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## PEER INTERACTIONS, RELATIONSHIPS, AND GROUPS

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## **PEER INTERACTIONS, RELATIONSHIPS, AND GROUPS**

Experiences with peers constitute an important developmental context for children wherein they acquire a wide range of behaviors, skills, and attitudes that influence their adaptation during the life span. In this chapter, we review current research on children's peer experiences while distinguishing between processes and effects at different levels of analysis -- namely individual characteristics, social interactions, dyadic relationships, and group membership and composition. Our thesis is that interactions, relationships, and groups reflect social participation at different interwoven orders of complexity. Our goal, in introducing these levels of analysis, is to establish a framework for further discussion of the origins, development, and significance of children's peer experiences. Moreover, discussion of the interaction, relationships, and group levels of social complexity allows subsequent commentary on conceptual issues that pertain to individual differences in children's behavioral tendencies and peer relationships.

### **INTERACTIONS, RELATIONSHIPS, AND GROUPS: ORDERS OF COMPLEXITY IN CHILDREN'S PEER EXPERIENCES**

Over the past 25 years, recognition and articulation of the multiple levels of analysis and perspectives that comprise the peer system have greatly increased. Especially significant in this regard has been the contribution of Robert Hinde (e.g., 1987, 1995) who has articulated the features and dialectical relations between successive levels of social complexity.

Borrowing heavily from Hinde, in this section we discuss the nature of three successive levels of complexity in children's experiences with peers—interactions, relationships, and groups.

### *Interactions*

The simplest order of complexity of peer experience involves interactions. Interaction refers to the social exchange between two individuals. Behaviors that simply (and only) complement one another (like riding on either end of a teeter-totter) would ordinarily not be considered true interaction unless it was clear that they were jointly undertaken. Instead, the term interaction is reserved for dyadic behavior in which the participants' actions are interdependent such that each actor's behavior is both a response to, and stimulus for, the other's behavior. Conversational turn-taking is a quintessential illustration: Child A requests information from Child B ("What's your name?"), Child B responds ("My name is Julius. What's yours?"), Child A replies ("Elodie."), and so on.

Such a simple exchange as that of Julius and Elodie belies the richness and complexity of the ways that children of most ages communicate with and influence one another. Thus, besides introducing themselves, children in conversation may argue, gossip, self-disclose, and joke, among other things. And, during interaction, children also cooperate, compete, fight, withdraw, respond to provocation, and engage in a host of other behaviors that includes everything from ritualized sexual contact to rough-and-tumble (R&T) play to highly structured sociodramatic fantasy. Typically, researchers have been less interested in cataloguing the myriad of interactional experiences than in understanding the origins and consequences of three broad childhood behavioral tendencies: (1) moving toward others, (2) moving against others, and (3) moving away from others. As a consequence, our understanding of children's experiences at the interactional level may be disproportionately organized around the constructs of sociability and helpfulness, aggression, and withdrawal.

Although many social exchanges have their own inherent logic (as in the question-answer sequence of Julius and Elodie), it is also the case that the forms and trajectories of

episodes of interaction are shaped by the relationships in which they are embedded. For example, friends are more committed to resolving conflict with each other than nonfriends, are more likely than nonfriends to reach equitable resolutions, and continue to interact following a disagreement (Laursen, Finkelstein, & Betts, 2001; Laursen, Hartup, & Koplas, 1996). Beyond this, children engaged in interaction vary their behavior as a function of such factors as their short-term and long-term personal goals, their understanding of their partner's thoughts and feelings in the situation, the depth of their repertoire of alternative responses, and various "ecological" features of the context of the interactions (such as the presence of bystanders). It is precisely the demonstration of such range and flexibility in responding to the challenges of interpersonal interaction that many writers think of as social competence (e.g., Bukowski, Rubin, & Parker, 2001).

### ***Relationships***

Relationships introduce a second and higher-order level of complexity to children's experiences with peers. Relationships refer to the meanings, expectations, and emotions that derive from a succession of interactions between two individuals known to each other. Because the individuals are known to each other, the nature and course of each interaction is influenced by the history of past interactions between the individuals as well as by their expectations for interactions in the future. It has been suggested that the degree of closeness of a relationship is determined by such qualities as the frequency and strength of influence, the diversity of influence across different behaviors, and the length of time the relationship has endured. In a close relationship, influence is frequent, diverse, strong, and enduring. Alternatively, relationships can be defined with reference to the predominant emotions that participants typically experience in them (e.g., affection, attachment, or enmity).

As a form of social organization, dyadic relationships share features with larger social organizations, such as a family, a class, or a team. For instance, dyads, like larger organizational structures, undergo role differentiation, specialization, and division of labor (McCall, 1988). However, there are certain features of dyadic relationships that are distinct to this level of social organization and vital to understanding its functioning and impact on interactions and individuals. Unlike most social organizations, dyadic relationships do not vary in membership size. This makes the dyad peculiarly vulnerable, for the loss of a single member terminates the dyad's existence. Because members appreciate this vulnerability, issues of commitment, attachment, and investment loom larger in dyadic relationships than in other forms of social organization. Indeed, an understanding of the surface behavior of members of relationships can be elusive unless the deeper meaning of behavior in relation to the relationship's mortality is considered.

A final point is that relationships must be understood according to their place in the network of other relationships. For example, children's friendships are influenced by the relationships they have at home with parents and siblings (Belsky & Cassidy, 1995).

*Friendship.* In the literature on children's peer experiences, one form of dyadic relationship has received attention above all others—friendship. The issue of what constitutes friendship is a venerable philosophical debate beyond the scope of this chapter. However, some points from this debate warrant noting here because of their operational significance.

First, there is widespread agreement that friendship is a *reciprocal* relationship that must be affirmed or recognized by both parties. Reciprocity is the factor that distinguishes friendship from the nonreciprocal attraction of only one partner to another. A second point of consensus is that reciprocity of affection represents an essential, though not necessarily

exclusive, tie that binds friends together (Hays, 1988). Similarities or complementarities of talents and interests may lead to friendship and can help sustain them; however, they do not constitute the basis of the friendship itself. The basis is reciprocal affection. Third, friendships are voluntary, not obligatory or prescribed. In some cultures and in some circumstances, children may be assigned their “friends,” sometimes even at birth (Krappmann, 1996). Although these relationships may take on some of the features and serve some of the same interpersonal ends as voluntary relationships, most scholars would agree that their involuntary nature argues against confusing them with friendship.

### ***Groups***

A group is a collection of interacting individuals who have some degree of reciprocal influence over one another. Hinde (1987) suggests that a group is the structure that emerges from the features and patterning of the relationships and interactions present in a population of children. Accordingly, groups possess properties that arise from the manner in which the relationships are patterned but are not present in the individual relationships themselves. Examples of such properties include *cohesiveness*, or the degree of unity and inclusiveness exhibited by the children or manifest by the density of the interpersonal relationships; *hierarchy*, or the extent of intransitivity in the ordering of the individual relationships along interesting dimensions (e.g., If Fred dominates Brian and Brian dominates Peter, does Fred dominate Peter?); and *homogeneity*, or consistency across members in the ascribed or achieved personal characteristics (e.g., sex, race, age, or attitudes toward school). Finally, every group has *norms*, or distinctive patterns of behaviors and attitudes that characterize group members and differentiate them from members of other groups.

Many of our most important means for describing groups speak to these core characteristics or processes. Thus, researchers may address the degree to which the

relationships and interactions in a group are segregated along sex or racial lines (e.g., Killen, Lee-Kim, McGlothlin, & Strangor, 2002); they may compare the rates of social isolation among groups that differ in composition; or they may investigate the extent to which a group's hierarchies of affiliation, dominance, and influence are linear and interrelated. In addition, group norms can be used as a basis for distinguishing separate "crowds" in the networks of relationships among children in high school (e.g., Brown, 1989).

It is worth noting that the construct that has dominated the peer literature during the past 25 years, namely that of *popularity*, is both an individual- and a group-oriented phenomenon. Measures of popularity refer to the group's view of an individual in relation to the dimensions of liking and disliking. In this regard, popularity is a group construct and the processes of rejection and acceptance are group processes. Yet, despite this reality, most peer researchers treat popularity as characteristic of the individual (e.g., Newcomb, Bukowski, & Pattee, 1993).

### ***Culture***

It is important to recognize that each of the social levels described earlier falls under the all-reaching umbrella of culture. By culture is meant "the set of attitudes, values, beliefs, and behaviors shared by a group of people, communicated from one generation to the next" (Matsumoto, 1997, p. 5). Cultural beliefs and norms help interpret the acceptability of individual characteristics and the types and ranges of interactions and relationships that are likely or permissible.

Given that the majority of the world's inhabitants do not reside in culturally Westernized countries, the cross-cultural work on peer interactions, relationships, and groups requires careful note: Child development is influenced by many factors. In any culture, children are shaped by the physical and social settings in which they live as well as



culturally regulated customs, childrearing practices, and culturally based belief systems (Harkness & Super, 2002). The bottom line is that the psychological “meaning” attributed to any given social behavior is, in large part, a function of the ecological niche in which it is produced. If a given behavior is viewed as acceptable, then parents (and significant others) will attempt to encourage its development; if the behavior is perceived as maladaptive or abnormal, then parents (and significant others) will attempt to discourage its growth and development. And the very means by which people go about encouraging or discouraging the given behavior may be culturally determined and defined. Thus, in some cultures, the response to an aggressive act may be to explain to the child why the behavior is unacceptable; in others, physical discipline may be the accepted norm; in yet others, aggression may be ignored or perhaps even reinforced (for a discussion, see Bornstein & Cheah, 2006). It would appear most sensible for the international community of child development researchers not to generalize to other cultures their own culture-specific theories of normal and abnormal development. In this regard, we describe relevant extant research pertaining to cross-cultural similarities and differences in children’s peer interactions and relationships throughout this chapter.

### ***Summary***

To understand children’s experiences with peers, researchers have focused on children’s interactions with other children and on their involvements in peer relationships and groups. Analyses in each level—interactions, relationships, groups—are scientifically legitimate and raise interesting questions. However, until recently, studying individual, dyadic, and group measures was challenging, both conceptually and statistically. Advances in multilevel modeling techniques and in the availability of more-or-less user-friendly software have given researchers the tools to examine the effects of group, dyadic, and individual variables

simultaneously. These procedures can be used to assess how the effects of variables describing individual tendencies (e.g., aggressiveness, sociability, or inhibition) on an outcome (e.g., one's subsequent aggressiveness, sociability, or reticence) will vary as a function of dyadic-relationship characteristics (e.g., quality of friendship; quality of the mother-child relationship). In turn, a researcher can assess variations in dyadic effects due to the characteristics of the groups in which they are embedded. These techniques have been used with success already (e.g., Kochenderfer-Ladd & Wardrop, 2001).

### **PEER INTERACTIONS, RELATIONSHIPS, AND GROUPS: A DEVELOPMENTAL PERSPECTIVE**

Children's peer experiences become increasingly diverse, complex, and integrated with development. In some cases, the impetus for these developments rests in children (i.e., changes in interpersonal understanding), while others derive from situational or contextual phenomena. In the following sections, we review many developmental mileposts in the interactional, relational, and group levels of children's involvement with other children.

#### ***The Infant and Toddler Years.***

*Interactions.* Infants do have obvious social limitations. Babies are unable, for example, to comprehend the social and cognitive needs, capacities, or zones of proximal development of their age-mates (Hay, 1985). Yet, careful observation of infants reveals remarkable strides taken during the 1st year of life. These include (a) the careful observation of peers and seemingly intentional direction of smiles, frowns, and gestures to their play partners (Hay, Nash, & Pederson, 1983); and (b) the response, often in kind, to their play partner's behaviors (Mueller & Brenner, 1977). With the emergence of locomotion and the ability to use words to communicate during the 2<sup>nd</sup> year of life, interactive bouts become lengthier,

and toddler play becomes organized around particular themes or games. Often, these toddler games are marked by reciprocal imitative acts (Ross, 1982).

These developments promote more effective social commerce between toddlers and contribute a generally positive affective quality to their interaction (Hay, Castle, Davies, Demetriou, & Stimson, 1999). However, toddler social interaction is also marked by conflict (e.g., Hay & Ross, 1982; Rubin, Hastings, Chen, Stewart, & McNichol, 1998). Rubin et al. (1998) found that over 70% of 25-month-old children participated in a conflict situation at least once in a 50-minute laboratory setting. In a comparable setting, Hay and Ross (1982) observed 87% of 21-month-old toddlers engaged in at least one conflict. As such, it appears that conflict is neither infrequent nor limited to a small percentage of toddlers.

Importantly, it appears as if many of those toddlers who frequently instigate conflicts with peers are the most socially outgoing and initiating (National Institute of Child Health and Human Development Early Child Care Research Network, 2001). It is also the case that toddlers are highly attentive to, and are more likely to imitate and initiate interactions with, highly sociable age-mates (Howes, 1988). Taken together, these data suggest that during the 2nd year of life, toddlers do display social skills of modest complexity.

*Relationships.* It has been demonstrated that toddlers are more likely to initiate play, direct positive affect to, and engage in complex interactions with familiar than unfamiliar playmates (Howes, 1988). But can familiarity be equated with the existence of a relationship? Ross and colleagues have demonstrated that toddlers do develop reciprocal relationships with familiar others that are characterized not only by the mutual exchange of positive overtures, but also by agonistic interactions. Positive interactions are directed specifically to those who have directed positive initiations to the child beforehand; conflict is initiated

specifically with those who have initiated conflictual interactions with the child beforehand (e.g., Ross, Conant, Cheyne, & Alevisos, 1992).

To the extent that reciprocal interchanges of positive overtures may characterize particular dyads, it may be said that toddlers do have friendships. Howes (1988) defined toddler friendship as encompassing the response to a peer's overture at least once, the production of at least one complementary or reciprocal dyadic exchange, and the demonstration of positive affect during at least one such exchange. Vandell and Mueller (1980) identified toddler friends as those who initiated positive social interaction more often with each other than with other potential partners. Thus, during the toddler period, friendships, as defined earlier, do exist; however, it is doubtful that they carry the same strength of psychological meaning as the friendships of older children. Nevertheless, these early relationships may lay the groundwork for the establishment and maintenance of friendships throughout the childhood years.

*Groups.* Even young toddlers spend much of their time in small groups such as with day-care mates. But there is little empirical evidence that this level of social organization is salient to, or influential on, these young children. Nevertheless, some authors (e.g., Legault & Strayer, 1991) have observed dominance hierarchies in small groups of young toddlers, as well as in subsets of children who invest greater attention and interaction to one another than to outside nonmembers. Interestingly, some members of these groups appear more central to their functioning than others, perhaps illustrating the earliest examples of individual differences in popularity and influence.

### ***Early Childhood.***

*Interaction.* From 24 months to 5 years, the frequency of peer interaction increases and becomes more complex. To begin with, children at these ages engage in a variety of

different types of play behaviors and activities, including unoccupied, onlooking (the child observes others but does not participate in the activity), solitary, parallel (the child plays beside but not with other children), and group activities (Rubin, Watson, & Jambor, 1978). Importantly, the categories of solitary, parallel, and group behavior comprise a variety of play forms that differ in cognitive complexity. Thus, whether alone, near, or with others, children may produce simple sensorimotor behaviors (functional play, e.g., aimlessly bouncing a ball), construct structures from blocks or draw with crayons (constructive play), or engage in some form of pretense (dramatic play). The examination of these cognitive forms of play reveals interesting developmental trends. For example, solitary-sensorimotor behaviors become increasingly rare over the preschool years, while the relative frequency of solitary-construction or exploration remains the same (Rubin et al., 1978). Furthermore, the only types of social interactive activity to increase over the preschool years are sociodramatic play and games-with-rules (Goncu, Patt, & Kouba, 2002).

Perhaps the most complex form of group interactive activity during the preschool years is sociodramatic play (Goncu et al., 2002). The ability to engage easily in this form of social activity represents mastery of one of the essential tasks of early childhood—the will and skill to share and coordinate decontextualized and substitutive activities. Researchers have reported that by the 3rd year of life, children are able to share symbolic meanings through social pretense (e.g., Howes, 1988). This is a remarkable accomplishment, as it involves the capacity to take on complementary roles, none of which matches real-world situations, and to agree on the adoption of these imaginary roles in a rule-governed context. The ability to share meaning during pretense has been referred to as *intersubjectivity* (Goncu, 1993), which research findings suggest reflect the increasing sophistication of preschooler's naive “theory of mind” (Watson, Nixon, Wilson, & Capage, 1999). Researchers have also

demonstrated that engaging in sociodramatic play is associated with social perspective-taking skills and the display of skilled interpersonal behavior (Howes, 1992).

Several other significant advances are made during the preschool period. For one, prosocial caring, sharing, and helping behaviors become more commonplace with increasing age. Four-year-olds direct prosocial behavior to their peers more often than 3-year-olds (e.g., Benenson, Markovits, Roy, & Denko, 2003). Importantly, aggression increases until age 3 and then declines, and the nature of conflict changes from the toddler to the preschool period. During toddlerhood, most conflict appears to center on toys and resources; during the preschool years, conflict becomes increasingly centered on differences of opinion (e.g., Chen, Fein, & Tam, 2001)—a reflection of the child's growing ability to focus on others' ideas, attitudes, and opinions.

*Relationships.* During early childhood, children express preferences for some peers over others as playmates. It appears that one important influence on this process is that preschoolers are attracted to peers who are similar to them in some noticeable regard. For example, similarities in age and sex draw young children together. Furthermore, preschoolers appear to be attracted to, and become friends with peers whose behavioral tendencies are similar to their own, a phenomenon known as *behavioral homophily* (e.g., Rubin, Lynch, Coplan, Rose-Krasnor, & Booth, 1994).

Once preschoolers form friendships, their behavior with these individuals is distinctive from their behavior with other children who are familiar but not friends. Children as young as 3.5 years direct more social overtures, engage in more social interactions, and play in more cooperative and prosocial ways with friends than nonfriends (e.g., Dunn & Cutting, 1999). Compared to nonfriends, preschool friends also demonstrate more quarreling and more active (assaults and threats) and reactive hostility (refusals and

resistance; Dunn & Cutting, 1999). Moreover, Hartup and his colleagues (e.g., Hartup, Laursen, Stewart, & Eastenson, 1988) demonstrated that preschool children engage in more conflicts with their friends than with neutral associates. These differences are best understood by recognizing that friends spend much more time actually interacting with each other than do nonfriends. Hartup and his colleagues also reported qualitative differences in how preschool friends and nonfriends resolve conflicts and in what the outcomes of these conflicts are likely to be. Friends, as compared with nonfriends, make more use of negotiation and disengagement, relative to standing firm, in their resolution of conflicts. In conflict outcomes, friends are more likely to have equal resolutions, relative to win or lose occurrences. Also, following conflict resolution, friends are more likely than neutral associates to stay in physical proximity and continue to engage in interaction.

While approximately 75% of preschoolers have reciprocally nominated best friendships (Dunn, 1993), not all young children have a best friend. And, Ladd, Kochenderfer, and Coleman (1996) have shown that not all friendships in early childhood are equally stable. Those friendships that involve higher levels of positive friendship qualities (e.g., validation) and lower levels of negative friendship qualities (e.g., low conflict) are most likely to be stable. Importantly, during this period of early childhood, the ability to make friends, friendship quality, and stability of young children's friendships are associated with, and predicted by, social-cognitive and emotional maturity. For example, the abilities to understand emotional displays and social intent and to perspective-take are associated with friendship formation, maintenance, and friendship quality (Dunn & Cutting, 1999; Ladd & Kochenderfer, 1996). Furthermore, the young child's ability to regulate emotions is associated with and predictive of both the number of mutual friends and friendship quality (Walden, Lemerise, & Smith, 1999).

*Groups.* Many researchers have found that the social dominance hierarchy is an important organizational feature of the preschool peer group (e.g., Vaughn, Vollenweider, Bost, Azria-Evans, & Snider, 2003). And, researchers have argued that dominance hierarchies develop naturally in groups to serve adaptive functions. In the case of preschool-aged children, dominance hierarchies appear to reduce overt aggression among members of the group. Observations of exchanges between children in which physical attacks, threats, and object conflicts occur reveal a consistent pattern of winners and losers. And children who are losers in object struggles rarely initiate conflict with those who have proven “victorious” over others or who have been victorious over them (Strayer & Strayer, 1976).

### ***Middle Childhood and Early Adolescence***

The school-age years represent a dramatic shift in social context for most children in Western cultures. During this time, the proportion of social interaction that involves peers increases. The peer group also grows in size, and peer interaction becomes less closely supervised by adults. The settings of peer interaction also change. Preschool children’s peer contacts are centered in the home and in day-care centers, whereas school-age children come into contact with peers in a wide range of settings (e.g., “hanging out” at school or after-school, talking on the telephone; Zarbatany, Hartmann, & Rankin, 1990).

*Interaction.* During middle childhood, verbal and relational aggression (insults, derogation, threats, gossip) gradually replace direct physical aggression. Further, relative to preschoolers, the aggressive behavior of 6- to 12-year-olds is less frequently directed toward possessing objects or occupying specific territory and more specifically hostile toward others (Dodge, Coie, & Lynam, 2006). With regard to positive social behavior, Eisenberg, Fabes and Spinrad (2006) report the levels of generosity, helpfulness, or cooperation that children direct to their peers increases somewhat during the primary and middle school years. The



frequency of “pretend” or “nonliteral” aggression, or rough-and-tumble (R&T) play increases in early elementary school, and thereafter declines in middle childhood and early adolescence. Interestingly, it has been proposed that the primary function of R&T, especially among young adolescent boys, is to establish dominance status and thereby delimit aggression among peers (Pellegrini, 2002).

Children’s concerns about acceptance in the peer group rise sharply during middle childhood, and these concerns appear related to an increase in the salience and frequency of *gossip* (Kuttler, Parker, & La Greca, 2002). Gossip, at this age, reaffirms children’s membership in important same-sex social groups and reveals, to its constituent members, the core attitudes, beliefs, and behaviors comprising the basis for inclusion in or exclusion from these groups. Thus, gossip may play a role in fostering friendship closeness and in promulgating children’s social reputations.

One additional form of interaction has received specific attention in the recent literature. *Deviancy training* occurs when children model and reward aggressive behaviors in each other; the process by which these exchanges take place is thought to increase individual tendencies in aggressiveness and to strengthen ties to aggressive and substance-abusing friends and delinquent peer groups. In this regard, deviancy training “hits” at all levels of the social enterprise (Dishion, McCord, & Poulin, 1999).

Yet another form of interaction emerging fully blown during middle childhood and early adolescence is *bullying* and *victimization* (Espelage, Bosworth, & Simon, 2000). Bullying refers to acts of verbal and physical aggression on the part of an individual that are chronic and directed toward particular peers (victims). Bullying accounts for a substantial portion of the aggression that occurs in the peer group (Olweus, 1978, 1993). The dimension that distinguishes bullying from other forms of aggressive behavior is its specificity—bullies

direct their behavior toward only certain peers, comprising approximately 10% of the school population (National Institute of Child Health and Human Development Early Child Care Research Network, 2001). Research on bullying suggests that bullies are characterized by strong tendencies toward aggressive behavior, relatively weak control over their aggressive impulses, and a tolerance for aggressive behavior (Olweus 1978, 1993).

Children who are greatest risk for *victimization* are those who have elevated scores on measures of either aggression or social withdrawal. Nearly every study that has assessed the association between aggressiveness and victimization has revealed a positive correlation (e.g., Hanish & Guerra, 2004; Snyder et al., 2003). These findings appear to be culturally universal; victimization and aggression have been found to be positively associated in North American, Southern Asian (Khatri & Kupermidt, 2003) and East Asian (Schwartz, Farver, Chang, & Lee-Shin, 2002) samples. Finally, there is evidence that anxious and socially reticent children are also victims of bullying behavior (Kochenderfer-Ladd 2003; Olweus, 1993).

There are at least two explanations for the observation that aggression and social withdrawal are associated with victimization. First, a withdrawn child is likely to be victimized because she or he is an easy prey who is unlikely to retaliate when provoked (e.g., the construct of “whipping boy”; Olweus, 1978, 1993); alternatively, an aggressive child is victimized because his or her behavior is irritating and likely to provoke victimization from others (“the provocative victim”; Olweus, 1993). According to this view different mechanisms underlie victimization for different types of children. Another view uses a single model to explain victimization. It claims that children victimize peers who do not promote the basic group goals of coherence, harmony, and evolution. According to this view, aggressive and withdrawn children do not promote these positive aspects of group functioning and as a result they are victimized.

*Relationships.* The period of middle childhood and early adolescence brings marked changes in children's understanding of friendship. For example, children's friendship conceptions at the start of middle childhood (7 to 8 years) involve rewards and costs—friends are rewarding to be with, whereas nonfriends are difficult or uninteresting to be with. At this age, a friend is also someone who is convenient (i.e., who lives nearby), has interesting toys or possessions, and shares the child's expectations about play activities. By about 10 to 11 years, children recognize the importance of shared values and social understanding, and friends are expected to stick up for and be loyal to one another. Later, at 11 to 13 years, children acquire the view that friends share similar interests, are required to make active attempts to understand each other, and are willing to engage in self-disclosure (Bigelow, 1977).

Changes in the understanding of friendship are accompanied by changes in the patterns and nature of involvement in friendships. Children's friendship choices are more stable and more likely to be reciprocated in middle childhood than at earlier ages (Berndt & Hoyle, 1985). Friendships that are high in relationship quality are more likely to persist over time, and this is also true in early childhood. Furthermore, stable friendships in middle childhood and early adolescence are more likely to comprise dyads in which the partners are sociable and altruistic; friendships that dissolve during the course of a school year are more likely to comprise partners who are aggressive and victimized by peers (Hektner, August, & Realmuto, 2000; Wojslawowicz Bowker, Rubin, Burgess, Booth-LaForce, & Rose-Krasnor, 2006).

With respect to the features of friendships in middle childhood and early adolescence, Newcomb and Bagwell (1995) reported that children are more likely to behave in positive ways with friends than nonfriends or to ascribe positive characteristics to their

interactions with friends. Although the effect size of this difference may, in some cases be small, this pattern of findings is observed across a broad range of studies using a variety of methods, including direct observations (e.g., Simpkins & Parke, 2002), and interviews (Berndt, Hawkins, & Hoyle, 1986). More important, Newcomb and Bagwell's (1995) meta-analysis showed that the expression of affect varied considerably for pairs of friends and nonfriends. In their interactions with friends, relative to interaction with nonfriends, children show more affective reciprocity and emotional intensity, and enhanced levels of emotional understanding. Moreover, young adolescent friends use distraction to keep their friends from potentially harmful rumination about social attributions that may induce guilt or shame (Denton & Zarbatany, 1996). In this regard, friendship is a socially and positive relational context, and it provides opportunities for the expression and regulation of affect. Friend-nonfriend differences are stronger during early adolescence than during either middle childhood or during the preschool years.

One of the few dimensions of interaction in which there are no differences between friends and nonfriends is that of conflict. Research has shown repeatedly that after early childhood, pairs of friends engage in about the same amount of conflict as pairs of nonfriends (Laursen et al., 1996). There is a major difference, however, in the conflict resolution strategies that friends and nonfriends adopt. In particular, friends are more likely than nonfriends to resolve conflicts in a way that will preserve or promote the continuity of their relationship (Laursen et al., 2001). The beneficial effects of friendship are qualified by the characteristics of the best friend: Young adolescents with aggressive friends, compared with those who have nonaggressive friends, adopt increasingly aggressive solutions to conflicts; young adolescents who are nonaggressive and who have nonaggressive friends use more prosocial solutions (Brendgen, Bowen, Rondeau, & Vitaro, 1999).

There appear to be consistent qualitative differences in boys' and girls' best friendships in the middle childhood and early adolescent years. For example, girls' friendships are marked by greater intimacy, self-disclosure, and validation and caring than those of boys (e.g., Zabatany, McDougall, & Hymel, 2000). Ironically, it is because of the intimacy of girls' best friendships that they appear to be less stable and more fragile than those of boys (e.g., Benenson & Christakos, 2003). According to Benenson and Christakos, intimate disclosure between female friends may become hazardous when best friends have a conflict. In such cases, the conflicting friends can divulge personal information to outsiders (Crick & Grotpeter, 1995). Intimate disclosure within the friendships of girls also appears hazardous to psychological well-being when conducted in a "co-ruminative" fashion (Rose, 2002). Significantly, when boys' best friendships are with girls rather than boys, intimacy is higher, thus suggesting that there may be two different "worlds" of relationships defined by context and activity (Zabatany et al., 2000).

Throughout this age period, children are attracted to and become best friends with those who resemble them in age, sex, ethnicity, and behavioral status (Hartup & Abecassis, 2002). Researchers in both Western and Eastern cultures have reported that greater behavioral similarities exist between friends than nonfriends, and children share friendships with other children who resemble themselves in terms of prosocial and antisocial behaviors (e.g., Haselager, Hartup, van Lieshout, & Riksen-Walraven, 1998; Poulin & Boivin, 2000), shyness and internalized distress (e.g., Rubin, Wojslawowicz, Burgess, Booth-LaForce, & Rose-Krasnor, 2006), sociability, peer popularity, and academic achievement and motivation (e.g., Altermatt & Pomerantz, 2003).

Finally, researchers have recently begun to study enmity and mutual antipathies (e.g., Abecassis, Hartup, Haselager, Scholte, & van Lieshout, 2002). Whereas the topic of disliking

is certainly not new (e.g., Hayes, Gershman, & Bolin, 1980), the emphasis of recent research has been on the frequency of mutual antipathies, their correlates, and their developmental significance. Abecassis et al. (2002) have shown that rates vary across classrooms, with the frequencies of dyadic enmity being as high as 58% in some classrooms. Although mutual antipathies are experienced by all children, they are most common among rejected children and they are more common among boys than girls, especially during middle childhood compared with adolescence (Rodkin & Hodges, 2003). Children in such relationships tend to be more depressed than are other children, and the presence of a mutual antipathy appears to exacerbate the effect of other negative experiences, such as peer rejection.

Nevertheless, the developmental significance of mutual antipathies is unclear, and many issues related to the study of mutual antipathies require further exploration. Perhaps the most important concerns the issue of how we define and measure the concept of enemy. To paraphrase the important discussions provided by Hartup and Abecassis (2002), having an enemy implies warfare. Consequently, researchers would do well to examine whether children who nominate each other as “Someone I do not like,” actually interact. It may be that mutual antipathies merely capture an affective dimension, not an interactional one. “True” enemies may be proactive about their relationship. They may spread gossip about one another and engage in relational or other forms of aggression. At present, there are virtually no data indicating how and whether those who mutually nominate each other as “Someone I do not like” actually have a clearly defined relationship.

*Groups.* During the upper elementary school and middle school years, the structure of the peer group changes from a relatively unified whole to a more differentiated structure. In this new structure, children organize themselves into social groups, clusters, networks, or cliques (e.g., Bagwell, Coie, Terry, & Lochman, 2000). Peer networks and cliques are

voluntary, 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 include three to nine same-sex children of the same race (Chen, Chang, & He, 2003; Kindermann, McCollom, & Gibson, 1995). By 11 years of age, most of children's peer interaction takes place in the context of the clique, and nearly all children report being a member of one. With respect to group size, boys, compared with girls, show a preference for larger groups (Benenson, Apostoleris, & Parnass, 1997).

Peer networks, whether identified observationally (e.g., Gest, Farmer, Cairns, & Xie, 2003) or via peer reports (e.g., Bagwell et al., 2000), or whether identified in or out of school (Kiesner, Poulin, & Nicotra, 2003), are typically organized to maximize within-group homogeneity (Rodkin, Farmer, Pearl, & Van Acker, 2000). Thus, in recent studies of preadolescents conducted in both Western (e.g., Canada, Finland, United States) and Eastern (e.g., China) cultures, group membership has been found to comprise children similar with regard to the following characteristics: aggression (Espelage, Holt, & Henkel, 2003; Gest et al., 2003; Xie, Cairns, & Cairns, 1999), bullying (e.g., Espelage et al., 2003), and school motivation and performance (e.g., Chen et al., 2003; Kindermann, 1993).

Apart from cliques, the other primary organizational feature of children's groups in middle childhood and early adolescence is the popularity hierarchy. There have been recent attempts to distinguish between *sociometric popularity* and *perceived popularity*. In the case of sociometric popularity or peer acceptance, the questions asked of children are "Who do you most like?" and "Who do you most dislike?" In the case of perceived popularity, the child is asked who he or she believes is the most popular in the classroom, grade, or school (Parkhurst & Hopmeyer, 1998; LaFontana & Cillessen, 2002). Whereas being liked or accepted occurs at the dyadic level (i.e., one person has affection for someone else), the

perception of someone as being popular in a classroom or school reflects a group level of analysis (i.e., the person is perceived according to her/his position in the group). Thus, in the study of peer group relationships, the word (and traditional measurement of) “acceptance” is most properly taken as a direct assessment of the extent to which a child is liked by her/his peers, whereas the word “popularity” refers to a child’s perceived standing or status in the group.

Recently, researchers have focused on the study of such negative characteristics as aggression to clarify the distinction between the meanings and measurement of peer acceptance and perceived popularity. Findings show that children whose level of aggression is moderately above the mean and who use aggression for instrumental reasons are perceived as more popular in their groups than are children who are low in aggression or whose aggression is high and undifferentiated (e.g., Hawley, 2003; Vaughn et al., 2003). Although the association between aggression and popularity may be seen even during the preschool period (Vaughn et al., 2003), this association appears to be stronger during early adolescence (Cillessen & Mayeux, 2004; Prinstein & Cillessen, 2003). Yet, whereas aggression is positively associated with measures of popularity during early adolescence, it is not related to acceptance. Moderately aggressive children may be given status and power in the peer group; however, this does not mean they are well-adjusted or that they will receive or benefit from the affection or kindness from their peers.

These findings are consistent with ideas about how groups function and reward persons who promote the group’s functioning (see Bukowski & Sippola, 2001). Whereas the main reward that one can provide at the level of the dyad is affection, the main rewards that can be provided at the level of the group are power, attention, and status. And whereas group members victimize peers who impede the group’s evolution and coherence, groups



give power, attention, and status to group members who promote the group's well-being. Given that group leaders may, at times, have to be forceful, strong, assertive, indeed Machiavellian, their behavior may include a larger coercive or aggressive component than is seen among other children. This tendency to ascribe power and status to moderately aggressive individuals may be more pronounced in adolescence when aggression is seen as a more normative entity than among younger children (Moffitt, 1993).

### ***Adolescence***

*Interaction.* The trend of spending increasingly substantial amounts of time with peers that begins in middle childhood continues in adolescence (e.g., Csikszentmihalyi & Larson, 1984). Moreover, adolescent peer interaction takes place with less adult guidance and control than peer interaction in middle childhood, and is more likely to involve individuals of the opposite-sex (Brown & Klute, 2003). These phenomena are largely consistent across cultural groups.

*Relationships.* As they enter adolescence, both boys and girls already understand a great deal about the reciprocal operations and obligations of friendship, about the continuity of friendships, and about the psychological grounds that evoke behavior. During adolescence, however, youngsters begin to accept the other's need to establish relationships with others and to grow through such experiences. Thus, adolescents' discussions of friendship and friendship issues show fewer elements of possessiveness and jealousy, and more concern with how the relationship helps the partners enhance their respective self-identities (Berndt & Hoyle, 1985).

During adolescence, friendships are relatively stable and best maintained when the partners have similar attitudes, aspirations, and intellect (Berndt et al., 1986). 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 (e.g., Furman & Buhrmester, 1992).. One hallmark of friendship in adolescence is its emphasis on intimacy and self-disclosure: adolescents report greater levels of intimacy in their friendships than do younger children (Buhrmester & Furman, 1987).

*Romantic relationships* are first seen during early adolescence with approximately 25% of 12-year-olds claiming they have had a romantic relationship during the past 18 months (Carver, Joyner, & Udry, 2003). This frequency increases in a largely linear fashion during adolescence with roughly 70% of boys and 75% of girls making this claim at age 18 (Carver et al., 2003; Seiffge-Krenke, 2003). The average duration of a romantic relationship has been observed to be 3.9 months at age 13, and 11.8 months at age 17 months (Seiffge-Krenke, 2003). Importantly, adolescent boys and girls have clear conceptions of the properties that distinguish romantic relationships from friendships (Connolly, Craig, Goldberg, & Pepler, 2004). Whereas romantic relationships are conceived in terms of passion and commitment, other-sex friendships are largely characterized by affiliation.

There are large differences between those adolescents who do and do not participate in romantic relationships. These differences vary during the adolescent period and they are often characterized by complex patterns. Early involvement in romantic relationships has been linked to problem behaviors and emotional difficulties during adolescence, although this difference appears to be strongest among boys and girls who are unpopular among their same-sex peers (Brendgen, Vitaro, Doyle, Markiewicz, & Bukowski, 2002). It has been reported also that early daters show lower levels of scholastic achievement (Seiffge-Krenke, 2003), especially among girls (Brendgen et al., 2002). Among older adolescents, however, participation in romantic relationships is associated with positive experiences among same-

sex peers and emotional and behavioral well-being (Seiffge-Krenke, 2003). Connolly, Furman, and Konarski (2000) reported that being part of a small group of close same-sex friends predicted being involved in other-sex peer networks, which, in turn, predicted the emergence of future romantic relationships. There is evidence also that the quality of a child's same-sex friendships predicts the quality of their concurrent and subsequent romantic relationships (Connolly et al., 2000).

Although there appears to be some inter-relatedness between romantic relationships and other relationship experiences, this association is often complex. Using an attachment framework, Furman, Simon, Shaffer, and Bouchev (2002) studied adolescents' internal working models for their relationships with parents, friends, and romantic partners. Adolescents' perceived support in relationships with their parents tended to be related to their perceived support in romantic relationships and friendships; support in friend and romantic relationships, however, were not related to each other. Nevertheless, self and other controlling behaviors in friendships were related to corresponding behaviors in romantic relationships. Perceived negative interactions in the three types of relationships were also significantly associated with each other. This pattern of results indicates greater generalizability of negative than positive features across relationship types.

*Groups.* As in middle childhood, cliques are readily observed in adolescence, and group membership comprises individuals who are similar with regard to school achievement (Kindermann, 1995), substance use (cigarettes and alcohol; Urberg, Degirmencioglu, & Pilgrim, 1997), and delinquency (Kiesner et al., 2003). Whereas cliques represent small groups of individuals linked by friendship selections, the concept of peer subcultures, or "crowds" (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. Crowds are defined by the primary attitudes or activities their members share. Thus, crowd affiliation is assigned through the consensus of the peer group and is not selected by the adolescents themselves. Brown (1989) listed the following as common crowd labels among American high school students: jocks, brains, eggheads, loners, burnouts, druggies, populars, nerds, and greasers. .

Crowd membership is an especially salient feature of adolescent social life and children's perceptions of crowds change in important ways with age. For example, between the ages of 13 and 16 years, adolescents alter the ways that they identify and describe the crowds in their school (O'Brien & Bierman, 1987). Whereas young adolescents focus on the specific behavioral proclivities of group members, older adolescents center on members' dispositional characteristics and values. This observation reflects broader changes that characterize developmental shifts in person-perception between the childhood and adolescent years.

The stigma that is placed on members of a particular crowd channels adolescents into relationships and dating patterns with those sharing a similar crowd label. This may prevent adolescents from the exploration of new identities and discourage shifts to other crowd memberships. There is recent evidence that the stigma associated with some large peer groups or crowds influences the judgments that adolescents form about their peers (Horn, 2003). In particular, Horn (2003) found that adolescents are biased in their use of reputational or stereotypical information about particular groups, particularly when presented with ambiguous situations. It is likely that these crowd-specific evaluations help to perpetuate group stereotypes and the structure of peer groups in a school.

Despite the differences that exist in the structures of peer groups, all of them inevitably disintegrate by late adolescence. This is largely due to the integration of the sexes

that accompanies this period. To begin with, mixed-sex cliques emerge. Eventually, the larger groups divide into couples, and by late adolescence, girls and boys feel comfortable enough to approach one another directly without the support of the clique. Another contributing factor to the decline in importance of crowds results from adolescents creating their own personal values and morals. In this regard, they no longer see it as necessary to broadcast their membership in a particular social group and are therefore content to be separate and apart from particular crowds.

***Conclusion.***

In this section, we have outlined developmental differences that mark the changing nature of social interactions and peer relationships from infancy to adolescence. Hopefully, this review will prove sufficient to provide a normative basis for the discussion that follows concerning the development of individual differences in children's social behaviors and peer relationships.

**THE PROXIMAL CORRELATES AND DISTAL PREDICTORS OF  
CHILDREN'S PEER RELATIONSHIPS**

The literature on individual differences in popularity and friendship can be divided into two domains. First, the largest concentration of investigations center on the individual characteristics associated with (a) acceptance or rejection in the peer group at large, (b) the ability to make and keep friends, and (c) the quality of friendship. A second body of research is concerned with the associations between peer acceptance and rejection and friendship and both the child's family relationship experiences and the social environments in which the child functions. This literature deals with the distal correlates of peer acceptance and friendship. We focus on these proximal correlates and distal predictors below.

***Proximal Correlates—Peer Acceptance.***

In studies involving play groups (e.g., Coie & Kupersmidt, 1983) and/or peer-assessment techniques (Newcomb & Bukowski, 1984), researchers interested in behavioral explanations for peer acceptance and rejection typically examine differences between children classified as sociometrically popular, rejected, and average. A thorough review of the voluminous literature on the concomitants of popularity is presented in Rubin, Bukowski, & Parker (1998). Whereas some reviews of research serve as renaissances that renew the study of a topic, the reviews of the sociometric classification studies served as a requiem. Although many of the basic questions of sociometric classification remain unanswered, research on the differences between children in the different sociometric groups has waned. Herein we provide a cursory discussion of the literature.

*Popular children.* “Popular” children are high in acceptance and low in rejection. Relative to other children, those of popular status are skilled at initiating and maintaining qualitatively positive relationships. When entering new peer situations, popular children do not talk exclusively or overbearingly about themselves and their own social goals or desires, and they are not disruptive of the group’s activity (Dodge, McClaskey, & Feldman, 1985). Popular children are seen as cooperative, friendly, sociable, and sensitive by peers, teachers, and observers (e.g., Newcomb & Bukowski, 1984; Parkhurst & Hopmeyer, 1998).

In a meta-analysis of research on popularity, Newcomb et al. (1993) distinguished between assertive/agonistic behaviors and behaviors that reflected disruptiveness. Popular children did not differ from others on the former category of behavior whereas they did on the latter. Popular children, it appears, do engage in some forms of assertive behavior, but they rarely engage in behaviors that are likely to interfere with the actions and goals of others.

*Rejected children.* The most commonly cited behavioral correlate of peer rejection is aggression, regardless of whether aggression is indexed by peer evaluations, teacher ratings, or observations (e.g., McNeilly-Choque, Hart, Robinson, Nelson, & Olsen, 1996). The association between rejection and aggression appears to be rather broad; Newcomb et al. (1993) revealed that rejected children, relative to average popular and neglected children, showed elevated levels on three forms of aggression—specifically, disruptiveness, physical aggression, and negative behavior (e.g., verbal threats). A small number of studies provide evidence of a causal link between aggression and rejection. In groundbreaking play group studies (Dodge, 1983; Coie & Kupersmidt, 1983), the interactions between unfamiliar peers in small groups were observed in a laboratory context over several days. Gradually, some of the children became popular and others became rejected. The behavior that most clearly predicted peer rejection was aggression. With increasing age, however, it appears as if aggression becomes decreasingly associated with rejection, especially among boys (e.g., Sandstrom & Coie, 1999). Also, aggressive behavior 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, Estell, Bishop, O’Neal, & Cairns, 2003).

Indeed, researchers have found that there is a high level of heterogeneity among the behavioral tendencies of rejected children. Detailed analyses indicate that aggressive children comprise between 40% to 50% of the rejected group; children who are highly withdrawn, timid, and wary comprise between 10% to 20% of the rejected group (e.g., Cillessen, van IJzendoorn, van Lieshout, & Hartup, 1992). Finally, victimization has been observed to be associated with peer rejection, either as a correlate (e.g., Kochenderfer-Ladd, 2003), as a mediator that explains the association between withdrawal and victimization, or as a moderator that increases the stability of victimization (e.g., Hanish & Guerra, 2004).

***Variations in the Behavioral Correlates of Popularity: Sex, Group, and Cultural Differences.***

Groups have norms, or standards, regarding the “goodness” of particular acts. The acceptability of a behavior, and of the child who displays that behavior, is determined by whether the behavior conforms to the group’s norms. If a behavior is universally valued, it should correlate with peer acceptance; if the normalcy of a behavior varies across groups, the extent to which the behavior is linked to popularity should vary across these groups also. It is this logic that has provided the basis for much of the research on group variations in the correlates of popularity.

*Sex differences.* Given the widespread concern with sex differences in the literature on child development, it seems surprising to discover how little work exists on the topic of sociometric peer acceptance. Typically, researchers have failed to examine whether general findings are equally valid for boys and girls. Further, sex differences have been neglected despite (a) the long-standing view that the relationships formed and maintained by females are qualitatively distinct from those of males (Leaper, 1994) and (b) the evidence that some aspects of social behavior may be differentially normative for boys and girls (e.g., Humphreys & Smith, 1987). This gap in the literature is striking and it severely compromises our current understanding of the peer system (see Ruble, Martin, & Berenbaum, 2006).

*Variations across groups.* The argument that a child’s popularity will be associated with particular peer group norms has been the central focus of a number of investigations. Boivin, Dodge, and Coie (1995), for example, reported that reactive aggression, proactive aggression, and solitary play were more negatively linked to a measure of social preference when high levels of these specific behaviors were nonnormative and unrelated to preference when high levels on these behaviors were normative. Stormshak et al. (1999) also found



support for the person-group similarity model. These researchers reported that for boys, social withdrawal was associated with peer acceptance in those classrooms in which withdrawal was normative; for boys, aggression was linked to peer preference in those classrooms in which aggression was more normative. Findings for girls were, complex and in some cases not supportive of the person-group similarity model. For example, in classrooms marked by high aggression, aggressive girls were not better liked than nonaggressive girls.

These studies show clearly that the association between a particular form of behavior and popularity depends on whether the behavior is normative for a group. Considering the importance of group norms as moderators of the associations between behaviors and popularity, researchers should be cautious about drawing broad conclusions about the correlates of popularity. Indeed, researchers would do well to assess the person/group interaction and similarity as a major determinant of peer acceptance and rejection.

*Variations across culture.* Cross-cultural research on the correlates of peer acceptance and rejection has been aimed at asking whether given behaviors known to be associated with acceptance or rejection in North American samples demonstrate similar relations in other cultures. One shortcoming in this work may be that investigators have taken measures originally developed for use in a Western cultural context, and have employed them in other cultural milieus. The general conclusion from this research has been that aggression and helpfulness are associated with rejection and popularity respectively in a wide range of cultures (e.g., Chang et al., 2005; Cillessen et al., 1992). Alternatively, researchers have found that among young Chinese children, sensitive, cautious, and inhibited behavior are positively associated with competent and positive social behavior and with peer acceptance (e.g., Chen, Rubin, & Sun, 1992). More recently, however, Hart and colleagues (2000) found that social reticence, defined as unoccupied and onlooking behavior, was associated with a lack of peer

acceptance, not only in young American children, but also among Russian and Chinese youngsters. Relatedly, Chen et al. (Chen, Cen, Li, & He, 2005) reported that over the years, since the early 1990s, shy, reserved behavior among Chinese elementary school children has increasingly become associated with negative peer reputations. Chen and colleagues have argued that the changing economic and political climate in China is being accompanied by preferences for more assertive, yet competent, social behavior. In short, researchers would do well not to generalize findings drawn from children of one cultural group to children from another context. Moreover, changing socioeconomic climates may prove to have significant influences on that which is deemed acceptable behavior by significant peers and adults in the child's environment.

### ***Social Cognitive Correlates of Peer Acceptance and Rejection***

In this section, we review research in which social cognition has been associated with sociometric status. The majority of this research has been guided by social information-processing models, such as those of Rubin and Rose-Krasnor (1992), Crick and Dodge (1994), and Lemerise and Arsenio (2000). For a complete description of these models and others, see Dodge, Coie et al., (2006).

Much research on social cognition and peer relationships has focused on rejected children's deficits or qualitative differences in performance at various stages of these social information-processing models. For instance, when considering the motives or intentions of others, rejected-aggressive children are more disposed than their popular counterparts to assume that negative events are the product of malicious, malevolent intent on the part of others (e.g., Dodge et al., 2003). This bias is evident when children are asked to make attributions for others' behaviors in situations where something negative has happened but the motives of the instigator are unclear. In these ambiguous situations, rejected-aggressive

children appear unwilling to give a provocateur the benefit of the doubt—for example, by assuming that the behavior occurred by accident. This “intention cue bias” is often suggested as an explanation for why it is that aggressive and oppositional-defiant children choose to solve their interpersonal problems in hostile and agonistic ways (e.g., see Orobio de Castro, Veerman, Kooops, Bosch, & Monshouwer, 2002, for a recent review).

But why would aggressive children think that when negative, but ambiguously caused events befall them, the protagonist means them harm? In keeping with Lemerise and Arsenio (2000), a transactional perspective would suggest that aggressive children, many of whom are already rejected (and victimized) by their peers, believe that certain others do not like them, those others have a history of rejecting of them or acting mean toward them, and thus the negative act must be intentionally caused. This conclusion of intentional malevolence is posited to elicit anger and a rapid fire response of reactive aggression. Many researchers have found that when asked how they would react to an ambiguously caused negative event, aggressive children respond with a choice of agonistic strategies (Orobio de Castro et al., 2002). And aggressive children also regard aggression to be an effective and appropriate means to meet their interactive goals (Vernberg, Jacobs, & Hershberger, 1999). The processes leading to the enactment of aggression and the behavioral display itself no doubt reinforces an already negative peer profile.

By the elementary and middle school years, many socially withdrawn children are also rejected by their peers. Thus, one may ask whether these children view their social worlds in ways that vary from those of nonwithdrawn and/or nonrejected children. To begin with, when socially withdrawn 4- and 5-year-olds are asked how they would go about obtaining an attractive object from another child, they produce fewer alternative solutions, display more rigidity in generating alternative responses, and are more likely to suggest adult

intervention to aid in the solution of hypothetical social problems when compared to their more sociable age-mates (Rubin, Daniels-Beirness, & Bream, 1984).

Rubin and colleagues (e.g., Rubin, Burgess, Kennedy, & Stewart, 2003) have argued that as a result of frequent interpersonal rejection by peers, withdrawn children may begin to attribute their social failures to internal causes. Supporting these notions, Rubin and Krasnor (1986) found that extremely withdrawn children tended to blame social failure on personal, dispositional characteristics rather than on external events or circumstances. These results are in keeping with recent findings by Wichmann, Coplan, and Daniels (2004) who reported that when 9- to 13-year-old withdrawn children were presented with hypothetical social situations in which ambiguously caused negative events happened to them, they attributed the events to internal and stable “self-defeating” causes. Moreover, withdrawn children suggested that when faced with such negative situations, they were more familiar with failure experiences and that a preferred strategy would be to withdraw and escape.

Given the earlier noted conceptual associations between social withdrawal, victimization, and peer rejection, the findings by Wichmann et al. (2004) are reminiscent of work by Graham and Juvonen (1998). These latter researchers reported that youngsters who identified themselves as victimized by peers tended to blame themselves for their peer relationship problems. And Nolen-Hoeksema, Girgus, and Seligman (1992) have argued that self-blame can lead to a variety of negative outcomes of an internalizing nature, such as depression, low self-esteem, and withdrawal, thereby suggesting a self-reinforcing cycle of negative socioemotional functioning.

### ***Self-System Correlates of Peer Acceptance and Rejection.***

An important repercussion that has been ascribed to negative experiences with peers is their effect on the self-concept. Indeed, researchers have consistently reported that it is mainly

rejected-withdrawn children who believe they have poor social skills and relationships (Hymel, Bowker, & Woody, 1993). Rejected-aggressive children do not report thinking poorly about their social competencies or their relationships with peers (Zakriski & Coie, 1996).

Given rejected-withdrawn children's negative perceptions of their social competencies and relationships, and given their negative experiences in the peer group, it is not surprising that these 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). A further distinction between rejected children is the chronicity of their peer problems. Whereas rejection is temporary for some children, it is an enduring experience for others. Ladd and Troop-Gordon (2003) showed that chronic rejection was related to subsequent views of the self and that these negative self-perceptions partially mediated the relation between peer difficulties and internalizing problems and loneliness.

***Children's Friendships: Correlates and Individual Differences.***

Beginning with the correlates of friendship *involvement*, researchers have found that the lack of a best friendship, whether at a given point in time or chronically, can be accompanied by numerous risks. Friendless children are more likely to be lonely and victimized by peers (e.g., Brendgen, Vitaro, & Bukowski, 2000). Chronic friendlessness during childhood has been associated contemporaneously with social timidity, sensitivity, and the lack of social skills (Parker & Seal, 1996; Wojslawowicz Bowker et al., 2006), and predictively with subsequent internalizing problems (Ladd & Troop-Gordon, 2003).

Friendship *dissolution* may have a serious impact on children's adjustment. Disruptions of close peer relationships have been associated with depression, loneliness,

guilt, and anger (e.g., Laursen et al., 1996; Parker & Seal, 1996). In addition, friendship loss in early adolescence may be particularly painful, due to the special role of friends' loyalty during this developmental period (Buhrmester & Furman, 1987). Recently, Wojslawowicz Bowker et al. (2006) reported that 10- and 11-year-old children who had a best friend at the beginning of the school year but who lost that friendship and failed to replace it by the end of the school year were at increased risk for victimization by peers. Thus, it may be that if a dissolved best friendship is not replaced, the "advantages" of once having a best friend may quickly vanish.

Individual child characteristics are also related to the prevalence of friendship and the quality of their dyadic relationships with peers. Given that many rejected children appear to be aggressive and/or withdrawn, it is surprising to note that few investigators have examined the friendships of these children. Not all aggressive and withdrawn children and certainly not all rejected children experience later adjustment difficulties. Thus, the best friendships of these children may function protectively and buffer them from later problems. Alternately, some best friendships may actually serve to exacerbate existing problems. An example of the protective role that friendship may play for children who have difficulties in the peer group may be drawn from research by Hodges, Boivin, Vitaro, and Bukowski (1999). These researchers found that peer victimization predicted increases in internalizing and externalizing difficulties during the school year for those children who lacked a mutual best friendship. The relation between peer victimization, internalizing, and externalizing problems was nonsignificant for children who possessed a mutual best friendship, thereby suggesting that friendship may function protectively for children who are victimized by their peers.

We now compare the friendships of those children who appear at greatest risk for peer rejection (i.e., those who have been identified as aggressive or socially withdrawn) with their age-mates who have do not evidence such behavioral or psychological difficulties.

*Friendship prevalence and quality.* Investigators have shown that the majority of aggressive children have a mutual best friendship and are as likely as well-adjusted children to have mutual friends (e.g., Vitaro, Brendgen, & Tremblay, 2000). Aggression, however, does seem to be negatively related to friendship stability (e.g., Hektner et al., 2000). Moreover, aggressive children have friends who are more aggressive and their relationships are more confrontational and antisocial in quality (e.g., Dishion, Eddy, Haas, Li, & Spracklen, 1997). High levels of relational aggression (e.g., threatening friendship withdrawal) within the friendship, and high levels of exclusivity/jealousy, and intimacy characterize the friendships of relationally aggressive children. In contrast, overtly aggressive children direct their overt aggression outside their friendship dyads, and report low levels of intimacy (Grotmeter & Crick, 1996).

The prevalence of best friendships among young socially withdrawn children is not significantly different from that among nonwithdrawn children (Ladd & Burgess, 1999), and approximately 60% of withdrawn 8-, 9-, and 10-year-olds have reciprocated, stable friendships (e.g., Rubin, Wojslawowicz, et al., 2006). These data suggest that social withdrawal and shyness are individual characteristics that do not influence the formation, prevalence, and maintenance of friendship in childhood. In terms of relationship quality however, it has been shown that the friendships of withdrawn children are viewed as relatively lacking in fun, intimacy, helpfulness and guidance, and validation and caring (Rubin, Wojslawowicz, et al., 2006). These findings suggest a “misery loves company” scenario for withdrawn children and their best friends. One may conjure up images of

victimized friends coping poorly in the world of peers, images reflected in recent newspaper and television accounts of peer victimization and its untimely consequences.

There is some evidence to suggest that socially withdrawn children are more likely than their age-mates to be chronically friendless. In a summer camp study conducted by Parker and Seal (1996), chronically friendless children were rated by their peers to be more shy and timid, to spend more time playing alone, and to be more sensitive than children who possessed a mutual best friendship during the summer camp program. Additionally, counselors rated these friendless children as less mature, less socially skilled, and as displaying more withdrawn and anxious behaviors than children with friends.

### ***Distal Predictors of Children's Social Skills and Peer Relationships.***

The quality of children's extrafamilial social lives is likely a product of factors internal and external to the child. Drawing from Hinde (1987), for example, it seems reasonable to suggest that such individual characteristics as biological or dispositional factors (e.g., temperament; self-regulatory mechanisms) may influence children's peer interactions and relationships. It is equally plausible that the interactions and relationships children experience with their parents are important.

*Temperament.* Temperament has been construed as constitutionally based individual differences in emotional, motoric, and attentional reactivity and the regulation thereof (Rothbart, Ellis, & Posner, 2004). Researchers who study temperament report that individuals differ not only in the ease with which positive and negative emotions may be aroused (*emotionality*) but also in the ease with which emotions, once aroused, can be *regulated* (Rothbart et al., 2004). In some respects, a better term for emotionality is *reactivity* in that most research on the phenomenon is focused on the extent to which children react to situations or events with anger, irritability, or fear. And again, most contemporary



researchers have been interested in the ways in which reactive responses can be *self*-regulated. Thus, researchers have centered on the *effortful self-control* of emotional, behavioral, and attentional processes (Sanson, Hemphill, & Smart, 2004).

The constructs of difficult temperament, activity level, inhibition, and sociability merit special attention in the study of peer interactions and relationships. *Difficult* temperament refers to the frequent and intense expression of negative affect (Thomas & Chess, 1977). Fussiness and irritability would be characteristic of a “difficult” infant or toddler. In reactivity/regulation terminology, the difficult child is one whose negative emotions are easily aroused and difficult to soothe or regulate. The highly active baby/toddler is one who is easily excited, motorically facile, and highly reactive. Inhibited infants/toddlers are timid, vigilant, and fearful when faced with novel social stimuli; like the other groups of children, their emotions are easily aroused and difficult to regulate. Finally, children who are outgoing and open in response to social novelty are described as sociable (Kagan, 1999).

Each of these temperamental characteristics is relatively stable, and each is related to particular constellations of social behaviors that we described earlier as characteristic of either popular or rejected children. Infants and toddlers who have been identified as having difficult and/or active temperament, or as emotionally reactive are more likely to behave in aggressive, impulsive ways in early childhood (e.g., Rubin, Burgess, Dwyer, & Hastings, 2003). Contemporaneous and predictive connections between negative emotionality and/or difficult temperament and children’s aggressive and oppositional behavior have been discovered by researchers the world over (e.g., Russell, Hart, Robinson, & Olson, 2003). And, as we noted earlier, undercontrolled, impulsive, and aggressive behavior is associated contemporaneously and predictively with peer relationships characterized by rejection.

Similarly, behavioral inhibition, an individual trait identified in toddlerhood predicts the display of shyness and socially reticent behavior in early childhood (Rubin, Burgess, & Hastings, 2002). Shy, socially reticent children display less socially competent and prosocial behaviors, employ fewer positive coping strategies, and are more likely to develop anxiety problems than their nonreticent age-mates (e.g., Coplan et al., 1994). Moreover, reticence and social withdrawal predict peer rejection and victimization from as early as the preschool years (e.g., Gazelle & Ladd, 2003).

It has been suggested that dispositional characteristics related to emotion regulation may lay the basis for the emergence of children's social behaviors and relationships. For example, Rubin, Coplan, Fox, and Calkins (1995) have argued that the social consequences of emotion dysregulation vary in accord with the child's behavioral tendency to approach and interact with peers during free play. They found that sociable children whose approach behaviors lacked regulatory control were disruptive and aggressive; those who were sociable but able to regulate their emotions were socially competent. Unsociable children who were good emotion regulators appeared to suffer no ill effects from their lack of social behavior. Yet, unsociable children who were poor emotion regulators were more behaviorally anxious and wary and more reticent than constructive when playing alone. Thus, emotionally *dysregulated* preschoolers may behave in ways that will elicit peer rejection and inhibit the development of qualitatively adaptive friendships. Further, this is the case for emotionally dysregulated sociable as well as unsociable children (see also Eisenberg, Cumberland, et al., 2001; Fabes, Hanish, Martin, & Eisenberg, 2002). Relatedly, researchers have found that the abilities to regulate negative emotions and to inhibit the expression of undesirable affect and behavior (regulatory control) are associated with, and predictive of, social competence and

peer acceptance (e.g., Eisenberg, Pidada, & Liew, 2001), findings that are consistent across cultures (e.g., Zhou, Eisenberg, Wang, & Reiser, 2004).

It is important to note that very little is known about the associations between temperament and aspects of friendship. When compared to highly emotional children, some findings indicate that sociable children have more positive relationships with friends (e.g., Pike & Atzaba-Poria, 2003). Dunn and Cutting (1999), in a study of young children, found that negative emotionality was associated with the observed frequency of failed social bids and with less amity directed to the best friend; as a counterpoint, children showed less amity to friends who were inhibited or shy.

*The parent-child attachment relationship.* A basic premise of attachment theory is that the early mother-infant relationship lays the groundwork for children's understanding of, and participation in, subsequent extrafamilial relationships. And, since the quality of attachment relationships with the mother may vary, subsequent social success and relationships with peers is expected to vary as well. For a thorough review of attachment theory in relation to peer relationships, the reader is directed to Rubin and Burgess (2002). Studies of attachment and peer relationships have demonstrated that securely attached infants are more likely than their insecure counterparts to demonstrate socially competent behaviors amongst peers during the toddler (e.g., Pastor, 1981), preschool (e.g., Booth, Rose-Krasnor, & Rubin, 1991), and elementary school periods (e.g., Elicker, Englund, & Sroufe, 1992). Insecure babies, especially those classified as avoidant, later exhibit more hostility, anger, and aggressive behavior in preschool settings than their secure counterparts (e.g., Burgess, Marshall, Rubin, & Fox, 2003). Insecure-ambivalent infants are more easily frustrated, and socially inhibited at 2 years than their secure age-mates (e.g., Fox & Calkins, 1993). Finally, evidence that disorganized/disoriented attachment status in infancy predicts the subsequent

display of aggression amongst preschool and elementary school peers derives from several sources (e.g., Lyons-Ruth, Easterbrooks, & Cibelli, 1997).

It is also the case that secure and insecure attachments, as assessed in early and middle childhood, as well as in early adolescence are associated contemporaneously with and predictive of adaptive and maladaptive social behaviors respectively. For example, children who experience a secure relationship with their mothers (and fathers) have been found to be more sociable and competent than their insecure counterparts, whilst insecure children exhibit more aggression and withdrawal (Allen, Moore, Kuperminc, & Bell, 1998; Rose-Krasnor, Rubin, Booth, & Coplan, 1996).

If the quality of the attachment relationship is associated with, and predictive of, patterns of social interaction, it seems logical to propose a relation between attachment status and the child's standing in the peer group. In a recent meta-analysis of the extant literature on links between attachment and peer acceptance, Schneider, Atkinson, and Tardiff (2001) found a small-to-moderate effect size between these domains. Importantly however, Schneider et al. (2001) found a larger effect size linking attachment security with friendship than with peer relationships more generally. Booth, Rubin, Rose-Krasnor, and Burgess (2004), argue that although associations between attachment security and social competence and peer acceptance are theoretically meaningful, there is an even more compelling rationale for the link between attachment security and friendship. From attachment theory, one would expect that the trust and intimacy characterizing secure child-parent relationships should produce an internalized model of relationship expectations that affects the quality of relationships with friends. In support, secure parent-child attachment in late childhood and early adolescence is associated positively (and contemporaneously) with positive qualities of children's close peer relationships (Lieberman, Doyle, & Markiewicz, 1999).

*Parental beliefs and children's social behaviors and peer relationships.* Parents' ideas, beliefs, and perceptions about the development and maintenance of children's social behaviors and relationships predict, and presumably partially explain the development of socially adaptive and maladaptive interactive behaviors and peer relationships in childhood. This is true because parents' child-rearing practices represent a behavioral expression of their ideas about how children become socially competent, how family contexts should be structured to shape children's behaviors, and how and when children should be taught to initiate and maintain relationships with others (Bugental & Happaney, 2002). These ideas about child rearing and about what is acceptable and unacceptable child behavior in the social world are culturally determined. Extended discussions of such cultural determination may be found in Rubin and Chung (2006).

Investigators have shown that parents of socially competent children believe that, in early childhood, they should play an active role in the socialization of social skills via teaching and providing peer interaction opportunities (Rubin, Mills, & Rose-Krasnor, 1989). They believe also that when their children display maladaptive behaviors, it is due to transitory and situationally caused circumstances. Parents whose preschoolers display socially incompetent behaviors, alternatively, are less likely to endorse strong beliefs in the development of social skills (Rubin et al., 1989). Furthermore, they are more likely to attribute the development of social competence to internal factors, to believe that incompetent behavior is difficult to alter, and to believe that interpersonal skills are best taught through direct instructional means (Rubin et al., 1989).

*The child as parental belief evocateur.* There is growing evidence that parental beliefs may be evoked by child characteristics and behavior, and that parental beliefs and child characteristics influence each other in a reciprocal manner (Bornstein, 2002). For example, in

the case of aggressive children, any hostile behavior, whether directed at peers, siblings, or parents may evoke (a) strong parental feelings of anger and frustration (Eisenberg, Gershoff, et al., 2001) and (b) biased attributions that “blame” the child’s noxious behavior on traits, intentions, and motives internal to the child (e.g., Strassberg, 1995). These parental cognitions and emotions, predict the use of power assertive and restrictive disciplinary techniques (Coplan, Hastings, Lagace-Seguin, & Moulton, 2002). This type of low warmth-high control parental response, mediated by affect and beliefs/cognitions about the intentionality of the child behavior, the historical precedence of child aggression, and the best means to control child aggression, is likely to evoke negative affect and cognitions in the child. The result of this interplay between parent and child beliefs, affects, and behavior may be the reinforcement and extension of family cycles of hostility (e.g., Granic & Lamey, 2002).

Parental reactions to social wariness and fearfulness are less well understood. Researchers have found that when children produce a high frequency of socially wary, withdrawn behaviors their parents (a) recognize this as a problem; (b) express feelings of concern, sympathy, guilt, embarrassment, and, with increasing child age, a growing sense of frustration; and (c) are more inclined than parents of nonwary children to attribute their children’s social reticence to dispositional traits (Hastings & Rubin, 1999). Perhaps in an attempt to regulate their own expressed guilt and embarrassment emanating from their children’s ineffectual behaviors, mothers of socially withdrawn preschoolers indicate that they would react to their children’s displays of social withdrawal by providing them with protection and direct instruction (Mills & Rubin, 1998).

*Parenting behaviors, children’s social skills, and peer relationships.* Parental discipline of unacceptable, maladaptive peer-directed behaviors has also been associated with their

children's peer relationships. Parents (usually mothers) of unpopular and/or peer rejected children have been reported to use inept, intrusive, harsh, and authoritarian disciplinary and socialization practices more frequently than those of their more popular counterparts (e.g., McDowell & Parke, 2000). Alternately, parents of popular children use more feelings-oriented reasoning and induction, responsiveness, warm control (authoritative), and positivity during communication than their unpopular counterparts (e.g., Mize & Pettit, 1997).

With regard to parenting behavior and children's socially incompetent behaviors, researchers have shown consistently that aggressive children have parents who model and inadvertently reinforce aggressive and impulsive behavior, and who are cold and rejecting, physically punitive, and inconsistent in their disciplinary behaviors. In addition to parental rejection and the use of high power-assertive and inconsistent disciplinary strategies, parental permissiveness, indulgence, and lack of supervision have often been found to correlate with children's aggressive behavior (see Rubin & Burgess, 2002 for a review). Importantly, these findings appear to have cross-cultural universality (e.g., Cheah & Rubin, 2004).

Research concerning the parenting behaviors and styles associated with social withdrawal focuses clearly on two potential socialization contributors—overcontrol and overprotection. Parents who use high power-assertive strategies and who place many constraints on their children tend to rear shy, reserved, and dependent children. Thus, the issuance of parental commands combined with constraints on exploration and independence may hinder the development of competence and deprive the child of opportunities to interact with peers. It should not be surprising that children who are socially withdrawn are on the receiving end of parental overcontrol and overprotection (e.g., Rubin, Burgess, & Hastings, 2002). These findings concerning parental overcontrol and restriction stem from very few studies, most of which center on young children. Furthermore, the contexts in

which parents of socially withdrawn children display overcontrol and overprotection have not been well specified.

*Parenting behaviors and children's social competence: A model.* In summary, there is some support for the contention that parental behavior is associated, not only with the development of children's social competence, but also with their peer relationships. The assumption has been that parenting leads to social competence or incompetence, which in turn leads to peer acceptance or rejection. This causal model has been tested in a number of studies.

Dishion (1990) examined the relations among grade-school boys' sociometric status, academic skills, antisocial behavior, and several elements of parental discipline practices and family circumstances. Causal modeling suggested that the relation between inept parenting and peer rejection was mediated by boys' antisocial behavior and academic difficulties: Lower levels of parental skill were associated with higher levels of antisocial behavior and lower levels of academic performance; antisocial behavior and poor academic performance, in turn, were associated with higher levels of peer rejection. These findings have been replicated and extended in a similar study conducted in the People's Republic of China (Chen & Rubin, 1994).

There is also the possibility that the link between parenting and child outcomes of an adaptive or maladaptive nature can be attenuated by the quality of the child's status in the peer group or the quality of his or her friendships. For example, the longitudinal relation between harsh parenting and negative outcomes of an externalizing nature is augmented when children have poor peer relationships (e.g., Lansford, Criss, Pettit, Dodge, & Bates, 2003). Recent research findings also indicate that an insecure attachment relationship may predict difficulties of an externalizing or internalizing nature, but only for those children or



young adolescents who lack friendship or qualitatively rich friendship (e.g., Rubin, Dwyer, et al., 2004). Thus, in recent models pertaining to the links between parenting and adaptive or maladaptive outcome, it appears as if, by middle to late childhood, children's friendships may buffer or exacerbate the statistical associations.

### **CHILDHOOD PEER EXPERIENCES AND LATER ADJUSTMENT**

Our goal, in this section, is to provide a summary of research in which the primary focus has been to identify aspects of childhood peer relationship experiences at the dyadic and group levels that predict subsequent adaptation and maladaptation. Here, we focus only on studies in which prospective, follow-forward designs have been employed. A lengthy overview of retrospective studies may be found in Rubin, Bukowski, & Parker (1998).

#### ***Academic Adjustment.***

It has been shown that adjustment to school derives from several aspects of children's relationships with peers. Wentzel and Asher (1995) found that popular children were viewed as helpful, good students. Rejected/aggressive students, relative to average and rejected/submissive children, showed little interest in school, were perceived by teachers as dependent, and were seen by peers and teachers as inconsiderate, noncompliant, and prone to causing trouble in school. These findings were consistent with longitudinal findings reported by Ollendick, Weist, Borden, and Greene (1992) who showed that children who were actively disliked by their peers were anywhere from two to seven times more likely to fail a subsequent grade than better accepted children. Similarly, Coie, Lochman, Terry, and Hyman (1992) found that higher levels of rejection predicted later grade retention and poorer adjustment after the transition to middle school. Given these longitudinal connections between peer rejection and later poor school performance, it is not surprising to

learn that children who have troubled relationships with their peers are more likely to drop out of school than are other children (Ollendick et al., 1992).

Factors other than peer rejection appear to be important also. Most notably friendships appear to influence school adjustment. For example, Kindermann (1993) found that children typically associated with peers who had a motivational orientation similar to their own. Recently, Hymel, Comfort, Schonert-Reichl, and McDougall (2002) noted that adolescents who drop out of school are more likely than other students to have associated with peers who do not regard school as useful and important. These findings are important because they show that friendships via peer group norms can influence academic adjustment.

In two studies, the effect of early adolescent friendship was demonstrated clearly and in richer ways than seen previously. Berndt, Hawkins, and Jiao (1999) showed that adjustment to junior high school was facilitated by engagement in friendships that were stable and of high quality (e.g., rated as high in closeness and support). Wentzel, McNamara-Barry, and Caldwell (2004) also examined friendship and the adjustment to a junior high school. They showed that friendless children were lower in prosocial behavior and higher in affective distress both concurrently and 2 years later. They noted that friends' characteristics can act as a form of social motivation that can either increase or decrease an early adolescent's adjustment to school.

Similar friendship factors seem to be important with younger children also. Ladd and colleagues (Ladd, 1990, 1991; Ladd, Kochenderfer, & Coleman, 1996, 1997) have demonstrated that children with many friends at the time of elementary school entry developed more favorable attitudes toward school in the early months than children with fewer friends. Those who maintained their friendships also liked school better as the year

went by. Findings also revealed positive associations between children's perceptions of best friendship quality in kindergarten and later indices of scholastic adjustment (school-related affect, perceptions, involvement, and performance) in grade school.

### ***Psychological Adjustment.***

*Externalizing problems.* Results of longitudinal studies have indicated that peer rejection in childhood predicts a wide range of externalizing problems in adolescence, including delinquency, conduct disorder, attention difficulties, and substance abuse (e.g., Ollendick et al., 1992). These findings are not particularly surprising given the well-established link between aggression and peer rejection, and especially given that aggressive-rejected children are more likely to remain rejected over time. Importantly, research has shown that early peer rejection provides a unique increment in the prediction later antisocial outcomes, even when controlling for previous levels of aggression and externalizing problems (e.g., Laird, Jordan, Dodge, Pettit, & Bates, 2001; Miller-Johnson, Coie, Maumary-Gremaud, Bierman, & Conduct Problems Prevention Research, 2002).

Given the less than perfect stability of rejected status, it would seem reasonable to ask whether psychological risk status is equivalent for children with chronic versus episodic and transient rejection by peers. To address this question, Miller-Johnson et al. (2002) showed that peer rejection in first grade added incrementally to the prediction of early starting conduct problems in third and fourth grades, over and above the effects of aggression. Similarly, Dodge and colleagues (2003) reported that peer rejection predicted longitudinal "growth" in aggression over time from early to middle childhood, and from middle childhood to adolescence. These researchers also found a developmental pathway in which peer rejection led to more negative information processing patterns (i.e., hostile cue interpretation), which led to increased aggression. Certainly part of the association between

rejection and externalizing involves the network of peer involvement experiences by rejected children. Brendgen, Vitaro, and Bukowski (1998) showed that rejected children were more likely than other boys and girls to associate with delinquent peers and that these associations accounted for their subsequent delinquency. Consistent with expectations related to the process of deviancy training, at-risk children, especially boys, who have aggressive friends appear to influence each other with reinforcements and enticements (Bagwell & Coie, 2004), which increases each other's aggression. These mechanisms also appear to account for the development of substance abuse problems also (e.g., Dishion, Capaldi, & Yoerger, 1999).

*Internalizing problems.* Results from a growing number of studies have indicated that anxious-withdrawal is contemporaneously and predictively associated with internalizing problems during the life span, including low self-esteem, anxiety problems, loneliness, and depressive symptoms (e.g., Coplan, Prakash, O'Neil, & Armer, 2004). In a longitudinal study from kindergarten (age 5 years) to the ninth grade (age 14 years), Rubin and colleagues reported that withdrawal in kindergarten and second grade predicted peer rejection, self-reported feelings of depression, loneliness, and negative self-worth and teacher ratings of anxiety in the fifth grade (Hymel, Rubin, Rowden, & LeMare, 1990; Rubin & Mills, 1988). In turn, social withdrawal in the fifth grade predicted self-reports of loneliness, depression, negative self-evaluations of social competence, the lack of perceived peer social support, and parental assessments of internalizing problems in the ninth grade (Rubin, Chen, McDougall, Bowker, & McKinnon, 1995).

Researchers have also recently begun to explore the unique role of peer rejection in the prediction of internalizing problems. For example, Kraatz-Keily, Bates, Dodge, and Pettit (2000) reported that peer rejection predicted increases in both internalizing and externalizing problems from kindergarten to grade 7. Children's self-perceived rejection has

been associated with increases in internalizing problems over time (e.g., Kistner, Balthazor, Risi, & Burton, 1999). Relatedly, Gazelle and Ladd (2003) found that shy-anxious kindergarteners who were also excluded by peers displayed a greater stability in anxious solitude through the fourth grade and had elevated levels of depressive symptoms as compared to shy-anxious peers who did not experience peer exclusion. Further, Gazelle and Rudolph (2004) recently found that in the 5<sup>th</sup> and 6<sup>th</sup> grades, high exclusion by peers led anxious solitary youth to maintenance or exacerbate the extent of social avoidance and depression; increased social approach and less depression resulted from the experience of low exclusion.

The majority of the research regarding friendship and subsequent internalizing problems has considered the effects of friendship as either a moderator or as a mediator. In addition to the previously described study by Hodges, Boivin, et al. (1999), Rubin et al. (2004) demonstrated that when 10- to 11-year-olds reported difficulties in their relationships with their mothers and fathers, having a strong supportive best friendship buffered them from negative self-perceptions and internalizing problems.

The notion that friendship may buffer rejected children from negative outcomes has been examined in a number of recent studies. However, the findings in these studies have been somewhat counterintuitive. For example, Hoza, Molina, Bukowski, and Sippola (1995) and Kupersmidt, Burchinal, and Patterson (1995) reported that having a best friend actually augmented negative outcomes for children who were earlier identified as rejected and aggressive. One explanation for these findings emanates from findings indicating that the friendship networks of aggressive-rejected children comprise other aggressive children; the existence of a friendship network supportive of maladjusted behavior may actually

exacerbate the prospects of a negative developmental outcome for rejected children (e.g., Cairns, Gariepy, & Kindermann, 1989).

## CONCLUSIONS

In this chapter, we have examined the remarkable progress that has been made in describing and explaining the features, processes, and effects of children's experiences with their age-mates. A consequence of this progress is that peer research must now answer new questions and deal with new challenges. An additional repercussion of our progress is that the gaps in our understanding of the peer system become clear. We address these concerns in this concluding section. Specifically, we identify two current challenges and opportunities for peer research, and we identify two topics that deserve more attention than they have received in the past.

### *Two Critical Challenges*

First, we propose that the efforts to study peer relationships as a system need to be continued and intensified. The study of peer relationships has been frequently predicated on the concept that peer relationships, however construed, must be viewed as either an antecedent or consequence. Consistent with the view that development is a dynamic, multidirectional process (Sameroff & MacKenzie, 2003), the study of peer relationships needs to be understood as a complex system. Children bring various behaviors, needs, and cognitions into their peer experiences at the dyadic and group level. In turn, these individual characteristics affect the features of these experiences and the provisions that children derive from these experiences leading to changes, for better or worse, in the child's subsequent short-term and long-term functioning. Although the study of transactional models of development has been aided by the evolution of statistical procedures (e.g., structural equation modeling, growth curve analyses, hierarchical linear modeling), the number of

investigations incorporating these models and techniques remains lower than one might expect.

Second, the features and effects of experiences with peers need to be understood according to the larger systems in which they are embedded and according to how they interface with other systems. Opportunities for peer interaction and relationships vary from one culture to another and different cultures ascribe different degrees of significance to them. The “content” of peer interactions and relationships is likely to vary, for example, as a function of how much power is ascribed to kinship structures and by who makes primary decisions about allowable extrafamilial relationships. Because the defining features or characteristics of what it means to be adapted to one’s social context will differ across contexts, the impact on adaptation of particular characteristics of peer relationships is likely to vary also. Finally, in a culture, the effect of the peer system is likely to vary according to differences between children in provisions they obtain in their families.

### ***Two Questions in Search of Answers.***

In spite of its diversity and breadth, at least two fundamental aspects of peer interactions, relationships, and groups are nearly absent from our review. First, what aspects of peer interactions, relationships, and groups affect boys and girls differently? The study of sex differences is covered sporadically throughout this chapter. There are many exemplary studies of how peer interactions and relationships differ for boys and for girls. A central gap in the literature is the understanding of whether some aspects of peer interactions and relationships affect boys and girls differently. This question is not about whether there are differences between the features of peer interactions and relationships of boys and girls. Instead, it is concerned with potential differences in the functions and the developmental significance of peer experiences for boys and girls. Knowing if and how the peer system

works differently for boys and girls would certainly add to our understanding of peer relationships; it would augment our understanding of sexual differentiation as well.

Second, what are the provisions of peer relationships? Friendship, acceptance, and popularity have been studied extensively. We know how to measure these constructs, and we know a good deal about their antecedents and their consequences. Yet, we know little about what it is that children and adolescents “get” from these relationships. To be sure there have been theoretical propositions about why friendship is important and how acceptance and rejection can influence child and adolescent development. But there have been few studies of the specific opportunities and experiences that are afforded by friendship, acceptance, and popularity. And there have been fewer studies of the significance of friendship and/or peer acceptance and rejection for children who vary with regard to sex, ethnicity, and behavioral characteristics. Certainly, the role of culture remains to be fully explored. This question is not simply one of description. Research on friendship, for example, is based on claims about the putative provisions of this relationship. Similar comments can be offered about acceptance and, to a lesser extent, popularity. Further inquiries into what these experiences provide for children would help us better understand the value of the theories we have relied on.



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