & Bukowski, W. M. (Eds.). (2000). *Recent advances in the measurement of acceptance and rejection in the peer system*. San Francisco: Jossey-Bass.
- Cillessen, A. H., Bukowski, W. M., & Haselager, G. T. (2000). Stability of sociometric categories. In A. Cillessen & W. Bukowski (Eds.), *Recent advances in the measurement of acceptance and rejection in the peer system* (pp. 75–93). San Francisco: Jossey-Bass.
- Cillessen, A. H., & Mayeux, L. (2004). From censure to reinforcement: Developmental changes in the association between aggression and social status. *Child Development, 75*, 147–163.
- Cillessen, A. H., van Ijzendoorn, H. W., Van Lieshout, C. F., & Hartup, W. W. (1992). Heterogeneity among peer-rejected boys: Subtypes and stabilities. *Child Development, 63*, 893–905.
- Cillessen, A. H., Van Lieshout, C. F., & Haselager, G. J. (1992, August). *Children's problems caused by consistent rejection in early elementary school*. Paper presented at the Centennial Convention of the American Psychological Association, Washington, DC.
- Clark, K. E., & Ladd, G. W. (2000). Connectedness and autonomy support in parent-child relationships: Links to children's socioemotional orientation and peer relationships. *Developmental Psychology, 36*, 485–498.
- Clark-Lempers, D. S., Lempers, J. D., & Ho, C. (1991). Early, middle, and late adolescents' perceptions of their relationships with significant others. *Journal of Adolescent Research, 6*, 296–315.
- Coie, J. D. (1990). Towards a theory of peer rejection. In S. R. Asher & J. D. Coie (Eds.), *Peer rejection in childhood* (pp. 365–401). Cambridge, MA: Cambridge University Press.
- Coie, J. D., Cillessen, A. N., Dodge, K. A., Hubbard, J. A., Schwartz, D., Lemerise, E. A., et al. (1999). It takes two to fight: A test of relational factors and a method for assessing aggressive dyads. *Developmental Psychology, 35*(5), 1179–1188.
- Coie, J. D., & Dodge, K. A. (1988). Multiple sources of data on social behavior and social status. *Child Development, 59*, 815–829.
- Coie, J. D., Dodge, K. A., & Coppotelli, H. (1982). Dimensions and types of social status: A cross-age perspective. *Developmental Psychology, 18*, 557–570.
- Coie, J. D., & Kupersmidt, J. (1983). A behavioral analysis of emerging social status in boys' groups. *Child Development, 54*, 1400–1416.
- Coie, J. D., Lochman, J. E., Terry, R., & Hyman, C. (1992). Predicting early adolescent disorder from childhood aggression and peer rejection. *Journal of Consulting and Clinical Psychology, 60*, 783–792.
- Coie, J. D., Terry, R., Lenox, K., Lochman, J., & Hyman, C. (1995). Childhood peer rejection and aggression as predictors of stable patterns of adolescent disorder. *Development and Psychopathology, 7*, 697–714.
- Cole, D. A., Martin, J. M., Peeke, L. G., Seroczynski, A. D., & Hoffman, K. (1998). Are cognitive errors of underestimation predictive or reflective of depressive symptoms in children: A longitudinal study. *Journal of Abnormal Psychology, 107*, 481–496.
- Collins, W. A. (2003). More than a myth: The developmental significance of romantic relationships during adolescence. *Journal of Research on Adolescence, 13*, 1–24.
- Collins, W. A., Henninghausen, K. C., Schmit, D. T., & Sroufe, L. A. (1997). Developmental precursors of romantic relationships: A longitudinal analysis. In S. Shulman & W. A. Collins (Eds.), *Romantic relationships in adolescence: Developmental perspectives* (pp. 69–84). San Francisco: Jossey-Bass.
- Collins, W. A., & Laursen, B. (Eds.). (1999). Friends and lovers: The role of peer relationships in adolescent romantic relationships. Relationships as developmental contexts. *Minnesota Symposia on Child Psychology* (Vol. 30, pp. 133–154). Mahwah, NJ: Erlbaum.
- Collins, W. A., & Sroufe, L. A. (1999). Capacity for intimate relationships: A developmental construction. In B. B. Brown & W. Furman (Eds.), *The development of romantic relationships in adolescence* (pp. 125–147). New York: Cambridge University Press.
- Compas, B. E. (1987). Coping with stress during childhood and adolescence. *Psychological Bulletin, 101*, 393–403.
- Connolly, J., Craig, W., Goldberg, A., & Pepler, D. (2004). Mixed-gender groups, dating, and romantic relationships in early adolescence. *Journal of Research on Adolescence, 14*, 185–207.
- Connolly, J., Furman, W., & Konarski, R. (2000). The role of peers in the emergence of heterosexual romantic relationships in adolescence. *Child Development, 71*(5), 1395–1408.
- Connolly, J., & Goldberg, A. (1999). Romantic relationships in adolescence: The role of friends and peers in their emergence and development. In B. B. Brown & W. Furman (Eds.), *The development of romantic relationships in adolescence* (pp. 266–290). New York: Cambridge University Press.
- Cooley, C. H. (1902). *Human nature and the social order*. New York: Scribner.

- Corsaro, W. A. (1985). *Friendship and peer culture in the early years*. Norwood, NJ: Ablex.
- Corsaro, W. A., & Miller, P. J. (Eds.). (1992). *Interpretative approaches to children's socialization*. San Francisco: Jossey-Bass.
- Corsaro, W. A., & Rizzo, T. A. (1988). Discussion and friendship: Socialization processes in the peer culture of Italian nursery school children. *American Sociological Review*, 53, 879–894.
- Cowen, E. L., Pedersen, A., Bagigian, H., Izzo, L. D., & Trost, M. A. (1973). Long-term follow-up of early detected vulnerable children. *Journal of Consulting and Clinical Psychology*, 41, 438–446.
- Craig, W. M. (1998). The relationship among bullying, victimization, depression, anxiety, and aggression in elementary school children. *Personality and Individual Differences*, 24, 123–130.
- Craig, W. M., Pepler, D., Connolly, J., & Henderson, K. (2001). Developmental context of peer harassment in early adolescence: The role of puberty and the peer group. In J. Juvonen & S. Graham (Eds.), *Peer harassment in school: The plight of the vulnerable and victimized* (pp. 242–261). New York: Guilford Press.
- Crick, N. R., Casas, J. F., & Mosher, M. (1997). Relational and overt aggression in preschool. *Developmental Psychology*, 33(4), 579–588.
- Crick, N., & Dodge, K. A. (1994). A review and reformulation of social information processing in children's social adjustment. *Psychological Bulletin*, 115, 74–101.
- Crick, N. R., & Dodge, K. A. (1996). Social information-processing mechanisms on reactive and proactive aggression. *Child Development*, 67, 993–1002.
- Crick, N. R., & Grotpeter, J. K. (1995). Relational aggression, gender, and social-psychological adjustment. *Child Development*, 66, 710–722.
- Crick, N. R., & Ladd, G. W. (1993). Children's perceptions of their peer experiences: Attributions, loneliness, social anxiety, and social avoidance. *Development Psychology*, 29, 244–254.
- Crick, N. R., & Nelson, D. A. (2002). Relational and physical victimization within friendship: Nobody told me there'd be friends like these. *Journal of Abnormal Child Psychology*, 30, 599–607.
- Crick, N. R., & Werner, N. E. (1998). Response decision processes in relational and overt aggression. *Child Development*, 69, 1630–1639.
- Crozier, W. R., & Alden, L. E. (2001). The social nature of social anxiety. In W. R. Crozier, & L. E. Alden (Eds.), *International handbook of social anxiety: Concepts, research and interventions relating to the self and shyness* (pp. 1–20). New York: Wiley.
- Crozier, W. R., & Burnham, M. (1990). Age-related differences in children's understanding of shyness. *British Journal of Developmental Psychology*, 8, 179–185.
- Csikszentmihalyi, M., & Larson, R. (1984). *Being adolescent*. New York: Basic Books.
- Cummings, E. M., Goeke-Morey, M. C., & Papp, L. M. (2003). Children's responses to everyday marital conflict tactics in the home. *Child Development*, 74, 1918–1929.
- Cummings, E. M., Goeke-Morey, M. C., & Papp, L. M. (2004). Everyday marital conflict and child aggression. *Journal of Abnormal Child Psychology*, 32, 191–202.
- Cunningham, M. R., & Barbee, A. P. (2000). In S. S. Hendrick & C. Hendrick (Eds.), *Close relationships: A sourcebook* (pp. 273–286). Thousand Oaks, CA: Sage.
- Dakof, G. A., & Taylor, S. E. (1990). Victims' perceptions of social support: What is helpful from whom? *Journal of Personality and Social Psychology*, 58, 80–89.
- Damon, W. (1977). *The social world of the child*. San Francisco: Jossey-Bass.
- Damon, W., & Killen, M. (1982). Peer interaction and the process of change in children's moral reasoning. *Merrill-Palmer Quarterly*, 28, 347–378.
- Davies, P. T., Harold, G. T., Goeke-Morey, M. C., & Cummings, E. M. (2002). Child emotional security and interparental conflict. *Monographs of the Society for Research in Child Development*, 67(Serial No. 270).
- Davila, J., Steinberg, S. J., Kachadourian, L., Cobb, R., & Fincham, F. (2004). Romantic involvement and depressive symptoms in early and late adolescence: The role of a preoccupied relational style. *Personal Relationships*, 11, 161–178.
- Dawe, H. C. (1934). Analysis of two hundred quarrels of preschool children. *Child Development*, 5, 139–157.
- Deater-Deckard, K. (2001). Annotation: Recent research examining the role of peer relations in the development of psychopathology. *Journal of Child Psychology and Psychiatry*, 42, 565–579.
- Deater-Deckard, K., & Dodge, K. A. (1997). Externalizing behavior problems and discipline revisited: Nonlinear effects and variation by culture, context, and gender. *Psychological Inquiry*, 8, 161–175.
- Denham, S. A., Blair, K. A., DeMulder, E., Levitas, J., Sawyer, K., Auerbach-Major, S., et al. (2003). Preschool emotional competence: Pathway to social competence. *Child Development*, 74(1), 238–256.
- Denton, K., & Zarbatany, L. (1996). Age differences in support processes in conversations between friends. *Child Development*, 67, 1360–1373.
- Denzin, N. K. (1977). *Childhood socialization*. San Francisco: Jossey-Bass.
- DeRosier, M., Kupersmidt, J., & Patterson, C. (1994). Children's academic and behavioral adjustment as a function of the chronicity and proximity of peer rejection. *Child Development*, 65, 1799–1813.
- DeRosier, M. E., & Thomas, J. M. (2003). Strengthening sociometric prediction: Scientific advances in the assessment of children's peer relations. *Child Development*, 74, 1379–1392.
- DiFilippo, J. M., & Overholser, J. C. (2000). Suicidal ideation in adolescent psychiatric inpatients as associated with depression and attachment relationships. *Journal of Clinical Child Psychology*, 29, 155–166.
- Dill, E. J., Vernberg, E. M., & Fonagy, P. (2004). Negative affect in victimized children: The roles of social withdrawal, peer rejection, and attitudes toward bullying. *Journal of Abnormal Child Psychology*, 32, 159–173.
- Dishion, T. J., Andrews, D. W., & Crosby, L. (1995). Antisocial boys and their friends in early adolescence: Relationship characteristics, quality, and interactional processes. *Child Development*, 66, 139–151.
- Dishion, T. J., Capaldi, D., Spracklen, K. M., & Li, F. (1995). Peer ecology of male drug use. *Development and Psychopathology*, 7, 803–824.
- Dishion, T. J., Capaldi, D. M., & Yoerger, K. (1999). Middle childhood antecedents to progressions in male adolescent substance use: An ecological analysis of risk and protection. *Journal of Adolescent Research*, 14(2), 175–205.
- Dishion, T. J., & Kavanagh, K. (2003). *Intervening in adolescent problem behavior: A family-centered approach*. New York: Guilford Press.
- Dishion, T. J., McCord, J., & Poulin, F. (1999). When interventions harm: Peer groups and problem behavior. *American Psychologist*, 54(9), 755–764.
- Dishion, T. J., & Owen, L. (2002). A longitudinal analysis of friendships and substance use: Bidirectional influence from adolescence to adulthood. *Developmental Psychology*, 38(4), 480–491.
- Dishion, T. J., Spracklen, K. M., Andrews, D., & Patterson, G. (1996). Deviancy training in male adolescents friendships. *Behavior Therapy*, 27(3), 373–390.
- Dodge, K. A. (1980). Social cognition and children's aggressive behavior. *Child Development*, 51, 162–170.

482 Peer Relationships, Child Development, and Adjustment: A Developmental Psychopathology Perspective

- Dodge, K. A. (1983). Behavioral antecedents of peer social status. *Child Development*, 54, 1386–1399.
- Dodge, K. A. (1986). A social information processing model of social competence in children. In M. Perlmutter (Ed.), *Minnesota Symposium on Child Psychology* (Vol. 18, pp. 77–125). Hillsdale, NJ: Erlbaum.
- Dodge, K. A., Lansford, J. E., Burks, V. S., Bates, J. E., Pettit, G. S., Fontaine, R., et al. (2003). Peer rejection and social information-processing factors in the development of aggressive behavior problems in children. *Child Development*, 74(2), 374–393.
- Dodge, K. A., Lochman, J. E., Harnish, J. D., Bates, J. E., & Pettit, G. S. (1997). Reactive and proactive aggression in school children and psychiatrically impaired chronically assaultive youth. *Journal of Abnormal Psychology*, 106, 37–51.
- Dodge, K. A., Murphy, R. R., & Buchsbaum, K. (1984). The assessment of intention-cue detection skills in children: Implications for developmental psychopathology. *Child Development*, 55, 163–173.
- Dodge, K. A., Price, J. M., Coie, J. D., & Christopoulos, C. (1990). On the development of aggressive dyadic relationships in boys' peer groups. *Human Development*, 33, 20–27.
- Douvan, E., & Adelson, J. (1966). *The adolescent experience*. New York: Wiley.
- Downey, G., & Feldman, S. I. (1996). Implications of rejection sensitivity for intimate relationships. *Journal of Personality and Social Psychology*, 70, 1327–1343.
- Downey, G., Lebolt, A., Rincon, C., & Freitas, A. L. (1998). Rejection sensitivity and children's interpersonal difficulties. *Child Development*, 69, 1074–1091.
- Dubow, E. F., Tisak, J., Causey, D., Hryshko, A., & Ried, G. (1991). A two-year longitudinal study of stressful life events, social support, and social problem-solving skills: Contributions to children's behavioral and academic adjustment. *Child Development*, 62, 583–599.
- Dunn, J. (1988). *The beginnings of social understanding*. Cambridge, MA: Harvard University Press.
- Dunn, J. (1993). *Young children's close relationships: Beyond attachment*. London: Sage.
- Dunn, J., Cutting, A., & Fisher, N. (2002). Old friends, new friends: Predictors of children's perspective on their friends at school. *Child Development*, 73, 621–635.
- Durkin, K. (1995). *Developmental social psychology: From infancy to old age*. Cambridge, MA: Blackwell.
- Du Rocher Schudlich, T. D., Shamir, H., & Cummings, E. M. (2004). Marital conflict, children's representations of family relationships, and children's possessive dispositions toward peer conflict strategies. *Social Development*, 13, 171–192.
- Eccles, J., Barber, B., Jozefowicz, D., Malenchuk, O., & Vida, M. (1999). Self-evaluations of competence, task values, and self-esteem. In N. G. Johnson, M. C. Roberts, & J. Worell (Eds.), *Beyond appearance: A new look at adolescent girls* (pp. 53–84). Washington, DC: American Psychological Association.
- Eccles, J. S., Midgley, C., Wigfield, A., Buchanan, C. M., Ruman, D., Flanagan, C., et al. (1993). Development during adolescence: The impact of stage-environmental fit on young adolescents' experiences in schools and in families. *American Psychologist*, 48, 90–101.
- Eckerman, C. O. (1993). Toddlers' achievement of coordinated action with conspecifics: A dynamic systems perspective. In E. Thelen & L. B. Smith (Eds.), *A dynamic systems approach to development: Applications* (pp. 333–357). New York: Cambridge University Press.
- Eckerman, C. O. (1996). Early social-communicative development: Illustrative developmental analyses. In R. B. Cairns, G. H. Elder Jr., & J. E. Costello (Eds.), *Developmental science* (pp. 135–167). New York: Cambridge University Press.
- Eckerman, C. O., & Didow, S. M. (1996). Nonverbal imitation and toddlers' mastery of verbal means of achieving coordinated action. *Developmental Psychology*, 32, 141–152.
- Eckerman, C. O., & Peterman, K. (2001). Peers and infant social/communicative development. In G. Bremner & A. Fogel (Eds.), *Blackwell handbook of infant development* (pp. 326–350). Malden, MA: Blackwell Publishers.
- Eder, D. (1985). The cycle of popularity: Interpersonal relations among female adolescents. *Sociology of Education*, 58, 154–165.
- Eder, D., & Enke, J. L. (1991). The structure of gossip: Opportunities and constraints on collective expression among adolescents. *American Sociological Review*, 56, 494–508.
- Eisenberg, N. (2002). Emotion-related regulation and its relation to quality of social functioning. In W. W. Hartup & R. A. Weinberg (Eds.), *Child psychology in retrospect and prospect: In celebration of the 75th anniversary of the Institute of Child Development* (pp. 133–171). Mahwah, NJ: Erlbaum.
- Eisenberg, N., & Fabes, R. A. (1998). Prosocial development. In W. Damon (Ed.), *Handbook of child psychology* (Vol. 3, pp. 701–778). New York: Wiley.
- Eisenberg, N., Gershoff, E. T., Fabes, R. A., Shepard, S. A., Cumberland, A. J., Losoya, S. H., et al. (2001). Mothers' emotional expressivity and children's behavior problems and social competence: Mediation through children's regulation. *Developmental Psychology*, 37, 475–490.
- Eisenberg, N., Tyron, K., & Cameron, E. (1984). The relation of preschoolers' peer interaction to their sex-typed toy choices. *Child Development*, 55, 1044–1050.
- Enright, R. D., Gassin, E. A., & Wu, C. (1992). Forgiveness: A developmental view. *Journal of Moral Education*, 21, 99–114.
- Enright, R. D., & the Human Development Study Group. (1991). The moral development of forgiveness. In W. M. Kurtines & J. L. Gewirtz (Eds.), *Handbook of moral behavior and development: Vol. 1. Theory* (pp. 123–152). Hillsdale, NJ: Erlbaum.
- Epstein, J. L. (1986). Friendship selection: Developmental and environmental influences. In E. Mueller & C. Cooper (Eds.), *Process and outcome in peer relationships*. New York: Academic Press.
- Epstein, J. L., & Karweit, N. (1983). *Friends in school: Patterns of influence and selection in secondary schools*. New York: Academic Press.
- Erdley, C. A., & Asher, S. R. (1998). Linkages between children's beliefs about the legitimacy of aggression and their behavior. *Social Development*, 7(3), 321–339.
- Erel, O., & Burman, B. (1995). Interrelatedness of marital relations and parent-child relations: A meta-analytic review. *Psychological Bulletin*, 118, 108–132.
- Espelage, D. L., Bosworth, K., & Simon, T. R. (2000). Examining the social context of bullying behaviors in early adolescence. *Journal of Counseling and Development*, 78, 326–333.
- Espelage, D. L., Holt, M., & Henkel, R. (2003). Examination of peer-group contextual effects on aggression during early adolescence. *Child Development*, 74, 205–220.
- Fabes, R. A., Eisenberg, N., Jones, S., Smith, M., Guthrie, I., Poulin, R., et al. (1999). Regulation, emotionality, and preschoolers' socially competent peer interactions. *Child Development*, 70, 432–444.
- Fabes, R. A., Martin, C. L., & Hanish, L. D. (2003). Young children's play qualities in same-, other-, and mixed-sex peer groups. *Child Development*, 74, 921–932.

- Fagot, B. I. (1985). Changes in thinking about early sex role development. *Developmental Review*, 5, 83–98.
- Farmer, T., Estell, D., Bishop, J., O'Neal, K., & Cairns, B. (2003). Rejected bullies or popular leaders? The social relations of aggressive subtypes of rural African American early adolescents. *Developmental Psychology*, 39(6), 992–1004.
- Fehr, B. (2000). The life cycle of friendship. In S. S. Hendrick & C. Hendrick (Eds.), *Close relationships: A sourcebook* (pp. 71–84). Thousand Oaks, CA: Sage.
- Ferguson, T. J., & Cillessen, A. H. N. (1993). Individual and peer group factors in the stability of social status, antisocial, and prosocial behaviors. In A. Fraczek & H. Zunkley (Eds.), *Socialization and Aggression* (pp. 115–135). New York: Springer-Verlag.
- Fine, G. A. (1981). Friends, impression management, and preadolescent behavior. In S. R. Asher & J. M. Gottman (Eds.), *The development of children's friendships* (pp. 29–52). New York: Cambridge University Press.
- Fine, G. A. (1987). *With the boys: Little league baseball and preadolescent culture*. Chicago: University of Chicago Press.
- Fine, G. A., & Rosnow, R. L. (1978). Gossip, gossipers, gossiping. *Personality and Social Psychology Bulletin*, 4, 161–168.
- Fisher, L. A., & Bauman, K. E. (1988). Influence and selection in the friend-adolescent relationship: Findings from studies of adolescent smoking and drinking. *Journal of Applied Social Psychology*, 18, 289–331.
- Fiske, S. T. (2004). *Social beings: Core Motives in social psychology*. New York: Wiley.
- Flanagan, K. S. (2005). *Understanding social anxiety in early adolescence: The role of peer relations*. Unpublished doctoral dissertation, University Park, PA: Pennsylvania State University.
- Fletcher, G. J., & Fincham, F. D. (1991). Attribution processes in close relationships. In F. D. Fincham & G. J. Fletcher (Eds.), *Cognition in close relationships* (pp. 7–35). Hillsdale, NJ: Erlbaum.
- Flicek, M. (1992). Social status of boys with both academic problems and attention-deficit hyperactivity disorder. *Journal of Abnormal Child Psychology*, 20, 353–366.
- Foley, R. (1987). *Another unique species: Patterns in human evolutionary ecology*. New York: Wiley.
- Forbes, D., Katz, M., & Paul, B. (1986). "Frametalk": A dramatic analysis of children's fantasy play. In E. C. Mueller & C. R. Cooper (Eds.), *Process and outcome in peer relationships* (pp. 249–266). New York: Academic Press.
- Freitag, M. K., Belsky, J., Grossmann, K., Grossmann, J. E., & Scheurer-Engelisch, H. (1996). Continuity in child-parent relationships from infancy to middle childhood and relations with friendship competence. *Child Development*, 67, 1437–1454.
- Freud, A. (1952). The role of bodily illness in the mental life of children. *Psychoanalytic Study of the Child*, 7, 69–81.
- Fulgini, A. J., Eccles, J. S., Barber, B. L., & Clements, P. (2001). Early adolescent peer orientation and adjustment during high school. *Developmental Psychology*, 37, 28–36.
- Furman, W. (1996). The measurement of friendship perceptions: Conceptual and methodological issues. In W. M. Bukowski, A. F. Newcomb, & W. W. Hartup (Eds.), *The company they keep: Friendships in childhood and adolescence* (pp. 41–65). Cambridge, MA: Cambridge University Press.
- Furman, W. (1999). Friends and lovers: The role of peer relationships in adolescent romantic relationships. In W. A. Collins & B. Laursen (Eds.), *Minnesota Symposia on Child Psychology: Vol. 30. Relationships as developmental contexts* (pp. 133–154). Mahwah, NJ: Erlbaum.
- Furman, W., & Buhrmester, D. (1985). Children's perceptions of the personal relationships in their social networks. *Developmental Psychology*, 21, 1016–1024.
- Furman, W., Simon, V. A., Shaffer, L., & Bouchey, H. A. (2002). Adolescents' working models and styles for relationships with parents, friends, and romantic partners. *Child Development*, 73, 241–255.
- Garber, J., Keiley, M. K., & Martin, N. C. (2002). Developmental trajectories of adolescents' depressive symptoms: Predictors of change. *Journal of Consulting and Clinical Psychology*, 70, 79–95.
- Garnezy, N. (1974). Children at risk: The search for antecedents of Schizophrenia: Part 1. Conceptual models and research methods. *Schizophrenia Bulletin*, 1, 14–89.
- Garner, D. M., Rosen, L. W., & Barry, D. (1998). Eating disorders among athletes: Research and recommendations. *Child and Adolescent Psychiatric Clinics of North America*, 7, 839–857.
- Gauvain, M. (2001). *The social context of cognitive development*. New York: Guilford Press.
- Gazelle, H., & Ladd, G. W. (2003). Anxious solitude and peer exclusion: A diathesis-stress model of internalizing trajectories in childhood. *Child Development*, 74, 257–278.
- George, T. P., & Hartmann, D. P. (1996). Friendship networks of unpopular, average, and popular children. *Child Development*, 67, 2301–2316.
- Gest, S. D., Farmer, T., Carins, B., & Xie, H. (2003). Identifying children's peer social networks in school classrooms: Links between peer reports and observed interactions. *Social Development*, 12(4), 513–529.
- Golombok, S., & Fivush, R. (1994). *Gender development*. Cambridge, MA: Cambridge University Press.
- Goncu, A., Patt, M. B., & Kouba, E. (2002). Understanding young children's pretend play in context. In P. K. Smith & C. H. Hart (Eds.), *Blackwell handbook of childhood social development* (pp. 418–437). Malden, MA: Blackwell.
- Goodenough, F. L. (1931). *Anger in young children*. Minneapolis: University of Minnesota Press.
- Gottman, J. M. (1983). How children become friends. *Monographs of the Society for Research in Child Development*, 48(3, Serial No. 201).
- Gottman, J. M., & Mettetal, G. (1986). Speculations about social and affective development: Friendship and acquaintanceship through adolescence. In J. M. Gottman & J. G. Parker (Eds.), *Conversation of friends: Speculations on affective development* (pp. 192–237). Cambridge, England: Cambridge University Press.
- Gottman, J. M., & Parkhurst, J. T. (1980). A developmental theory of friendship and acquaintanceship processes. In W. A. Collins (Ed.), *Minnesota Symposia on Child Development: Vol. 13: Development of cognition, affect, and social relations* (pp. 197–253). Hillsdale, NJ: Erlbaum.
- Graham, S., & Juvonen, J. (1998). Self-blame and peer victimization in middle school: An attributional analysis. *Developmental Psychology*, 34, 587–599.
- Graham, S., & Juvonen, J. (2001). An attributional approach to peer victimization. In J. Juvonen & S. Graham (Eds.), *Peer harassment in school: The plight of the vulnerable and victimized* (pp. 49–72). New York: Guilford Press.
- Granot, D., & Mayseless, O. (2001). Attachment security and adjustment to school in middle childhood. *International Journal of Behavioural Development*, 25, 530–541.
- Grunebaum, H., & Solomon, L. (1987). Peer relationships, self-esteem, and the self. *International Journal of Group Psychotherapy*, 37, 475–513.
- Grills, A. E., & Ollendick, T. H. (2002). Peer victimization, global self-worth, and anxiety in middle school children. *Journal of Clinical Child and Adolescent Psychology*, 31, 59–68.

484 Peer Relationships, Child Development, and Adjustment: A Developmental Psychopathology Perspective

- Grych, J. H., & Fincham, F. D. (1990). Marital conflict and children's adjustment: A cognitive-contextual framework. *Psychological Bulletin*, 108, 267–290.
- Guerra, N. G., Huesmann, L. R., & Spindler, A. (2003). Community violence exposure, social cognition, and aggression among urban elementary school children. *Child Development*, 74, 1561–1576.
- Guevremont, D. C., & Dumas, M. C. (1994). Peer relationship problems and disruptive behavior disorders. *Journal of Emotional and Behavioral Disorders*, 2(3), 164–172.
- Halberstadt, A. G., Denham, S. A., & Dunsmore, J. C. (2001). Affective social competence. *Social Development*, 10, 79–119.
- Hamm, J. V. (2000). Do birds of a feather flock together? The variable bases for African American, Asian American, and European American adolescents' selection of similar friends. *Developmental Psychology*, 36(2), 209–219.
- Hammen, C., & Rudolph, K. D. (2003). Childhood mood disorders. In R. A. Barkley & E. J. Mash (Eds.), *Child psychopathology* (2nd ed., pp. 233–278). New York: Guilford Press.
- Hanish, L. D., & Guerra, N. G. (2004). Aggressive victims, passive victims, and bullies: Developmental continuity or developmental change. *Merrill-Palmer Quarterly*, 50, 17–38.
- Hansell, S. (1981). Ego development and peer friendship networks. *Sociology of Education*, 54, 51–63.
- Hansen, G. L. (1991). Jealousy: Its conceptualization, measurement, and integration with family stress theory. In P. Salovey (Ed.), *The psychology of jealousy and envy* (pp. 211–230). New York: Guilford Press.
- Hardy, C. L., Bukowski, W. M., & Sippola, L. K. (2002). Stability and change in peer relationships during the transition to middle-level school. *Journal of Early Adolescence*, 22, 117–142.
- Harter, S. (1999). *The construction of the self: A developmental perspective*. New York: Guilford Press.
- Hartshorne, H., & May, M. S. (1929). *Studies in the nature of character: Vol. 1. Studies in self-control*. New York: Macmillan.
- Hartup, W. W. (1983). Peer relations. In P. H. Mussen (Ed.), *Handbook of child psychology: Vol. 4. Socialization, personality, and social development* (pp. 103–196). New York: Wiley.
- Hartup, W. W. (1989). Behavioral manifestations of children's friendships. In T. J. Berndt & G. W. Ladd (Eds.), *Peer relationships in child development* (pp. 46–70). New York: Wiley.
- Hartup, W. W., & Abecassis, M. (2002). Friends and enemies. In P. K. Smith & C. H. Hart (Eds.), *Blackwell handbook of childhood social development* (pp. 286–306). Malden, MA: Blackwell.
- Hartup, W. W., Laursen, B., Stewart, M. A., & Eastenson, A. (1988). Conflicts and the friendship relations of young children. *Child Development*, 59, 1590–1600.
- Hartup, W. W., & Stevens, N. (1997). Friendships and adaptation in the life course. *Psychological Bulletin*, 121, 355–370.
- Haselager, G. J. T., Cillessen, H. N., Van Lieshout, C. F. M., Riksen-Walraven, J. M. A., & Hartup, W. W. (2002). Heterogeneity among peer-rejected boys across middle childhood: Developmental pathways of social behavior. *Child Development*, 73, 446–456.
- Havighurst, R. J. (1953). *Human development and education*. New York: Longmans, Green.
- Hawker, D. S., & Boulton, M. J. (2000). Twenty years' research on peer victimization and psychosocial maladjustment: A meta-analytic review of cross-sectional studies. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, 41, 441–455.
- Hawley, P. H. (1999). The ontogenesis of social dominance: A strategy-based evolutionary perspective. *Developmental Review*, 19, 97–132.
- Hawley, P. H. (2002). Social dominance and prosocial and coercive strategies of resource control in preschoolers. *International Journal of Behavioral Development*, 26, 167–176.
- Hawley, P. H. (2003). Strategies of control, aggression and morality in preschoolers: An evolutionary perspective. *Journal of Experimental Child Psychology*, 85(3), 213–235.
- Hawley, P. H. (2005, April). *The allure of a mean friend: Peer regard and relationship quality of aggressive high status adolescents*. Paper presented at the Biennial Meeting of the Society for Research in Adolescence, Atlanta Georgia.
- Hawley, P. H., & Little, T. D. (1999). On winning some and losing some: A social relations approach to social dominance in toddlers. *Merrill-Palmer Quarterly*, 45, 185–214.
- Hawley, P. H., Little, T. D., & Pasupathi, M. (2002). Winning friends and influencing peers: Strategies of peer influence in late childhood. *International Journal of Behavioral Development*, 26, 466–474.
- Hay, D. F., Castle, J., & Davies, L. (2000). Toddlers' use of force against familiar peers: A precursor of serious aggression? *Child Development*, 71, 457–467.
- Hay, D. F., Castle, J., Davies, L., Demetriou, H., & Stimson, C. (1999). Prosocial action in very early childhood. *Journal of Child Psychology and Psychiatry*, 40, 905–916.
- Hay, D. F., Pederson, J., & Nash, A. (1982). Dyadic interaction in the first year of life. In K. H. Rubin & H. S. Ross (Eds.), *Peer relationships and social skills in childhood* (pp. 11–40). New York: Springer-Verlag.
- Hay, D. F., & Ross, H. (1982). The social nature of early conflict. *Child Development*, 53, 105–113.
- Hay, I., & Ashman, A. F. (2003). The development of adolescents' emotional stability and general self-concept: The interplay of parents, peers, and gender. *International Journal of Disability, Development and Education*, 50, 77–91.
- Henrich, C. C., Kuperminc, G. P., Sack, A., Blatt, S. J., & Leadbeater, B. J. (2000). Characteristics and homogeneity of early adolescent friendship groups: A comparison of male and female cliques and non-clique members. *Applied Developmental Science*, 4, 15–26.
- Higgins, E. T., & Parsons, J. E. (1983). Social cognition and the social life of the child: Stages as subcultures. In E. T. Higgins, D. N. Ruble, & W. W. Hartup (Eds.), *Social cognition and social development* (pp. 15–62). Cambridge, England: Cambridge University Press.
- Hinde, R. A. (1979). *Towards understanding relationships*. London: Academic Press.
- Hinde, R. A. (1987). *Individuals, relationships and culture*. Cambridge, England: Cambridge University Press.
- Hinde, R. A. (1995). A suggested structure for a science of relationships. *Personal Relationships*, 2, 1–15.
- Hinshaw, S. P., Lahey, B. B., & Hart, E. L. (1993). Issues of taxonomy and comorbidity in the development of conduct disorder. *Development and Psychopathology*, 5, 31–49.
- Hinshaw, S. P., & Lee, S. (2003). Conduct and oppositional defiant disorders. In R. A. Barkley & E. J. Mash (Eds.), *Child psychopathology* (2nd ed., pp. 144–198). New York: Guilford Press.
- Hinshaw, S. P., & Melnick, S. M. (1995). Peer relationships in boys with attention-deficit hyperactivity disorder with and without comorbid aggression. *Development and Psychopathology*, 7(4), 627–647.
- Hodges, E. V. E., Boivin, M., Vitaro, F., & Bukowski, W. M. (1999). The power of friendship: Protection against an escalating cycle of peer victimization. *Developmental Psychology*, 35, 94–101.
- Hodges, E. V. E., & Card, N. A. (Eds.). (2003). *Enemies and the darker side of peer relations*. San Francisco: Jossey-Bass.
- Hodges, E. V. E., Finnegan, R. A., & Perry, D. G. (1999). Skewed autonomy-relatedness in preadolescents' conceptions of their

- relationships with mother, father, and best friend. *Developmental Psychology*, 35(3), 737–748.
- Hodges, E. V. E., Malone, M. J., & Perry, D. G. (1997). Individual risk and social risk as interacting determinants of victimization in the peer group. *Developmental Psychology*, 33, 1032–1039.
- Hogan, D., & Tudge, J. (1999). Implications of Vygotsky's theory for peer learning. In A. M. O'Donnell & A. King (Eds.), *Cognitive perspectives on peer learning* (pp. 39–65). Mahwah, NJ: Erlbaum.
- Hollos, M., & Cowan, P. A. (1973). Social isolation and cognitive development: Logical operations and role taking abilities in three Norwegian social settings. *Child Development*, 44, 630–641.
- Horn, S. (2003). Adolescents' reasoning about exclusion from social groups. *Developmental Psychology*, 39, 11–84.
- Howes, C. (1983). Patterns of friendship. *Child Development*, 54, 1041–1053.
- Howes, C. (1988). Peer interaction of young children. *Monographs of the Society for Research in Child Development*, 53(Serial No. 217).
- Howes, C. (1992). *The collaborative construction of pretend*. New York: SUNY Press.
- Howes, C. (1996). The earliest friendships. In W. M. Bukowski, A. F. Newcomb, & W. W. Hartup (Eds.), *The company they keep: Friendship in childhood and adolescence* (pp. 66–86). Cambridge, MA: Cambridge University Press.
- Howes, C., Matheson, C. C., & Wu, F. (1992). Friendships and social pretend play. In C. Howes, O. Unger, & C. C. Matheson (Eds.), *The collaborative construction of pretend*. Albany: University of New York Press.
- Howes, C., & Phillipsen, L. (1992). Gender and friendship: Relationships within peer groups of young children. *Social Development*, 1, 230–242.
- Howes, C., & Phillipsen, L. (1998). Continuity in children's relationships with peers. *Social Development*, 7, 340–349.
- Hoza, B., Molina, B., Bukowski, W. M., & Sippola, L. K. (1995). Aggression, withdrawal and measures of popularity and friendship as predictors of internalizing and externalizing problems during early adolescence. *Development and Psychopathology*, 7, 787–802.
- Hubbard, J. A. (2001). Emotion expression processes in children's peer interaction: The role of peer rejection, aggression, and gender. *Child Development*, 72, 1426–1438.
- Hubbard, J. A., Dodge, K. A., Cillessen, A., Coie, J. D., & Schwartz, D. (2001). The dyadic nature of social information processing in boys' reactive and proactive aggression. *Journal of Personality and Social Psychology*, 80, 268–280.
- Huesmann, L. R., & Guerra, N. G. (1997). Children's normative beliefs about aggression and aggressive behavior. *Journal of Personality and Social Psychology*, 72, 408–419.
- Huston, A. C., & Alvarez, M. (1990). The socialization context of gender role development in early adolescence. In R. Motemayor, G. R. Adams, & T. P. Gullotta (Eds.), *From childhood to adolescence: A transitional period* (pp. 156–179). Newbury Park, CA: Sage.
- Hutton, J. B. (1985). What reasons are given by teachers who refer problem behavior students? *Psychology in the Schools*, 22, 79–84.
- Hymel, S. (1986). Interpretations of peer behavior: Affective bias in childhood and adolescence. *Child Development*, 57, 431–445.
- Hymel, S., Bowker, A., & Woody, E. (1993). Aggressive versus withdrawn unpopular children: Variations in peer and self-perceptions in multiple domains. *Child Development*, 64, 879–896.
- Hymel, S., & Franke, S. (1985). Children's peer relations: Assessing self-perceptions. In B. H. Schneider, K. H. Rubin, & J. E. Ledingham (Eds.), *Children's peer relationships: Issues in assessment and intervention* (pp. 75–92). New York: Springer-Verlag.
- Ialongo, N., Edelsohn, G., Werthamer-Larsson, L., Crockett, L., & Kellam, S. G. (1995). The significance of self-reported anxious symptoms in first grade children: Prediction to anxious symptoms and adaptive functioning in fifth grade. *Journal of Child Psychology and Psychiatry*, 36, 427–437.
- Inderbitzen, H. M., Walters, K. S., & Bukowski, A. L. (1997). The role of social anxiety in adolescent peer relations: Differences among socio-metric status groups and rejected subgroups. *Journal of Clinical Child Psychology*, 26(4), 338–348.
- Ingersoll, B., Schreibman, L., & Stahmer, A. (2001). Brief report: Differential treatment outcomes for children with autistic spectrum disorder based on level of peer social avoidance. *Journal of Autism and Developmental Disorders*, 31, 343–349.
- Janes, C. L., Hesselbrock, V. M., & Schechtman, J. (1980). Clinic children with poor peer relations: Who refers them and why? *Child Psychiatry and Human Development*, 11, 113–125.
- Joiner, T., Coyne, J., & Blalock, J. (1999). On the interpersonal nature of depression: Overview and synthesis. In J. C. Coyne & T. Joiner (Eds.), *The interactional nature of depression: Advances in interpersonal approaches* (pp. 3–19). Washington, DC: American Psychological Association.
- Joyner, K., & Udry, J. R. (2000). You don't bring me anything but down: Adolescent romance and depression. *Journal of Health and Social Behavior*, 41, 369–391.
- Juvonen, J., & Graham, S. (Eds.). (2001). *Peer harassment in school: The plight of the vulnerable and victimized*. New York: Guilford Press.
- Kanner, A. D., Feldman, S. S., Weinburg, D. A., & Ford, M. E. (1987). Uplifts, hassles, and adaptational outcomes in early adolescents. *Journal of Early Adolescence*, 7, 371–394.
- Keenan, K., Loeber, R., Zhang, Q., Stouthamer-Loeber, M., & Van Kammen, W. B. (1995). The influence of deviant peers on the development of boys' disruptive and delinquent behavior: A temporal analysis. *Development and Psychopathology*, 7, 715–726.
- Keenan, K., Shaw, D., & Delliquadri, E. (1998). Evidence for the continuity of early problem behaviors: Application of a developmental model. *Journal of Abnormal Child Psychology*, 26, 441–452.
- Kelly, G. A. (1955). *The psychology of personal constructs*. New York: McGraw-Hill.
- Kerns, K. A., Cole, A. K., & Andrews, P. B. (1998). Attachment security, parent peer management practices, and peer relationships in preschoolers. *Merrill-Palmer Quarterly*, 44, 504–522.
- Kerns, K. A., Contreras, J. M., & Neal-Barnett, A. M. (Eds.). (2000). *Family and peers: Linking two social worlds*. London: Praeger.
- Kerns, K. A., Klepac, L., & Cole, A. (1996). Peer relationships and preadolescents' perceptions of security in the child-mother relationship. *Developmental Psychology*, 32, 457–456.
- Khatri, P., & Kupersmidt, J. B. (2003). Aggression, peer victimization, and social relationships among Indian youth. *International Journal of Behavioral Development*, 27, 87–95.
- Kiesner, J., Poulin, F., & Nicotra, E. (2003). Peer relations across contexts: Individual network homophily and network inclusion in and after school. *Child Development*, 74, 1328–1343.
- Killen, M. (1991). Social and moral development in early childhood. In W. Kurtines & J. Gewirtz (Eds.), *Handbook of moral behavior and development* (pp. 115–138). Hillsdale, NJ: Erlbaum.
- Killen, M., Crystal, D. S., & Watanabe, H. (2002). Japanese and American children's evaluations of peer exclusion, tolerance of differences, and prescriptions for conformity. *Child Development*, 73, 1788–1802.
- Killen, M., Lee-Kim, J., McGlothlin, H., & Stangor, C. (2002). How children and adolescents evaluate gender and racial exclusion.

486 Peer Relationships, Child Development, and Adjustment: A Developmental Psychopathology Perspective

- Monographs of the Society for Research in Child Development*, 67(4, Serial No. 271).
- Killen, M., & Stangor, C. (2001). Children's reasoning about social inclusion and exclusion in peer group contexts. *Child Development*, 72, 174–186.
- Killen, M., Stangor, C., Horn, S., & Sechrist, G. B. (2004). Social reasoning about racial exclusion in intimate and nonintimate relationships. *Youth and Society*, 35, 293–322.
- Kindermann, T. A., McCollam, T. L., & Gibson, Jr., E. (1995). Peer networks and students' classroom engagement during childhood and adolescence. In K. Wentzel & J. Juvonen (Eds.), *Social motivation: Understanding children's school adjustment* (pp. 25–49). New York: Cambridge University Press.
- King, A., Wold, B., Tudor-Smith, C., & Harel, Y. (1996). The health of youth: A cross-national survey. *WHO Regional Publications* (European Series, No. 69).
- Kinney, D. A. (1999). From "headbangers" to "hippies": Delineating adolescents' active attempts to form an alternative peer culture. In J. A. McLellan & M. J. V. Pugh (Eds.), *The role of peer groups in adolescent social identity: Exploring the importance of stability and change* (pp. 21–36). San Francisco: Jossey-Bass.
- Kirshner, B., O'Donoghue, J. L., & McLaughlin, M. (2002). *Youth participation: Improving institutions and communities*. San Francisco: Jossey-Bass.
- Kistner, J., Balthazor, M., Risi, S., & Burton, C. (1999). Predicting dysphoria from actual and perceived acceptance in childhood. *Journal of Clinical Child Psychology*, 28, 94–104.
- Kochenderfer, B. J., & Ladd, G. W. (1996). Peer victimization: Cause or consequence of school maladjustment? *Child Development*, 67, 1305–1317.
- Kochenderfer, B. J., & Ladd, G. W. (1997). Victimized children's responses to peers' aggression: Behaviors associated with reduced versus continued victimization. *Development and Psychopathology*, 9, 59–73.
- Kochenderfer-Ladd, B. (2003). Identification of aggressive and asocial victims and the stability of their peer victimization. *Merrill-Palmer Quarterly*, 49(4), 401–425.
- Kochenderfer-Ladd B., & Wardrop, J. L. (2001). Chronicity and instability of children's peer victimization experiences as predictors of loneliness and social satisfaction trajectories. *Child Development*, 72, 134–151.
- Kohlberg, L. (1969). Stage and sequence: The cognitive developmental approach to socialization. In D. A. Goslin (Ed.), *Handbook of socialization theory and research*. Chicago: Rand McNally.
- Konner, M. (1975). Relations among infants and juveniles in comparative perspective. In M. Lewis & L. A. Rosenblum (Eds.), *Friendships and peer relations* (pp. 99–130). New York: Wiley.
- Kovacs, M. (1981). Rating scales to assess depression in school-aged children. *International Journal of Child and Adolescent Psychiatry*, 46, 305–315.
- Kovacs, D. M., Parker, J. G., & Hoffman, L. W. (1996). Behavioral, affective, and social correlates of involvement in cross-sex friendship in elementary school. *Child Development*, 67, 2269–2286.
- Kraatz-Keiley, M., Bates, J. E., Dodge, K. A., & Pettit, G. S. (2000). A cross-domain growth analysis: Externalizing and internalizing behaviors during 8 years of childhood. *Journal of Abnormal Child Psychology*, 28, 161–179.
- Kramer, L., & Gottman, J. M. (1992). Becoming a sibling: "With a little help from my friends." *Developmental Psychology*, 28, 685–699.
- Krasnor, L., & Rubin, K. H. (1983). Preschool social problem solving: Attempts and outcomes in naturalistic interaction. *Child Development*, 54, 1545–1558.
- Krawczyk, R. (1985, April). *What toddlers talk about when they talk about friends*. Paper presented at the biennial meetings of the Society for Research in Child Development. Toronto.
- Kruger, A. C., & Tomasello, M. (1986). Transactive discussions with peers and adults. *Developmental Psychology*, 22, 681–685.
- Kupersmidt, J. B., & Coie, J. D. (1990). Preadolescent peer status, aggression, and school adjustment as predictors of externalizing problems in adolescence. *Child Development*, 61, 1350–1362.
- Kupersmidt, J. B., DeRosier, M. E., & Patterson, C. P. (1995). Similarity as the basis for children's friendships: The roles of sociometric status, aggressive and withdrawn behavior, academic achievement, and demographic characteristics. *Journal of Social and Personal Relationships*, 12, 439–452.
- Kuttler, A. F., Parker, J. G., & LaGreca, A. M. (2002). Developmental and gender differences in preadolescents' judgments of the veracity of gossip. *Merrill-Palmer Quarterly*, 48, 105–132.
- Ladd, G. W., & Burgess, K. B. (1999). Charting the relationship trajectories of aggressive, withdrawn, and aggressive/withdrawn children during early grade school. *Child Development*, 70, 910–929.
- Ladd, G. W., & Burgess, K. B. (2001). Do relational risks and protective factors moderate the linkages between childhood aggression and early psychological and school adjustment? *Child Development*, 72, 1579–1601.
- Ladd, G. W., Kochenderfer, B. J., & Coleman, C. C. (1996). Friendship quality as a predictor of young children's early school adjustment. *Child Development*, 67, 1103–1118.
- Ladd, G. W., Kochenderfer, B. J., & Coleman, C. C. (1997). Classroom peer acceptance, friendship, and victimization: Distinct relational systems that contribute uniquely to children's school adjustment? *Child Development*, 68, 1181–1197.
- Ladd, G. W., & Oden, S. (1979). The relationship between peer acceptance and children's ideas about helpfulness. *Child Development*, 50, 402–408.
- Ladd, G. W., & Pettit, G. S. (2002). Parenting and the development of children's peer relationships. In M. H. Bornstein (Ed.), *Handbook of parenting: Vol. 5. Practical issues in parenting* (2nd ed., pp. 269–309). Mahwah, NJ: Erlbaum.
- Ladd, G. W., & Price, J. M. (1986). Promoting children's cognitive and social competence: The relation between parents' perceptions of task difficulty and children's perceived and actual competence. *Child Development*, 57, 446–460.
- Ladd, G. W., & Troop-Gordon, W. (2003). The role of chronic peer difficulties in the development of children's psychological adjustment problems. *Child Development*, 74(5), 1344–1367.
- LaFontana, K. M., & Cillessen, A. H. N. (1999). The nature of children's stereotypes of popularity. *Social Development*, 7, 301–320.
- LaFontana, K. M., & Cillessen, A. H. N. (2002). Children's perceptions of popular and unpopular peers: A multimethod assessment. *Developmental Psychology*, 38, 635–647.
- LaFreniere, P., & Sroufe, L. A. (1985). Profiles of peer competence in the preschool: Interrelations between measures, influence of social ecology, and relations to attachment history. *Developmental Psychology*, 21, 56–69.
- La Greca, A. M., Dandes, S. K., Wick, P., Shaw, K., & Stone, W. L. (1988). Development of the Social Anxiety Scale for Children: Reliability and concurrent validity. *Journal of Clinical Child Psychology*, 17, 84–91.
- La Greca, A. M., & Lopez, N. (1998). Social anxiety among adolescents: Linkages with peer relations and friendships. *Journal of Abnormal Child Psychology*, 26, 83–94.

- LaGreca, A. M., & Stone, W. (1993). Social Anxiety Scale for Children-Revised: Factor structure and concurrent validity. *Journal of Clinical Child Psychology*, 22, 17–27.
- Landau, S., & Moore, L. A. (1991). Social skills deficits in children with attention deficit hyperactive disorder. *School Psychology Review*, 20, 235–251.
- Lansford, J. E., & Parker, J. G. (1999). Children's interactions in triads: Behavioral profiles and effects of gender and patterns of friendships among members. *Developmental Psychology*, 35, 80–93.
- Larson, R. W., & Richards, M. (1991). Daily companionship in late childhood and early adolescence: Changing developmental contexts. *Child Development*, 62, 284–300.
- Larson, R. W., & Richards, M. (1998). Waiting for the weekend: Friday and Saturday nights as the emotional climax of the week. In A. C. Crouter & R. Larson (Eds.), *Temporal rhythms in adolescence: Clocks, calendars, and the coordination of daily life* (pp. 37–52). San Francisco: Jossey-Bass.
- Last, C. G., Perrin, S., Hersen, M., & Kazdin, A. E. (1992). *DSM-III-R* anxiety disorders in children: Sociodemographic and clinical characteristics. *Journal of the American Academy of Child and Adolescent Psychiatry*, 31, 928–934.
- Laursen, B. (1993). Conflict management among close peers. In B. Laursen (Ed.), *Close Friendships in Adolescence* (pp. 39–54). San Francisco: Jossey-Bass.
- Laursen, B., Finkelstein, B. D., & Betts, N. T. (2001). A developmental meta-analysis of peer conflict resolution. *Developmental Review*, 21, 423–449.
- Laursen, B., & Koplas, A. L. (1995). What's important about important conflicts? Adolescents' perceptions of daily disagreements. *Merrill-Palmer Quarterly*, 41, 536–553.
- Laursen, B., & Williams, V. A. (1997). Perceptions of interdependence and closeness in family and peer relationships among adolescents with and without romantic partners. In S. Shulman & W. A. Collins (Eds.), *Romantic relationships in adolescence: Developmental perspectives—New Directions for Child Development* (No. 78, pp. 3–20). San Francisco: Jossey-Bass.
- Leaper, C. (1994). Exploring the consequences of gender segregation on social relationships. In C. Leaper (Ed.), *Childhood gender segregation: Causes and consequences* (pp. 67–86). San Francisco: Jossey-Bass.
- Leary, M. (2000). Affect, cognition, and the social emotions. In J. P. Forgas (Ed.), *Feeling and thinking: The role of affect in social cognition—Studies in emotion and social interaction* (2nd series, pp. 331–356). New York: Cambridge University Press.
- Lease, A. M., Kennedy, C. A., & Axelrod, J. L. (2002). Children's social constructions of popularity. *Social Development*, 11, 87–109.
- Lease, A. M., Musgrove, K. T., & Axelrod, J. L. (2002). Dimensions of social status in preadolescent peer groups: Likability, perceived popularity, and social dominance. *Social Development*, 11, 508–533.
- Lemerise, E. A., & Arsenio, W. F. (2000). An integrated model of emotion processes and cognition in social information processing. *Child Development*, 71, 107–118.
- Levendosky, A. A., Okun, A., & Parker, J. G. (1995). Depression and maltreatment as predictors of social competence and social problem-solving skills in school-age children. *Child Abuse and Neglect*, 19(10), 1183–1195.
- Liben, L. S., & Bigler, R. S. (2002). The developmental course of gender differentiation: Conceptualizing, measuring, and evaluating constructs and pathways. *Monographs of the Society for Research in Child Development*, 67(2, Serial No. 269).
- Lieberman, M., Doyle, A. B., & Markiewicz, D. (1999). Developmental patterns in security of attachment to mother and father in late childhood and early adolescence: Associations with peer relations. *Child Development*, 70, 202–213.
- Lord, C., & Magill-Evans, J. (1995). Peer interactions of autistic children and adolescents. *Development and Psychopathology*, 7(4), 611–626.
- Lord, C., Rutter, M., & LeCouteur, A. (1994). Autism Diagnostic Interview-Revised: A revised version of a diagnostic interview for caregivers of individuals with possible pervasive developmental disorders. *Journal of Autism and Developmental Disorders*, 24, 659–685.
- Maccoby, E. E. (1998). *The two sexes: Growing up apart, coming together*. New York: Cambridge University Press.
- Mahler, M. (1952). On child psychosis and Schizophrenia: Autistic and symbiotic infantile psychoses. *Psychoanalytic Study of the Child*, 7, 286–305.
- Mahoney, J. L., Larson, R. W., & Eccles, J. S. (2005). *Organized activities as contexts of development: Extracurricular activities, after-school and community programs*. Mahwah, NJ: Erlbaum.
- Martin, C. L., & Fabes, R. A. (2001). The stability and consequences of young children's same-sex peer interactions. *Developmental Psychology*, 37, 431–446.
- Masters, J. C., & Furman, W. (1981). Popularity, individual friendship selection, and specific peer interaction among children. *Developmental Psychology*, 17, 344–350.
- Matsumoto, D. (1997). *Culture and modern life*. Pacific Grove, CA: Brooks/Cole.
- McCord, J. (1995). *Coercion and punishment in long-term perspectives*. New York: Cambridge University Press.
- McHale, S. M., Dariotis, J. K., & Kauh, T. J. (2003). Social development and social relationships in middle childhood. In A. Easterbrooks & R. M. Lerner (Eds.), *Handbook of psychology: Vol. 6. Developmental psychology* (pp. 241–265). New York: Wiley.
- McLellan, J. A., & Pugh, M. J. V. (1999). *The role of peer groups in adolescent social identity: Exploring the importance of stability and change*. San Francisco: Jossey-Bass.
- McNeille-Choque, M. K., Hart, C. H., Robinson, C. C., Nelson, L. J., & Olsen, S. F. (1996). Overt and relational aggression on the playground: Correspondence among different informants. *Journal of Research in Childhood Education*, 11, 47–67.
- Mead, G. H. (1934). *Mind, self, and society*. Chicago: University of Chicago Press.
- Milardo, R. M., & Helms-Erikson, H. (2000). Network overlap and third-party influence in close relationships. In C. Hendrick & S. Hendrick (Eds.), *Close relationships: A sourcebook* (pp. 33–45). Thousand Oaks, CA: Sage.
- Miller, L. S., Klein, R. G., Piacentini, J., Abikoff, H., Shah, M. R., Samoilov, A., et al. (1995). The New York Teacher Rating Scale for disruptive and antisocial behavior. *Journal of the American Academy of Child and Adolescent Psychiatry*, 34, 359–370.
- Miller-Johnson, S., Coie, J. D., Maumary-Gremaud, A., Bierman, K., & Conduct Problems Prevention Research Group. (2002). Peer rejection and aggression and early starter models of conduct disorder. *Journal of Abnormal Child Psychology*, 30, 217–230.
- Miller-Johnson, S., Coie, J., Maumary-Gremaud, A., Lochman, J., & Terry, R. (1999). Relationship between childhood peer rejection and aggression and adolescent delinquency severity and type among African-American youth. *Journal of Emotional and Behavioral Disorders*, 7, 137–146.
- Moffitt, T. E. (1993). Adolescence-limited and life-course-persistent antisocial behavior: A developmental taxonomy. *Psychological Review*, 100, 674–701.
- Moller, L., Hymel, S., & Rubin, K. H. (1992). Sex typing in play and popularity in middle childhood. *Sex Roles*, 26, 331–353.

488 Peer Relationships, Child Development, and Adjustment: A Developmental Psychopathology Perspective

- Montemayor, R., & Van Komen, R. (1985). The development of sex differences in friendship patterns and peer group structure during adolescence. *Journal of Early Adolescence*, 5, 285–294.
- Moreno, J. L. (1934). *Who Shall Survive? A new approach to the problem of human interrelations*. Washington, DC: Nervous and Mental Disease.
- Morris, T. L. (2001). Social phobia. In M. W. Vasey & M. R. Dadds (Eds.), *The developmental psychopathology of anxiety* (pp. 435–458). New York: Oxford University Press.
- Morrissey, K. M., & Werner-Wilson, R. J. (2005). The relationship between out-of-school activities and positive youth development: An investigation of the influences of communities and family. *Adolescence*, 40, 67–85.
- Mueller, E., & Brenner, J. (1977). The origins of social skills and interaction among playgroup toddlers. *Child Development*, 48, 854–861.
- Mueller, E., & Silverman, N. (1989). Peer relations in maltreated children. In D. Cicchetti & V. Carlson (Eds.), *Child maltreatment: Theory and research on the causes and consequences of child abuse and neglect* (pp. 529–578). New York: Cambridge University Press.
- Murnen, S. K., & Smolak, L. (2000). The experience of sexual harassment among grade-school students: Early socialization of female subordination? *Sex Roles*, 43, 1–17.
- Murphy, L. B. (1937). *Social behavior and child psychology: An exploratory study of some roots of sympathy*. New York: Columbia University Press.
- Nagin, D. S., & Tremblay, R. E. (1999). Trajectories of boys' physical aggression, opposition, and hyperactivity on the path to physically violent and nonviolent juvenile delinquency. *Child Development*, 70, 1181–1196.
- Nangle, D. W., & Erdley, C. A. (Eds.). (2001). *The role of friendship in psychological adjustment*. San Francisco: Jossey-Bass.
- Nangle, D. W., Erdley, C. A., Newman, J. E., Mason, C. A., & Carpenter, E. (2003). Popularity, friendship quantity, and friendship quality: Interactive influences on children's loneliness and depression. *Journal of Clinical Child and Adolescent Psychology*, 32(4), 546–555.
- Nansel, T. R., Overbeck, M., Pilla, R. S., Ruan, W. J., Simon-Morton, B., & Scheidt, P. (2001). Bullying behaviors among U.S. youth: Prevalence and association with psychosocial adjustment. *Journal of the American Medical Association*, 285(16), 2094–2100.
- National Institute of Child Health and Human Development (NICHD) Early Child Care Research Network. (2001). Child care and children's peer interaction at 24 and 36 months: The NICHD Study of Early Child Care. *Child Development*, 72, 1478–1500.
- Nelson, L. J., Rubin, K. H., & Fox, N. A. (in press). Social and nonsocial behaviors and peer acceptance: A longitudinal model of the development of self-perceptions in children ages 4 to 7 years. *Early Education and Development*.
- Newcomb, A., & Bagwell, C. (1995). Children's friendship relations: A meta-analytic review. *Psychological Bulletin*, 117, 306–347.
- Newcomb, A. F., & Bukowski, W. M. (1984). A longitudinal study of the utility of social preference and social impact sociometric classification schemes. *Child Development*, 55, 1434–1447.
- Newcomb, A. F., Bukowski, W. M., & Bagwell, C. L. (1999). Knowing the sounds: Friendship as a developmental context. In W. A. Collins & B. Laursen (Eds.), *Minnesota Symposia on Child Psychology: Vol. 30. Relationships as developmental contexts* (pp. 63–84). Mahwah, NJ: Erlbaum.
- Newcomb, A. F., Bukowski, W. M., & Pattee, L. (1993). Children's peer relations: A meta-analytic review of popular, rejected, neglected, controversial, and average sociometric status. *Psychological Bulletin*, 113, 99–128.
- Newman, B. M., & Newman, P. R. (2001). Group identity and alienation: Giving the we its due. *Journal of Youth and Adolescence*, 30, 515–538.
- O'Brien, S. F., & Bierman, K. L. (1987). Conceptions and perceived influence of peer groups: Interviews with preadolescents and adolescents. *Child Development*, 59, 1360–1365.
- Offer, D., Ostrov, E., & Howard, K. I. (1981). The mental health professional's concept of the normal adolescent. *Archives of General Psychiatry*, 38, 149–152.
- Oliver, K. T., & Thelen, M. H. (1996). Children's perceptions of peer influence on eating outcomes. *Behavior Therapy*, 27, 25–39.
- Ollendick, T. H., & Schmidt, C. R. (1987). Social learning constructs in the prediction of peer interaction. *Journal of Clinical Child Psychology*, 16, 80–87.
- Ollendick, T. H., Weist, M. D., Borden, M. G., & Greene, R. W. (1992). Sociometric status and academic, behavioral, and psychological adjustment: A five-year longitudinal study. *Journal of Consulting and Clinical Psychology*, 60, 80–87.
- Olweus, D. (1978). *Aggression in the schools: Bullies and whipping boys*. Oxford, England: Hemisphere.
- Olweus, D. (1993). Victimization by peers: Antecedents and long-term outcomes. In K. H. Rubin & J. B. Asendorpf (Eds.), *Social withdrawal, inhibition and shyness in childhood* (pp. 315–341). Hillsdale, NJ: Erlbaum.
- Orobio de Castro, B., Bosch, J. D., Veerman, J. W., & Koops, W. (2003). The effects of emotion regulation, attribution, and delay prompts on aggressive boys' social problem solving. *Cognitive Therapy and Research*, 27, 153–166.
- Orobio de Castro, B., Veerman, J. W., Koops, W., Bosch, J. D., & Monshouwer, H. J. (2002). Hostile attribution of intent and aggressive behavior: A meta-analysis. *Child Development*, 73(3), 916–934.
- Orsmond, G. I., Krauss, M. W., & Seltzer, M. M. (2004). Peer relationships and social and recreational activities among adolescents and adults with Autism. *Journal of Autism and Developmental Disorders*, 34, 245–256.
- Pakaslahti, L., Karjalainen, A., & Keltikangas-Jaervinen, L. (2002). Relationships between adolescent prosocial problem-solving strategies, prosocial behaviour, and social acceptance. *International Journal of Behavioral Development*, 26(2), 137–144.
- Parke, R. D., & O'Neil, R. (1999). Social relationships across contexts: Family-peer linkages. In W. A. Collins & B. Laursen (Eds.), *Minnesota Symposia on Child Psychology* (Vol. 30, pp. 211–239). Hillsdale, NJ: Erlbaum.
- Parker, J. G., & Asher, S. R. (1987). Peer relations and later personal adjustment: Are low-accepted children at risk? *Psychological Bulletin*, 102, 357–389.
- Parker, J. G., & Asher, S. R. (1993). Friendship and friendship quality in middle childhood: Links with peer group acceptance and feelings of loneliness and social dissatisfaction. *Developmental Psychology*, 29, 611–621.
- Parker, J. G., & Gamm, B. K. (2003). Describing the dark side of preadolescents' peer experiences: Four questions (and data) on preadolescents' enemies. In E. V. E. Hodges & N. A. Card (Eds.), *Enemies and the darker side of peer relations* (pp. 55–72). San Francisco: Jossey-Bass.
- Parker, J. G., & Gottman, J. M. (1989). Social and emotional development in a relational context: Friendship interaction from early childhood to adolescence. In T. J. Berndt & G. W. Ladd (Eds.), *Peer relations in child development* (pp. 95–131). New York: Wiley.
- Parker, J. G., & Herrera, C. (1996). Interpersonal processes in friendships: A comparison of maltreated and nonmaltreated children's experiences. *Developmental Psychology*, 96, 1025–1038.
- Parker, J. G., Low, C., Walker, A. R., & Gamm, B. A. (2005). Children's friendship jealousy: Assessment of individual differences and links

- to sex, self-esteem, aggression, and social adjustment. *Developmental Psychology*, 41, 235–250.
- Parker, J. G., Rubin, K. H., Price, J., & DeRosier, M. E. (1995). Peer relationships, child development, and adjustment: A developmental psychopathology perspective. In D. Cicchetti & D. Cohen (Eds.), *Developmental Psychopathology: Vol. 2. Risk, disorder, and adaptation* (pp. 96–161). New York: Wiley.
- Parker, J. G., Saxon, J., Asher, S. R., & Kovacs, D. (1999). Dimensions of children's friendship adjustment: Implications for studying loneliness. In K. J. Rotenberg & S. Hymel (Eds.), *Loneliness in childhood and adolescence*. New York: Cambridge University Press.
- Parker, J. G., & Seal, J. (1996). Forming, losing, renewing, and replacing friendships: Applying temporal parameters to the assessment of children's friendship experiences. *Child Development*, 67, 2248–2268.
- Parker, J. G., Teasley, S. D., Meissner, R. M., & McClellan, T. L. (1994, June). *The social construction of preadolescents' gossip: Content, gender, and interpersonal constraints*. Paper presented at the 24th Annual Symposium of the Jean Piaget Society, Chicago.
- Parkhurst, J. T., & Asher, S. R. (1992). Peer rejection in middle school: Subgroup differences in behavior, loneliness, and interpersonal concerns. *Developmental Psychology*, 28, 231–241.
- Parkhurst, J. T., & Hopmeyer, A. (1998). Sociometric popularity and peer-perceived popularity: Two distinct dimensions of peer status. *Journal of Early Adolescence*, 18, 125–144.
- Parten, M. B. (1932). Social participation among preschool children. *Journal of Abnormal and Social Psychology*, 27, 243–269.
- Pellegrini, A. D. (2002). Rough-and-tumble play from childhood through adolescence: Development and possible functions. In P. K. Smith & C. H. Hart (Eds.), *Blackwell handbook of childhood social development* (pp. 438–453). Oxford, England: Blackwell.
- Pellegrini, A. D. (2003). Perceptions and functions of play and real fighting in early adolescence. *Child Development*, 74, 1522–1533.
- Pellegrini, A. D., & Smith, P. K. (1998). Physical activity play: Consensus and debate. *Child Development*, 69, 609–610.
- Peterson, L., Mullins, L. L., & Ridley-Johnson, R. (1985). Childhood depression: Peer reactions to depression and life stress. *Journal of Abnormal Child Psychology*, 13, 597–609.
- Peterson, A. C., Sarigiani, P. A., & Kennedy, R. E. (1991). Adolescent depression: Why more girls? *Journal of Youth and Adolescence*, 20, 247–271.
- Perry, D. G., Perry, L. C., & Rasmussen, P. (1986). Cognitive social learning mediators of aggression. *Child Development*, 57, 700–711.
- Phares, V., Steinberg, A. R., & Thompson, J. K. (2004). Gender differences in peer and parental influences: Body image disturbance, self-worth, and psychological functioning in preadolescent children. *Journal of Youth and Adolescence*, 33, 421–429.
- Piaget, J. (1932). *The moral judgment of the child*. Glencoe, IL: Free Press.
- Pierce, G. R., Lakey, B., Sarason, I., & Sarason, B. (1997). *Sourcebook of social support and personality*. New York: Plenum Press.
- Poulin, F., & Boivin, M. (2000). The role of proactive and reactive aggression in the formation and development of boys' friendships. *Developmental Psychology*, 36, 233–240.
- Poulin, F., Dishion, T. J., & Haas, E. (1999). The peer influence paradox: Friendship quality and deviancy training within male adolescent friendships. *Merrill-Palmer Quarterly*, 45, 42–61.
- Powlisha, K. K., Serbin, L. A., Doyle, A. B., & White, D. R. (1994). Gender, ethnic, and body type biases: The generality of prejudice in childhood. *Developmental Psychology*, 30, 526–536.
- Powlisha, K. K., Serbin, L. A., & Moller, L. C. (1993). The stability of individual differences in gender typing: Implications for understanding gender segregation. *Sex Roles*, 29, 723–737.
- Prager, K. J. (1995). *The psychology of intimacy*. New York: Guilford Press.
- Price, J. M., & Dodge, K. A. (1989). Peers' contribution to children's social maladjustment: Description and intervention. In T. J. Berndt & G. W. Ladd (Eds.), *Peer relations in child development* (pp. 341–370). New York: Wiley.
- Prinstein, M. J., Boergers, J., Spirito, A., Little, T. D., & Grapentine, W. L. (2000). Peer functioning, family dysfunction, and psychological symptoms in a risk factor model for adolescent inpatients' suicidal ideation severity. *Journal of Clinical Child Psychology*, 29, 392–405.
- Pugh, M. J. V., & Hart, D. (1999). Identity development and peer group participation. In J. A. McLellan & M. J. V. Pugh (Eds.), *The role of peer groups in adolescent social identity: Exploring the importance of stability and change* (pp. 55–70). San Francisco: Jossey-Bass.
- Putallaz, M. (1983). Predicting children's sociometric status from their behavior. *Child Development*, 54, 1417–1426.
- Quiggle, N. L., Garber, J., Panak, W. F., & Dodge, K. A. (1992). Social information processing in aggressive and depressed children. *Child Development*, 63, 1305–1320.
- Rabiner, D., & Coie, J. D. (1989). Effects of expectancy inductions on rejected children's acceptance by unfamiliar peers. *Developmental Psychology*, 25, 450–457.
- Rabiner, D., & Gordon, L. (1992). The coordination of conflicting social goals: Differences between rejected and nonrejected boys. *Child Development*, 63, 1344–1350.
- Radke-Yarrow, M., Zahn-Waxler, C., & Chapman, M. (1983). Children's prosocial dispositions and behavior. In P. H. Mussen (Ed.) & M. Hetherington (Series ed.), *Handbook of Child Psychology: Vol. 4. Socialization, personality, and social development* (pp. 469–545). New York: Wiley.
- Rapee, R. M., & Heimberg, R. G. (1997). A cognitive-behavioral model of anxiety in social phobia. *Behavior Research and Therapy*, 35, 741–756.
- Renshaw, P. D., & Brown, P. J. (1993). Loneliness in middle childhood: Concurrent and longitudinal predictors. *Child Development*, 64, 1271–1284.
- Reynolds, W. M. (1998). A model for the screening and identification of depressed children and adolescents in school settings. *Professional School Psychology*, 1, 117–129.
- Richards, M. H., Crowe, P. A., Larson, R., & Swarr, A. (1998). Developmental patterns and gender differences in the experience of peer companionship during adolescence. *Child Development*, 69, 154–163.
- Rizzo, T. A. (1989). *Friendship development among children in school*. Norwood, NJ: Ablex.
- Rodkin, P. C., Farmer, T. W., Pearl, R., & Van Acker, R. (2000). Heterogeneity of popular boys: Antisocial and prosocial configurations. *Developmental Psychology*, 36, 14–24.
- Rodkin, P. C., & Hodges, E. V. E. (2003). Bullies and victims in the peer ecology: Four questions for psychological and school professionals. *School Psychology Review*, 32, 384–401.
- Rodkin, P. C., Pearl, R., Farmer, T. W., & Van Acker, R. (2003). Enemies in the gendered societies of middle childhood: Prevalence, stability, associations with social status, and aggression. In E. V. E. Hodges & N. A. Card (Eds.), *Enemies and the darker side of peer relations* (pp. 73–88). San Francisco: Jossey-Bass.
- Roff, M. (1957). *Preservice personality problems and subsequent adjustments to military service: The prediction of psychoneurotic reactions*. U.S. Air Force School of Aviation (Medical Report No. 57–136).
- Roff, M. (1960). Relations between certain preservice factors and psychoneurosis during military duty. *Armed Forces Medical Journal*, 11, 152–160.
- Roff, M. (1961). Childhood social interactions and young adult bad conduct. *Journal of Abnormal Social Psychology*, 63, 333–337.
- Roff, M. (1963). Childhood social interactions and young adult psychosis. *Journal of Clinical Psychology*, 19, 152–157.

490 Peer Relationships, Child Development, and Adjustment: A Developmental Psychopathology Perspective

- Rogoff, B. (1997). Evaluating development in the process of participation: Theory, methods and practice building on each other. In E. Amsel & K. A. Renninger (Eds.), *Change and development: Issues in change, method, and application* (pp. 265–285). Mahwah, NJ: Erlbaum.
- Rogosch, F. A., Cicchetti, D., & Aber, J. L. (1995). The role of child maltreatment in early deviations in cognitive and affective processing abilities and later peer relationship problems. *Development and Psychopathology*, 7(4), 591–609.
- Rook, S. (1988). Toward a more differentiated view of loneliness. In D. F. Hale & S. Duck (Eds.), *Handbook of personal relationships: Theory, research, and interventions* (pp. 571–589). Oxford, England: Wiley.
- Rose, A. J. (2002). Co-rumination in the friendships of girls and boys. *Child Development*, 73, 1830–1843.
- Rose, A. J., & Asher, S. R. (2000). Children's friendships. In S. S. Hendrick & C. Hendrick (Eds.), *Close relationships: A sourcebook* (pp. 47–57). Thousand Oaks, CA: Sage.
- Rose, A. J., & Asher, S. R. (2004). Children's strategies and goals in response to help-giving and help-seeking tasks within a friendship. *Child Development*, 3, 749–763.
- Rosenblum, L. A., Coe, C. L., & Bromley, L. J. (1975). Peer relations in monkeys: The influence of social structure, gender, familiarity. In M. Lewis & L. A. Rosenblum (Eds.), *Friendships and peer relations* (pp. 67–98). New York: Wiley.
- Ross, H. S. (1982). The establishment of social games amongst toddlers. *Developmental Psychology*, 18, 509–518.
- Rotenberg, K., & Hymel, S. (1999). *Loneliness in childhood and adolescence*. New York: Cambridge University Press.
- Roth, M. A., & Parker, J. G. (2001). Affective and behavioral response to friends who neglect their friends for dating partners: Influence of gender, jealousy, and perspective. *Journal of Adolescence*, 24, 281–296.
- Roy, R., & Benenson, J. F. (2002). Sex and contextual effects on children's use of interference competition. *Developmental Psychology*, 38, 306–312.
- Rubin, K. H. (2002). *The friendship factor: Helping our children navigate their social world—And why it matters for their success and happiness*. New York: Viking Penguin.
- Rubin, K. H. (in press). On hand-holding, spit, and the “big tickets”: A commentary on research from a cultural perspective. In X. Chen, D. French, & B. Schneider (Eds.), *Peer relations in cultural context*. New York: Cambridge University Press.
- Rubin, K. H., Bukowski, W., & Parker, J. G. (1998). Peer interactions, relationships, and groups. In W. Damon (Series Ed.) & N. Eisenberg (Ed.), *Handbook of child psychology: Vol. 3. Social, emotional, and personality development* (5th ed., pp. 619–700). New York: Wiley.
- Rubin, K. H., & Burgess, K. B. (2001). Social withdrawal and anxiety. In M. W. Vasey & M. R. Dadds (Eds.), *The developmental psychopathology of anxiety* (pp. 407–434). New York: Oxford University Press.
- Rubin, K. H., & Burgess, K. B. (2002). Parents of aggressive and withdrawn children. In M. Bornstein (Ed.), *Handbook of parenting* (2nd ed., Vol. 1, 383–418). Hillsdale, NJ: Erlbaum.
- Rubin, K. H., Burgess, K. B., & Coplan, R. J. (2002). Social withdrawal and shyness. In C. H. Hart & P. K. Smith (Eds.), *Blackwell handbook of childhood social development* (pp. 330–352). Malden, MA: Blackwell.
- Rubin, K. H., Burgess, K. B., & Hastings, P. D. (2002). Stability and social-behavioral consequences of toddlers' inhibited temperament and parenting. *Child Development*, 73, 483–495.
- Rubin, K. H., Burgess, K. B., Kennedy, A. E., & Stewart, S. (2003). Social withdrawal in childhood. In E. Mash & R. Barkley (Eds.), *Child psychopathology* (2nd ed., pp. 372–406). New York: Guilford Press.
- Rubin, K. H., Cheah, C. S. L., & Fox, N. A. (2001). Emotion regulation, parenting, and the display of social reticence in preschoolers. *Early Education and Development*, 12, 97–115.
- Rubin, K. H., Chen, X., & Hymel, S. (1993). Socioemotional characteristics of withdrawn and aggressive children. *Merrill-Palmer Quarterly*, 39, 518–534.
- Rubin, K. H., Chen, X., McDougall, P., Bowker, A., & McKinnon, J. (1995). The Waterloo Longitudinal Project: Predicting internalizing and externalizing problems in adolescence. *Development and Psychopathology*, 7, 751–764.
- Rubin, K. H., & Daniels-Beirness, T. (1983). Concurrent and predictive correlates of sociometric status in kindergarten and grade one children. *Merrill-Palmer Quarterly*, 29, 337–351.
- Rubin, K. H., Dwyer, K. M., Booth, C. L., Kim, A. H., Burgess, K. B., & Rose-Krasnor, L. (2004). Attachment, friendship, and psychosocial functioning in early adolescence. *Journal of Early Adolescence*, 24, 326–356.
- Rubin, K. H., Fein, G., & Vandenberg, B. (1983). Play. In P. H. Mussen (Series Ed.) & E. M. Hetherington (Vol. Ed.), *Handbook of child psychology: Vol. 4. Socialization, personality and social development* (pp. 693–774). New York: Wiley.
- Rubin, K. H., & Krasnor, L. R. (1983). Age and gender differences in the development of a representative social problem solving skill. *Journal of Applied Developmental Psychology*, 4, 463–475.
- Rubin, K. H., & Krasnor, L. R. (1986). Social-cognitive and social behavioral perspectives on problem solving. In M. Perlmutter (Ed.), *Minnesota Symposia on Child Psychology: Vol. 18. Cognitive perspectives on children's social and behavioral development* (pp. 1–68). Hillsdale, NJ: Erlbaum.
- Rubin, K. H., & Rose-Krasnor, L. (1992). Interpersonal problem solving. In V. B. Van Hasselt & M. Hersen (Eds.), *Handbook of social development* (pp. 283–323). New York: Plenum Press.
- Rubin, K. H., Wojslawowicz, J. C., Burgess, K. B., Booth, C., & Rose-Krasnor, L. (2004). *The best friendships of shy/withdrawn children*. Unpublished manuscript under review, University of Maryland.
- Rysman, A. (1977). How the “gossip” became a woman. *Journal of Communications*, 27, 176–180.
- Saarni, C. (1998). Issues of cultural meaningfulness in emotional development. *Developmental Psychology*, 34, 647–652.
- Saarni, C. (1999). *The development of emotional competence*. New York: Guilford Press.
- Sabongui, A. G., Bukowski, W. M., & Newcomb, A. F. (1998). The peer ecology of popularity: The network embeddedness of a child's friend predicts the child's subsequent popularity. In W. M. Bukowski & A. H. Cillessen (Eds.), *Sociometry Then and now: Building on six decades of measuring children's experiences with the peer group* (pp. 83–92). San Francisco: Jossey-Bass.
- Salmivalli, C. (2001). Group view on victimization: Empirical findings and their implications. In J. Juvonen & S. Graham (Eds.), *Peer harassment in school: The plight of the vulnerable and victimized* (pp. 398–419). New York: Guilford Press.
- Salmivalli, C., Huttunen, A., & Lagerspetz, K. (1997). Peer networks and bullying in schools. *Scandinavian Journal of Psychology*, 38, 305–312.
- Salmivalli, C., & Voeten, M. (2004). Connections between attitudes, group norms, and behaviour in bullying situations. *International Journal of Behavioral Development*, 28, 246–258.
- Sameroff, A. J. (1995). General systems theories and developmental psychopathology. In D. Cicchetti & D. Cohen (Eds.), *Developmental Psychopathology: Vol. 1. Theory and methods* (pp. 659–695). New York: Wiley.
- Sameroff, A. J. (1975). Early influences on development: Fact or fantasy. *Merrill-Palmer Quarterly*, 21, 267–294.
- Sameroff, A. J. (1987). The social context of development. In N. Eisenberg (Ed.), *Contemporary topics in developmental psychology* (pp. 273–291). New York: Wiley.

- Sameroff, A. J., & MacKenzie, M. J. (2003). Research strategies for capturing transactional models of development: The limits of the possible. *Development and Psychopathology*, 15, 613–640.
- Sanderson, J. A., & Siegal, M. (1995). Loneliness and stable friendship in rejected and nonrejected preschoolers. *Journal of Applied Developmental Psychology*, 16, 555–567.
- Sandler, E. N., Miller, P., Short, J., & Wolchik, S. A. (1989). Social support as a protective factor for children in stress. In D. Belle (Ed.), *Children's social networks and social supports* (pp. 207–307). New York: Wiley.
- Sandstrom, M. J., Cillessen, A. H. N., & Eisenhower, A. (2003). Children's appraisal of peer rejection experiences: Impact on social and emotional adjustment. *Social Development*, 12, 530–550.
- Sandstrom, M. J., & Coie, J. D. (1999). A developmental perspective on peer rejection: Mechanisms of stability and change. *Child Development*, 70, 955–966.
- Savin-Williams, R. C. (1979). Dominance hierarchies in groups of early adolescents. *Child Development*, 50, 923–935.
- Sawyer, R. K. (1997). *Pretend play as improvisation: Conversation in the preschool classroom*. Mahwah, NJ: Erlbaum.
- Schindler, P. J., Moely, B. E., & Frank, A. L. (1987). Time in day care and social participation of young children. *Developmental Psychology*, 23, 255–261.
- Schlaefli, A., Rest, J. R., & Thoma, S. J. (1985). Does moral education improve moral judgment? A meta-analysis of intervention studies using the Defining Issues Test. *Review of Educational Research*, 55, 319–352.
- Schneider, B. H. (1999). A multimethod exploration of the friendships of children considered socially withdrawn by their school peers. *Journal of Abnormal Child Psychology*, 27, 115–123.
- Schneider, B. H. (2000). *Friends and enemies: Peer relations in childhood*. London: Arnold.
- Schneider, B. H., Atkinson, L., & Tardif, C. (2001). Child-parent attachment and children's peer relations: A quantitative review. *Developmental Psychology*, 37(1), 86–100.
- Schwartz, D., Dodge, K. A., Pettit, G. S., & Bates, J. E. (2000). Friendship as a moderating factor in the pathway between early harsh home environment and later victimization in the peer group. *Developmental Psychology*, 36(5), 646–662.
- Seiffge-Krenke, I. (2003). Testing theories of romantic development from adolescence to young adulthood: Evidence of a developmental sequence. *International Journal of Behavioral Development*, 27, 519–531.
- Selman, R. L. (1980). *The growth of interpersonal understanding: Developmental and clinical analyses*. New York: Academic Press.
- Selman, R. L., & Schultz, L. H. (1990). *Making a friend in youth: Developmental theory and pair therapy*. Chicago: University of Chicago Press.
- Shantz, C. U., & Hartup, W. W. (1992). *Conflict in child and adolescent development*. New York: Cambridge University Press.
- Sharabany, R., Gershoni, R., & Hofman, J. (1981). Girlfriend, boyfriend: Age and sex differences in intimate friendship. *Developmental Psychology*, 17, 800–808.
- Shrum, W., & Cheek, N. H. (1987). Social structure during the school years: Onset of the degrouping process. *American Sociological Review*, 52, 218–223.
- Shulman, S., Levy-Shiff, R., Kedem, P., & Alon, E. (1997). Intimate relationships among adolescent romantic partners and same-sex friends: Individual and systemic perspectives. In S. Shulman & W. A. Collins (Eds.), *Romantic relationships in adolescence: Developmental perspectives* (pp. 37–52). San Francisco: Jossey-Bass.
- Silverman, W. K., & Nelles, W. B. (1988). The Anxiety Disorders Interview Schedule for Children. *Journal of the American Academy of Child and Adolescent Psychiatry*, 27(6), 772–778.
- Simons, K. J., Paternite, C. E., & Shore, C. (2001). Patterns of parent/adolescent attachment and aggression in young adolescents. *Journal of Early Adolescence*, 21, 182–203.
- Simpkins, S. D., & Parke, R. D. (2002). Do friends and nonfriends behave differently? A social relations analysis of children's behavior. *Merrill-Palmer Quarterly*, 48, 263–283.
- Singleton, L. C., & Asher, S. R. (1977). Peer preferences and social interaction among third-grade children in an integrated school district. *Journal of Educational Psychology*, 69, 330–336.
- Sletta, O., Valas, H., Skaalvik, E., & Sobstad, F. (1996). Peer relations, loneliness, and self-perceptions in school-aged children. *British Journal of Educational Psychology*, 66, 431–445.
- Snyder, J., Brooker, M., Patrick, M. R., Snyder, A., Schrepferman, L., & Stoolmiller, M. (2003). Observed peer victimization during early elementary school: Continuity, growth, and relation to risk for child anti-social and depressive behavior. *Child Development*, 74, 1881–1898.
- Sobol, M. P., & Earn, B. M. (1985). Assessment of children's attributions for social experiences: Implications for social skills training. In B. H. Schneider, K. H. Rubin, & J. E. Ledingham (Eds.), *Children's peer relations: Issues in assessment and intervention* (pp. 93–110). New York: Springer-Verlag.
- Sroufe, L. A. (1983). Infant-caregiver attachment and patterns of adaptation in preschool: The roots of maladaptation. In M. Perlmutter (Ed.), *Minnesota Symposia on Child Psychology* (Vol. 16, pp. 41–83). Hillsdale, NJ: Erlbaum.
- Sroufe, L. A. (1995). *Emotional development: The organization of emotional life in the early years*. Cambridge, England: Cambridge University Press.
- Sroufe, L. A., Bennett, C., Englund, M., & Urban, J. (1993). The significance of gender boundaries in preadolescence: Contemporary correlates and antecedents of boundary violation and maintenance. *Child Development*, 64, 455–466.
- Sroufe, L. A., & Fleeson, J. (1986). Attachment and the construction of relationships. In W. W. Hartup & Z. Rubin (Eds.), *Relationships and development* (pp. 36–54). Hillsdale, NJ: Erlbaum.
- Sroufe, L. A., & Jacobvitz, D. (1989). Diverging pathways, developmental transformations, multiple etiologies, and the problem of continuity in development. *Human Development*, 32, 196–203.
- Sroufe, L. A., & Rutter, M. (1984). The domain of developmental psychopathology. *Child Development*, 55, 17–29.
- Stemberger, R. T., Turner, S. M., Beidel, D. C., & Calhoun, K. S. (1995). Social phobia: An analysis of possible developmental factors. *Journal of Abnormal Psychology*, 104(3), 526–531.
- Stets, J. E., & Pirog-Good, M. A. (1987). Violence in dating relationships. *Social Psychology Quarterly*, 50(3), 237–246.
- Stormshak, E. A., Bierman, K. L., Bruschi, C., Dodge, K. A., Coie, J. D., & the Conduct Preventions Research Group. (1999, January/February). The relation between behavior problems and peer preference in different classroom contexts. *Child Development*, 70(1), 169–182.
- Strayer, F. F. (1989). Co-adaptation within the early peer group: A psychobiological study of social competence. In B. H. Schneider, G. Attili, J. Nadel, R. P. Weissberg (Eds.), *Social competence in developmental perspective* (pp. 145–174). New York: Kluwer Academic.
- Strayer, F. F., & Strayer, J. (1976). An ethological analysis of social agonism and dominance relations among preschool children. *Child Development*, 47, 980–989.
- Strouse, D. L. (1999). Adolescent crowd orientations: A social and temporal analysis. In J. A. McLellan & M. J. V. Pugh (Eds.), *The role of peer groups in adolescent social identity: Exploring the importance of stability and change* (pp. 37–54). San Francisco: Jossey-Bass.
- Sullivan, H. S. (1953). *The interpersonal theory of psychiatry*. New York: Norton.

492 Peer Relationships, Child Development, and Adjustment: A Developmental Psychopathology Perspective

- Suls, J. M. (1977). Gossip as social comparison. *Journal of Communication*, 27, 164–168.
- Suomi, S. J., & Harlow, H. F. (1975). The role and reason of peer relationships in rhesus monkeys. In M. Lewis & L. A. Rosenblum (Eds.), *Friendship and peer relations* (pp. 153–186). New York: Wiley.
- Thomas, D. S., Loomis, A. M., & Arrington, R. E. (1933). *Observational studies of social behavior*. New Haven, CT: Yale University.
- Tremblay, R. E., Masse, L. C., Vitaro, F., & Dobkin, P. L. (1995). The impact of friends' deviant behavior on early onset of delinquency: Longitudinal data from 6 to 13 years of age. *Development and Psychopathology*, 7, 649–668.
- Tremblay, R. E., Nagin, D. S., Séguin, J. R., Zoccolillo, M., Zelazo, P. D., Boivin, M., et al. (2005). Physical aggression during early childhood: Trajectories and predictors. *Canadian Child and Adolescent Psychiatry Review*, 14(1), 3–9.
- Underwood, M. K. (2003). *Social aggression among girls*. New York: Guilford Press.
- Urberg, K. A., Cheng, C. H., & Shyu, S. J. (1991). Grade changes in peer influence on adolescent cigarette smoking: A comparison of two measures. *Addictive Behaviors*, 16, 21–28.
- Urberg, K. A., Degirmencioglu, S. M., & Pilgrim, C. (1997). Close friend and group influence on adolescent cigarette smoking and alcohol use. *Developmental Psychology*, 33, 834–844.
- Vandell, D. L., Wilson, K. S., & Buchanan, N. R. (1980). Peer interaction in the first year of life: An examination of its structure, content, and sensitivity to toys. *Child Development*, 51, 481–488.
- Van Lieshout, C. F. M., Cillessen, A. H., & Haselager, G. J. T. (1999). Interpersonal support and individual development. In W. A. Collins & B. Laursen (Eds.), *Minnesota Symposia on Child Psychology: Vol. 30. Relationships as developmental contexts* (pp. 37–60). Mahwah, NJ: Erlbaum.
- Vasey, M. W., & Dadds, M. R. (2001). An introduction to the developmental psychopathology of anxiety. In M. W. Vasey & M. R. Dadds (Eds.), *The developmental psychopathology of anxiety* (pp. 3–26). New York: Oxford University Press.
- Vaughn, B. E., Vollenweider, M., Bost, K. K., Azria-Evans, M. R., & Snider, J. B. (2003). Negative interactions and social competence for preschool children in two samples: Reconsidering the interpretation of aggressive behavior for young children. *Merrill-Palmer Quarterly*, 49, 245–278.
- Vernberg, E. M. (1990). Psychological adjustment and experiences with peers during early adolescence: Reciprocal, incidental, or unidirectional relationships? *Journal of Abnormal Child Psychology*, 18, 187–198.
- Vernberg, E. M., Abwender, D. A., Ewell, K. K., & Beery, S. H. (1992). Social anxiety and peer relationships in early adolescence: A prospective analysis. *Journal of Clinical Child Psychology*, 21, 189–196.
- Vernberg, E. M., Jacobs, A. K., & Hersherberger, S. L. (1999). Peer victimization and attitudes about violence during early adolescence. *Journal of Clinical Child Psychology*, 28(3), 386–395.
- Vitaro, F., Brendgen, M., & Tremblay, R. E. (2002). Reactively and proactively aggressive children: Antecedent and subsequent characteristics. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, 43, 495–506.
- Von Dras, D. D., & Siegler, I. C. (1997). Stability in extraversion and aspects of social support at mid-life. *Journal of Personality and Social Psychology*, 72, 233–241.
- von Salisch, M. (2000). The emotional side of sharing, emotional support, and conflict negotiation between siblings and between friends. In R. Mills & S. Duck (Eds.), *Developmental psychology of personal relationships* (pp. 49–70). Chichester, England: Wiley.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Wachs, T. D. (1992). *The nature of nurture*. Thousand Oaks, CA: Sage.
- Walden, T., Lemerise, E., & Smith, M. C. (1999). Friendship and popularity in preschool classrooms. *Early Education and Development*, 10, 351–371.
- Walker, L. J. (1986). Experiential and cognitive sources of moral development in adulthood. *Human Development*, 28, 133–134.
- Wargo Aikins, J., Bierman, K., & Parker, J. G. (2005). Navigating the transition to junior high school: The influence of pre-transition friendship and self-system characteristics. *Social Development*, 14, 42–60.
- Webster-Stratton, C., & Hammond, M. (1999). Marital conflict management skills, parenting style, and early onset conduct problems: Processes and pathways. *Journal of Child Psychology and Psychiatry*, 40, 917–927.
- Weiss, D. D., & Last, C. G. (2001). Developmental variations in the prevalence and manifestation of anxiety disorders. In M. W. Vasey & M. R. Dadds (Eds.), *The developmental psychopathology of anxiety* (pp. 27–42). New York: Oxford University Press.
- Weiss, M. R., & Smith, A. L. (1999). Quality of youth sport friendships: Measurement development and validation. *Journal of Sport and Exercise Psychology*, 21, 145–166.
- Weiss, M. R., Smith, A. L., & Theebom, M. (1996). "That's what friends are for": Children's and teenagers perceptions of peer relationships in the sport domain. *Journal of Sport and Exercise Psychology*, 18, 347–379.
- Wentzel, K. R. (2003). Sociometric status and adjustment in middle school: A longitudinal study. *Journal of Early Adolescence*, 23, 5–28.
- Wentzel, K. R., McNamara-Barry, C., & Caldwell, K. A. (2004). Friendships in middle school: Influences on motivation and school adjustment. *Journal of Educational Psychology*, 96(2), 195–203.
- Whalen, C. K., & Henker, B. (1991). Therapies for hyperactive children: Comparisons, combinations, and compromises. *Journal of Consulting and Clinical Psychology*, 59, 126–137.
- Wichmann, C., Coplan, R. J., & Daniels, T. (2004). The social cognitions of socially withdrawn children. *Social Development*, 13, 377–392.
- Wilson, B. J., & Gottman, J. M. (2002). Marital conflict, repair, and parenting. In M. H. Bornstein (Ed.), *Handbook of parenting: Vol. 4. Social conditions and applied parenting* (2nd ed., pp. 227–258). Mahwah, NJ: Erlbaum.
- Windle, M. (1992). Temperament in social support in adolescence: Interrelations with depressive symptoms and delinquent behaviors. *Journal of Youth and Adolescence*, 21, 1–21.
- Wojlawowicz, J. C., Rubin, K. H., Burgess, K. B., Booth, C., & Rose-Krasnor, L. R. (in press). Behavioral characteristics associated with stable and fluid best friendship patterns in middle childhood. *Merrill-Palmer Quarterly*.
- Woodward, L. J., & Fergusson, D. M. (1999). Childhood peer relationship problems and psychosocial adjustment in late adolescence. *Journal of Abnormal Psychology*, 27, 87–104.
- World Health Organization. (1992). *The ICD-10 classification of mental and behavioural disorders: Clinical descriptions and diagnostic guidelines*. Geneva, Switzerland: Author.
- Wright, J. C., Giammarino, M., & Parad, H. (1986). Social status in small groups: Individual group similarity and the social "misfit." *Journal of Personality and Social Psychology*, 50, 523–536.
- Xie, H., Cairns, R. B., & Cairns, B. D. (1999). Social networks and configurations in inner-city schools: Aggression, popularity, and implications for students with EBD. *Journal of Emotional and Behavioral Disorders*, 7, 147–155.

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- Youngblade, L., Park, K., & Belsky, J. (1993). Measurement of young children's close friendship: A comparison of two independent assessment systems and their associations with attachment security. *International Journal of Behavioral Development, 16*, 563–587.
- Youniss, J. (1980). *Parents and peers in social development: A Sullivan-Piaget perspective*. Chicago: University of Chicago Press.
- Youniss, J., & Smoller, J. (1985). *Adolescent relations with mothers, fathers, and friends*. Chicago: University of Chicago Press.
- Zakriski, A., & Coie, J. (1996). A comparison of aggressive-rejected and nonaggressive rejected children's interpretations of self-directed and other-directed rejection. *Child Development, 67*, 1048–1070.
- Zarbatany, L., Hartmann, D., & Rankin, D. (1990). The psychological functions of preadolescent peer activities. *Child Development, 61*, 1067–1080.
- Zarbatany, L., McDougall, P., & Hymel, S. (2000). Gender-differentiated experience in the peer culture: Links to intimacy in preadolescence. *Social Development, 9*, 62–79.
- Zeller, M., Vannatta, K., Schafer, J., & Noll, R. (2003). Behavioral reputation: A cross-age perspective. *Developmental Psychology, 39*, 129–139.