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Young Children's Peer Relations and Social Competence

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Introduction

Cultural roots, philosophical perspectives, history, and scientific theories have encouraged members of today's societies to embrace the premise that early experience plays a critical role in human development (see Kessen, 1979; Sears, 1975). In research communities, this premise has spurred an interest in early relationships and their role in children's growth and development. Although parent-child relationships have long been a focal point for theory and research on early socialization (see Ladd & Pettit, 2002), it has become increasingly clear that age mates, or peers, also contribute to children's development (e.g., see Berndt & Ladd, 1989; Harris, 1995; Ladd, 1999). In fact, some have hypothesized (Bowlby, 1973; Freud & Dann, 1951; Rutter, 1979) that early childhood may be a sensitive period for social development, and that certain types of peer experiences contribute uniquely to children's development during this period.

Perhaps not surprisingly, the "peers-as-socializers" hypothesis has gained stature in recent years among scientists and the lay public alike (see Ladd, 2005; Rubin, Bukowski, & Laursen, 2009). Among investigators, evidence implicating peers as change agents in children's development has encouraged some to elevate the importance of peer relations within theories of socialization and development (see Harris, 1995). Likewise, caregivers and educators have come to see peer relations as important because increasing numbers of parents have joined the workforce (Belsky, 2001) making it necessary for young children to spend large amounts of time with peers in out-of-home contexts (e.g., day care, preschools, family day care). As Edwards (1992) observed, "The increasing use of preschools, organized playgroups, and childcare arrangements has brought the age of access to peer relations down near the beginning of life" (p. 297). In many industrialized nations, families have become increasingly isolated within their communities and separate from

larger kin networks. Further, parents who value achievement and economic success enroll their children in preschools and day care programs at early ages so they can be exposed to age mates and develop the skills needed for success in grade school (Edwards, 1992).

Given these scientific and secular trends, it has become increasingly important for parents and child-oriented professionals to understand the nature and impact of children's early experience with peers. Fortunately, over the past 100 years, researchers have spent considerable time and energy learning about young children's social competencies, the types of peer relationships they form during the early childhood years, and the potential consequences that may accrue from children's participation in these relationships (see Ladd, 2005). The purpose of this chapter is to survey extant findings on the development of young children's peer relations and social competence, and examine the extent to which these factors are linked with current and later indicators of children's health, development, and adjustment.

Identifying and Describing Children's Early Peer Relationships

Children's interest in peers and the competencies they possess to relate with them are present very early in life. Infants orient toward peers by 2 months of age, make simple gestures by 3 to 4 months, and direct smiles and vocalizations toward peers by 6 months (Vincze, 1971). Interactions begin early too; in their first year, infants direct actions toward peers, and by the second and third years, toddlers create "games" based on reciprocal gestures and play (see Eckerman, Davis, & Didow, 1989; Vandell & Mueller, 1980). Very young children also form relationships with peers. As early as 2 years, toddlers exhibit strong preferences for particular play partners (Ross & Lollis, 1989; Vandell & Mueller, 1980) and, over time, these early play preferences can develop into complex relationships.

By the preschool years, at least three types of relationships can be discerned in the peer context: *friendships*, *peer group relations*, and *aggressor–victim relations* (i.e., peer victimization). Whereas friendship refers to a voluntary, *dyadic* relationship that often entails a positive affective bond between participants (Berndt, 1996; Howes, 1988), peer group acceptance/rejection is defined as the degree to which an individual child is liked or disliked by the members of his or her social *group* (Asher, Singleton, Tinsley, Hymel, 1979). In contrast, peer victimization refers to a form of relationship in which individuals are actively maltreated (e.g., frequently harassed or aggressed upon) by one or more members of their peer group (Perry, Kusel, & Perry, 1988).

Most young children simultaneously participate in more than one form of peer relationship (Ladd, Kochenderfer, & Coleman, 1997). A child may, for example, have a friend but be largely disliked (rejected) and mistreated (victimized) by members of his or her peer group (Masters & Furman, 1981; Parker & Asher, 1989). In large part, the effects that peers have on children occur within these relationships, and the nature of these “effects” depends on the types of relationships children have formed and the nature of the experiences they have in each type of relationship. Different types of peer relationships appear to create distinct experiences—ones that may have positive (“benefits”) or negative (“costs”) effects on children’s development and well-being (Furman & Robbins, 1985; Ladd et al., 1997).

It should also be noted that friendship, peer group acceptance/rejection, and victim–aggressor relations are theoretical constructs and that researchers have differing views about how these forms of relationship are best defined and measured. For these reasons, it is essential to consider how researchers have defined and measured friendship, peer status, and victimization at different age levels.

Friendships

Friendship appears to take somewhat different forms, and has been defined and investigated in different ways depending on children’s ages. To study early friendships, investigators have relied on parent- and teacher-report measures, self/peer report measures, and observations of children’s social interactions (see Ladd, 1988; Price & Ladd, 1986).

Infants and Toddlers. With infants and toddlers, the criteria that researchers have used to identify friendships include peer familiarity, interaction frequency or consistency, mutual display of positive affect, reciprocity in sharing and play, and so on (Howes, 1988, 1996; Vandell & Mueller, 1980). Howes (1983), for example, considered toddlers to be friends if: (a) at least 50% of their social initiations resulted in social interaction (mutual preference); (b) one or more exchanges of positive affect occurred between partners (mutual enjoyment); and (c) one or more episodes of reciprocal or complementary play occurred between partners (skillful interaction).

Evidence indicates that infants and toddlers form friendships (see Hinde, Titmus, Easton, & Tamplin, 1985; Howes, 1983), and attempts to characterize these relationships show that young children are capable of adapting their behavior to fit their partners’, and that friends or frequent associates interact with each other in ways that are different from the ways they treat other children (Ross & Lollis, 1989). Toddlers’ friendships, in particular, can be enduring (Howes, 1988; Howes & Phillipsen, 1992; Vandell & Mueller, 1980). Howes and colleagues (1983; Howes & Phillipsen, 1992), for example, found that 60% of toddlers’ friendships were sustained over one or more months, and that toddlers’ friendships—particularly cross-gender friendships—often lasted well into the preschool years.

Preschoolers and Young Children. Preschoolers’ friendships have been identified using an assortment of criteria, including indicators of companionship, intimacy, affection, reciprocal play, and frequency of interaction (see Berndt, 1989; Howes, 1996; Parker & Gottman, 1989). For example, Hayes, Gershman, and Bolin (1980) considered preschoolers to be “friends” if they spent at least 50% of playtime interacting with each other in either parallel or cooperative play. Similarly, Hinde, Titmus, Easton, and Tamplin (1985) considered preschoolers to be “strong associates” if they were frequently in each other’s company (i.e., > 30% of time sampled). Children’s self-reports have also been used to identify friendships (see Howes, 1988; Masters & Furman, 1981; Price & Ladd, 1986) because preschoolers are able to name their best friends and articulate reasons for liking them (e.g., common activities, general play; Hayes 1978).

As with toddlers, evidence suggests that preschoolers’ friendships can be stable. Park and Waters (1989) found that many preschoolers had friendships that lasted 7 months or more, and about half of these relationships persisted for as long as 18 months. Similar estimates were obtained by Howes (1988) and Gershman and Hayes (1983), although Howes found that nearly 10% of preschoolers’ friendships lasted as long as two years. Moreover, it appears that many preschoolers are capable of maintaining their friendships across the transition from preschool into formal schooling (i.e., kindergarten; see Ladd, 1988, 1990).

At these ages, friendship stability is associated with the initial quality of the friendship (Berndt, Hawkins, & Hoyle, 1986; Bukowski, Hoza, & Boivin, 1993; Ladd, Kochenderfer, & Coleman, 1996). Accordingly, it appears that preschoolers’ friendships are more likely to withstand the test of time if these relationships possess positive qualities.

Peer Group Relations

The study of young children’s peer group relations has a long history (see Ladd, 2005), and the construct of peer group acceptance/rejection has received the most attention. This aspect of young children’s peer relations has been studied primarily in early educational and childcare settings,

where children tend to be grouped with age mates or near-age mates. Peer acceptance/rejection refers to the degree to which individuals are accepted versus rejected by members of their peer group (Bukowski & Hoza, 1989; Ladd, 1999), and is typically measured by asking peer group members (e.g., preschool classmates) to *rate* or *nominate* individuals with whom they are most or least likely to associate (see Ladd, 1988; Ladd & Coleman, 1993). Whereas children who receive high ratings or many positive nominations from peers are considered accepted, those who receive low ratings or many negative nominations are referred to as low-accepted or rejected (see Poterat, Ironsmith, & Bullock, 1986). Thus, rating methods provide a continuous measure of acceptance/rejection (with high scores denoting acceptance and low scores nonacceptance; see Cassidy & Asher, 1992), and nomination methods enable investigators to classify children into "peer status" categories (i.e., popular, average, controversial, neglected, and rejected; see Hazen & Black, 1989; Ladd, Price, & Hart, 1988; Mize & Ladd, 1990).

Peer Victimization

The study of peer victimization began in Scandinavian countries when researchers became concerned about a specific form of peer aggression that was unprovoked, performed repeatedly over time, and perpetrated by a stronger child (the bully) against a weaker child (the victim; see Olweus, 1993, 1999). In this research, terms such as *whipping boys* were used to identify children who were harassed by *bullies* (Olweus, 1978, 2001). More recently, however, children of both genders who are accosted by peers have been called *victims* (see Graham & Juvonen, 1998; Kochenderfer & Ladd, 1996; Kochenderfer-Ladd & Ladd, 2001; D. G. Perry, Kusel, & Perry, 1988).

Victimization may be conceptualized in relational terms because victims and aggressors often manifest consistent and recurring interaction patterns (see Elicker, Englund, & Sroufe, 1992; Pierce & Cohen, 1995). Unlike friendship and peer acceptance/rejection, however, which imply dyadic- and group-level relationships, respectively, peer victimization refers to relations that occur among a "limited minority of the peer group" (i.e., one or more aggressors and their victims; Perry, Kusel, & Perry, 1988). Victims also differ from children who participate in other types of peer relationships because they are more likely to experience active and frequent forms of abuse (e.g., persistent physical aggression, harassment, exploitation).

To identify children who are victimized by peers, investigators primarily have relied on self- or peer-report questionnaires. However, some evidence suggests that, prior to grade 2, peer reports of victimization tend not to be as reliable as self-reports (see Ladd & Kochenderfer-Ladd, 2002). For these and other reasons, it has become more common for investigators to assess victimization using information from multiple informants (e.g., composite indicators; Ladd &

Kochenderfer-Ladd, 2002). Additionally, researchers have begun to develop and utilize observational methods to identify and study victimized children (see Snyder et al., 2003).

Child Characteristics

Evidence indicating that some children succeed in peer relations while others have difficulties has often been interpreted as support for the social competence hypothesis; that is, the view that children are differentially skilled and therefore bring different levels of competence to social tasks such as making friends or gaining acceptance in peer groups. Essentially, this perspective suggests children are, in part, "the architects of their own social successes and difficulties" (Ladd, 2005) and emphasizes attributes that reside "in the child." Different explanatory foci have been proposed as possible explanations for observed differences in children's social competence. Whereas some perspectives place greater emphasis on genetics or heredity, such as theories of child temperament, others emphasize the role of learning and socialization.

Children's Temperament and Emotion Regulation

Temperament, which refers to individual differences in self-regulation and reactivity, has been of particular interest to those examining young children's peer relations. Temperamental characteristics exhibit wide individual variability and considerable stability (Rothbart & Bates, 2006), making it an important construct to consider when studying young children's socioemotional development.

Temperament is generally considered to refer to a child's behavioral style (Thomas & Chess, 1977), and is viewed as constitutionally based. Despite its biological foundation, it is acknowledged that the nature and expression of temperament is continuously modified by interaction with the environment (Sanson & Rothbart, 1995). Thus, child attributes, such as specific temperament traits, are attenuated or exacerbated via interactions with the environment, including those with peers, to produce differences in child outcomes, such as social adjustment.

Mary Rothbart's model of temperament is currently the most influential for the conceptualization and measurement of the multidimensional construct (Rothbart & Bates, 2006). In this model, temperament is thought to comprise two primary dimensions: regulation and reactivity (Rothbart & Bates, 2006). At the core of temperamental regulation is effortful control (EC), defined as "the efficiency of executive function, including the ability to inhibit a dominant response to activate a subdominant response" (Rothbart & Bates, 2006, p. 129). Effortful control emerges between 6 and 12 months of age and improves substantially in the preschool years (Kochanska, Murray, & Harlan, 2000). It includes skills such as the ability to shift and focus attention as needed, particularly when one does not feel like doing so, as well as integrating information, planning, and perhaps

most directly related to socioemotional competence, modulating emotion and behavior (Eisenberg, Vaughn, & Hofer, 2009; Eisenberg, Vidmar et al., 2010).

Several investigators have found that EC is related to and predicts a variety of positive developmental outcomes, including the quality of social functioning. Effortful control is positively associated with peer acceptance, socially competent behavior, friendship quality, and sympathetic and prosocial tendencies (see Eisenberg, Vaughn, & Hofer, 2009; Spinrad et al., 2006). Even as early as preschool, children who are viewed by adults as well regulated (i.e., high in EC and behavioral self-control), are generally well liked rather than rejected by peers (Gunnar, Sebanc, Tout, Donzella, & van Dulmen, 2003). Similarly, David and Murphy (2007) found that EC predicted low levels of problematic peer behaviors (e.g., observed hostility, negative affect, and provocative behavior during peer interactions and teacher-rated low social competence) among preschoolers. Analogous findings have been obtained for elementary-aged children. For instance, Wilson (2003) found that popular and prosocial kindergartners and first graders displayed less difficulty shifting attention from negative to positive affect and were better able to regulate their ability after experiencing social failure. Further, it is likely that EC affects children's aggression, which influences the quality of their interactions and relationships with peers (see Eisenberg, Fabes, Guthrie, & Reiser, 2000, Eisenberg, Spinrad et al., 2004). Overall, children who are high in effortful regulation demonstrate the skills needed to get along with others and to engage in socially constructive behaviors with peers (e.g., prosocial behaviors), which in turn, enhance liking by peers (Eisenberg, Fabes et al., 2000; Spinrad et al., 2006).

The second component of temperament is reactivity, and it refers to an individual's arousability of motor, affective, and sensory response systems (Rothbart, Ahadi, Hershey, & Fisher, 2001). Reactivity also includes one's responsiveness to change in the external and internal environment. These reactive processes are thought to be the result of overcontrol (i.e., behavioral inhibition), undercontrol (i.e., impulsivity), and negative emotionality, such as fear, anger, and sadness (Rothbart & Bates, 2006). The behavioral tendencies associated with over- and undercontrol appear to be detrimental to children's development, and have been linked with poorer social adjustment. For example, children who are overcontrolled exhibit rigidity in their behavior and may withdraw from social environments (Derryberry & Rothbart, 1997; Spinrad et al., 2006). Conversely, children who have a tendency to be undercontrolled display signs of impulsivity, such as aggressive behaviors. It is thought that children may "act out" due to unregulated anger and frustration (Eisenberg et al., 2001).

Based on the literature reviewed, it may be concluded that children who exhibit difficulties with effortful or reactive control may be at greater risk for social maladjustment, and those who are high in EC tend to be viewed as socially competent. Despite the associations between temperament

and adjustment, researchers have found evidence that the relations between temperamental constructs and positive social functioning may not always operate directly. That is, Spinrad et al. (2006) found that EC predicted another personality characteristic (i.e., resiliency), which in turn, predicted children's social competence. Similarly, some studies suggest that the relation differs for boys and girls, such that girls have an advantage (e.g., Spinrad et al., 2006).

Children's Behavioral Orientations and Repertoires

Investigators who work from learning and socialization perspectives tend to construe social competence in terms of behavioral skills and skill deficits that children have accumulated over time through interactions with parents, teachers, siblings, and peers. In studies of this type, one of the principal investigative strategies has been to compare the behaviors of children who were more or less successful at fundamental social tasks. For example, investigators examined the behavioral antecedents of friendship, peer group entry, and peer group status and discovered that, whereas some of children's behavior patterns predicted positive relational outcomes (e.g., formation of a friendship, peer group acceptance), others forecasted negative relational consequences (e.g., failure to make a friend, peer group rejection). On the basis of this evidence, many investigators concluded that social competence could be conceptualized in behavioral terms.

Investigators working from this perspective have tended to study three types of child behavior as antecedents of children's success or difficulty in peer relations. These include *antisocial behaviors* (e.g., aggression), *prosocial behaviors* (e.g., cooperative interaction patterns), and *asocial behaviors*. Investigators have often worked from the premise that antisocial behaviors create high social costs for their interaction partners, and deprive peers of sought-after psychological benefits (e.g., reliable alliance, social support). In contrast, prosocial actions seldom create interpersonal costs and often benefit partners. Children prone to asocial behavior are likely to be a burden for their partners by being unskillful and failing to maintain interactions.

Prosocial Behavior. A substantial body of evidence indicates that prosocial behaviors, such as friendliness, cooperation, and helping, are markers of social competence in young children, and that such behaviors predict children's success at forming positive peer relationships (Ladd, 2005). In studies of peer group acceptance, investigators discovered that preschoolers who exhibit higher levels of cooperative play tended to become better liked by classmates over time (Ladd, Price, Hart (1988, 1990). Even across the transition from preschool to kindergarten, preschooler's prosocial behaviors predicted the extent to which they became liked by new kindergarten classmates (Ladd & Price, 1987). In studies of friendship, researchers

have found that prosocial preschoolers are more supportive toward their friends (Seban, 2003).

Aggressive Behavior. As early as preschool and kindergarten, some children are more aggressive than others, and this behavioral style is a significant predictor of later misconduct, violence, and school adjustment problems (see Ladd, 2005). For example, Ladd and Burgess (1999, 2001) found that aggressive kindergarteners tended to have social difficulties with peers and teachers throughout the primary grades.

Investigators have also identified and studied different types of aggression, including those that have been conceptualized as direct aggression (i.e., aggression that is directly expressed toward others; also termed confrontational or overt aggression), and indirect aggression (i.e., those manifested indirectly, often termed covert, social, or relational aggression; see Underwood, 2003). Current research suggests that both direct and indirect forms of aggression are predictive of children's adjustment problems (Crick & Grotpeter, 1996).

Based on these findings, many researchers' have concluded that aggression in childhood is a moderately strong predictor of early and later maladjustment (i.e., poor peer relationships, developing conduct disorders, dropping out of school; see Coie, 2004; Ladd, 2005). There is also considerable evidence to suggest that aggressive preschoolers are at risk for poorer school performance and adjustment (e.g., Ladd & Mars, 1986; Ladd & Price, 1987).

Withdrawn Behavior. Children who interact infrequently with peers can be identified as early as the toddler and preschool years (Rubin, Burgess, & Hastings, 2002). Evidence suggests that these children differ from normative samples in that they tend to make fewer requests of peers, comply more during peer interactions, and are often ignored by peers (Rubin, 1982; Rubin & Borwick, 1984).

Many researchers have attempted to identify different types of withdrawn children and ascertain the level of risk associated with each subtype (e.g., see Gazelle & Ladd, 2003; Harrist, Zaia, Bates, Dodge, & Pettit, 1997). Rubin and colleagues (see Rubin, Coplan, & Bowker, 2009) have identified four solitary subtypes (i.e., isolate, solitary-passive, solitary-active, reticent) and differentiated them as follows: isolate preschoolers tend to play alone. Solitary-passive children play alone in a constructive manner, whereas those who are solitary-active engage in repetitive or dramatic play that tends to be disruptive. Lastly, reticent children tend to be wary or seek to maintain distance from peers. Other terms that researchers have used to define solitary children are "anxious-solitary," "active-isolated," "withdrawn-depressed," and "unsociable" or "asocial-withdrawn" and "aggressive-withdrawn" (see Gazelle & Ladd, 2003; Harrist et al., 1997; Ladd & Burgess, 1999).

Children who manifest a combination of withdrawn behaviors and anxiety (e.g., anxious-solitary or reticence)

have been shown to be at greater risk for internalizing problems and peer rejection (Coplan, 2000; Coplan, Rubin, Fox, Calkins, & Stewart, 1994; Coplan & Rubin, 1998; Ladd & Troop-Gordon, 2003). Hart et al. (2000) found that reticent solitary behavior was associated with peer rejection as early as preschool, and Gazelle and Ladd (2003) found that kindergartners who had stable patterns of anxious-withdrawal were often excluded by peers. Moreover, children who were both anxious-withdrawn and excluded were more likely to have elevated trajectories of depression well into middle childhood. In contrast, active isolates or aggressive-withdrawn children appear to be at risk for externalizing problems (Coplan, 2000; Coplan, Gavinsky-Molina, Lagace-Seguin, & Wichmann, 2001; Coplan & Rubin, 1998).

Agents and Contexts that Foster Children's Peer Relations

Evidence from numerous studies suggests that young children's peer relations and social competence are socialized in a variety of settings and by many different types of socialization agents. Included among these agents and contexts are parents and teachers, the family milieu, neighborhoods and community settings, and childcare and preschool environments.

Parental Involvement

It has been proposed that the parent-child and child-peer social systems are linked, such that families influence children's peer relationships and vice versa (Ladd, 1992; Ladd & Pettit, 2002; Parke & Ladd, 1992). Some researchers (e.g., Harris, 1995, 1998), however, have challenged these assumptions by arguing that variations in children's behavior and relationships are largely genetically determined and that parents and families have little impact on children's social development (see Harris, 2000; cf., Vandell, 2000). However, if families do influence some aspects of children's social competence, it becomes important to understand how this might occur, and how such effects might be transmitted.

Ladd and Pettit (2002) have distinguished two family processes that may affect children's social competence and peer relations, and they have labeled these *indirect* and *direct* family influences. Indirect influences represent "aspects of family life that may affect children's social competence, but that do not "provide the child with any explicit connection to the world of peers"(p. 270). In contrast, direct influences are defined as "parent's efforts to socialize or manage children's social development, especially as it pertains to the peer context." (p. 270). These distinctions are used to organize relevant research on the links between parent's socialization practices and children's peer relationships.

Indirect Influences. Whether they realize it or not, parents likely affect young children's peer relationships

or social competence *indirectly* through their everyday interactions and relations within the family. Substantial differences exist in the quality of family environments and parent–child relations, and variations in these factors may have consequences for children’s peer relations. To illustrate: Indirect family processes might affect children’s peer relations when children transfer behaviors, beliefs, or relationship patterns that they have learned within the family to the peer context.

Attachment. Some researchers theorize that children obtain emotional resources and relationship schemas (i.e., working models of relationships) from the attachments they form with parents. Once acquired, children transfer these resources and schemas to other, nonparental relationships such as those formed with peers (Bowlby, 1973; Cummings & Cummings, 2002; Elicker et al., 1992).

Studies show that children who were securely, as compared to insecurely attached to their caregivers, tended to exhibit greater social competence among peers in preschool (Waters, Wippman, & Sroufe, 1979). Moreover, secure attachment and associated relationship schemas, have been linked with children’s participation in friendships and the quality of these relationships (Cassidy, Kirsh, Scolton, & Parke, 1996; Kerns, Klepac, & Cole, 1996; Lieberman, Doyle, & Markiewicz, 1999). Securely attached children also have larger support networks (Bost, Vaughn, Washington, Cielinski, & Bradbard, 1998), more positive affect displays, and higher levels of peer acceptance (LaFreniere & Sroufe, 1985).

The strength of these findings, however, has been questioned. In a meta-analysis of 63 empirical studies, Schneider, Atkinson, and Tardif (2001) obtained only modest effect sizes, leading them to conclude that attachment is only one of many factors that may contribute to children’s social competence.

Parent–Child Relationships. Research on parenting as a potential influence on children’s social competence and peer relations began with investigations of global parenting styles (see Baumrind, 1967). Since that time, however, investigation has shifted toward more specific aspects of the parenting process, such as parents’ emotions, relationships, and interaction styles with children.

Parents’ emotional and linguistic responsiveness (Black & Logan, 1995; Cassidy, Parke, Bukovsky, & Braungart, 1992), connectedness with the child (Clark & Ladd, 2000), support (Pettit, Bates, & Dodge, 1997; Pettit, Clawson, Dodge, & Bates, 1996), and synchrony or balance in parent–child relationships (Pettit & Harrist, 1993) are among the processes that have been linked with children’s social competence and success in peer relationships. To illustrate, Clark and Ladd (2000) discovered that parent–child connectedness correlated positively with many features of children’s peer relationships, including friendship, friendship quality, and peer group acceptance. Other similar constructs, such as parent–child mutuality (i.e., the degree of balance in parents’ and children’s rates of initiating play

and complying with others’ initiations) have been found to correlate positively with children’s peer acceptance (see Ladd & Pettit, 2002).

The way parents play with their children may also be important. Studies show that parents’ directiveness and verbal engagement during play are associated with children’s peer acceptance (MacDonald & Parke, 1984; Parke, MacDonald, Beitel, & Bhavnagri, 1988; Parke, MacDonald, Burks et al., 1989). Other findings revealed that, whereas mothers’ play styles were more strongly linked with their daughters’ social competence, fathers’ play styles correlated more strongly with their sons’ peer competence (Lindsey & Mize, 2000; Pettit, Brown, Mize, & Lindsey, 1998). Among the social skills that parents appear to foster when adopting the playmate role are turn-taking, synchrony in exchanges, mutuality in the determination of the content and direction of play, and matching of emotional states (Russell, Pettit, & Mize, 1998).

Negative qualities of the parent–child relationship have also been examined. Thus far, evidence reveals that intrusiveness, control, and overprotectiveness in parent–child relationships increase children’s risk for peer problems, including victimization and peer abuse (Finnegan, Hodges, & Perry, 1998). For example, Ladd and Kochenderfer-Ladd (1998) reported that boys whose parent–child relationships were overly close, or enmeshed, had a greater likelihood of being victimized by their peers. Eisenberg, Fabes, and Murphy (1996) examined mothers’ reactions to their children’s emotional experiences and found that mothers who minimized their own feelings had children who exhibited lower levels of social competence.

Parent’s Discipline Styles. There is evidence to suggest that harsh discipline may teach children (i.e., model for) antisocial behaviors. G. R. Patterson, Reid, and Dishion (1992) found that children who participated in coercive interactions within their families were more likely to use these same behaviors (e.g., aggression and noncompliance) in peer interactions. Other studies suggest that both the parent’s power-assertive tactics toward their child and the child’s aggressiveness toward their parents were associated with children’s use of aggression among peers (Dishion, 1990; Hart, Ladd, & Burlison, 1990; Pettit, Bates, & Dodge, 1997).

Discipline that is administered in unpredictable, overcontrolling, or psychologically manipulative ways also appears to interfere with children’s social competence. Such behaviors likely undermine children’s autonomy and confidence, making it more difficult for them to assert themselves or take initiative in peer situations. Extreme forms of psychological or emotional control may make children submissive, making them more vulnerable to peer victimization (Finnegan, 1995; Ladd & Kochenderfer-Ladd, 1998).

In sum, findings imply that harsh, coercive, or unpredictable parenting styles impede children’s competence at peer relations. Such disciplinary practices may influence children’s peer relations through schemas or emotional

reactions that children have acquired from these interactions (see Ladd & Pettit, 2002).

The Family Environment. Stress in the family may negatively impact children's peer relationships by limiting or removing effective parenting, models of socially competent behavior, and emotional reactions to distress. To illustrate, DeMulder, Denham, Schmidt, and Mitchell (2000) found that family stress was negatively related to children's competence with peers at school (particularly for boys).

Chronic stressors, such as poverty and sustained loss of income, have been linked with children's interpersonal maladjustment (see Magnuson & Duncan, 2002). In one study, stress, socioeconomic status (SES), and single-parent status were assessed as indexes of adversity as children entered kindergarten, and all were found to predict children's future social difficulties (Pettit, Bates, & Dodge, 1997). Similarly, extreme forms of poverty (e.g., homelessness) have been linked with childhood anxiety and depression which, in turn, have been shown to predict poor peer relations (see Buckner, Bassuk, Weinreb, & Brooks, 1999; Cole, Peeke, Martin, Truglio, & Seroczynski, 1998; Harrist, Zaia et al., 1997). Additionally, children exposed to marital conflict tend to be oppositional toward peers and less successful in friendships (Katz & Gottman, 1993).

Multiple stressors typically operate in families, and larger numbers of stressors tend to have cumulative effects on children. Patterson and colleagues (C. J. Patterson, Vaden, & Kupersmidt, 1991; G. R. Patterson, Reid, & Dishion, 1992) found that children who were exposed to a greater number of stressors were more likely to exhibit interpersonal difficulties such as peer rejection.

In sum, the evidence suggests that a number of indirect parental and family processes are associated with children's social competence and success in peer relations. Considered next are parenting practices that are directly linked to the world of peers.

Direct Influences. Parents' attempts to manage their children's peer relations can be construed as direct influences (Ladd & Pettit, 2002) because these activities are typically performed with the aim of assisting or preparing children to participate in the peer culture. Examples include parents' attempts to mediate or regulate children's access to particular playmates, and supervise children's interactions with peers (Ladd & Pettit, 2002; Ladd, Profilet, & Hart, 1992).

Parent's Mediation of Children's Peer Contacts and Playgroups. Parents mediate, or help young children transition from the family to the peer culture by initiating and arranging playdates or other types of peer contacts. Some parents initiate peer contacts for children at very early ages, including the toddler and preschool years (Ladd, Hart, Wadsworth, & Golter, 1988). However, parents' roles in this form of mediation appear to vary with the child's age. Bhavnagri (1987) found that parent-initiated peer contacts were more often utilized for toddlers than for preschool children. It would appear that, as children get older, they

become more capable of arranging their own playdates, or need less assistance from parents to accomplish this task.

In studies conducted with preschoolers, researchers found that when parents initiated playdates for preschoolers, children tended to develop better peer relations in school (Ladd & Golter, 1988; Ladd & Hart, 1992). How parents socialized preschoolers to initiate their own playdates was investigated by Ladd and Hart (1992). These investigators found that when parents actively scaffolded the child's skill at initiating playdates, their children tended to become more active and competent at self-initiating these activities. Moreover, when compared to other preschoolers who had not been socialized this way, these children exhibited greater success in their kindergarten peer relations.

Another way that parents mediate young children's peer relations is through the arrangement of larger, group-oriented peer activities, such as weekly playgroups. In larger group settings, children may acquire the communicative and leadership skills that are needed for success in school and other group-oriented settings (Ladd et al., 1992). Liberman (1977) found that children who had participated in playgroups were more responsive and verbal with playmates. In contrast, Ladd, Hart et al. (1988) reported that playgroup experience correlated positively with classroom adjustment for older preschoolers (ages 41 to 55 months), but not younger preschoolers (ages 23 to 40 months). It would appear that the experiences children have in peer playgroups, which may closely parallel those that occur in childcare settings and preschools, may be more beneficial for older as opposed to younger preschoolers.

Parent's Supervision and Monitoring of Children's Peer Interactions and Relations. Parental supervision has been defined as efforts to oversee and regulate children's ongoing interactions, activities, and relationships with peers. Parental monitoring, in contrast, has been variously defined as observing or knowing about children's whereabouts (e.g., surveillance), and as acquiring information from children about their social activities (see Ladd & Pettit, 2002; Stattin & Kerr, 2000). In research with young children, investigators have identified three basic types of parental supervision: interactive intervention, directive intervention, and monitoring.

Interactive Intervention. Parents engage in interactive intervention when they supervise children's peer interactions as active participants within the play context. Very young children, or social novices, benefit most from this type of supervision because they require the support of a socially skilled partner to maintain interactions with peers (see Lollis, Ross, & Tate, 1992). Bhavnagri and Parke (1991), for example, found that toddlers derived greater benefits from interactive interventions than did preschoolers.

Directive Intervention. This type of supervision tends to be reactive rather than proactive, in the sense that parents intervene in children's peer interactions only when conflicts or problems arise (Lollis et al., 1992). Directive interventions tend to be used with older preschoolers, and children

who receive this form of supervision tend to exhibit higher levels of peer acceptance in school settings (see Ladd & Pettit, 2002).

Monitoring. Beyond the preschool years, parents rely more on distal forms of supervision to assess children's activities with peers. Evidence reveals that low levels of parental monitoring are associated with social and academic problems in adolescents (Dishion & McMahan, 1998). However, seldom has parental supervision been studied with young children (for an exception, see Ladd & Golter, 1988).

Contextual Antecedents

Peer contexts are the environmental settings that often bring young children into contact with age mates. Examples include neighborhoods, larger community settings, childcare and preschools, and early school environments.

Neighborhoods. Because young children have limited mobility, their social encounters are dictated partly by the physical and socioeconomic characteristics of neighborhoods (Medrich, Roizen, Rubin, & Buckley, 1982). Studies show that friends tend to live near each other (Gallagher, 1958; Segoe, 1939), and that children's contacts with peers are more frequent in neighborhoods that are flat rather than hilly, and that have sidewalks, parks, and playgrounds (Medrich et al., 1982). In contrast, children have fewer peer contacts in rural and dangerous neighborhoods (see Medrich et al., 1982; Ladd, Profilet, & Hart, 1992).

Community Activities and Settings. Organized community activities, such as Brownies, Cub Scouts, and Little League, and community settings such as parks, public libraries, and community pools often serve as contexts where children meet, interact, and form relationships with peers. Young children's participation in these peer contexts appears to vary with age and social class. Older children engage in organized activities more than younger children, and middle-class children appear to be the primary participants in organized activities (Bryant, 1985; O'Donnell & Stueve, 1983). One team of investigators found that preschool children's experiences in settings such as community libraries and pools predicted lower levels of anxiety and school avoidance during their transition to kindergarten (Ladd & Price, 1987).

Childcare. Understanding how childcare affects young children's development has become a national priority. In studies designed to address this aim, researchers have examined the association between childcare participation and changes in children's social competence, peer relations, and school readiness. Thus far, evidence reflecting on this aim has been mixed (Belsky et al., 2007; National Institutes of Child Health and Human Development, Early Child Care Research Network [NICHD ECCRN], 2003; Prodromidis, Lamb, Sternberg, Hwang, & Broberg, 1995), and there have

been controversies about how the effects of childcare should be investigated, and how the resulting evidence should be interpreted. For this reason, a variety of perspectives and findings must be considered.

Members of the NICHD ECCRN have examined a plethora of childcare variables as correlates, antecedents, and predictors of children's development. Of principal interest are the effects of nonmaternal care on children's socioemotional development. One of the Network's findings was that children who spent greater time in childcare exhibited more behavior problems. This finding was corroborated by prior data showing that children's participation in childcare correlated positively with acting out behavior (Youngblade, 2003), and externalizing problems (Egeland & Heister, 1995; Han, Waldfogel, & Brooks-Gunn, 2001).

Investigators who have explored this link more thoroughly have found that while the number of hours in child care serves as a risk factor for young children's socioemotional development, this relation often depends on additional contextual factors. In particular, children who spent more hours in childcare were observed to have more negative interactions with peers (NICHD ECCRN, 2001) and higher externalizing scores (McCartney et al., 2010); however, this association seems to only hold for children who spend substantial hours in childcare (i.e., 45 hours per week) over an extended period (i.e., 3–54 months; Vandell, 2004). Further, the number of hours children spent in care was a stronger predictor of externalizing behavior for those in lower quality care than children in higher quality care (McCartney et al., 2010). Investigators have also explored the possibility of a "dose-response" relation between time spent in childcare and children's externalizing behavior, with the argument being that if a causal relation exists, there should be evidence to support that an increase in childcare hours leads to higher externalizing scores, and conversely, a decrease in childcare hours should lead to lower scores. Although longitudinal analyses do not support such a dose-response relation, McCartney et al. (2010) explored another hypothesis that would explain a causal relation between childcare hours and externalizing scores. Specifically, results indicate that children who spent a greater proportion of time with a large group of peers scored higher on externalizing behavior than other children, and this difference was greater for children who spent more hours in childcare. Finally, studies by Gunnar and colleagues (Dettling, Gunnar, & Donzella, 1999; Tout, de Haan, Campbell, & Gunnar, 1998; Watamura, Donzella, Alwin, & Gunnar, 2003) suggest another potentially gainful avenue for understanding the relations between hours in care and children's adjustment (see Vandell, 2004 for a review). These investigators examined children's cortisol levels and patterns and compared levels when children were at home with when they were at childcare. Salivary cortisol was observed to increase on days that children were in centers but not on days when these same children were at home (Watamura et al., 2003). Further, the largest increases in cortisol levels were evident in children who had difficulty

regulating negative emotions and behavior (Dettling et al., 1999) and were less socially competent (Tout et al., 1998). Rises were also manifested to a greater extent in toddlers and preschoolers than in infants and school-aged children (Dettling et al., 1999; Watamura et al., 2003), suggesting that toddlers and preschoolers may experience group settings in which they are learning to negotiate with peers as stressful. An interesting next step will be to determine whether changes in childcare settings (e.g., organization of programs, caregivers' efforts) will affect how children perceive these social environments—that is, whether they see them as more supportive and less stressful (Maccoby & Lewis, 2003).

Even though evidence suggests that children who spend more time in childcare often exhibit more behavior problems, positive links between children's childcare experience and peer relations have also been reported (see Fabes, Hanish, & Martin, 2003; Ladd, Profilet, & Hart, 1992), and support for this contention has increased in recent years (see Field, Masi, Goldstein, Perry, & Park, 1988; Howes, 1988; Prodromidis et al., 1995). For example, Howes (1988) found that, in the context of childcare settings, young children formed friendships at very early ages, and tended to maintain these friendships over considerable periods of time (e.g., up to 2 years). Findings also indicate that the friendships children form in childcare or preschool settings, and the associated interpersonal skills they acquire in these contexts, may function as supports during subsequent developmental transitions, such as entrance into grade school (see Ladd, 1990; Ladd & Price, 1987). Further, when coupled with preventive or compensatory educational programming, childcare has been linked with positive growth in other aspects of children's development. Love et al. (2003), for example, found that children from low income families who were enrolled in Early Head Start programs displayed reductions in aggressive behavior problems and gains in cognitive, language, and socioemotional development. These results suggest that higher quality childcare environments have the potential not only to improve children's social development but also transmit skills that prepare them for subsequent developmental challenges.

Early School Environments. Many young children participate in preschool programs and, by the time they reach age 5 or 6, nearly all children attend school (Coie, Watt et al., 1993). Classrooms are an important context for children's social development, but some types of classrooms appear more beneficial for this purpose than do others. Kontos, Burchinal, Howes, Wisseh, and Galinsky (2002) found that the provision of creative activities for children (e.g., books, art supplies, creative play, group learning) and teacher involvement (coded as routine, complex, or none) were significant predictors of children's interactions with peers. More specifically, creative activities (e.g., open-ended art projects, fantasy play) and little or no teacher involvement predicted more complex interactions with peers.

Other findings have shown that in high-density classrooms (i.e., those with less physical space per child) there is a higher incidence of children's behavior problems (Campbell & Dill, 1985; see Phyfe-Perkins, 1980; Smith & Connolly, 1980). Higher levels of cooperative peer play and positive talk have been documented in classrooms with individual learning centers (Field et al., 1988). More fighting and nonsocial play (e.g., parallel play) has been observed in classrooms that contain fewer toys. Some types of play materials, such as Play-Doh, sand, water, crayons, or paint appear to elicit primarily nonsocial forms of play (Rubin, 1977; Rubin, Fein, & Vandenberg, 1983).

School playgrounds are another important context for peer interaction (Hart, 1993; Ladd & Price, 1993). Evidence suggests that outdoor playgrounds can stimulate as much or more social play than indoor environments (Frost, 1986; Hart, 1993). Evidence implies that children develop certain behavioral styles on the playground and these styles may affect the way a child is perceived by her or his peers. For example, aggressive children tended to become disliked by peers, whereas cooperative children were favored as play partners (see Ladd et al., 1988; Ladd & Price, 1993).

Out-of-School Care. Researchers and policymakers have exhibited a growing interest in the role of out-of-school contexts for children and youth. Largely, the impetus for this interest has stemmed from the varied outcomes children seem to experience, depending on the type of out-of-school care they are involved in, and evidence indicating that growing numbers of children are participating in before- and after-school programs and other extracurricular activities. For instance, this type of programming is one of the fastest growing segments of childcare services (Seligson, Gannett, & Cotlin, 1992).

Much of the research to date has compared children who attend programs with those who are involved in other care settings including self-care (time spent without adult supervision), mother care (returning home), formal adult-supervised care (after-school programs), and other supervised arrangements (see NICHD ECCRN, 2004; Vandell, Pierce, & Dadisman, 2005). Thus far, investigators have found that whereas children in self-care arrangements often engaged in antisocial behavior, children in formal, adult-supervised care were less prone toward misconduct (Posner & Vandell, 1994). In fact, Posner and Vandell found that children who participated in formal after-school care spent more time in academic and enrichment activities (e.g., art, music, drama) and less time watching television. These children were better adjusted on a number of developmental criteria, including academic achievement and peer relations. Further corroboration of these findings was obtained by Pettit, Laird, Bates, and Dodge (1997). These investigators studied young school-age children in a variety of after-school care arrangements, and found that the amount of time spent without adult supervision, both before and after school, predicted lower levels of peer competence.

Given that families have increasingly turned to formal care arrangements to assist with the gap between children's school and parents' work schedules, investigators have focused their attention on associations between children's formal program participation and developmental outcomes. Studies addressing this aim have yielded mixed findings. Some investigators have detected no effects or, in some cases, even negative relations between program participation and children's functioning, whereas others have found that involvement in formal programs was linked positively with academic and social outcomes (e.g., NICHD ECCRN 2004; Posner & Vandell, 1994; Pierce, Bolt, & Vandell, 2010). Similar to early research in childcare, these discrepant findings may be a result of differing program quality and children's varied experiences in such programs.

Findings from research conducted by the NICHD ECCRN (2004) indicated that there are important relations between family factors and out-of-school care, such that children with certain family characteristics were more likely to be involved in adult supervised out-of-school arrangements. In particular, participation in before- and after-school programs was more likely if family income was higher, mothers were employed for more hours, and mothers were single parents. Given these characteristics, these findings support the hypothesis that a primary function of such programs is supervision of children of working mothers. Additionally, consistent participation in before- and after-school programs was also related to early childcare, such that children who spent more hours in early childcare were more likely to attend programs in kindergarten and first grade. Accordingly, although programs are promoted as a means to endow children, particularly those of low-income families, with additional educational and enrichment activities (Larner, Zippiroli, & Behrman, 1999), there was little evidence to suggest that programs were serving this function, at least for the children participating in the NICHD childcare study. Similarly, family factors were also related to children's involvement in extracurricular activities. Children were more likely to participate in extracurricular activities if family incomes were higher and mothers were more educated. Unlike participation in before- and after-school programs, however, which was more likely when mothers worked more hours per week and children spent more hours in early childcare, participation in extracurricular activities was *less* likely when mothers worked more hours and when children spent more hours in early childcare. The NICHD ECCRN posited that these findings suggest a key function of extracurricular activities in the early elementary grades is supplemental enrichment.

Finally, given that not all after-school programs are of similar quality, scholars have called for examination of specific program features that may be associated with high-quality care. In particular, three identified setting characteristics have received endorsement as practices consistent with high-quality programming because all appear to have the potential to confer developmental benefits

upon participants. A positive staff-child relationship, which has been characterized by staff's positive and supportive behavior with all children in the program, has been related to children's academic and social skills (Pierce et al., 2010). Another feature of high-quality programming is diversity in the array of developmentally appropriate activities that are provided as opportunities for skill building (Pierce et al., 2010). The final setting characteristic associated with positive child outcomes is programming flexibility (Beckett, Hawken, & Jackowitz, 2001). Surprisingly, Pierce et al. (2010) did not find that supporting children's freedom to choose in the selection of activities was related to academic and social development during the early grade school years. These investigators speculate that support for autonomy within activities, rather than student choice of activities, may be more salient for positive child outcomes.

In sum, research findings are consistent with the hypothesis that physical and organizational features of classrooms and after-school arrangements are associated with children's peer relations and social adjustment. Next, the teacher-child relationship is considered as a determinant of young children's peer relations and competence.

Teacher-Child Relationships

Compared to evidence assembled on other socializing agents and contexts, relatively less is known about children's relationships with teachers, particularly how these relationships are linked with children's social development. Accordingly, investigators have begun to study specific features of the teacher-child relationship, and the association that exists between these features and children's social and scholastic competence (see Birch & Ladd, 1996; Pianta, Hamre, & Stuhlman, 2003).

Features of the Teacher-Child Relationship. Several investigators have theorized that the teacher-child relationship encompasses multiple important relationship features. Howes and colleagues (e.g., Howes & Hamilton, 1992, 1993; Howes & Matheson, 1992) conceptualized the teacher-child relationship from an attachment perspective, and used this framework to demarcate its features (e.g., secure, avoidant, resistant/ambivalent). Other investigators, such as Lynch & Cicchetti (1992), identified similar features but gave them different labels (e.g., optimal, deprived, disengaged, confused, average). Pianta and colleagues have drawn upon attachment theory and related empirical findings to formulate a model of the teacher-child relationship that contains three qualitative features: closeness, conflict, and dependency (Hamre & Pianta, 2001; Pianta & Steinberg, 1992; Pianta, Steinberg, & Rollins, 1995). Most of the research conducted to date has been undertaken to evaluate the tripartite teacher-child relationship model and probe its antecedents and associations with student outcomes. In particular, higher levels of teacher-child closeness predict good work habits and fewer internalizing and external-

izing problems in later school years (Baker, 2006; Birch & Ladd, 1997; Hamre & Pianta, 2001). Conversely, negative teacher–child relationships are characterized by high conflict and dependency and low closeness, and appear to operate as risk factors for children's school success. Given the consistent pattern of findings supporting the benefit of a close teacher–child relationship, investigators sought to further examine potential predictors of teacher–child relationships of varying quality.

Antecedents of the Teacher–Child Relationship. A key assumption guiding research on the teacher–child relationship is that the child's typical way of interacting or behaving toward others, or their behavioral orientations, affects the relationships they form with teachers. Ladd and colleagues (e.g., Birch & Ladd, 1998; Ladd, Birch, & Buhs, 1999; Ladd & Burgess, 1999) found that the behavioral orientations that predicted children's success or difficulty in peer relationships also forecast the type of relationships they developed with teachers. To be specific, throughout the early school years, aggressive children were much more likely to develop conflictual rather than close relationships with their teachers. Asocial behavior was also a correlate of children's concurrent and future problems in both relationship domains. Prosocial styles of interacting with peers and teachers were closely tied to children's concurrent closeness with teachers, but were not as predictive of future teacher–child relationship quality as antisocial or asocial behavioral styles.

Additionally, distinctions between boys' and girls' behavior, or at least teachers' perceptions of their behavior, have been found to differentially predict teacher–child relationship quality. For instance, boys are more likely to be rated by teachers as having conflictual teacher–child relationships, while girls are more likely to be perceived as having teacher–child closeness (Hamre & Pianta, 2001; Rudasill & Rimm-Kaufman, 2009). Further, it appears that children's asocial behavior is more deleterious to boys' than girls' adjustment in kindergarten (Coplan, Prakash, O'Neil, & Armer, 2004; Nelson, Rubin, & Fox, 2005). Accordingly, boys may be at greater risk for negative teacher–child interactions than girls.

Research examining differences in children's temperament is beginning to emerge as a potentially fruitful avenue for understanding how child attributes may differentially relate to teacher–child relationship quality. Temperament has been described as an individual's style of responding to environmental stimuli. It is a biologically based, multidimensional construct that emerges during infancy and is shaped by environmental features (Rudasill & Rimm-Kaufman, 2009; Rothbart & Bates, 2006; Thomas & Chess, 1977). Primarily, temperament is studied as a two-system construct comprised of reactivity and regulation dimensions. There tend to be profound differences in these dimensions for young children, which may affect their socioemotional development. Two common measures of temperament include

children's shyness and effortful control. Children's shyness may suppress their ability to form positive teacher–child relationships. To be specific, evidence suggests that high levels of shyness may pose risks to children's relationships because shy children are less likely to initiate interactions with teachers, which may impede their ability to develop closeness (Rudasill & Rimm-Kaufman, 2009). In addition to shyness, researchers are also interested in the internal regulatory system underlying children's social behavior—effortful control. Two dimensions that are thought to work together to contribute to children's effortful control are inhibitory control and attentional focusing. Low effortful control has been associated with children's externalizing behaviors, and consequently, children's difficulty forming positive relationships in school (Fantuzzo, McWayne, Perry, & Childs, 2004; Olson, Sameroff, Kerr, Lopez, & Wellman, 2005). Conversely, high levels of effortful control relate to children's social competence and positive peer relationships (Goldsmith, Aksan, Essex, Smider, & Vandell, 2001). Similarly, effortful control appears to contribute to children's ability to successfully interact with teachers and, in turn, form positive teacher–child relationships (Blair, Denham, Kochanoff, & Whipple, 2004). Rudasill and Rimm-Kaufman (2009) provided additional support for these findings such that children with lower levels of effortful control were more likely to have conflict with teachers, whereas children with higher levels were more likely to exhibit teacher–child closeness. Thus, children with higher levels of effortful control were likely to be perceived more positively by teachers.

While children's attributes that contribute to teacher–child relationships are becoming well documented, identifying teacher characteristics that are related to relationship quality with children remains an understudied area of research. This dearth of information begs for additional research to delineate teachers' individual characteristics and classroom practices that successfully engage children in close, supportive relationships.

The Teacher–Child Relationship and Children's Peer Relations and School Adjustment. Within early classroom environments, the relationships that children form with teachers have been hypothesized to yield various social “provisions” (i.e., supports, stressors) that may operate as risks or protective factors for children's development (see Birch & Ladd, 1996; Ladd et al., 1997). Evidence gathered in a study conducted by Ladd et al. (1999) showed that kindergarten children who exhibited higher levels of antisocial behavior not only developed less close and more conflictual relationships with their teachers, but also lower levels of peer acceptance and friendships with classroom peers. Subsequently, children who developed these adverse relationships with both teachers and peers manifested lower levels of classroom participation and less favorable achievement trajectories.

Beyond these findings, some corroboration was found

for the premise that teacher–child relationships buffer children from maladjustment, especially during periods of challenge or transition. To illustrate, it was discovered that teacher–child closeness at the outset of kindergarten forecast increases in children’s participation in classroom peer activities and in their affection toward school, regardless of their tendency to engage in aggressive behaviors (Ladd, Buhs, & Seid, 2000; Ladd & Burgess, 2001). Teacher–child relationship quality has also been found to moderate the relation between temperament and peer play among preschoolers. Young children with more difficult temperaments were found to exhibit more disruptive peer play when teacher–child relationships were characterized by conflict. However, Griggs, Gagnon, Huelsman, Kidder-Ashley, and Ballard (2009) found that in teacher–child relationships with low or even typical levels of conflict, there was no association between easy or difficult temperament and disruptive peer play. Thus, lower levels of conflict in teacher–child relationships may reduce the risk of negative behavioral outcomes generally associated with preschoolers who have difficult temperaments.

Compelling evidence suggests that positive teacher–child relationships may be particularly salient for children who are at increased risk of behavioral and academic maladjustment. In particular, Meehan, Hughes, and Cavell (2003) found that positive teacher–child relationships serve a compensatory function for children with multiple risk factors, such as aggressive children who exhibit additional characteristics commonly associated with poorer outcomes (e.g., minority status). Data suggest that children who are African American or Hispanic and aggressive are at heightened risk because these students are less likely to enjoy positive relationships with teachers (Ladd et al., 1999) and are disproportionately represented in statistics on poor school adjustment (Burchinal, Peisner-Feinberg, Pianta, & Hughes, 2002). In light of these data, Meehan et al. (2003) tested a moderated model of teacher support as a compensatory resource for children under conditions of dual risk, namely, aggression and minority status (i.e., African American and Hispanic). Results indicate that after controlling for initial levels of aggression, teacher ratings of support significantly predicted lower levels of teacher-rated aggression for African American, Hispanic, and Caucasian children 18 months later; however, positive teacher–child relationships were more strongly predictive of lower levels of aggression for aggressive African American and Hispanic children. This evidence may suggest that although aggressive African American and Hispanic children in the early school years may experience less positive relationships with teachers than aggressive Caucasian students, African American and Hispanic children may be more responsive to teachers’ efforts to establish warm and supportive relationships than are aggressive Caucasian students for whom positive interactions with teachers are more commonplace. Meehan et al. further suggest that salient, positive interactions with teachers might, in turn, promote aggressive Afri-

can American and Hispanic students’ sense of belonging in the classroom and enhance their commitment to academic and social norms.

Overall, closer teacher–child relationships seem to provide young children with resources (e.g., emotional security, guidance, aid) that facilitate an “approach” orientation (as opposed to an “avoidant” or “resistant” stance) toward the interpersonal and scholastic demands of the classroom and school (Birch & Ladd, 1996; Howes, Matheson, & Hamilton, 1994; Pianta et al., 1995).

Features and Functions of Children’s Early Peer Relationships

In addition to describing the types of relationships children have with peers, researchers have also investigated how these relationships are formed, the types of experiences that children have in these relationships, and the possible effects that peer relationships have on children’s development. Interest in these processes has been the impetus for a large number of investigations.

Formation of Children’s Peer Relationships

In order for young children to form friendships, become accepted in their peer group, or extricate themselves from aggressor–victim relations, they must first develop the social skills and competencies that are needed to form, maintain, and terminate peer relationships. For young children, these skills are most likely acquired through peer interactions that occur during playdates, in neighborhoods, childcare, and school.

Friendship Formation. Not all of children’s interactions with peers result in the formation of a friendship. Children are selective about the persons they choose as friends, and their choices are guided by demographic (Hartup, 1983), behavioral (Rubin, Lynch, Coplan, Rose-Krasnor, & Booth, 1994), personal (see Aboud & Mendelson, 1996), or psychological considerations (Epstein, 1989). Children typically befriend others who are similar to themselves in age (Hartup, 1970), gender (DeRosier, & Patterson, 1995; Graham & Cohen, 1997; Howes & Phillipsen, 1992; Kupersmidt, Masters, & Furman, 1981; also see Gottman, 1986), and race (Asher, Oden, & Gottman, 1977; Graham & Cohen, 1997; Kupersmidt et al. 1995). In addition, children often choose friends that have similar attitudes, beliefs, personalities, and interactional styles (Epstein, 1989). Rubin et al. (1994) observed the interactions of unfamiliar preschoolers and found that children tended to associate with peers who engaged in similar play behaviors. Similarly, Poulin et al. (1997) found that third graders tended to be friends with peers who displayed similar behavior patterns including aggression, shyness, leadership, and rough-and-tumble play.

Although the degree of similarity between children is an essential ingredient for friendship, it is also important to

understand that some aspects of similarity may vary with children's developmental stage or may be "created" out of children's interests and interactions. It is also of note that children need not be similar in all ways to become friends. Rather, only those characteristics or interests that are salient or important to the two partners may matter (Furman, 1982). For example, among toddlers, shared interest in a particular toy could provide the foundation for sustained interaction and, eventually, "friendship," whereas preschoolers or young children may require more complex similarities for a friendship to develop.

Although there is evidence indicating that children are attracted to peers with whom they share similarities, it is also clear that children do not develop friendships with all of the children to whom they are attracted (Parker, 1986). In fact, it is likely that the friendship formation process is complex. As two children interact and become acquainted and aware of each other's social behaviors, skills, and personalities, their interest in each other may wax and wane (Furman, 1982).

To examine the acquaintanceship process, and gain more insight into how children make friends, Gottman (1983) investigated the role of conversational processes in the formation of preschoolers' friendships. In these studies, Gottman set out to determine whether specific conversational processes would predict the extent to which pairs of unacquainted children "hit it off" and progressed toward friendship. After recording the interactions of many pairs of preschoolers, Gottman (1983) evaluated a small number of salient conversational processes to determine their ability to predict friendship formation. Six conversational elements emerged as important predictors of successful friendship formation: (a) connectedness and clarity of information; (b) information exchange; (c) establishment of common ground; (d) conflict resolution; (e) positive reciprocity; and (f) self-disclosure. Children who were successful at making friends were likely to use information exchange as a safe interaction strategy when conversation went astray, and were able to adeptly escalate and deescalate levels of play as necessary. Moreover, individual children differed in their ability to successfully execute many of these conversational processes. Taken together, these findings suggest that some or all of these six conversational processes aided in the development of friendships.

Building upon this work, Parker (1986) designed a novel study in which the same six conversational processes identified by Gottman (1983) were manipulated in order to determine whether they were causally related to friendship formation. To accomplish this task, a "surrogate" preschool child called "Panduit" acted as an experimental confederate. Panduit was a 2-foot-tall green doll that contained a hidden electronic receiver/speaker that enabled it to carry on age-appropriate conversations with preschoolers. A female and male assistant were trained to speak as Panduit in a child-like voice while systematically varying the skillfulness of their conversation. Two experimental condi-

tions were created, one in which Panduit was skilled and one in which Panduit was unskilled. Results showed that preschoolers who interacted with the skilled Panduit were more likely to hit it off than children who were paired with the unskilled Panduit.

The findings from this study, and from Gottman's (1983) longitudinal investigation, illustrate the importance of preschoolers' conversational skills for friendship formation. As young children become acquainted, the clarity and connectedness of communication, information exchange, establishment of common-ground activities, and conflict resolution become increasingly important as determinants of friendship or "hitting it off." Disclosing information about oneself, although of little predictive value during initial encounters, did forecast progress toward friendship as children became better acquainted. Clearly, these investigations offer considerable insight into the means by which young children form friendships.

Becoming Accepted or Rejected in Peer Groups. Joining and becoming an accepted member of a peer group are important social tasks that nearly all children confront as they venture forth into neighborhoods, day care, or school systems. To understand why some children are more successful at these tasks than others, researchers have studied how children enter peer activities, and how they develop social reputations in peer groups (e.g., become accepted or rejected by peers).

Peer Group Entry Research. Investigators relied on observational methods to study how preschoolers attempted to join peers' activities. Corsaro (1981), for example, took extensive field notes detailing children's efforts to enter ongoing playgroups, and peers' responses to children's entry attempts. He discovered that children's entry bids were initially resisted about 50% of the time, and that peers tended to use one of five strategies to exclude potential entrants: claims of ownership, appeals to limitations based on overcrowding, verbal resistance without justification, denial of friendship, and reference to arbitrary rules. Even when children were excluded, however, Corsaro found that some persisted and eventually gained access to peers' activities.

Putallaz and Gottman (1981) extended this line of research by examining how children who were more or less accepted by peers differed in their attempts to enter ongoing peer group activities. Second and third graders who were the most and least accepted by their classmates participated in the study as either an entrant (i.e., the child attempting to enter the group) or as a member of the peer group (dyads were used to represent peer groups). Gaining entry into the dyad's game proved somewhat difficult for all children because the study was designed so that no child was able to join the group without some resistance. The findings showed that popular, more than unpopular children, were more likely to have their entry bids ignored or rejected. This likely occurred because the unpopular children tended

to use entry bids that drew attention to themselves (i.e., talked about themselves, stated their feelings and opinions) as opposed to acting in ways that were relevant to the peers' ongoing conversation or activity. Thus, Putallaz and Gottman concluded that well-liked children may be better equipped to negotiate entry into peer groups because they are capable of identifying situational norms or expectations and acting accordingly.

Putallaz (1983) investigated this hypothesis further with preschool boys while simultaneously trying to correct for previous methodological problems such as the entrant's prior familiarity with the peer group and the lack of standardization of responses across children's entry bids. To overcome these limitations, the investigator used two confederates, who were not known by the entrant, to serve as the peer group in the entry situations. The confederates were trained to carry out a scripted conversation while playing different games to ensure that all entrants were exposed to a comparable entry situation. Results corroborated Putallaz and Gottman's (1981) findings in that children who used entry bids that drew attention to themselves were less likely to gain access to the peer activity. Children in the study who made these self-focused, low relevance entry bids were often not well-accepted by their classmates in kindergarten, whereas children who became accepted tended to use more appropriate bids. Putallaz (1983) concluded that the relevance of a child's entry bids in relation to peers' activities was an important factor in determining whether the peer group would accept them.

Dodge, Schlundt, Schocken, and Delugach (1983) found that boys' attempts to enter groups were more often successful when they used a particular sequence of entry behaviors. Successful entrants first gathered information by observing peers' behavior while waiting or hovering on the periphery of their activity. Next, based on information they had gleaned by observing peers and their play, the entrants imitated some of the peer's behaviors. Finally, after completing these steps, the entrants made an effort to join the play by enacting relevant, group-oriented statements or entry behaviors. Results showed that popular and average boys were three times more likely to follow this order of entry behaviors than were rejected or neglected boys. Dodge et al. concluded that children's success at group entry was maximized when they followed this strategy of progressing from lower to higher risk entry behaviors.

In later investigations, researchers investigated how characteristics of both the entrants and the peer group might affect children's success at joining peer groups. Putallaz and Wasserman (1989) observed the entry behaviors of first-, third- and fifth-grade children in a naturalistic setting and found that children were less likely to approach peer dyads and triads than individuals or groups composed of four or more peers. They also found that girls' entry bids, as opposed to boys' bids, were more likely to be rejected or ignored by their peers. Zaratany and colleagues (Borja-Alvarez, Zaratany, & Pepper, 1991; Zaratany & Pepper,

1996; Zaratany, Van Brunschot, Meadows, & Pepper, 1996) found that, when attempting to join peers, girls were less obtrusive and active than boys, and when in the role of a group member or "host," girls admitted more newcomers and were more attentive to entrants than were boys.

Research on the Antecedents of Children's Peer Group Status. In addition to studies of peer group entry, which focused on the behaviors children utilized to access ongoing peer activities, researchers also investigated other factors that were hypothesized to have an effect on children's acceptance by members of their peer groups (e.g., classmates). Initially, investigators searched for child characteristics that correlated with peer group acceptance versus rejection. However, as the limits of correlational data became apparent (see Moore, 1967), researchers began to study the behavioral antecedents of children's peer status. The most important of these investigations were conducted with school-age boys and were designed as short-term longitudinal studies (see Coie & Kupersmidt, 1983; Dodge, 1983). Dodge (1983) created small playgroups of unacquainted boys and observed their interactions during eight play sessions conducted over a two-week period. Following the final play session, children completed sociometric interviews, and those who had become popular, average, rejected, or controversial with their play partners were identified. Analyses were then conducted to determine how children behaved before they developed their status or reputations with play partners. Dodge found that different patterns of behavior emerged over time for children in each status group. For example, boys who engaged in high rates of social conversation and cooperative play, and seldom acted aggressively, became well-accepted by their playgroup companions. Rejected boys, on the other hand, were prone to display more inappropriate, disruptive play behaviors and made more hostile verbalizations than boys who were later identified as average in status. Compared to children in the other status groups, rejected boys also hit peers more often.

Using a similar methodology, Coie and Kupersmidt (1983) identified boys who were classified as popular, average, rejected, or neglected by their peer groups at school, and then observed them in either unfamiliar or familiar playgroups over a six-week period. Four boys, one from each of the four sociometric categories, were assigned to each group. Videotaped observations and sociometric interviews were used to chart the boys' behavior and their evolving peer status in each type of playgroup. These investigators found that, in both types of playgroups (i.e., familiar and unfamiliar partners), popular boys rarely engaged in aggressive behavior, often reminded others of the rules, and established group norms. Rejected boys, in contrast, were viewed by playmates as troublemakers (e.g., as persons who start fights) and tended to be more hostile and aggressive in their interactions with peers. In addition, it was discovered that boys who were rejected by their classmates in school quickly formed the same

reputations in unfamiliar playgroups. In fact, after only three play sessions, the correlation between children's classroom peer status and the reputations they acquired in their playgroups was as high in the unfamiliar condition as it was in groups of familiar peers. Based on these findings, Coie and Kupersmidt concluded that the rejected peer status could be quite stable across peer groups, because boys who are rejected by peers tend to bring aversive behaviors with them into new peer situations.

Similar findings were reported with samples of preschool children in naturalistic contexts (e.g., classrooms and playgrounds). Ladd, Price, and Hart (1988, 1990) found that preschooler's playground behaviors at the outset of school predicted changes in their status among classmates by the middle and end of the school year. Children with higher levels of cooperative play tended to become better liked by classmates over time, whereas children who frequently argued and engaged in physical aggression tended to become disliked and rejected by peers. Likewise, in research on the transition to school (Ladd & Price, 1987), it was discovered that children who utilized prosocial behaviors with a broad range of peers in preschool tended to become more liked and less rejected by their new classmates in kindergarten. In contrast, preschoolers who tended to coerce many of their classmates in preschool were often rejected by peers and perceived by teachers as hostile toward classmates as they entered kindergarten.

In later years, these findings were augmented by innovations in researcher's conceptions of aggression and its function in peer interactions. Instead of defining aggression as a global construct, distinctions were made between qualitatively different forms of aggression (i.e., reactive and proactive aggression) based on their likely social functions (Coie, Dodge, Terry, & Wright, 1991; Dodge & Coie, 1987; Dodge, Coie, Pettit, & Price, 1990). In general, reactive aggression was defined as aversive behaviors, often elicited by children's emotional or defensive reactions to some form of peer provocation. Conversely, proactive aggression involved performing aggressive behaviors in order to achieve a specific goal or consequence. In addition, the concept of proactive aggression was further differentiated into instrumental aggression, which served the purpose of obtaining external, often object-oriented goals (e.g., hitting to gain access to another's toy) and bullying, which was often used to achieve social domination or control over peers.

To better understand how these different forms of aggression affected children's reputations in the peer group, researchers conducted another wave of playgroup studies with children of different ages. For example, Dodge et al. (1990) examined the social interactions of groups of unacquainted first- and third-grade boys. Results demonstrated that instrumental aggression was associated with peer group rejection at all ages whereas reactive aggression and bullying were found to be more closely associated with peer group rejection only in older children.

One limitation of this line of research was that investigators tended to record direct forms of aggression (e.g., physical aggression) and overlook indirect modes that were thought to be typical of girls (indirect, social, or relational aggression; i.e., subtle or covert acts such as gossiping behind a child's back, telling others not to play with a particular child, and revealing another child's secrets; see Cairns, Cairns, Neckerman, Ferguson, Garipey, 1989; Crick & Grotpeter, 1995; Galen & Underwood, 1997; Lagerspetz, Bjorkqvist, & Peltonen, 1988). Because investigators tended to study physical attacks, they often found that boys were more aggressive than girls (Coie, Dodge, & Coppotelli, 1982; Coie, Dodge, & Kupersmidt, 1990; French, 1988, 1990). Eventually, these findings were challenged by researchers who argued that girls did act aggressively, but unlike boys, they were more likely to express such behavior in indirect and subtle ways (Cairns et al., 1989; Crick & Grotpeter, 1995; Lagerspetz et al., 1988).

After more than a decade of investigation, analyses of the evidence (e.g., meta-analyses were conducted on multiple studies; see Card, Studky, Sawalani, & Little, 2008) provide support for the hypothesis that boys exhibit higher levels of direct aggression than do girls. When hitting, kicking, pushing, and other forms of physical aggression are monitored in peer interactions, the evidence suggests that boys more than girls are the perpetrators. Lesser support has been found, however, for the proposition that girls exceed boys in the use of indirect aggression, or the idea that indirect methods of attack are preferred by females. Based on data from 148 studies, Card et al. concluded that differences in girls' and boys' use of indirect aggression were "negligible." Rather, the two forms of aggression correlated substantially, suggesting that children who tended to use one form of assault were also likely to use the other.

Other aspects of children's social interactions and skills may play a role in the development of peer status as well. As is the case with friendship (cf. Gottman, 1983), recent studies suggest that children's communication skills, particularly those contributing to the connectedness and coherence of their discourse with peers, are related to the emergence and maintenance of social status. Hazen and Black (1989) found that well-liked (i.e., high-status) children were more skilled than disliked children at clearly directing verbal and nonverbal communications toward specific peers, and at responding to peers' communications in a contingent and relevant way. High-status children were also more likely to offer a rationale or alternative idea when rejecting peer's initiations.

In a second study, Black and Hazen (1990) identified high- and low-status preschoolers and then observed their communications with acquainted and unacquainted peers. In both the acquainted and unacquainted groups, low-status children were less likely than their high-status counterparts to respond contingently to the questions and initiations of others. They also initiated more irrelevant turns in the conversation than did more accepted peers. Because

disliked children demonstrated these response patterns with acquainted and unacquainted peers, the investigators concluded that communication clarity and connectedness may contribute to both the formation and maintenance of peer status (Black & Hazen, 1990).

Pathways to Peer Victimization

Because it is unethical to experimentally manipulate the possible causes of peer abuse to determine whether children become victimized, researchers have addressed this question by searching for factors that precede or correlate with peer victimization. Of course, this approach to understanding the processes that lead to victimization is limited because it does not allow researchers to fully discern cause and effect (D. G. Perry, Hodges, & Egan, 2001). Thus, caution must be observed when interpreting findings so as not to unfairly blame victims for the maltreatment they experience.

In the last decade or so, the possible determinants of peer victimization that received the most empirical attention were child, interpersonal, and family factors (see Graham & Juvonen, 1998; D. G. Perry et al., 2001). Although each of these potential determinants is reviewed separately, it is likely that young children's risk for peer victimization is affected by a confluence of child, peer, and family factors (see D. G. Perry et al., 2001).

Types of Victims. Evidence suggests that victimized children fall into at least two behavioral subtypes—*nonaggressive victims* and *aggressive or "bully" victims* (victims who are also aggressive or who bully others; see Perren & Alsaker, 2006; Schwartz, Dodge, Pettit, & Bates, 1997). More research attention has been focused on nonaggressive victims than on their aggressive counterparts because fewer of the latter subtype tend to be identified in research samples (Kochenderfer-Ladd & Ladd, 2001; Ladd & Kochenderfer-Ladd, 1998; Olweus, 1978; Schwartz et al., 1997; Schwartz, Proctor, & Chien, 2001).

Antecedents of Victimization and Victimization Trajectories. Both environmental and genetic factors have been examined as potential causes of peer victimization. Thus far, greater empirical support has been found for environmental determinants. Evidence from twin studies, for example, suggests that victimization is better predicted by environmental than genetic determinants (Brendgen et al., 2008).

Child Characteristics. Differences in children's behavior and cognitions have been examined as potential causes of peer victimization. Early studies of victimized children characterized them as emotionally anxious, low in self-esteem, and physically weaker than bullies (Olweus, 1978, 1984). Subsequent studies show that nonaggressive victims differ from other children in a variety of ways. For example, data from a Swiss study of 5- to 7-year-olds (Perren & Alsaker, 2006) showed that victims differed

from nonvictims, bullies, and bully-victims on a number of behavioral (e.g., submissive, lacked leadership skills, less sociable, less cooperative) and relational dimensions (e.g., more isolated, fewer playmates).

In addition, victimized children appear to have thought patterns that differ from nonvictimized children. Like other types of aggressive children, *aggressive victims* appear to assume that peers harbor hostile intentions toward them (Schwartz et al., 1997; Schwartz, Proctor, & Chien, 2001). Reactive-aggressive victims, in particular, have been found to have hostile attributional biases, or a tendency to misinterpret peers' motives in ambiguous circumstances as hostile (Schwartz et al., 1997). Low self-regard has been documented in both passive and aggressive victims, with the latter group manifesting the most debilitating self-perceptions (Perry et al., 2001). Findings reported by Egan and Perry (1998) showed that children's sense of social failure not only anteceded peer victimization, but also grew stronger after they had been victimized, suggesting that low self-regard is both a cause and a consequence of peer victimization. Similarly, Graham and Juvonen (1998) compared the responses of victimized and nonvictimized children, and found that victims were significantly more likely to blame themselves for peers' attacks than were nonvictims.

Parenting and Socialization in the Family. The features of children's early rearing environments, and parenting practices in particular, have been implicated as potential determinants of young children's exposure to peer victimization. Barker and colleagues (Barker et al., 2008) followed victimized preschoolers and found that these children tended to traverse one of three trajectories as they matured (i.e., low/increasing, moderate/increasing, or high/chronic victimization). Exposure to harsh parenting emerged as one the best predictors of whether children followed the most severe (high/chronic) of the three victimization trajectories. Other findings indicate that preschoolers with histories of anxious-resistant or anxious-avoidant caregiver attachment tend to be victimized (Troy & Sroufe, 1987), and that kindergartners exposed to higher levels of maternal directiveness are at risk for victimization (Reavis, Keane, & Calkins, 2010).

In studies of passive victims, it has been reported that parents' coercive control and lack of responsiveness correlated positively with girls' status as victims, and that maternal overprotectiveness correlated positively with boys' status as victims (Finnegan, 1995; Olweus, 1993). Among aggressive boys, abusive family conditions were associated with vulnerability to peer victimization (Schwartz et al., 1997).

Peer Relationships and Victimization. Research shows that children who fail to develop allies within their peer groups are more likely to become victimized. In particular, children who are rejected, or highly disliked by most members of their peer groups, appear to be vulnerable to this kind of maltreatment (Gazelle & Ladd, 2002;

Perry et al., 2001) and become increasingly victimized over time (Hodges & Perry, 1999). Results from other investigations indicate that children with a greater number of reciprocated friendships experienced less victimization, even when they exhibited other risk factors that may precipitate peer abuse (physical weakness, poor family relationships; Hodges, Boivin, Vitaro, & Bukowski, 1999; Hodges, Malone, & Perry, 1997; Schwartz, Dodge, Pettit, & Bates, 2000).

The School Context and Victimization. Because victimization is particularly likely to happen when adult supervision is minimal, it has been argued that unmonitored school contexts (e.g., school playgrounds, bathrooms, recess periods) may be especially conducive to victimization. At least one researcher (Olweus, 1993) has shown that lower teacher–student ratios during school recess were associated with higher levels of peer victimization.

Features and Processes of Children's Peer Relationships

After identifying the different forms of children's peer relationships (i.e., friendship, peer group acceptance/rejection, victimization), investigators turned their attention toward describing the nature of peer relationships in terms of their underlying features and processes (Ladd, 1999). The impetus for identifying and assessing features of children's peer relationships was to better ascertain how those relationships might expose children to different types of social experiences which in turn, could uniquely contribute to their social, emotional, and cognitive development.

Friendship Features and Friendship Quality. To understand the inner workings of children's friendships, researchers have utilized the concepts of friendship features and friendship quality (Berndt, 1996). Friendship features refer to both positive and negative attributes (e.g., companionship, validation, help, power, conflict) and can be differentiated into relationship processes (i.e., observable behaviors and exchanges among friendship dyads such as play styles, conflict, or cooperation) and relationship provisions (i.e., benefits children gain from their friendships such as self-affirmation, companionship, or security; see Ladd & Kochenderfer, 1996). In contrast, friendship quality represents a relationship's worth as estimated from a child's point of view.

Investigators have created multiple measures of friendship features and quality (for a review see Ladd, 2005), many of which can be used with young children (i.e., preschoolers, kindergarteners, and elementary grade-schoolers). There is a moderate amount of agreement on the dimensions that children regard as positive and negative aspects of friendship (see Furman, 1996). In a meta-analysis, Newcomb and Bagwell (1995) found that children's interactions in friendships were characterized by more positive behaviors (i.e., smiling,

laughing, and sharing) and fewer rivalries. Although the incidence of conflict did not differ between friends and nonfriends, friends were more likely to resolve conflicts via disengagement and negotiation strategies as opposed to power assertion. Additional research suggests that young children are more willing to make sacrifices that benefit a friend rather than an acquaintance (Zarbatany et al., 1996), and that preschoolers show greater sympathy toward a distressed friend than a distressed acquaintance (Costin & Jones, 1992).

Friendship processes among young children may also be characterized on the basis of the level, or complexity of interaction that occurs between members of the dyad. For example, Parker and Gottman (1989) theorized that the putative goal of preschool children's play is to maximize enjoyment, entertainment, and satisfaction within the ongoing play activity. Achievement of this goal depends upon the partners' coordination of play. At the lowest level of coordination, children play in parallel—performing the same activity, perhaps side by side—but with little or no social interaction (i.e., “peaceful companionship”; Parker & Gottman, 1989, p. 105). Joint peer activity requires a higher level of coordination, and offers greater potential for conflict as well as for solidarity and amusement. Fantasy play is the most complex form of joint activity, and it typically occurs between friends. In this type of play, the partners immerse themselves in mutually defined symbolic and make-believe activities, and thus reach the highest level of coordination and presumably the highest level of enjoyment (Parker & Gottman, 1989).

Evidence gathered on the quality of children's friendships tends to show that relationship *satisfaction* is related to the positive or negative features that make up the friendship. Friendships with few negative and many positive features are often perceived to be high in quality (Berndt, 1996). Conversely, low quality friendships tend to be characterized by more negative features such as conflict or power imbalance. Ladd et al. (1996) found that kindergarten friends reported greater satisfaction with their friendships if they perceived these relationships to have higher levels of self-affirmation, support, and lower levels of conflict.

Peer Group Status Characteristics and Processes. Research on peer group dynamics indicates that children's experience in the peer group varies as a function of their peer status (Ladd, 1983). Masters and Furman (1981) found that young children interacted more positively with liked peers than with disliked peers. In addition, Ladd et al. (1990) found that, as the school year progressed, preschoolers at all levels of social status interacted with popular classmates most often; thus, the popular children appeared to become the focus of the entire peer group's interactions (Ladd et al., 1990). In contrast, it has been shown that peers often abuse and mistreat disliked children (Buhs & Ladd, 2001).

Once children are rejected by their peer group, they change the nature of their play and contact patterns with

peers. Ladd et al. (1990) discovered that, over the course of a school year, popular preschoolers became more selective in their choice of playmates and focused their interactions upon a relatively small number of consistent play partners. In contrast, rejected children maintained an extensive pattern of play contacts, and often “bounced” from one playmate to another. Thus, the patterns of peer contact that emerge after children become rejected appeared to be a consequence of their prior, negative reputations among peers. Once children become disliked, they may be increasingly avoided or excluded by peers, and thus, forced to search out playmates among a broad range of peers (Buhs & Ladd, 2001; Ladd et al., 1990).

The plight of peer-rejected children is especially problematic in light of the pervasiveness of peer group rejection and the relative stability of peer status classifications over time and across peer groups (Ladd & Price, 1987). To estimate the prevalence of peer group rejection, Ladd, Herald, Slutzky, and Andrews (2004) reported the percentages of children who were identified in large community samples as belonging to different peer status categories (as indicated by various sociometric classification systems; see Asher & Dodge, 1986; Coie & Dodge, 1983; Coie et al., 1982; Newcomb & Bukowski, 1983). The resulting prevalence estimates implied that approximately 12% to 16% of children from normative, community samples were designated as rejected by peers.

The stability of peer group rejection is also important because it has been shown that chronic rather than transient rejection is a more powerful predictor of children’s later interpersonal and scholastic adjustment (Ladd & Burgess, 2001; Ladd, Herald-Brown, & Reiser, 2008; Ladd & Troop-Gordon, 2003). In studies conducted with young children, Howes (1988) reported that 60% of the popular-, 60% of the rejected-, 65% of the average-, 33% of the neglected-, and 80% of the controversial-status preschoolers in her sample were assigned to the same status classifications one year later. Furthermore, Ladd and Price (1987) found that group acceptance scores (i.e., mean sociometric ratings received from all peer group members) were relatively stable from preschool to the beginning of kindergarten ($r = .48$), and from preschool to the end of kindergarten ($r = .47$). Studies conducted with older samples indicate that peer rejection becomes increasingly stable and difficult to change as children get older (Coie & Dodge, 1983; Poteat et al., 1986).

Children’s Participation in Aggressor–Victim Relations. Findings from surveys and epidemiological studies suggest that a substantial number of American children regularly suffer one or more forms of peer abuse, and that this form of victimization is about as prevalent and debilitating as other forms of child maltreatment (e.g., child abuse perpetrated by parents). Surveys conducted in U.S. schools show that peer abuse begins early in children’s lives and, for some, may persist over many years (see Kochenderfer-Ladd & Ladd, 2001). It has been shown

that a substantial percentage of children (20%–23%) suffer moderate to severe levels of peer abuse soon after they enter kindergarten (see Kochenderfer & Ladd, 1996), and as many as 5% to 10% of these children are chronically abused well into middle childhood (Kochenderfer & Wardrop, 2001). By the time children reach middle school and high school, evidence suggests that the prevalence of peer abuse is somewhat lower (e.g., 5%–13%; Craig, 1997; Nansel et al., 2001). Similarly, recent cross-national surveys suggest that, depending on children’s age and nationality, 6% to 22% report moderate to severe levels of peer abuse while in school or traveling to or from school (see Boulton & Underwood, 1992; Boney-McCoy & Finkelhor, 1995; Kochenderfer & Ladd, 1996; Nansel et al., 2001; Perry et al., 1988). Collectively, these findings show that the probability that children will suffer peer abuse increases as they enter grade school and gradually declines until the mid- to late high school years.

Thus far, stability of peer victimization largely has been estimated using self-report or peer-report measures (see Ladd & Kochenderfer-Ladd, 2002). Estimates based on self-report measures indicate low to moderate stability during children’s first year in school (kindergarten; Kochenderfer & Ladd, 1996), and somewhat higher stability during the later elementary grades (e.g., Hawker, 1997). Estimates obtained using peer-report measures depict victimization as being more stable during middle and later childhood (Boivin, Hymel, & Bukowski, 1995; Hawker, 1997; Perry et al., 1988). Longer-term longitudinal findings reported by Kochenderfer-Ladd and Wardrop (2001) suggested that, during the early school years, stable or chronic victimization occurs, but such cases are not highly prevalent. In this study, children were followed from kindergarten through third grade, and results showed that less than 4% of the sampled children were chronically victimized over a four-year period.

Contributions of Peer Relationships to Children’s Development and Adjustment

Researchers have been particularly interested in determining whether peer relationships contribute to children’s development and adjustment and, beyond this, they have sought to isolate the contributions of specific forms of relationship (see Ladd, 2005). The hypothesis that peers contribute to children’s development originated in socialization theories, particularly those that have emphasized the role of age mates as socializers (see Asher & Gottman, 1981; Berndt & Ladd, 1989; Hartup, 1970; Harris, 1995; Ladd, 2005; Parker & Asher, 1987).

Historically, two types of investigative strategies have been used to explicate the contributions of peer relationships to children’s development. Initially, investigators examined differences in children’s participation in peer relationships (e.g., whether or not children had friends, were accepted by peers, were victimized by peers) as correlates and predictors

of specific developmental criteria. Later, the predictive contributions of children's peer relationships were examined in the context of differing child attributes, such as children's propensity to engage in aggressive and withdrawn behaviors. The latter paradigm—often termed a “child by environment” or a “child and environment” perspective—gained favor because it provided investigators with a way of estimating the contributions of peer relationships while also taking into account the role of children's behavior (e.g., typical behavior patterns). Child environment models are built on the premise that children's behavior patterns and their participation in relationships (social ties and relational experiences) work together to additively or conjointly influence development (see Ladd, 2003).

Peer Relationships as Predictors of Adjustment. In the initial studies that were undertaken to understand how peer relationships affect children's development, researchers identified children whose participation in particular forms of relationship varied (e.g., those who were accepted vs. those rejected by classmates), and then looked to see whether these relationship differences were associated with (or predictive of) specific developmental outcomes. Although positive ties with peers were examined, much of the evidence gathered was guided by the hypothesis that children's participation in poor or dysfunctional peer relationships impairs their development or adjustment.

Friendship. It has been common for researchers to argue that children benefit from having a friend (Buhrmester & Furman, 1986; Furman & Robbins, 1985), and the converse of this logic is that children without friends are at greater risk for maladjustment. Indeed, friendships, as well as the quality of children's friendships, have been shown to be important predictors of children's emotional health (Bukowski & Hoza, 1989; Bukowski, Newcomb, & Hartup, 1996; Parker & Asher, 1993), and their adjustment during early and middle childhood (Ladd et al., 1996; Ladd & Troop-Gordon, 2003). Children with close friendships view themselves more positively (Berndt & Burgy, 1996; Keefe & Berndt, 1996; Savin-Williams & Berndt, 1990), and children who have one or more close friendships tend to experience greater perceived social support and less loneliness (Ladd, Kochenderfer, & Coleman, 1996; Parker & Asher, 1993). In addition, children who have positive features in their friendships, such as intimacy and support, tend to have higher levels of self-esteem (Berndt, 1996).

In studies conducted with young children, classroom friendships have been linked with indicators of school adjustment. The presence of preestablished friendships in children's kindergarten classrooms (e.g., starting school with a friend established during preschool) was found to predict gains in school adjustment (Ladd, 1990). Further, as children enter school, those who form new friendships tend to develop more favorable perceptions of school and perform better scholastically than those with fewer friends (Ladd, 1990). The processes that typify friends' interactions

have also been implicated in children's school adjustment. Among kindergartners, boys who reported conflict within their friendships were found to have greater adjustment difficulties, including lower levels of classroom engagement and participation (Ladd, Kochenderfer, & Coleman, 1996). Ladd et al. (1996) also found that when children saw their friendships as offering higher levels of validation (support) and aid (assistance) they tended to perceive classrooms as supportive interpersonal environments.

Peer Group Acceptance and Rejection. Like friendship, acceptance or rejection by one's classmates has been shown to be a significant predictor of young children's school adjustment. To illustrate, early peer rejection—at school entry—was found to predict problems such as negative school attitudes, school avoidance, and underachievement during the first year of schooling (Buhs & Ladd, 2001; Ladd, 1990; Ladd et al., 1999). Later, in the elementary years, peer acceptance has been linked with loneliness (Parker & Asher, 1993), peer interaction difficulties, lower emotional well-being, and academic deficits (Ladd et al., 1997; Vandell & Hembree 1994). Evidence from other longitudinal studies suggests that peer rejection predicts absenteeism during the grade school years (e.g., DeRosier, Kupersmidt, & Patterson, 1994; Hymel, Rubin, Rowden, & LeMare, 1990), and grade retention and adjustment difficulties during the transition to middle school (Coie, Lochman, Terry, & Hyman, 1992).

Peer Victimization. Children's participation in relationships in which they are victimized by peers has been linked with a variety of internalizing problems including depression, anxiety, suicide and suicidal ideation, loneliness, low self-esteem, and psychosomatic complaints (see Hawker & Boulton, 2000). Evidence indicates that victimized children, regardless of their behavioral propensities (e.g., passive as well as aggressive victims), suffer higher levels of depression (Austin & Joseph, 1996; Kumpulainen et al., 1998; Rigby, 1998; Schwartz, 2000). In one long-term follow-up study, it was found that boys who were victimized during their school years displayed higher rates of depressive symptoms and low self-esteem at age 23 (Olweus, 1993).

Passive victims tend to report moderate to severe levels of anxiety following bouts of bullying at school (Faust & Forehand, 1994; Rigby, 1998, 2001; Schwartz, 2000; Sharp, 1995). Moreover, peer victimization has been linked with both generalized anxiety (Slee, 1994, 1995) and social anxiety (Boulton & Smith, 1994; Crick & Grotpeter, 1996; Slee, 1994), and various somatic complaints such as headaches, stomach aches, and other minor physical ills (Kumpulainen et al., 1998; Williams, Chambers, Logan, & Robinson, 1996). In contrast, aggressive victims are more likely to develop higher levels of externalizing problems such as misconduct and delinquency (Kumpulainen et al., 1998).

Victimized children also have a higher probability of experiencing mild to severe school adjustment problems.

Research on school transitions has shown that, following children's entrance into kindergarten, the frequency of children's exposure to peer abuse forecasts significant gains in loneliness and school avoidance over their first year in school (Kochenderfer & Ladd, 1996). Moreover, it was discovered that pronounced or prolonged (e.g., chronic) peer abuse predicted more serious or debilitating forms of school maladjustment (Kochenderfer-Ladd & Wardrop, 2001). Researchers have also reported that peer victimization predicts both transient and enduring loneliness in children as early as school entry. Kochenderfer and Ladd (1996) found that the frequency of children's peer victimization experiences as they entered kindergarten forecast significant gains in loneliness over the remainder of the school year.

Differential Contributions of Peer Relationships to Children's Adjustment. After investigating peer relationships individually, researchers began to study children's participation in multiple forms of peer relationship and the relative (differential) "contributions" of these relationships to specific adjustment outcomes (see Ladd, 1989, 1996, 1999; Perry & Weinstein, 1998). Initial efforts to investigate multiple relationships as antecedents of adjustment were primarily focused on friendship and peer acceptance (e.g., see Parker & Asher, 1993; Vandell & Hembree, 1994).

Thus far, most findings suggest that friendship, peer acceptance, and peer victimization make separate contributions to the prediction of both socioemotional adjustment and academic competence (Ladd et al., 1997; Parker & Asher, 1993; Vandell & Hembree, 1994). For young children in particular, it has been shown that friendship, peer acceptance, and peer victimization uniquely predicted changes in kindergarten's school perceptions, avoidance, and performance (Ladd, 1990; Ladd et al., 1997). To be specific, Ladd et al. (1997) examined four forms of peer relationships (i.e., two forms of friendship, peer group acceptance, and peer victimization) as predictors of changes in multiple indices of kindergarten children's school adjustment. Results showed that after adjusting for shared predictive linkages among the four relational predictors, some types of peer relationships better predicted certain adjustment indices than did others. Peer victimization, for example, predicted gains in children's loneliness above and beyond associations that were attributable to the other three forms of peer relationship. In contrast, peer group acceptance uniquely predicted improvements in children's achievement. Such findings are consistent with the hypothesis that the effects of friendship on children's development are unique relative to those conferred by peer acceptance, and that these relationships differ in their adaptive value for specific adjustment outcomes.

Child by Environment Perspectives. Child by environment models, in contrast, are based on the premise that both children's behavioral characteristics (child attributes) and

their participation in peer relationships (experiences in the social environment) codetermine their development and adjustment (see Coie, Watt et al., 1993; Ladd, 2003). Researchers who have relied on this framework tend to study both children's behaviors and their peer relationships as predictors of their development. In peer relations research, child by environment frameworks have been closely aligned with the concepts of risk and protective factors, as derived from epidemiological research (see Garnezy et al., 1984; Rutter, 1990). Risk factors refer to aspects of children's behaviors or relationships that increase the probability of adjustment problems, whereas protective factors (or resources) are defined as features that decrease the likelihood of dysfunction.

Research on the Conjoint Influences of Children's Behavior and Peer Relationships. Much research on the interface between behavioral and relational risk factors has focused on the contributions of aggression and peer rejection to children's maladjustment (see Ladd, 1999; MacDougall, Hymel, Vaillancourt, & Mercer, 2001). In recent reviews of this literature (Ladd, 2003, 2005; MacDougall et al., 2001), investigators have concluded that in addition to behavioral risks such as aggression, exposure to relational risks, such as peer group rejection, raises the probability that children will develop internalizing problems (e.g., anxiety, depression, and loneliness; Coie, Terry, Lenox, Lochman, & Hyman, 1995; Lochman & Wayland, 1994; Renshaw & Brown, 1993). Other findings suggest that the combinations of aggression and peer rejection increase the likelihood of externalizing problems such as misconduct (e.g. Coie, Lochman et al., 1992; Hymel et al., 1990).

With young children, findings from two short-term longitudinal studies (see Ladd et al., 1999) showed that, as children entered kindergarten, their initial behavioral orientations influenced the types of relationships they formed with peers. In particular, young children's use of force or coercive tactics was directly associated with rejection by the peer group. Additional findings showed that, after children were rejected by their classmates, they were less likely to participate in classroom activities, suggesting that this form of relational adversity (e.g., peer rejection) interferes with children's involvement in learning activities and eventually impairs their achievement.

Chronic Behavior Patterns and Stable Participation in Peer Relationships. Another line of inquiry has explored how enduring behavioral styles and chronic peer adversity (e.g., chronic victimization or peer rejection) or support (e.g., friendship or peer acceptance) combine to predict children's psychological and school adjustment. Ladd and Burgess (2001) used prospective longitudinal assessments to assess children's risk status for aggression and exposure to adverse versus supportive peer relationships as they entered kindergarten (initial behavioral and relational status) and progressed through the primary grades. Results revealed that, after adjusting for children's kindergarten

aggression scores, the chronicity of their aggressive risk status across grades predicted changes in a host of school adjustment criteria, including increases in attention problems, thought problems, and behavioral misconduct, and decreases in cooperative classroom participation, and academic achievement. However, it was also discovered that the stability of peer group rejection predicted many of the same forms of school maladjustment after controlling for children's aggressive histories. In contrast, however, Ladd and Burgess (2001) also found that social supports such as sustained peer group acceptance predicted positive adjustment trajectories, including decreases in children's attention problems and gains in cooperative classroom participation. These findings implied that a powerful behavioral risk (chronic aggressiveness) can be exacerbated by stable relational risks but buffered by stable relational supports, further illustrating the importance of children's peer relationship histories.

In a follow-up prospective longitudinal investigation conducted from kindergarten to fourth grade, Ladd and Troop-Gordon (2003) examined the hypothesis that children who participate in chronic adverse peer relationships have greater exposure to negative relational processes (e.g., sustained peer exclusion, peer abuse, lack of dyadic emotional support), and that the accumulation of such experiences is a more powerful risk factor than are the adversities present in their contemporary peer relationships. Among other findings, results showed that chronic friendlessness, chronic rejection, and chronic victimization were predictive of later forms of maladjustment, including loneliness and maladaptive behavior. Because these predictive associations were adjusted for children's concurrent peer relationships, the results of this investigation revealed that *chronic* peer relationship adversity, more than the strains of *contemporary* peer relationships, predicted children's later maladjustment.

Intervention Programs Targeting Negative Peer Relationships

Given that early exposure to negative peer relationships, particularly peer group rejection, has been linked with later maladjustment (e.g., see Kupersmidt & Dodge, 2004; MacDougall et al., 2001), researchers have attempted to develop interventions that improve children's peer relations. Often this research has been designed to help children who are already displaying peer relationship difficulties, such as peer group rejection or peer victimization. However, with the emergence of prevention science, investigators have also developed interventions that are designed to prevent or reduce the likelihood that children will develop peer relationship problems (i.e., universal, selective, and indicated prevention interventions; see Ladd, Herald, Slutzky, & Andrews, 2004). Thus, experimental studies have been undertaken not only to ascertain whether children's peer relations are improved when they acquire

specific social competencies, but also to determine whether competence-building procedures prevent children from developing social difficulties with peers.

Given this chapter's focus, the ensuing review is limited to research based on the social skill hypothesis; that is, interventions in which social skill instruction/learning is implemented with young children as a method for improving their peer relationships. Thus, no attempt is made to review programs that: (a) attempt to improve children's peer relations via other means (e.g., redesigning school policies or environments to reduce bullying and victimization; see Smith, Pepler, & Rigby, 2004); (b) address broader educational or socioemotional objectives (e.g., school success skills; see Brigman, Lane, Lane, Lawrence, & Switzer, 1999; Brigman & Webb, 2003); or (c) lack evidence of program effects on children's peer relationships (e.g., evidence that links skill learning with changes in peer relationships).

Social Skills Training Intervention Programs

Most of the interventions that have been designed to help children develop social skills for peer relationships have been based on fundamental social learning principles and aimed at reducing children's skill deficits or overcoming behavioral excesses (see Ladd, Herald, et al., 2004; Ladd & Mize, 1983). The majority of these interventions have been referred to as modeling, coaching, or shaping programs (see Ladd, Buhs, & Troop, 2002). In modeling interventions, children are encouraged to emulate the behaviors of adults or peers who demonstrate exemplary social skills, as shown in training videos and narratives (see Ladd, Herald, et al., 2004). Coaching interventions, in contrast, require children to participate in multiple skill training sessions that provide participants with instruction in skilled behaviors, opportunities to practice the skill behaviors, and ongoing feedback about skill usage in real-life peer interactions (see Ladd & Mize, 1983; Mize & Ladd, 1990). Interventions that are based on shaping principles present children with rewards after they enact targeted skills, or achieve successive approximations of the targeted skills (see Ladd, Herald et al., 2004).

Modeling interventions (e.g., O'Connor, 1969, 1972) have seldom been proven to have lasting effects on young children's social skills (see Ladd & Mize, 1983). However, there is evidence to suggest that coaching programs do help young children acquire social skills and improve their peer relations (see Mize & Ladd, 1990). Finally, when used in conjunction with other treatment methods (i.e., coaching programs), shaping programs show a modest record of success at promoting prosocial behaviors, discouraging antisocial behaviors, and enhancing children's peer relationships (e.g., see Bierman, Miller, & Stabb, 1987).

Exemplary Interventions. Initially, coaching interventions were designed to improve rejected or low-

accepted children's success in peer groups. In these early studies, no attempt was made to distinguish between aggressive-rejected or withdrawn-rejected children, or study the effects of intervention on these subtypes. In one of the first coaching programs, Oden and Asher (1977) taught low-accepted third- and fourth graders interpersonal skills related to four specific areas of social interaction: communication, cooperation, participation, and validation-support. Results showed that children who were coached, unlike those in a control condition, made significant gains in peer acceptance that were maintained over one year.

Ladd (1981) investigated the effects of social skills training on unpopular third graders by randomly assigning low-accepted children to one of three conditions: a coaching, a no-treatment control, or an attention-control group. The attention-control group was included in order to rule out the possibility that it was the provision of adult attention and not the skill coaching that led to gains in children's peer acceptance. Whereas coached children exhibited gains in peer group acceptance immediately after the intervention and several weeks later (i.e., in posttest and follow-up assessments), such gains were not evident for children in the two control groups.

In a coaching intervention that was designed for young children, Mize and Ladd (1990) intervened with low-accepted preschool children and coached them on verbal communication skills including leading (e.g., making suggestions about play activities), asking questions, showing support through positive statements, and making comments during play activities with peers. Results showed that the coached children, unlike controls, made gains in their understanding of social interaction principles and classroom peer acceptance after completing the intervention.

After researchers established that there were subtypes of peer group rejection (i.e., aggressive-rejected and withdrawn-rejected children), they began to develop interventions tailored to children's specific behavioral and relational difficulties. For example, Lochman, Coie, Underwood, and Terry (1993) developed a treatment program that was designed to improve aggressive-rejected fourth graders' social problem solving skills, relationship formation skills, and control over their anger and aggressive behavior. To test the effectiveness of deficit-specific training, the treatment was given to an aggressive-rejected as well as a nonaggressive-rejected group of children (i.e., children classified as rejected but not aggressive). Analyses revealed that the aggressive-rejected children, unlike the controls, exhibited a reduction in aggressive behavior and peer group rejection over and above that which was exhibited by nonaggressive-rejected children. The efficacy of deficit specific instruction, as an approach to skill training, has also been documented by other investigators (e.g., Bienert & Schneider, 1995).

Preventive Intervention Programs

Instead of targeting only those children who have already developed poor peer relations, prevention scientists have attempted to develop school- or classroom-wide preventive programs (i.e., universal interventions) that are designed to help all children improve their social skills and peer relationships (see Harrist & Bradley, 2003; Ladd, Herald et al., 2004). Although not yet well researched, early evidence suggests that such programs may help large numbers of children learn pivotal social skills and reduce their chances of developing peer relationship problems.

To illustrate, Harrist and Bradley (2003) conducted a prevention study with young children who were in either treatment or control classrooms. Children in the treatment classrooms listened to a fairy tale (Paley, 1992) that illustrated themes about children's inclusion or exclusion from peer playgroup activities. Upon finishing the fairy tale, children participated in discussions and role-plays that elaborated on these same themes. After children completed 8 to 10 intervention sessions, the experimenters introduced a nonexclusion rule (i.e., "You can't say you can't play") in children's classrooms. Evaluations of this program, which included data from direct observations, teacher reports, child reports, and peer sociometrics, showed that children in the treatment classes liked each other more than did children in the control classes. This effect generalized across all children in the class, not just those who had initially been identified by peers as excluded (i.e., rejected or neglected). Children in the treatment classrooms also reported higher levels of social dissatisfaction at the end of the school year. Based on these results, the investigators concluded that even though the class-wide social intervention improved children's feelings about their classmates, it may have also prompted children to reflect on their own social positions amongst peers' questions as to whether they were satisfied with their peer relationships.

Summary and Conclusions

Sometime after children have formed their first social relationships, typically with adult caregivers, they move beyond this context into the world of peers. Most likely, the peer culture has always been an important force in young children's development. By nature, peers provide children with experiences that expand their conceptions of the social world and encourage adaptation to this context. Moreover, because peers are similar to children in age and developmental status, but are raised in different families, they offer children a form of companionship that cannot be entirely duplicated by parents, teachers, and other adults (Edwards, 1992; Hartup, 1970; Piaget, 1965; Sullivan, 1953).

Modern times have made these speculations into truisms. Secular changes in families, childcare, and schooling have thrust children into the world of peers at earlier and earlier

ages. It would no longer be an exaggeration to say that many young children now spend about as much of their time in the company of peers as they do with their parents (see Ladd & Coleman, 1993).

This review was organized around a number of basic questions that have motivated research on children's peer relations for nearly 100 years (see Ladd, 2005). Chief among these were questions about how children meet peers, form and maintain various types of peer relationships, and are affected by their interactions and relationships with age mates. Also considered was the enduring question of whether it is possible to improve children's peer relations (see Chittenden, 1942; Koch, 1935). Other central foci were features of children's lives that may facilitate or inhibit their access to the peer culture, their participation in this context, and their ability to profit from interactions and relationships they have with age mates. In particular, attention was focused on the potential contributions of socialization agents, such as parents and teachers, and contextual factors, including the physical and interpersonal features of neighborhoods, communities, childcare settings, and schools.

The content of this review we hope makes it apparent that much has been learned about each of these questions and issues. But given the substantial corpus of evidence that has been reviewed in this article, what specific inferences and conclusions can be drawn?

Insight into the Formation of Children's Peer Relationships

First, evidence suggests that the processes of relationship formation are complex, and that not all children achieve the same level of success at forming friendships, becoming accepted members of their peer groups, repelling bullies, and so on. Access to age mates does not guarantee that children will develop supportive, high-quality peer relationships. Rather, it appears to be the case that many antecedents, including children's attributes, their social skills, inputs from parents and teachers, and features of their rearing environments play a role in this process (see Ladd, 2005).

Fortunately, progress has been toward mapping some of the factors that appear to operate as precursors of relationship formation. For example, Gottman's (1983) temporal analysis of preschoolers' communications made it possible to describe a sequence of conversational processes that often led to friendship. Similarly, researchers who investigated the antecedents of peer group entry mapped out a sequence of bids that were associated with children's success at this task. Results showed that children who observed a peer group's activities (i.e., waiting and hovering) and then utilized relevant entry bids (i.e., mimicking, group-oriented statements) were more likely to be granted access to the group than children who used disrupting, self-oriented bids. Investigators were also able to highlight how charac-

teristics of the child (i.e., gender, sociometric status; e.g., Borja-Alvarez et al., 1991; Putallaz & Wasserman, 1989; Zaratany & Pepper, 1996; Zaratany et al., 1996), the peer group (i.e., relationship with the entrant, sociometric statuses; e.g., Zaratany et al., 1996), and the entry situation (i.e., peer group size; Putallaz & Wasserman, 1989) affected the types of entry bids children made and their eventual rate of success at gaining inclusion.

Similarly, by isolating behavior patterns that were differentially linked with emergent peer group status, it was possible for researchers to draw inferences about the likely effects of particular behavioral styles (e.g., aggression vs. prosocial behavior) on the status that children developed in their peer groups (e.g., Dodge, 1983; Ladd, Hart et al., 1988). Moreover, we may also infer from these data that there is substantial continuity in children's social status across school settings and peer groups (Ladd, 2005). Clearly, these findings support the conclusion that children's behaviors are partly responsible for the status they develop among peers.

Although less well understood, it also may be the case that the effects of children's behaviors on their peer relationships partly depend on the nature and norms of their peer groups, and the reputations they form in these groups. To illustrate, Wright, Giammarino, and Parad (1986) found that aggressive grade-school children tended to be more disliked in peer groups composed of nonaggressive peers, and that withdrawn children tended to be more disliked in groups containing larger numbers of aggressive peers. Perhaps, as these investigators suggest, the effect of children's behavior (or other characteristics) on their peer status is mediated by their similarity to the peer group.

In sum, findings from research with preschool and grade-school samples illustrate the importance of children's behavior (i.e., interaction patterns) as a determinant of their status among peers. One general principle that appeared to cut across all of these findings was that children who succeed in forming peer relationships did so by managing their interactions in ways that nurtured and respected the interests of their play companions.

Unfortunately, past accomplishments have not always fueled future discoveries. For example, despite some fairly dramatic successes (e.g., Black & Hazen, 1990; Coie & Kupersmidt, 1983; Dodge, 1983; Gottman 1983; Parker, 1986) in describing some of the processes that underlie the formation of friendship and peer status, investigations of this type (i.e., longitudinal or experimental studies designed to illuminate the antecedents of children's friendships and peer group relations) have not become more prevalent in recent years. This has particularly been the case for research on the antecedents of friendship (although see Parker & Seal, 1996). As a result, knowledge about other types of behavioral processes that may be important precursors to friendship in young children remains limited. Likewise, it has been rare for researchers to investigate whether some

types of interaction processes are more central to friendship formation at different ages, or for children of different genders. As such, there is a compelling need to further explore the interpersonal or behavioral processes that lead to friendships in boys and girls as they progress through the early childhood years (e.g., male and female toddlers, preschoolers, and early grade-schoolers).

The Role of Adult Socialization Agents

There has also been progress toward an understanding of the interconnections between family processes and children's peer relations, and the practices that caregivers use to prepare children for the world of peers. On the one hand, extant evidence indicates that parent-child relations are complex and that many aspects of parenting and family relationships are associated with children's peer competence (Ladd & Pettit, 2002). On the other hand, this realization led researchers to revise existing assumptions, and develop new models for investigating the roles that parents and teachers play in children's social development. Movement in this direction has been accompanied by a conceptual shift away from unidirectional perspectives (i.e., child or parent-effects models) and toward more dyadic and transactional investigative frameworks (see Ladd, 2005) and the consideration of genetic effects (Brendgen et al. 2008). This is reflected in researchers' propensities to develop and utilize dyadic measures of parent-child relations, work from paradigms in which the direction(s) of effect within parent-child relations are hypothesized to be bidirectional or transactional, and undertake twin studies. Among the more noteworthy discoveries were findings showing that children who have experienced secure attachment relations tend to form higher quality friendships; that synchronous and emotionally supportive parent-child interactions precede similar forms of competence in children's peer interactions; that harsh disciplinary styles antecede children's risk for peer victimization; and that stressful family environments are predictive of children's peer difficulties.

Although it is possible that parents "mindlessly" arrange, supervise, and monitor young children's playdates and peer contacts, it now appears that many parents perform these functions with specific socialization objectives in mind (see Bhavnagri & Parke, 1991; Ladd & Hart, 1992; Lollis et al., 1992). When children are young, it appears that parents act as mediators in order to initiate peer interactions, find playmates for their children, arrange play opportunities, and maintain relationships with specific children (Ladd & Pettit, 2002). As children mature, it appears that parents' supervision of their peer activities changes; results suggest that, as children get older, parents increasingly resort to less direct methods of supervision, and that these adaptations are beneficial for children. Extant evidence is, for example, consistent with the premise that interactive interventions facilitate young children's (e.g., toddlers) peer competence, but that this form of supervision may actually interfere

with older children's (preschoolers) ability to develop autonomous and self-regulated play skills. Quite possibly, parents who mediate, supervise, and monitor children's peer interactions play an important role in the socialization of children's social competence. However, because the existing evidence is correlational in nature, it remains to be seen whether direct parental influences are in fact causes or consequences of children's success and competence in peer relations.

Unfortunately, less is known about how children's relationships with teachers are associated with their peer relations and social adjustment. Thus far, investigators have tended to study two features of the teacher-child relationship—conflict and closeness—and examine how these relationship features are related to children's participation and performance in classrooms (see Birch & Ladd, 1996; Rudasill & Rimm-Kaufman, 2009). In general, evidence has been consistent with the hypothesis that closeness in the teacher-child relationship, a feature characterized by warmth and open communication, operates as a source of emotional support or security that fosters children's participation in classroom activities. Conflictual teacher-child relationships, in contrast, are characterized by discordant, acrimonious, and noncompliant interactions (e.g., causes of anger, resentment, or anxiety), and have been linked with children's classroom disengagement and disruptiveness. Among the more novel contributions of these investigations were findings indicating that even after controlling for the association between kindergartners' peer relations and the quality of their classroom participation, those who formed conflictual teacher-child relationships tended to become less involved in classroom activities (Ladd et al., 1999). Equally important were findings showing that both the features of young children's teacher-child relationships, and their tendencies to engage in risky behaviors (e.g., aggression), predicted early-emerging adjustment (Ladd & Burgess, 2001). Evidence indicated that conflictual teacher-child relationships were linked with increases in maladjustment, regardless of children's propensity to engage in aggression. Thus, conflict in the teacher-child relationship appeared to increase most children's risk for maladjustment. However, for aggressive children, teacher-child conflict appeared to compound (i.e., add to) their adjustment difficulties. In contrast, relational supports such as closeness in the teacher-child relationship predicted decreases in maladjustment independently of aggression, suggesting that this relationship feature reduced maladjustment, regardless of children's risk status for aggression. Further, teacher-child closeness also predicted greater reductions in aggressive behavior for children who experienced conditions of additive risk (i.e., aggression and minority status), suggesting that supportive interactions between teachers and children may be particularly salient for students who do not typically enjoy positive relationships with teachers (Meehan et al., 2003). Despite what has been learned about the features of teacher-child relationships, much less is known about

teacher attributes that contribute to relationship quality with children, or the specific mechanisms that affect children's peer relationships. That is, we do not yet have a clear understanding of how teacher-child relationships contribute to differences in children's peer competence.

The Role of Socialization Contexts

It is also clear that child rearing and socialization contexts, such as neighborhoods, community settings, and schools play an important role in young children's social development. It is within these contexts that young children meet familiar and unfamiliar age mates, and are afforded opportunities to establish and maintain peer relationships. It is also in these contexts that children find opportunities to practice social skills, experience the consequences of peers' reactions, and learn new interpersonal behaviors. Further, it would appear that regular exposure to peers in community settings fosters adaptation to novel situations, such as those encountered during school entrance. These settings may even act as a protective factor for school dropout and behavior problems in later years (Mahoney & Cairns, 1997).

Over the past 30 years, childcare has increasingly become an extension of the family's childrearing practices, and a context that is used to promote the socialization of children. Mothers of young children have been a regular part of the workforce for decades now, and the need to understand the potential effects of childcare on children has become a national priority. As has been illustrated, investigative efforts have produced an extensive body of evidence on childcare and its correlates, and some of these findings have raised concerns about the effects of childcare on children's socioemotional development (e.g., McCartney et al., 2010; NICHD ECCRN, 2001; Vandell, 2004). Although these findings remain controversial, it has not been uncommon for investigators and policy makers to characterize childcare as a context that is beneficial for children's peer relations and social competence. Fabes, Hanish, and Martin (2003), for example, have argued that childcare impacts child development because it is a setting in which children learn from peers. Childcare is often children's first extended exposure to peers (especially groups of peers) and, thus, it may play a role in facilitating children's relationships with age mates, social competence, adaptation to school, and future adjustment. This interpretation is consistent with the argument that children enrolled in childcare and preschool programs tend to meet a larger number of unfamiliar peers at an earlier age (Belsky, 1984; Rubenstein & Howes, 1983) and, thus, have greater opportunity to practice social skills and make friends (Howes, 1988).

Similarly, it appears that preschool and grade school classrooms may be an important staging area for children's social competence and peer relations. Evidence suggests that schools and the types of peer interactions children encounter in classrooms vary substantially, and some children may profit more than others depending on the types

of experiences they have in this context. However, here again, it can be argued that schools and the social milieu of classrooms require children to come into contact with peers, and negotiate interpersonal challenges such as making friends and establishing themselves within fairly large peer groups (see Ladd, Herald, & Kochel, 2006).

In addition to time in school, there is growing evidence to suggest that the time children spend with peers before or after school may play a role in shaping their social development. Collectively, available evidence suggests that any benefits that children accrue from their participation in out-of-school activities likely depend on the physical and organizational features of these arrangements (Pierce et al., 2010). It appears that, if nonschool or after-school experiences are well supervised and designed to suit children's needs, they can serve as an important arena for skill development (Howes, Olenick, & Der-Kiureghian, 1987; NICHD ECCRN, 2004; Vandell et al., 2005). Thus far, however, the weight of the evidence seems to suggest that adult supervised before- and after-school activities, rather than informal or unsupervised care, are positively associated with children's peer competence (Pierce et al., 2010; Posner & Vandell, 1994). In contrast, unsupervised or self-care arrangements appear to be linked with children's developmental difficulties, particularly behavioral and social maladjustment (Pettit, Bates, Dodge, & Meece, 1999; Posner & Vandell, 1994).

Explicating the Features and Functions of Children's Early Peer Relationships

In general, extant evidence suggests that young children who become accepted by members of their peer groups, form friendships that have positive, supportive features, avoid becoming victimized by age mates, and tend to manifest fewer and less severe psychological and school adjustment problems. These findings corroborate the hypothesis that certain features of childhood peer relationships increase risk or afford protection from different types of short- and long-term adjustment problems. Further, this evidence is consistent with the view that peer relationships are both specialized in the types of resources or constraints they create for children, but also diverse in the sense that some resources may be found in more than one form of relationship.

However, research guided by "child by environment" frameworks implies that conclusions like those listed above may lack precision. To say that children have experiences in peer relationships that affect their adjustment ignores the fact that they also have certain behavioral attributes (e.g., behavioral styles) that contribute to such outcomes. Moreover, it may be the case that children's behavioral propensities shape how peers' respond to them and affect the types of relationships they form with peers. These relational developments, in turn, might create additional social challenges (e.g., coping with peer rejection or victimization). Thus, it

seems likely that development and its course is influenced by a complex array of factors including the nature of the child (e.g., the child's behavior) and features of the child's peer environment (e.g., participation in peer relationships).

Evidence suggests that, over the course of development, children's behavioral styles and their participation in peer relationships essentially codetermine their success in adapting to life- and school-based challenges. In particular, the findings reviewed in this chapter lend themselves to several preliminary conclusions. First, although it can be said that both children's behavioral dispositions and features of their peer relationships are related to their social development, there is accumulating evidence to suggest that the predictive power of either factor alone appears to be less than their combined or conjoint contributions. For example, children's early behavioral dispositions may affect the kind of relationships they develop with peers. But, once peer relationships have formed, the experiences children have in these relationships also may impact on their development (see Ladd, 2006). Second, it would appear that enduring rather than transient relationship experiences (e.g., chronic peer rejection), deprivation (e.g., sustained friendlessness), or support (e.g., stable peer acceptance) are more closely associated with children's development and adjustment. In this sense, research findings not only illustrate the adaptive significance of children's peer relationships, but also suggest that children who suffer sustained adversity in their peer relations are likely to have the largest or most severe adjustment problems (e.g., see Ladd & Burgess, 2001; Ladd, Herald-Brown, & Reiser, 2008; Ladd & Troop-Gordon, 2003). Third, other recent discoveries raise the possibility that enduring peer relationship adversity (e.g., chronic victimization) may worsen children's preexisting behavior problems, and thus make it even more likely that they will act in ways that alter their development (see Gazelle & Ladd, 2003). Conversely, it also appears that sustained relationship advantages (e.g., a history of peer acceptance) may mitigate children's preexisting behavior problems (e.g., see Ladd & Burgess, 2001).

Intervening on Behalf of Young Children Who Have, or Are At Risk for Peer Relationship Difficulties

Finally, the results of experimental prevention and intervention programs provide qualified support for the conclusion that young children can learn social skills that improve peer relationships or prevent relationship difficulties (see Mize & Ladd, 1990). Particularly promising are results indicating that universal prevention programs can alter the social dynamics of entire classrooms and, therefore, benefit substantial numbers of young children. Equally reassuring are findings showing that some types of intervention programs can effect changes in children's interpersonal skills as well as in their acceptance by classroom peers. Unfortunately, too little has been done to develop and evaluate prevention and intervention programs for young children who are

friendless or suffer peer abuse (e.g., bully-victim relations; see Gazelle & Ladd, 2002).

Notes

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